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City of Oxnard

Public Works Integrated Master Plan

**WASTEWATER**

# PROJECT MEMORANDUM 3.8
# ARC FLASH ASSESSMENT

**FINAL DRAFT**
December 2015

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City of Oxnard

Public Works Integrated Master Plan

**WASTEWATER**

**PROJECT MEMORANDUM 3.8**
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# ARC FLASH ASSESSMENT

## 1.0 INTRODUCTION

The short circuit, coordination, and arc flash hazard studies contained in this report provide information necessary for the safe and reliable operation and maintenance of the City of Oxnard (City) wastewater treatment facilities' electrical distribution system, and to help them meet the safety requirements of NFPA 70E and OSHA 1910.132(d). The facilities with dedicated utilities power that were included in this electrical study are:

- Main Electrical Building.
- Headworks Facilities.
- Gym.
- Sampling Station/Eastern Trunk Pump Station.

The studies in this report were performed using ETAP power system analysis software. The data required to build the electrical system model was obtained from a combination of field investigation and as-built project documentation.

### 1.1 Project Memorandums (PMs) Used for Reference

The recommendations outlined in this PM include background from the following other PMs:

- PM 2.6 - Water System - Arc Flash Assessment.
- PM 3.1 - Wastewater System - Background Summary.
- PM 4.4 - Recycled Water System - Arc Flash Assessment.

### 1.2 Other Reports Used for Reference

The following codes and standards are referenced in this PM:

- NFPA 70 National Electric Code (NEC).
- NFPA 70E Standard for Electrical Safety in the Workplace.
- IEEE Standard 242 (IEEE Buff Book) - Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.
- IEEE 1584 - Guide for Performing Arc Flash Hazard Calculations.

## 1.3 Short Circuit Study

The objective of the Short Circuit Study is to verify that the electrical distribution equipment in the plant is rated to withstand and interrupt the short circuit currents that could result from a fault in the electrical distribution system.

Section 2.0 identifies equipment that is not properly rated for the available short circuit current.

## 1.4 Protective Device Coordination Study

The Protective Device Coordination Study has been performed to achieve four objectives – sensitivity, security, selectivity, and safety. Sensitivity refers to the degree of certainty that a device will operate correctly under a fault. Security is the degree of certainty that a device will not operate when there is no fault condition. Selectivity means that the protective device closest to a fault trips before any upstream devices to clear the fault, isolating the resulting outage to the smallest amount of equipment possible. Safety primarily applies to the arc flash hazard and requires that protective devices operate as quickly as possible to reduce incident energy.

The results of the study show that certain protective devices are not properly coordinated and require adjustment**.** Section 3.0 identifies the protective devices, which are not properly coordinated.

## 1.5 Arc Flash Study

The objective of the Arc Flash Study is to provide information that allows plant staff to take appropriate precautions when working on energized electrical equipment to reduce the potential risk of injury from an arc flash event. The results of the Short Circuit and the Protective Device Coordination Studies are used to calculate the incident energy and hazard boundaries based upon NFPA 70E 2015 Edition and IEEE 1584 for equipment in the electrical distribution system. OSHA regulations require that employers perform an assessment of the workplace to identify arc flash hazards.

*Specifically, "The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall: Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment; communicate selection decisions to each affected employee; and select PPE that properly fits each affected employee."* [OSHA 1910.132(d)(1)].

The arc-flash labels provided with this study will help the plant to comply with these regulations by identifying the PPE level and arc flash boundary at each piece of equipment.

# 2.0 SHORT CIRCUIT STUDY

The objective of the Short Circuit Study is to verify that the electrical distribution equipment in the facility is rated to withstand and interrupt the available short circuit currents that could result from a fault in the electrical distribution system in accordance with NFPA 70 National Electric Code (NEC), Article 110 Paragraph's 110.9 and 110.10. The study results show that the existing electrical distribution equipment is sufficiently rated for the worst-case short circuit current with the exceptions of the following below:

- Main Electrical Building:
  - The main breaker for PNL DP4 is not properly rated for the available fault current.
  - The main bus for PNL DP4 is not properly rated for the available fault current.
  - The fuse for B20100.00 for Blower No. 1 is not properly rated for the available fault current.
  - The fuse for B20200.00 for Blower No. 2 is not properly rated for the available fault current.
  - The fuse for B20400.00 for Blower No. 4 is not properly rated for the available fault current.
- Headworks Facility:
  - The feeder Breaker for ATS-L BUS A is not properly rated for the available fault current.
  - The feeder Breaker for ATS-L BUS B is not properly rated for the available fault current.

## 2.1 Source Data

The results of the Short Circuit Study are completely dependent on the information in the electrical system model. As such, every effort has been made to obtain the most up-to-date information available for all equipment covered under the scope of the study. In the future, when changes are made to the electrical distribution system, the system model must be updated and a new short circuit study performed based on the updated model.

### 2.1.1 Utility Contribution

The following values are the available fault current at the utility service entrance, as provided by the utility in March 2015. Both the maximum and minimum fault current levels are incorporated into the electrical system model in order to capture the worst case arc flash event. It is important to note that utility fault current levels can change due to numerous variables in the utility distribution and transmission system. This is why it is undesirable to have equipment's short circuit rating too close to the calculated short circuit values.

Main Electrical Building Bus A (Filter):

- Available 3-Phase Fault Current: 3,700A, X/R Ratio: 334.22.
- Available Single Line-Ground Fault: 4,000A, X/R Ratio: 145.30.
- Nominal Voltage: 16340V.

Main Electrical Building Bus B (Sludge):

- Available 3-Phase Fault Current: 3,700A, X/R Ratio: 182.34.
- Available Single Line-Ground Fault: 4,000A, X/R Ratio: 79.20.
- Nominal Voltage: 16340V.

Headworks facility Bus A:

- Available 3-Phase Fault Current: 24,900A, X/R Ratio: 5.05.
- Available Single Line-Ground Fault: 27,400A, X/R Ratio: 5.64.
- Nominal Voltage: 480V.

Headworks facility Bus B:

- Available 3-Phase Fault Current: 24,900A, X/R Ratio: 5.03.
- Available Single Line-Ground Fault: 27,400A, X/R Ratio: 5.63.
- Nominal Voltage: 480V.

Gym Switchgear Bus A:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.54.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.63.
- Nominal Voltage: 480V.

Gym Switchgear Bus B:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.61.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.68.
- Nominal Voltage: 480V.

Gym Switchgear Bus A:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.54.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.63.
- Nominal Voltage: 480V.

Sampling Station/Eastern Trunk Pump Station:

- Available 3-Phase Fault Current: 10,300A, X/R Ratio: 2.12.
- Available Single Line-Ground Fault: 10,000A, X/R Ratio: 2.19.
- Nominal Voltage: 480V.

## 2.2 Assumptions

The following assumptions were used in performing the study:

- All motors and other continuous or intermittent loads (actuators, heaters, etc.) are running.
- Purely electronic loads do not contribute to a fault. This includes variable frequency drives without bypass capability, uninterruptible power supplies, UV ballasts, and other rectified loads.
- Loads 240V and below were not included in the arc flash calculations for systems fed from a 112.5 kilovolt-ampere (kVA) transformer or smaller, in accordance with IEEE 1584.
- Multipliers are applied to the reactance values of rotating machinery based on the recommendations in IEEE 141 (Red Book), as identified in Table 1.

**Table 1 Motor and Generator Reactance Multipliers**
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| Machine Type | First Cycle Network | Interrupting Network |
|---|---|---|
| Turbine generators; all hydrogenerators with amortissuer windings; all condensers | 1.0 Xd" | 1.0 Xd" |
| Synchronous Motors | 1.0 Xd" | 1.5 Xd" |
| Induction Motors > 1,000 hp at ≤ 1,800 RPM | 1.0 Xd" | 1.5 Xd" |
| Induction Motors > 250 hp at 3,600 RPM | 1.0 Xd" | 1.5 Xd" |
| Induction Motors ≥ 50 hp not covered above | 1.2 Xd" | 3.0 Xd" |
| Induction Motors < 50 hp | 1.67 Xd" | Neglect |

Notes:
Xd = direct axis sub-transient reactance.

The direct axis sub-transient reactance value is inversely proportional to and has a significant impact on the sub-transient fault current magnitude, and, therefore affects the short circuit contribution from rotating machines operating in the system.

## 2.3 One-line Diagrams

One-line diagrams of the plant's electrical distribution system are shown in Appendix A. These diagrams are generated by ETAP as part of the model construction. Each element (breaker, cable, fuse, etc.) is uniquely named. Medium voltage breakers, loads, busses, and transformers are named in accordance with the record drawings. Cables, fuses, equipment terminals are named after their associated equipment. (For example, F-TRF-T2 is the fuse that protects the transformer TRF-T2.) Low voltage breakers in panelboards and switchboards are named according to their location. Similarly, low voltage breakers in MCCs are named as shown in Figure 1:

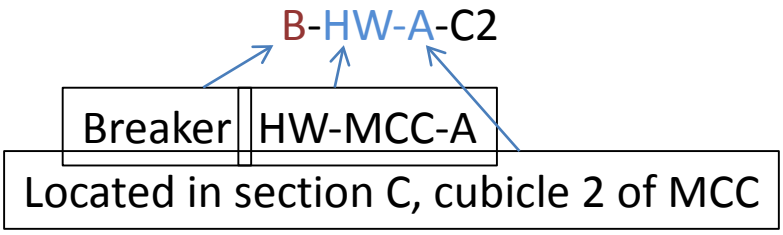



Figure 1 Naming Low Voltage Breakers in MCCs

Figure 2 is an example one-line diagram that identifies the locations in this report where information corresponding to the equipment is located.

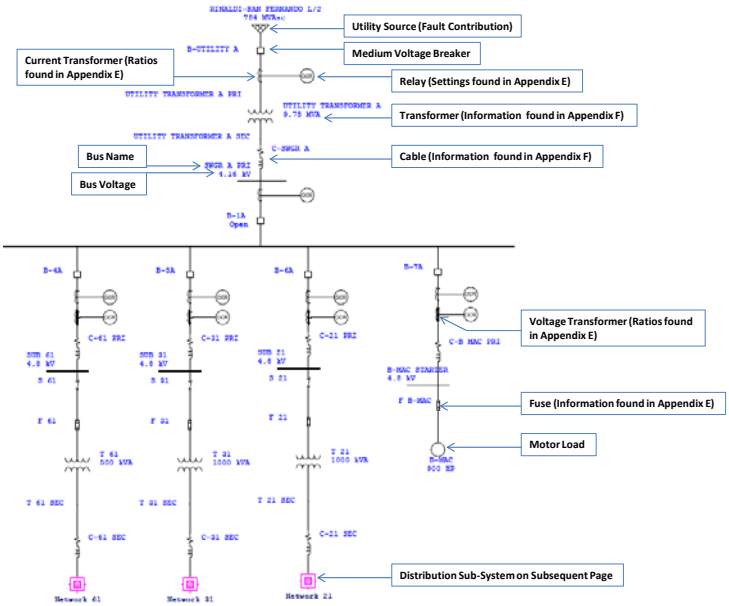



Figure 2 Example One-Line Diagrams

## 2.4 Short Circuit Reports

Appendix B presents a set of three reports used to verify that the ratings of the overcurrent protective devices, in the electrical distribution system, are sufficient to interrupt the available fault current. Three-phase bolted, line-to-ground, line-to-line-to-ground, and line-to-line faults are calculated and tabulated in the attached reports. Three-phase bolted faults are usually the highest magnitude type of fault. Line-to-ground faults can be larger than three-phase bolted fault values if they occur near generators. Line-to-line fault current magnitudes are important for medium voltage circuit breakers and low voltage power circuit breakers (30-cycle rated breakers) because they can also be worst-case after the first cycle. Line-line-ground fault data is provided only for completeness. Short circuit results are provided as symmetrical current.

### 2.4.1 Momentary Duty Summary Report – Appendix B1

The momentary duty summary report evaluates the short circuit bracing of each bus by comparing it to the calculated 1/2-cycle (momentary) current:

- Low-voltage bus bracing is evaluated based on its rating in symmetrical root mean square (rms) fault current.
- Medium-voltage bus bracing is evaluated based on its rating in asymmetrical rms fault current and asymmetrical crest (peak) fault current.

The calculated values shown in the report are based on the worst-case scenario with the highest available fault current. Any inadequately rated busses are flagged by an asterisk and are colored red. The report shows that all the busses in the facilities are adequately rated for the available fault current.

### 2.4.2 Interrupting Duty Summary Report – Appendix B2

The interrupting duty summary report evaluates whether each circuit breaker or fuse can safely interrupt the available fault current by comparing its interrupting capabilities to the calculated fault current. The calculated fault current is determined as follows:

- Low-voltage molded case or insulated case circuit breakers:
  - The 1/2 cycle (momentary) symmetrical rms current is used in accordance with UL 489 – Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit Breaker Enclosures.
  - Where the calculated X/R ratio at the breaker location exceeds the test X/R ratio specified in the standard, the program adjusts the required interrupting current proportionally.

- Low-voltage power circuit breakers (30-cycle rated breakers):
  - The 1/2 cycle (momentary) symmetrical rms current is used in accordance with ANSI C37.13 – Standard for Low-Voltage Power Circuit Breakers Used in Enclosures.
  - Where the calculated X/R ratio at the breaker location exceeds the test X/R ratio specified in the standard, the program adjusts the required interrupting current proportionally.

- Low-voltage fuses:
  - The procedures for calculating the low-voltage fuse interrupting short circuit current is the same as those for the low-voltage molded case or insulated case circuit breaker interrupting duty calculation.

- Medium-voltage circuit breakers:
  - The 1/2-4 cycle current is used to calculate the interrupting current in accordance with ANSI C37.010 – Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis.

- Medium-voltage fuses:
  - The 1/2 cycle (momentary) symmetrical and asymmetrical rms current are used in accordance with ANSI C37.41 – Standard Design Tests for High-Voltage Fuses.

The calculated values shown in the report are based on the worst-case scenario with the highest available fault current. Any inadequately rated protective devices are flagged with an asterisk and colored red. The report shows that all of the protective devices at the plant are adequately rated to interrupt the worst-case fault current.

### 2.4.3 1/2 Cycle Short-Circuit Current Summary Report– Appendix B3

The 1/2 Cycle Short-Circuit Current Summary Report shows the current at each bus during the first 1/2 cycle after a fault. These values are used to evaluate the bus bracing and interrupting ratings of equipment in the facilities as indicated above, and to evaluate the closing and latching (momentary) ratings of medium voltage circuit breakers in accordance with IEEE C37.010.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

#### 2.4.4 1/2-4 Cycle Short-Circuit Summary Report – Appendix B4

The 1/2-4 Cycle Short-Circuit Summary Report shows the current at each bus from 1/2 to 4 cycles after a fault. These values are used to evaluate the interrupting ratings of medium voltage circuit breakers in accordance with IEEE C37.010.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

#### 2.4.5 30 Cycle Short-Circuit Summary Report – Appendix B5

The 30 Cycle Short-Circuit Summary Report shows the current at each bus during the first 30 cycles after a fault. These values are used for setting back-up time delay relays for medium-voltage breakers.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

# 3.0 PROTECTIVE DEVICE COORDINATION STUDY

The protective device coordination study has four objectives – sensitivity, security, selectivity, and safety. Coordination between different types of protective devices is shown by plotting their individual time-current characteristics. A set of time-current curves (TCCs) showing the coordination between various protective devices in the City of Oxnard Wastewater Treatment Plant has been produced as part of this report.

The coordination study has been performed using the guidelines in IEEE Standard 242 (IEEE Buff Book) - Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.

## 3.1 Source Data

### 3.1.1 Utility Protective Devices

The model did not include protective device setting from the utility.

## 3.2 Time-Current Curves

Time-current curves are provided for the entire electrical distribution system, from the main breakers in switchgear/switchboards through the largest feeder breaker of each 480V motor control center (MCC), switchboard, or panelboard. Time-current curves are a visual representation representing coordination of protective devices. Current (in Amperes based

upon a reference Voltage) is plotted on the X axis and tripping time (in seconds) is plotted on the Y axis, both on a logarithmic scale. Protective devices each have their own time-current tripping characteristics, which are identified by colored bands on the plot. When analyzing the curves the devices are expected to trip at the top-most edge of their band for a given current.

To determine the tripping time of a given device the protective device curves are used by identifying a short circuit current and finding the curve (for a protective device through which the short circuit is travelling) with the lowest time to trip. If a protective device operates during this short circuit, the protective devices have adequate sensitivity. If the first protective device that operates is the one closest to the fault, the system is said to have selectivity. Identifying a normal operating current (with a given duration) on a TCC plot and showing that no protective device operates is security. Safety primarily applies to the arc flash hazard and requires that protective devices operate as quickly as possible to reduce incident energy.

To ensure proper selectivity, the TCC for the protective devices closest to the fault should be located to the left of the TCC for the upstream protective devices as displayed on the TCC plot. This orientation is referred to as proper coordination. When portions of the TCC for the protective device closest to the fault overlap the TCC for the upstream devices, coordination is not achieved. From a coordination perspective, there are instances when the breaker closest to the fault does not need to clear the fault before the upstream protective device. Some of these possible scenarios occur when two devices are in series and no other branch circuits exist between the two devices, i.e. the same equipment will be affected by an outage no matter which series protective device trips first. Note that coordination cannot always be achieved between protective devices due to inherent limitations of each protective device, but it is important to coordinate as much as possible to deliver the highest level of security and selectivity for the electrical system. Additionally instantaneous regions of the TCCs cannot be coordinated due to inherent limitations of the protective devices.

The TCCs for the facilities not only include the protective device settings needed for coordination, but also equipment characteristics such as:

- Transformer damage curves – used to verify proper transformer protection. Curves are shifted to the conservative “frequent fault” curves per ANSI C57.

  Motor starting curves – used to ensure protective devices will not experience nuisance trips on motor inrush currents. Motors on full voltage starters are assumed to have 6 per-unit current for 5 seconds and motors on reduced voltage starters started in 10 seconds.

- Generator decrement curves-used to analyze short circuit contribution from the generator.

- Generator thermal damage curves-used to verify proper generator protection. Generator thermal capability curve $I^2{}^*t$ is calculated based on the negative sequence current, where the negative sequence current is expressed in multiples of machine rated stator current or FLA. For synchronous generators with a rotor type defined as round rotor, this factor is typically equal to 30, whereas for salient pole, this factor is typically equal to 40. For the engine-driven generators at the facilities an $I^2{}^*t$ value of 40 was used as recommended by ETAP.

## 3.3 Coordination Results

Refer to Appendix C for the results of the Protective Device Coordination Study for the "As-found" condition. The results of the Protective Device Coordination Study are described in the following bullets:

- ATS 8 TCC – Coordination is achieved from SWGR breaker through largest feeder breaker of panel EDP1.
- EFF Pump No. 2 VFD Tie TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breakers (feeder and tie breaker) down to Pump No. 2 VFD. Note that there is some overlap between the feeder breaker and TIE breaker. This is not a concern, as these devices are in series and the opening of either device will clear a fault at EFF PS SWGR.
- EFF Pump No. 2 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker as well as the tie breaker.
- EFF Pump No. 4 VFD Tie TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breakers (feeder and tie breaker) down to Pump No. 4 VFD. Note that there is some overlap between the feeder breaker and TIE breaker. This is not a concern, as these devices are in series and the opening of either device will clear a fault at EFF PS SWGR.
- EFF Pump No. 4 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker as well as the tie breaker.
- EFF Pump No. 2 VFD TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breaker down to Pump No. 2 VFD.
- EFF Pump No. 2 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker.
- EFF Pump No. 4 VFD TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breaker down to Pump No. 4 VFD.

- EFF Pump No. 4 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker.
- MAIN SWGR A1 FILTER TCC – Coordination is achieved from MAIN SWGR down through the largest feeder breaker of MCC-NA.
- MAIN SWGR A1 FILTER TCCG – Ground fault coordination is achieved from MAIN SWGR main breaker and feeder breaker.
- MAIN SWGR B1 SLUDGE TCC – Coordination is achieved from MAIN SWGR down through the largest feeder breaker of MCC-NA.
- MAIN SWGR B1 SLUDGE TCCG – Ground fault coordination is not achieved from MAIN SWGR main breaker and feeder breaker.
- MCC-DP2B TCC – Coordination is achieved from MCC-DP2B down through the largest feeder breaker.
- MCC-DP3D TCC – Coordination is achieved from MCC-DP3D down through the largest feeder breaker.
- MCC-GB TCC – Coordination is not achieved from MCC-GB down through the largest motor.
- MCC-GB TCCG – Ground fault coordination is achieved from MAIN SWGR main breaker and feeder breaker MCC-GB.
- MCC-GC TCC – Coordination is not achieved from MCC-GC down through the largest motor.
- MCC-GD TCC – Coordination is not achieved from MCC-GD down through the largest feeder breaker.
- MCC-GE TCC – Coordination is not achieved from MCC-GE down through the largest motor.
- MCC-GF TCC – Coordination is achieved from MCC-GF down through the largest motor.
- MCC-GF TCC – Coordination is achieved from MCC-GF down through the largest motor.
- MCC-HW BUS A TCC – Coordination is achieved from MCC-HW BUS A down through the largest motor.

- MCC-HW BUS A TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MCC-HW BUS A.
- MCC-HW BUS B TCC – Coordination is achieved from MCC-HW BUS B down through the largest motor.
- MCC-HW BUS B TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MCC-HW BUS B.
- MCC-NA BUS A TCC – Coordination is achieved from MCC-NA BUS A down through the largest motor.
- MCC-NA BUS B TCC – Coordination is achieved from MCC-NA BUS B down through the largest motor.
- MCC-NC TCC – Coordination is achieved from MCC-NC down through the largest motor.
- MCC-ND TCC – Coordination is achieved from MCC-ND down through the largest motor.
- MCC-NE TCC – Coordination is not achieved from MCC-NE down through the largest feeder breaker.
- MCC-NF TCC – Coordination is not achieved from MCC-NF down through the largest feeder breaker.
- MCC-NG BUS A TCC – Coordination is not achieved from MCC-NG BUS A down through the largest feeder breaker.
- MCC-NG BUS B TCC – Coordination is achieved from MCC-NG BUS B down through the largest feeder breaker.
- MCC-PD3B TCC – Coordination is not achieved from MCC- PD3B down through the largest feeder breaker.
- MCC-SH BUS A TCC – Coordination is not achieved from MCC- SH BUS A down through the largest feeder breaker.
- MCC-SH BUS B TCC – Coordination is not achieved from MCC- SH BUS B down through the largest feeder breaker.
- MS-HW BUS A TIE TCC – Coordination is achieved from MS-HW main BUS A down through the largest feeder breaker (MS-HW BUS TIE).

- MS-HW BUS A TIE TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MS-HW BUS TIE.
- MS-HW BUS A GEN TCC – Coordination is achieved from MS-HW main Bus A down through the generator breaker.
- MS-HW BUS A GEN TCCG – Ground fault coordination is achieved from MS-HW main breaker and generator breaker.
- MS-HW BUS A PUMP TCC – Coordination is not achieved from MS-HW main Bus A down through pump feeder breaker.
- MS-HW BUS A PUMP TCCG – Ground fault coordination is achieved from MS-HW main A breaker and pump feeder breaker.
- MS-HW BUS B TIE TCC – Coordination is achieved from MS-HW main bus B down through the largest feeder breaker (MS-HW BUS TIE).
- MS-HW BUS B TIE TCCG – Ground fault coordination is achieved from MS-HW main BUS B breaker and feeder breaker MS-HW BUS TIE.
- MS-HW BUS B GEN TCC – Coordination is achieved from MS-HW main BUS B down through the generator breaker.
- MS-HW BUS B GEN TCCG – Ground fault coordination is achieved from MS-HW main breaker and generator breaker.
- MS-HW BUS B PUMP TCC – Coordination is achieved from MS-HW main Bus B down through pump feeder breaker.
- MS-HW BUS B PUMP TCCG – Ground fault coordination is achieved from MS-HW main B breaker and pump feeder breaker.
- Panel DB TCC – Coordination is achieved from Panel DB down through the largest feeder breaker.
- Panel DB GEN TCC – Coordination is not achieved from Panel DB upstream through generator breaker.
- PNL DP1 TCC – Coordination is not achieved from PNL DP1 upstream through Main SWGR feeder breaker.
- PNL DP2 TCC – Coordination is achieved from PNL DP2 upstream through Main SWGR feeder breaker.

- PNL DP3 TCC – Coordination is not achieved from PNL DP3 upstream through Main SWGR feeder breaker.
- PNL DP3 TCCG – Ground fault coordination is achieved from Main SWGR breaker through the main breaker PNL DP3.
- PNL DP4 TCC – Coordination is not achieved from PNL DP4 upstream through Main SWGR feeder breaker.
- PNL DP4 TCCG – Ground fault coordination is not achieved from Main SWGR breaker through the main breaker PNL DP4.
- PNL DPMB TCC – Coordination is achieved from PNL DP3 down through the largest feeder breaker.
- PNL DPP8 TCC – Coordination is not achieved from PNL DPP8 upstream through PNL DP3 feeder breaker.
- SWBD GDP TCC – Coordination is achieved from SWBD GDP upstream through Main SWGR breaker.
- SWBD GDP TCCG – Ground fault coordination is not achieved from Main SWGR breaker through the main breaker SWBD GDP.
- SWBD-NB BUS A TCC – Coordination is achieved from SWBD-NB BUS A down through the largest feeder breaker.
- SWBD-NB BUS A TCCG – Ground fault coordination is achieved from SWBD-NB breaker and feeder breaker MCC-NC.
- SWBD-NB BUS B TCC – Coordination is achieved from SWBD-NB BUS A down through the largest feeder breaker.
- SWBD-NB BUS B TCCG – Ground fault coordination is achieved from SWBD-NB breaker and feeder breaker MCC-ND.

# 4.0 ARC FLASH STUDY

The Arc Flash Study builds upon the results of the Short Circuit and Protective Device Coordination Studies to calculate the incident energy, PPE Level, and arc flash boundary for each piece of equipment in the electrical distribution system. Results of this study are printed on labels and attached to electrical equipment to inform plant staff of shock hazards and arc flash hazards associated with working on energized equipment. These calculations have been performed in accordance with IEEE 1584 - Guide for Performing Arc Flash Hazard Calculations.

The incident energy varies with changes in the arcing fault current and the resulting protective device clearing time that occur during different operational conditions within the facility. In order to determine the worst-case incident energy, a number of different operational scenarios have been evaluated. The operational scenarios evaluated for this report are identified in Table 2:

**Table 2 Operational Scenarios**
**Public Works Integrated Master Plan**
**City of Oxnard**

| Scenario | Configuration | Description |
|---|---|---|
| Utility Power | Utility | Normal Running Condition With Cogen in Operation |
| Standby | Standby | Running on Generator Power With All Generators in Operation |

The incident energy calculations allow electrical equipment to be flagged with a PPE level A through D. The personal protective equipment (PPE) recommended by NFPA 70E for each of the categories is shown in Table 3. Where the calculations determine that the incident energy is above a Category 4, the equipment is identified as “DANGEROUS.” There is no PPE available that is suitable for use when working on energized equipment identified as “DANGEROUS.” “DANGEROUS” labels are printed with a red border.

**Table 3 Personal Protective Equipment (PPE)**
**Public Works Integrated Master Plan**
**City of Oxnard**

| Level | Clothing Description | Required Minimum Arc Rating of PPE ($cal/cm^2$) |
|---|---|---|
| A | Non-melting, non-flammable materials (i.e., untreated cotton, wool, rayon, or silk, or blends of these materials), safety glasses or safety goggles, hearing protection, leather gloves, hard hat, face shield (as needed), hearing protection, leather work shoes. | <1.2 |
| B | Arc-rated (AR) clothing system appropriately rated for the incident energy, arc rated or nonmelting untreated fibers for underlayers, face shield or arc flash suit hood, arc-rated jacket (as needed), hard hat, arc-rated hard hat liner, safety glasses or goggles, hearing protection, leather gloves, leather work shoes. | ≥1.2 and <12 |

| Table 3 | Personal Protective Equipment (PPE)<br>Public Works Integrated Master Plan<br>City of Oxnard | |
|---|---|---|
| **Level** | **Clothing Description** | **Required Minimum Arc Rating of PPE ($cal/cm^2$)** |
| C | Arc-rated (AR) clothing system appropriately rated for the incident energy, arc rated or nonmelting untreated fibers for underlayers, arc-rated arc flash suit hood, arc-rated jacket (as needed), hard hat, arc-rated hard hat liner, safety glasses or goggles, hearing protection, leather gloves, leather work shoes. | ≥12 and ≤40 |
| D | PPE Not Available. | ≥40 |
| Note: Based on Annex H Table H.3(b) of NFPA 70E - 2015 Edition. | | |

Note that wearing the recommended PPE does not guarantee safety - it is intended to reduce risk to personnel and limit burns to second degree. Whenever possible, equipment should be de-energized before work is performed.

## 4.1 Source Data

The Arc Flash Study builds upon the results of the Short Circuit Study and the Protective Device Coordination Study in order to calculate the incident energy. Consequently, the Arc Flash Study is completely dependent on the results of these two studies. When the Short Circuit Study or Protective Device Coordination Study is updated due to changes in the electrical distribution system, a revised Arc Flash Study must be performed to ensure that the incident energy, PPE level, and arc flash boundary at each piece of equipment are correctly calculated. The standard IEEE arcing current variation of 15% was incorporated to these scenarios representing utility fault current variation as well as other factors that affect arcing fault current. Reduced fault current levels result in long clearing times for protective devices. The arc flash incident energy is the result of both fault current and clearing time; therefore, reduced fault current can result in higher incident energy.

Note that the Arc Flash Study was performed without any information from the utility on the upstream overcurrent protective devices. Obtaining the primary overcurrent protective device information protecting the service transformer and conductor data from the protective device to the service transformer is also critical when performing an Arc Flash Hazard Analysis. The reason for obtaining this additional Utility information is to analyze the effects of the primary service transformer protection on the calculated arc flash incident energy at the service equipment. At low voltages, this incident energy normally exceeds 40 cal/cm2 – rendering this panel unable to be maintained while energized. However, there exists a possibility of reducing this incident energy to a manageable level when including the effects of the primary protection.

## 4.2 Arc Flash Summary

The Arc Flash Summary Table, found in Appendix D, uses the Arc Flash Evaluation Module of ETAP. Appendix D contains the worst-case results from all of the operating scenarios as defined in Table 2. This summary shows both the inputs to and results of the incident energy calculations. The results found in Appendix D are based on the protective device settings and parameters of the electrical system. Refer to Appendix E for all the protective device settings and parameters for the “As-found” condition. Equipment data for transformers and cables used in modeling the electrical system can be found in Appendix F. Columns in the arc flash summary are as follows:

**Bus** - The location of the arcing fault.

**kV** - Bus voltage in kV.

**Configuration** - The name of the scenario which resulted in the worst case incident energy results.

**Energy (cal/cm$^2$)** - The energy produced by the arcing fault experienced at the working distance of 18 inches.

**Arc Flash Boundary (ft)** - The distance from the arcing fault that results in an incident energy of 1.2 cal/cm$^2$.

**Hazard Category** - The category of personal protective equipment (PPE) required based on the calculated incident energy.

**Final FCT (sec)** - The amount of time it takes for a breaker to open once the trip has been initiated. Note that protective devices with an opening time of zero are those devices whose opening time is included in their characteristic curves on the TCC (e.g., thermal-magnetic molded-case circuit breakers).

**Ia at FCT (kA)** - Total symmetrical arcing fault current at the fault location for an arcing fault.

**Source Protective Device Name** - The name of the first protective device to clear the arcing fault.

**% Ia Variation** - Whether or not the worst case was caused when 15% IEEE 1584 current variation was used.

## 4.3 Arc Flash Hazard Mitigation Techniques

There is a variety of methods available to reduce arc flash hazards at specific pieces of equipment. Some potential mitigation methods are outlined below.

### 4.3.1 Zone Selective Interlocking

Zone Selective Interlocking (ZSI) is a coordination and protection strategy typically employed in low voltage switchgear. The goal of a well-coordinated electrical system is for the breaker closest to the fault, to clear the fault, minimizing interruption to other parts of the facility. In a ZSI system, the circuit breaker closest to a fault restrains or inhibits upstream breakers for a preset time delay before the upstream breaker is allowed to trip clearing the fault.

The goal of using ZSI is to allow for closer coordination between switchgear feeder, tie, and main circuit breakers. Reductions in the LSG settings of switchgear main and tie breaker minimize equipment damage due to electrical faults. Use of ZSI also allows for activation of the instantaneous settings on the main breakers, which may reduce arc flash hazards in the switchgear itself.

### 4.3.2 Maintenance Mode

Some breakers and relays have the ability to store multiple settings for the same breaker. This functionality can be used for implementing a “maintenance mode” that can enable instantaneous and altering other settings to allow breakers to trip faster, reducing incident energy levels in equipment for personnel. Use of this “maintenance mode” may help to reduce Arc Flash hazards by up to 75 percent in some cases.

### 4.3.3 Differential Relay

A differential relay is a protection device used to monitor for fault scenarios within a defined zone of protection, often a switchgear bus or a transformer. The relay uses current transformers to monitor the current entering the zone of protection and exiting the zone of protection. When the amount of current entering and exiting the zone of protection is not equal, the relay will then trip the associated circuit interrupter to clear the fault. This relay provides the ability to detect and clear a fault extremely quickly and reduces the incident energy level.

### 4.3.4 Arc Flash Rated Equipment

Arc flash rated equipment provides a more robust enclosure that is designed to withstand the forces of an arc flash event and divert the pressure and gasses of the explosion out the top of the equipment using ducts. While the equipment does provide protection in the normal operating state of the equipment, it does not provide this additional protection when circuit breaker covers are open or removed.

### 4.3.5 Arc Flash Detection Relays

A relatively new technology is available for retrofitting or equipping on new equipment that utilizes light and current sensors to detect an arc flash event. When the event is detected,

the upstream protective device is actuated to interrupt and limit the incident energy at the associated equipment.

### 4.3.6 Arc Vault

Another relatively new technology available for retrofitting or equipping new equipment is the Arc Vault. When a current spike is detected (indicating the fault or arc flash event), the upstream protective device is called to trip while intentionally and simultaneously creating a separate arc flash event inside a containment dome (the vault). The arc flash event in the dome takes all the energy from the unintentional fault until the upstream protective device is able to clear the fault. Because almost all the energy is diverted and maintained within the vault, the equipment should only sustain minor, but repairable damage.

## 4.4 Arc Flash Hazard Labels

A sample arc flash label for review is shown in Figure 3. A complete set of labels suitable for direct application to equipment is provided as part of the final study for installation on the appropriate electrical equipment.

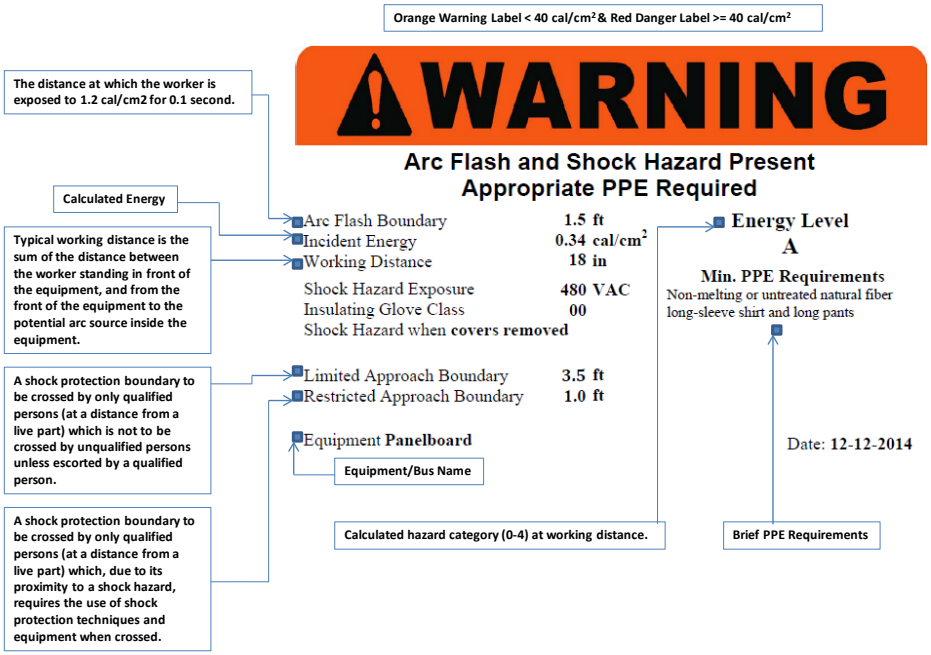



Figure 3 Sample Arc Flash Label

# 5.0 MISCELLANEOUS FIELD INVESTIGATION FINDINGS

During the field investigation, most equipment in the electrical distribution system was opened for data collection. Appendix G contains a summary of the electrical equipment condition assessment based on field investigation, for equipment rated 480V, and above. In

addition to the protective devices identified in Section 2.0 of the report, the following concerns and code violations are listed as follows.

## 5.1 General

The majority of electrical equipment in the OWTP was found to be old, obsolete, dirty, and rusty. Much of the electrical equipment is located in unconditioned spaces, and the physical condition is deteriorated. Equipment was found throughout the facility from a variety of installation years and manufacturers: 1978 (Federal Pacific Electric/FPE), 1989 (Westinghouse), 1997 (Cutler-Hammer Westinghouse), 1999 (Cutler-Hammer), 2007 (Allen-Bradley and Siemens), and 2011 (Allen-Bradley) with the majority of the equipment being from 1978 and 1989.

The equipment from 1978 is obsolete and replacement parts are often difficult to obtain. The condition ranges from dirty with cobwebs to very dirty and rusted. Recommend replacing all equipment from 1978.

The equipment from 1989 is obsolete, though replacement parts can generally be obtained from Eaton Cutler-Hammer. However, replacement parts are costly and may take time to procure. Equipment from this time that is located in the North Area Electrical Room and the Solids Processing Building is in conditioned spaces and in adequate physical condition. The condition ranges from somewhat dirty to scratched, dirty, and rusty with cobwebs. Recommend replacing all other equipment from 1989.

The equipment from 1997 is in a conditioned space and in adequate physical condition.

The equipment from 1999 is scratched and somewhat rusty. Recommend painting to prevent further degradation.

The equipment from 2007 is located in the Headworks Electrical Building. It is in a conditioned space and in good physical condition.

The equipment from 2011 is in excellent condition, however it is in the Eastern Trunk Pump Station/Sampling Station, which is an unconditioned space and the electrical equipment may degrade over time. Other electrical equipment in this building is in very poor condition.

HVAC is non-existent or inadequate for most of the electrical equipment, which shortens the useful life of the equipment. Adequate HVAC should be provided for all spaces containing electrical equipment to maintain the equipment in better condition, and to avoid shortening the equipment life.

Many motor control centers, switchboards, and switchgear have burned out or broken bulbs. Recommend replacing bulbs and lenses as necessary.

## 5.2 Administration Building

Access to MCC-EDP1E is partially blocked due to stacked items in front of the equipment. Recommend ensuring that the NEC required working space is maintained about electrical equipment.

## 5.3 DAF Building

- MCC-EDP1A has open openings in the equipment. The openings should be covered for safety.

## 5.4 Digester Control Building

- The circuit breaker for the Sludge Circ Pump Digester 1 in MCC-GF was found to have wires on the line side which are undersized and cracked. Recommend replacing the wires in accordance with the NEC.
- The cubicle for Sludge Gas Circ Blower 2 in MCC-GH: wires going between the circuit breaker and the capacitors are undersized. Recommend replacing the wires in accordance with the NEC.
- MCC-EDP1C has uncovered openings in the equipment. The openings should be covered for safety.

## 5.5 Headworks Building

- MCC-HW is located below what appear to be drainage pipes from the roof of the building. Drip protection is required by code. Recommend installing protection to avoid damage to the MCC from condensation, leaks, or breaks in the drainage pipes in accordance with the NEC.
- A Lockout Tagout Station in located behind SWGR MS-HW in the NEC required working space. Recommend re-locating the Lockout Tagout Station in order to maintain the REC required working space.

## 5.6 Main Electrical Building

- The Main Electrical Building has had issues with water leaking in when it rains. Recommend replacing the roofing.
- The circuit breaker in MCC-GD for Biofilter Pump (Circ) 4 was observed to jump from the OFF position to the TRIPPED Position. Recommend investigating the operation of this circuit breaker.

- Main SWGR circuit breaker to DP1 will not charge electrically anymore and must be manually recharged in order to close. Recommend investigating the charging motor.
- Main SWGR Tie breaker cannot be manually recharged due to a broken charging handle. Recommend replacing the charging handle.
- MCC-DP4B and MCC-GD have broken lights. Recommend replacing bulbs and lenses as necessary.

## 5.7 North Area Electrical Building

- Netting on the floor next to the MCCs is a tripping hazard. Recommend removing the netting from the room.

## 5.8 Old Blower Building

- MCC-DP2B has exposed bus within the motor control center. Recommend covering openings in accordance with the NEC.

## 5.9 Old Effluent Building

- MCC-EDP1B has uncovered openings and exposed bus within the motor control center. Recommend covering openings in accordance with the NEC.

## 5.10 PCC Building

- MCC-DP2D has uncovered openings in the equipment. The openings should be covered for safety.

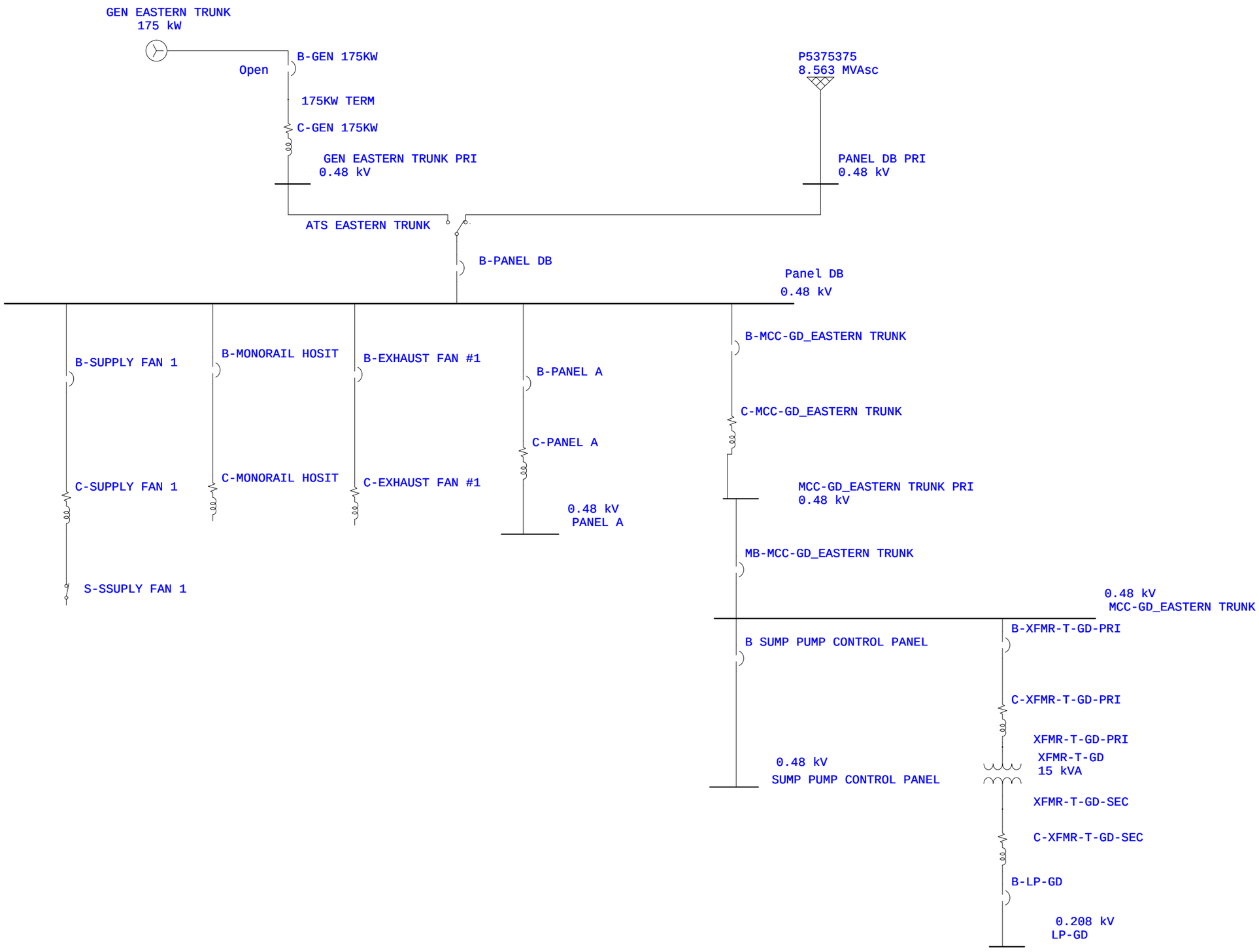
## 5.11 Primary Building

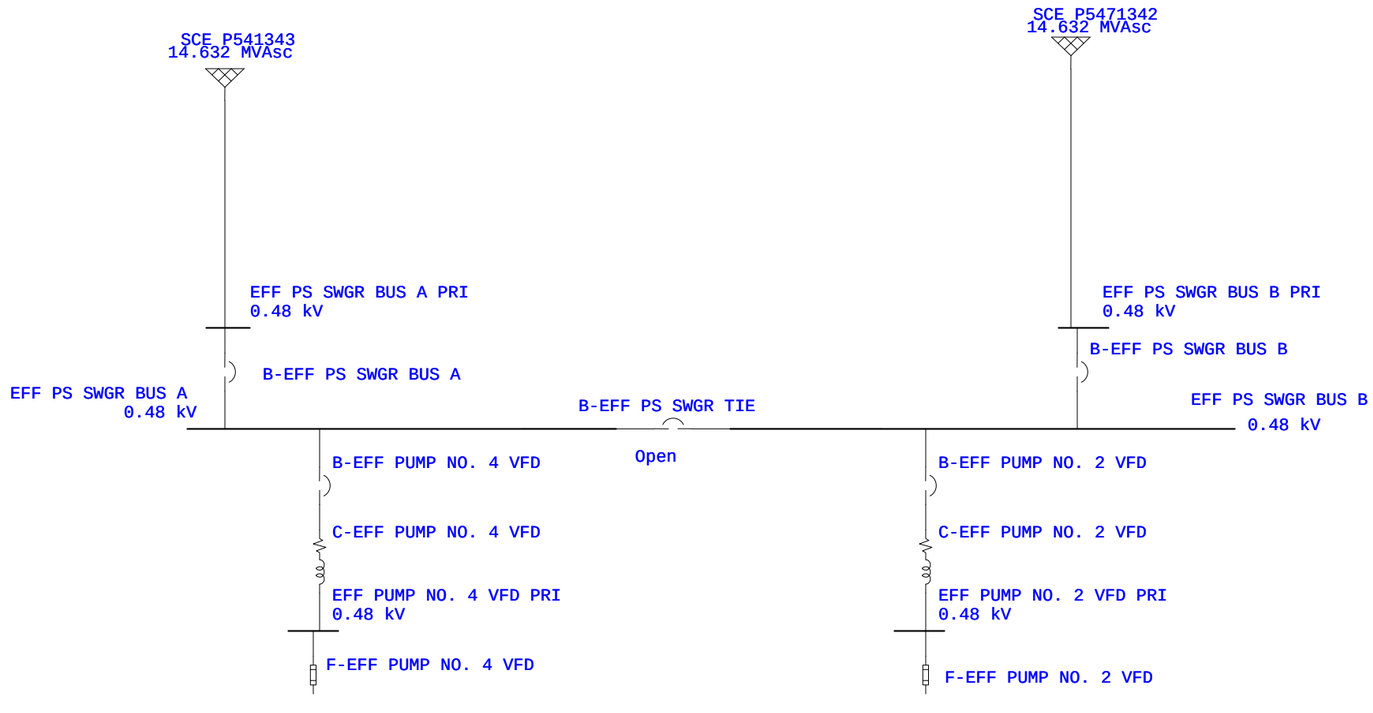
- MCC-DP1B has uncovered openings in the equipment. The openings should be covered for safety.

## 5.12 Solid Processing Building - Electrical Room

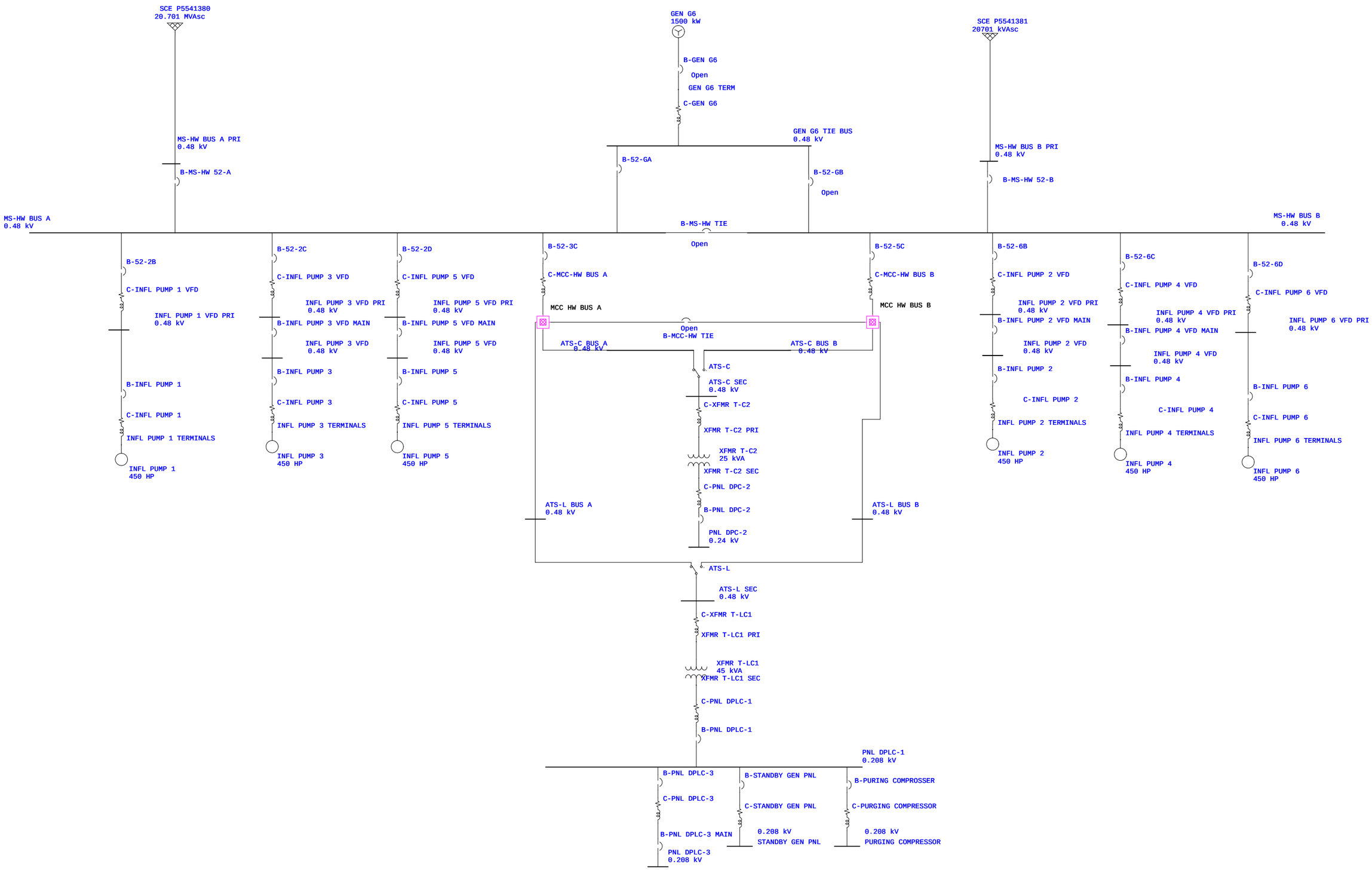
- Air compressor is located in front of MCC-SH within 3'-6", which is within the NEC working space. Recommend to re-locate the air compressor away from the MCC-SH.

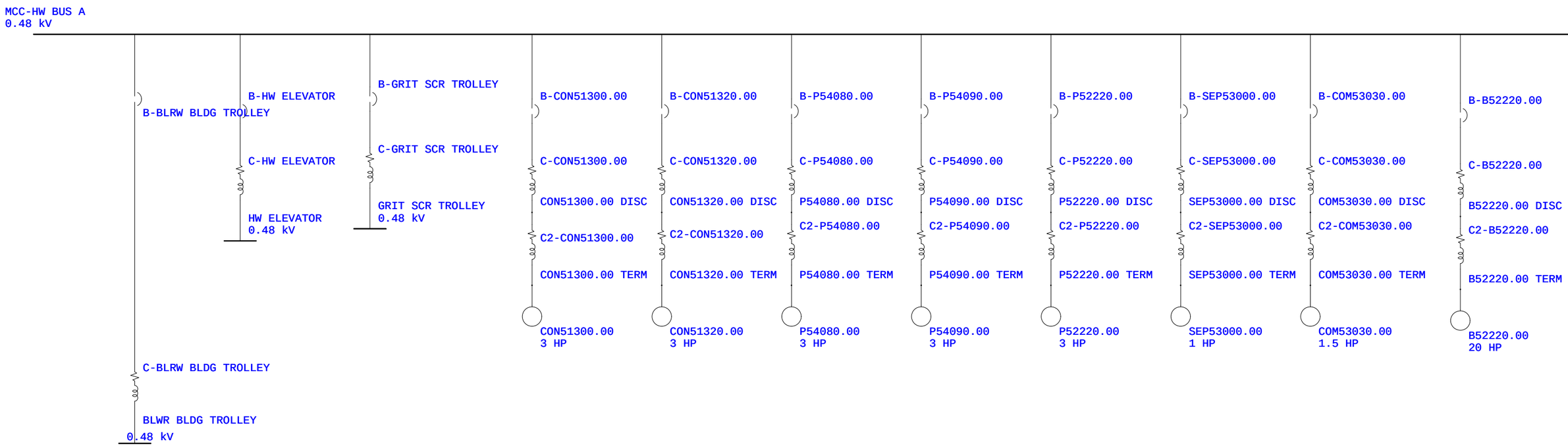
# APPENDIX A – ONE-LINES

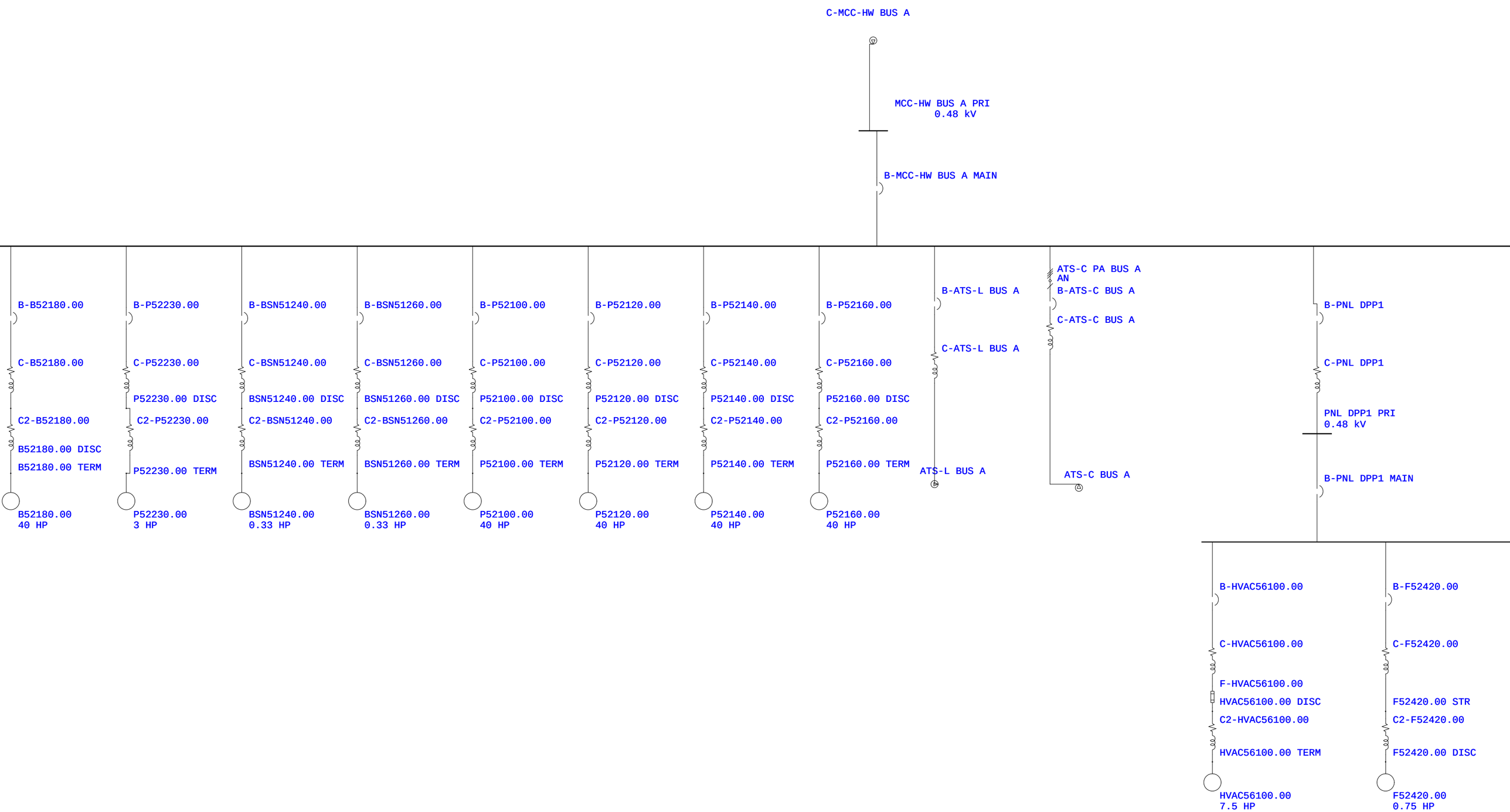

GEN EASTERN TRUNK
175 kW
B-GEN 175KW
Open
175KW TERM
C-GEN 175KW
GEN EASTERN TRUNK PRI
0.48 kV
P5375375
8.563 MVAsc
PANEL DB PRI
0.48 kV
ATS EASTERN TRUNK
B-PANEL DB
Panel DB
0.48 kV
B-SUPPLY FAN 1
B-MONORAIL HOSIT
B-EXHAUST FAN #1
B-PANEL A
B-MCC-GD_EASTERN TRUNK
C-MCC-GD_EASTERN TRUNK
C-PANEL A
C-SUPPLY FAN 1
C-MONORAIL HOSIT
C-EXHAUST FAN #1
0.48 kV
PANEL A
MCC-GD_EASTERN TRUNK PRI
0.48 kV
MB-MCC-GD_EASTERN TRUNK
S-SSUPLY FAN 1
0.48 kV
MCC-GD_EASTERN TRUNK
B-XFMR-T-GD-PRI
B SUMP PUMP CONTROL PANEL
C-XFMR-T-GD-PRI
XFMR-T-GD-PRI
XFMR-T-GD
15 kVA
0.48 kV
SUMP PUMP CONTROL PANEL
XFMR-T-GD-SEC
C-XFMR-T-GD-SEC
B-LP-GD
0.208 kV
LP-GD

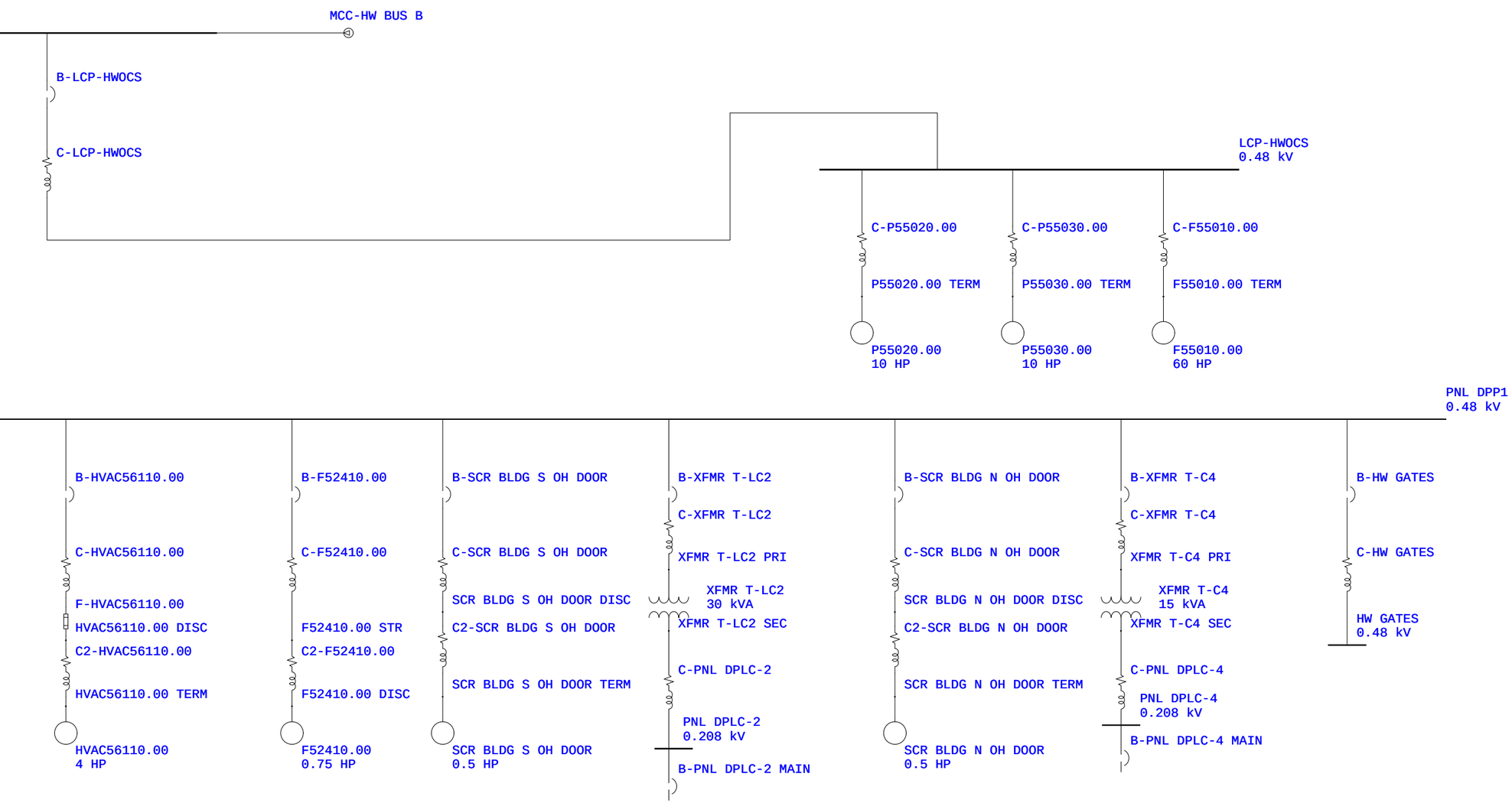

SCE P541343
14.632 MVAsc
SCE P5471342
14.632 MVAsc
EFF PS SWGR BUS A PRI
0.48 kV
EFF PS SWGR BUS B PRI
0.48 kV
B-EFF PS SWGR BUS A
B-EFF PS SWGR BUS B
EFF PS SWGR BUS A
0.48 kV
B-EFF PS SWGR TIE
Open
EFF PS SWGR BUS B
0.48 kV
B-EFF PUMP NO. 4 VFD
B-EFF PUMP NO. 2 VFD
C-EFF PUMP NO. 4 VFD
C-EFF PUMP NO. 2 VFD
EFF PUMP NO. 4 VFD PRI
0.48 kV
EFF PUMP NO. 2 VFD PRI
0.48 kV
F-EFF PUMP NO. 4 VFD
F-EFF PUMP NO. 2 VFD

# One-Line Diagram - OLV1 (Edit Mode)

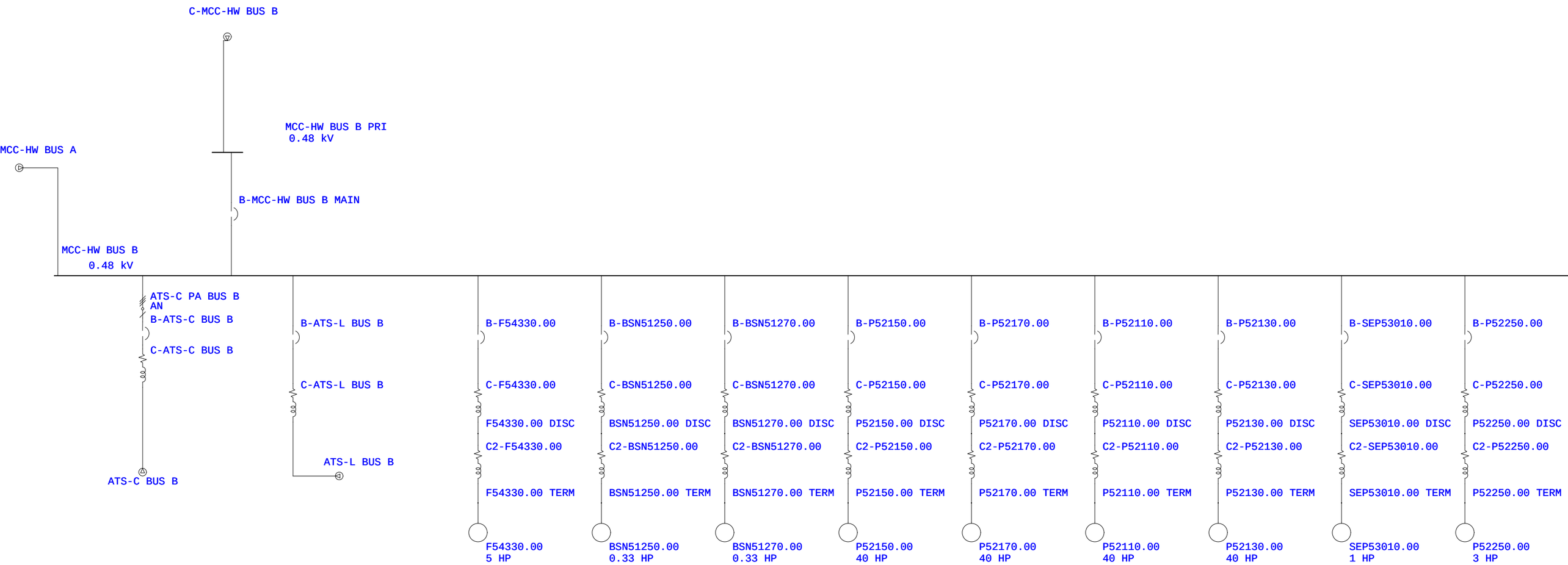


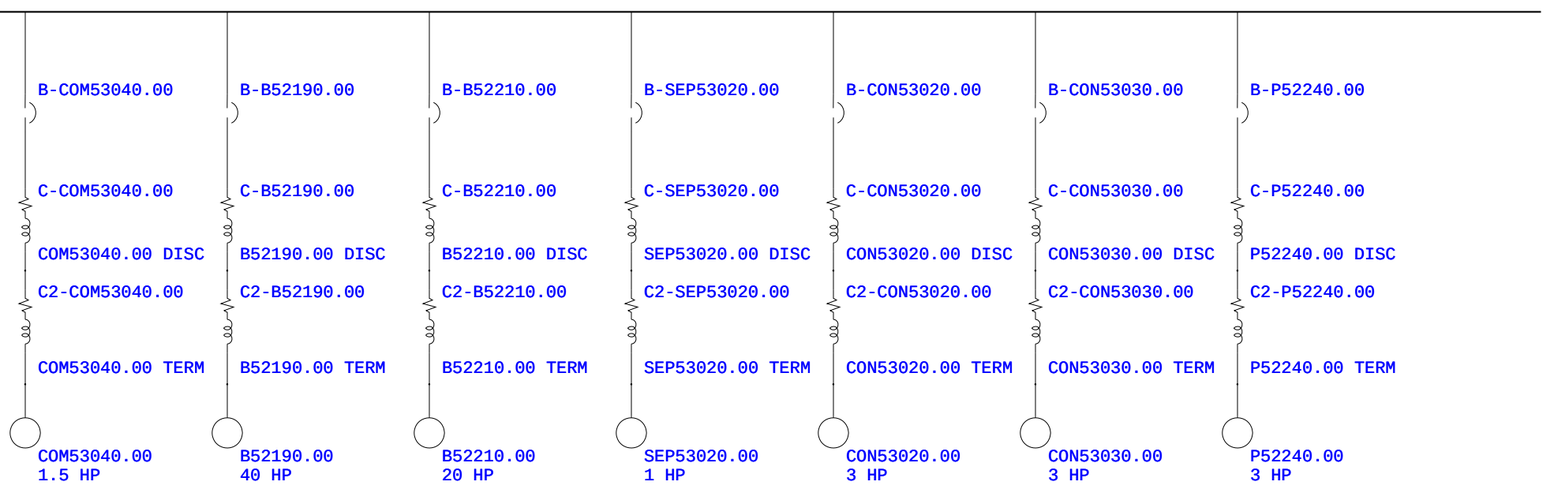

MCC-HW BUS A
0.48 kV
B-BLRW BLDG TROLLEY
B-HW ELEVATOR
C-HW ELEVATOR
HW ELEVATOR
0.48 kV
B-GRIT SCR TROLLEY
C-GRIT SCR TROLLEY
GRIT SCR TROLLEY
0.48 kV
B-CON51300.00
C-CON51300.00
CON51300.00 DISC
C2-CON51300.00
CON51300.00 TERM
CON51300.00
3 HP
B-CON51320.00
C-CON51320.00
CON51320.00 DISC
C2-CON51320.00
CON51320.00 TERM
CON51320.00
3 HP
B-P54080.00
C-P54080.00
P54080.00 DISC
C2-P54080.00
P54080.00 TERM
P54080.00
3 HP
B-P54090.00
C-P54090.00
P54090.00 DISC
C2-P54090.00
P54090.00 TERM
P54090.00
3 HP
B-P52220.00
C-P52220.00
P52220.00 DISC
C2-P52220.00
P52220.00 TERM
P52220.00
3 HP
B-SEP53000.00
C-SEP53000.00
SEP53000.00 DISC
C2-SEP53000.00
SEP53000.00 TERM
SEP53000.00
1 HP
B-COM53030.00
C-COM53030.00
COM53030.00 DISC
C2-COM53030.00
COM53030.00 TERM
COM53030.00
1.5 HP
B-B52220.00
C-B52220.00
B52220.00 DISC
C2-B52220.00
B52220.00 TERM
B52220.00
20 HP
C-BLRW BLDG TROLLEY
BLWR BLDG TROLLEY
0.48 kV


C-MCC-HW BUS A
MCC-HW BUS A PRI
0.48 kV
B-MCC-HW BUS A MAIN
B-B52180.00
C-B52180.00
C2-B52180.00
B52180.00 DISC
B52180.00 TERM
B52180.00
40 HP
B-P52230.00
C-P52230.00
P52230.00 DISC
C2-P52230.00
P52230.00 TERM
P52230.00
3 HP
B-BSN51240.00
C-BSN51240.00
BSN51240.00 DISC
C2-BSN51240.00
BSN51240.00 TERM
BSN51240.00
0.33 HP
B-BSN51260.00
C-BSN51260.00
BSN51260.00 DISC
C2-BSN51260.00
BSN51260.00 TERM
BSN51260.00
0.33 HP
B-P52100.00
C-P52100.00
P52100.00 DISC
C2-P52100.00
P52100.00 TERM
P52100.00
40 HP
B-P52120.00
C-P52120.00
P52120.00 DISC
C2-P52120.00
P52120.00 TERM
P52120.00
40 HP
B-P52140.00
C-P52140.00
P52140.00 DISC
C2-P52140.00
P52140.00 TERM
P52140.00
40 HP
B-P52160.00
C-P52160.00
P52160.00 DISC
C2-P52160.00
P52160.00 TERM
P52160.00
40 HP
B-ATS-L BUS A
C-ATS-L BUS A
ATS-L BUS A
ATS-C PA BUS A
AN
B-ATS-C BUS A
C-ATS-C BUS A
ATS-C BUS A
B-PNL DPP1
C-PNL DPP1
PNL DPP1 PRI
0.48 kV
B-PNL DPP1 MAIN
B-HVAC56100.00
C-HVAC56100.00
F-HVAC56100.00
HVAC56100.00 DISC
C2-HVAC56100.00
HVAC56100.00 TERM
HVAC56100.00
7.5 HP
B-F52420.00
C-F52420.00
F52420.00 STR
C2-F52420.00
F52420.00 DISC
F52420.00
0.75 HP

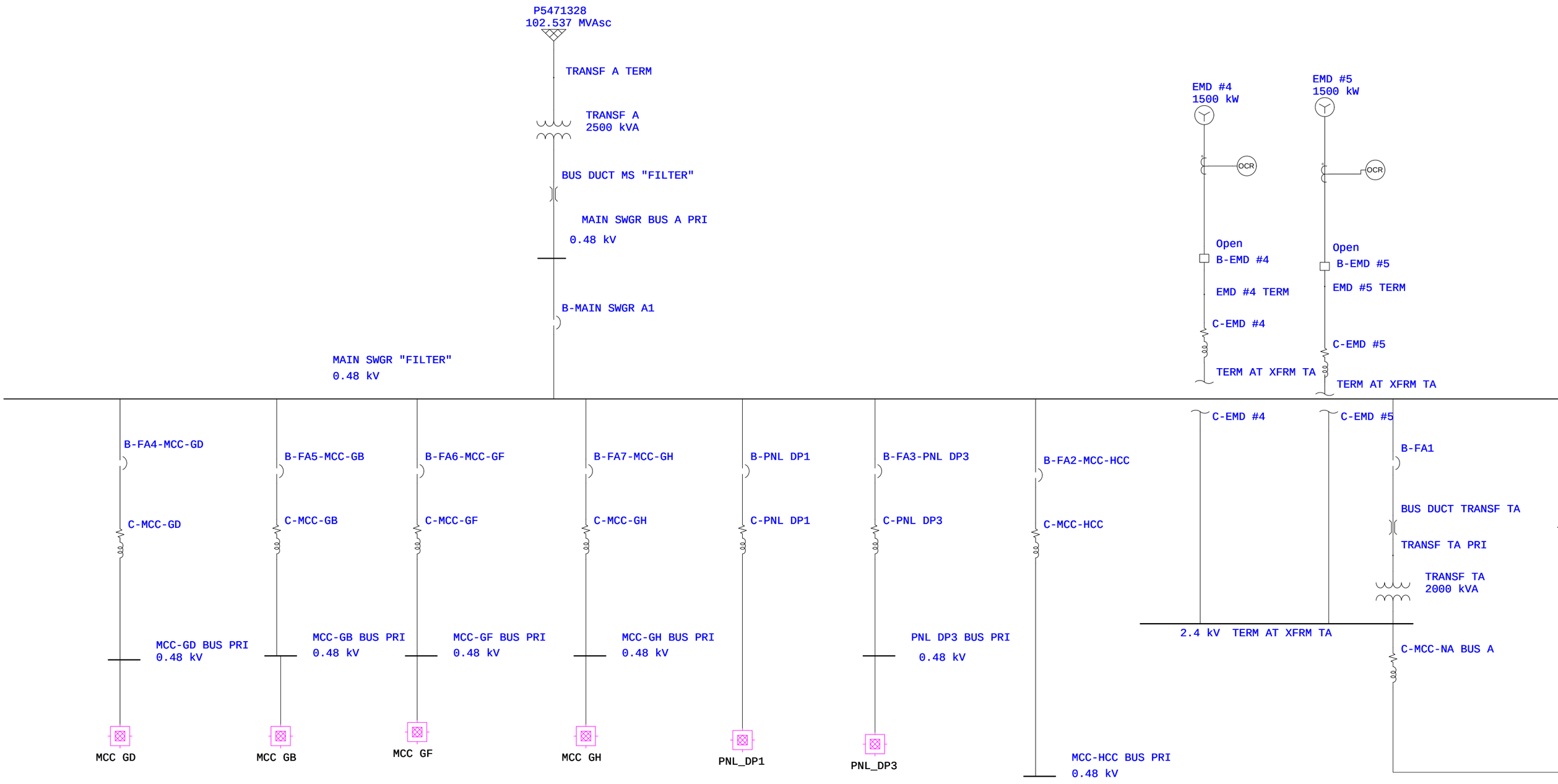

MCC-HW BUS B
B-LCP-HWOCS
C-LCP-HWOCS
LCP-HWOCS
0.48 kV
C-P55020.00
P55020.00 TERM
P55020.00
10 HP
C-P55030.00
P55030.00 TERM
P55030.00
10 HP
C-F55010.00
F55010.00 TERM
F55010.00
60 HP
PNL DPP1
0.48 kV
B-HVAC56110.00
C-HVAC56110.00
F-HVAC56110.00
HVAC56110.00 DISC
C2-HVAC56110.00
HVAC56110.00 TERM
HVAC56110.00
4 HP
B-F52410.00
C-F52410.00
F52410.00 STR
C2-F52410.00
F52410.00 DISC
F52410.00
0.75 HP
B-SCR BLDG S OH DOOR
C-SCR BLDG S OH DOOR
SCR BLDG S OH DOOR DISC
C2-SCR BLDG S OH DOOR
SCR BLDG S OH DOOR TERM
SCR BLDG S OH DOOR
0.5 HP
B-XFMR T-LC2
C-XFMR T-LC2
XFMR T-LC2 PRI
XFMR T-LC2
30 kVA
XFMR T-LC2 SEC
C-PNL DPLC-2
PNL DPLC-2
0.208 kV
B-PNL DPLC-2 MAIN
B-SCR BLDG N OH DOOR
C-SCR BLDG N OH DOOR
SCR BLDG N OH DOOR DISC
C2-SCR BLDG N OH DOOR
SCR BLDG N OH DOOR TERM
SCR BLDG N OH DOOR
0.5 HP
B-XFMR T-C4
C-XFMR T-C4
XFMR T-C4 PRI
XFMR T-C4
15 kVA
XFMR T-C4 SEC
C-PNL DPLC-4
PNL DPLC-4
0.208 kV
B-PNL DPLC-4 MAIN
B-HW GATES
C-HW GATES
HW GATES
0.48 kV

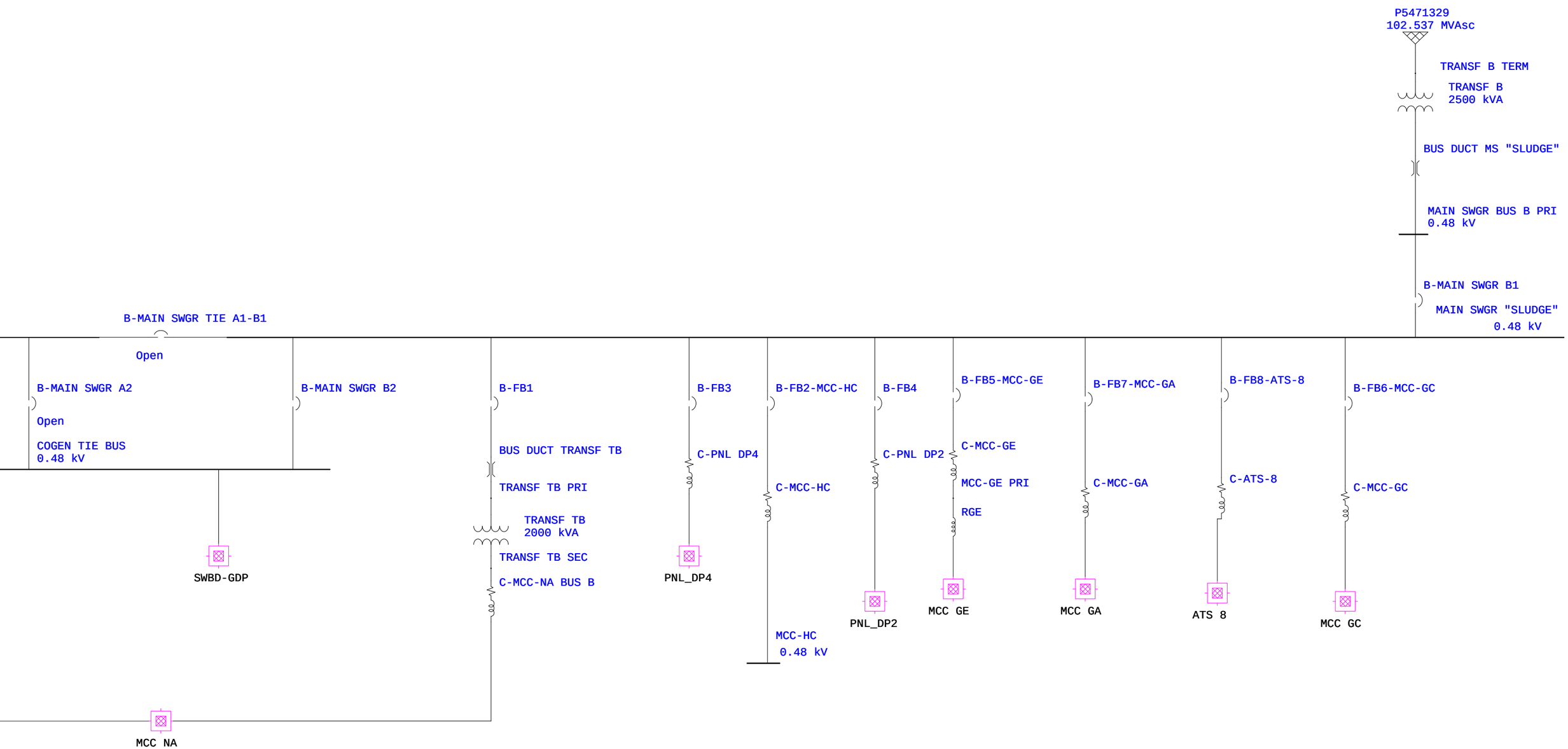
# One-Line Diagram - OLV1=>MCC HW BUS B (Edit Mode)

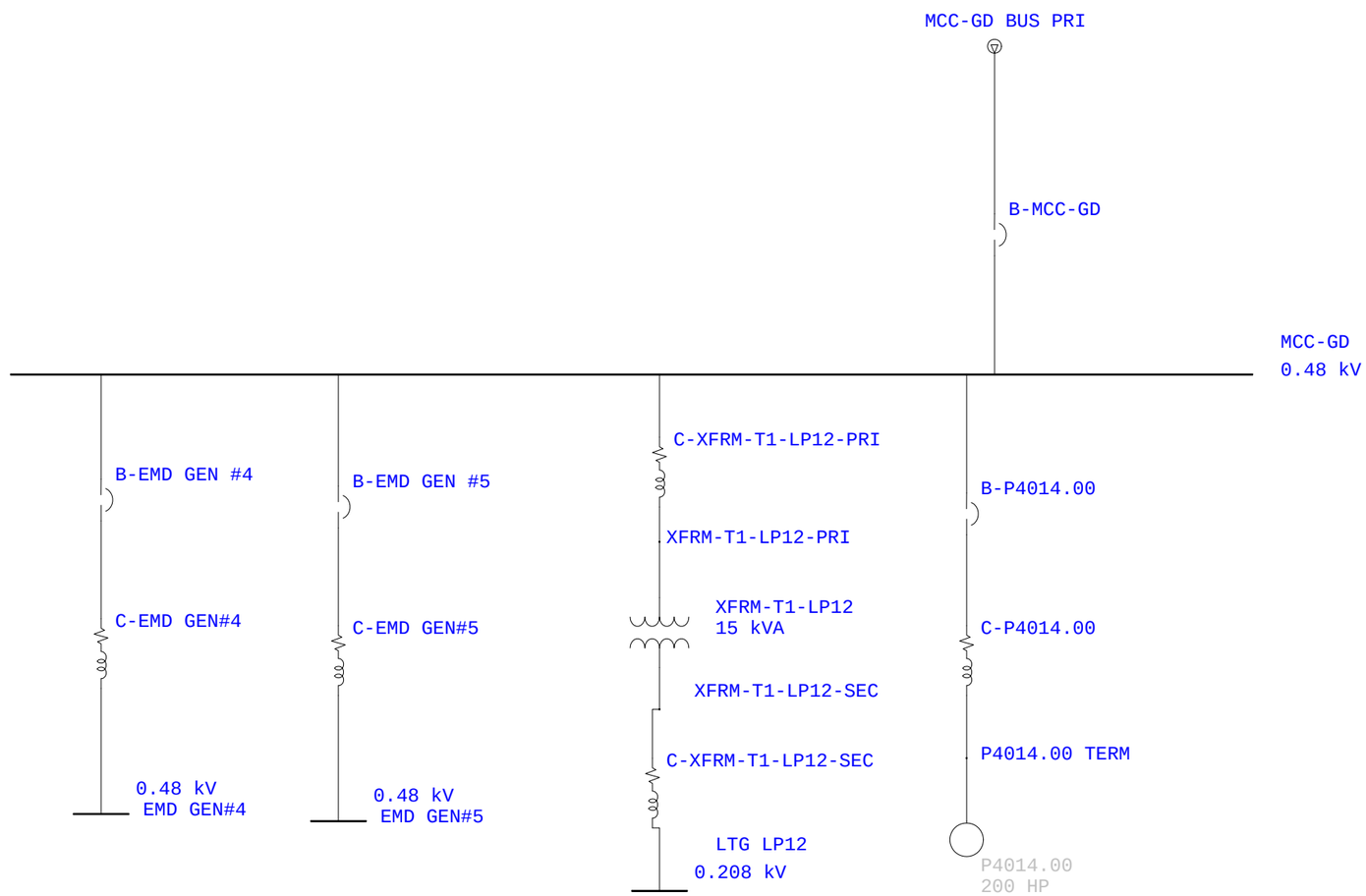


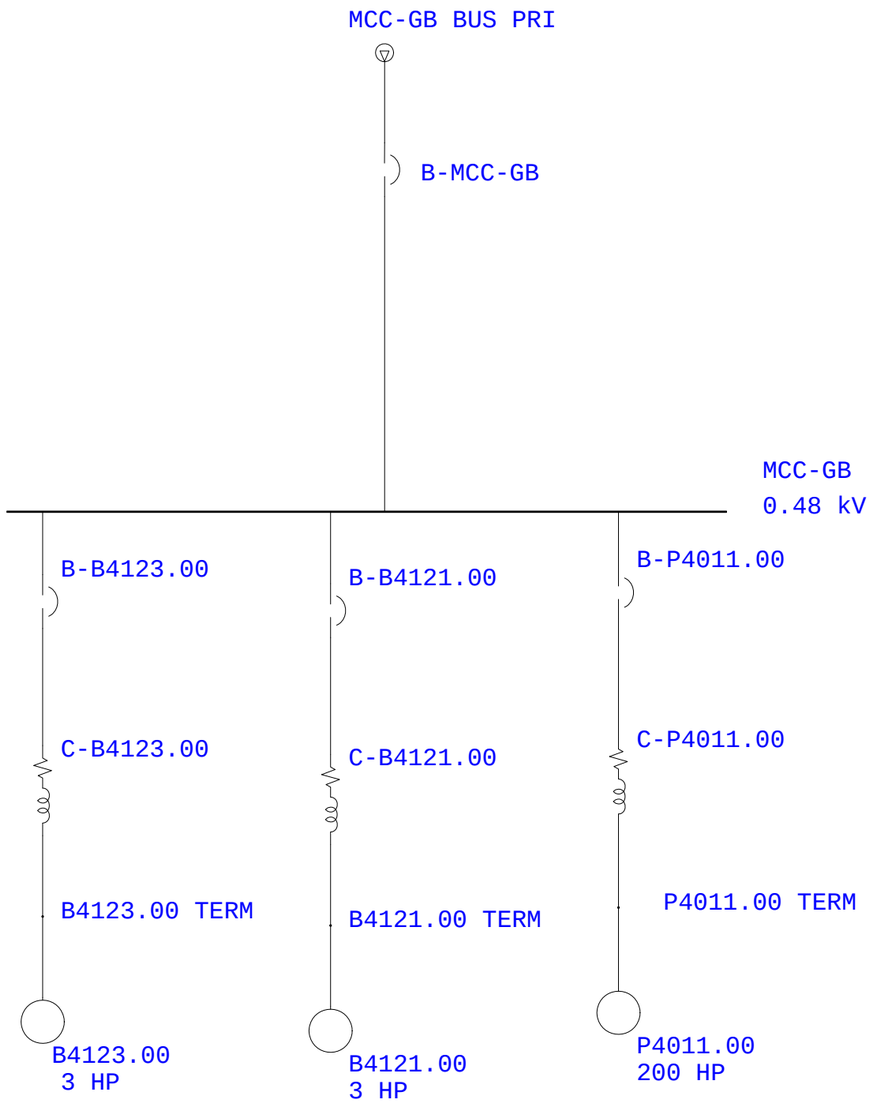

B-COM53040.00
C-COM53040.00
COM53040.00 DISC
C2-COM53040.00
COM53040.00 TERM
COM53040.00
1.5 HP
B-B52190.00
C-B52190.00
B52190.00 DISC
C2-B52190.00
B52190.00 TERM
B52190.00
40 HP
B-B52210.00
C-B52210.00
B52210.00 DISC
C2-B52210.00
B52210.00 TERM
B52210.00
20 HP
B-SEP53020.00
C-SEP53020.00
SEP53020.00 DISC
C2-SEP53020.00
SEP53020.00 TERM
SEP53020.00
1 HP
B-CON53020.00
C-CON53020.00
CON53020.00 DISC
C2-CON53020.00
CON53020.00 TERM
CON53020.00
3 HP
B-CON53030.00
C-CON53030.00
CON53030.00 DISC
C2-CON53030.00
CON53030.00 TERM
CON53030.00
3 HP
B-P52240.00
C-P52240.00
P52240.00 DISC
C2-P52240.00
P52240.00 TERM
P52240.00
3 HP

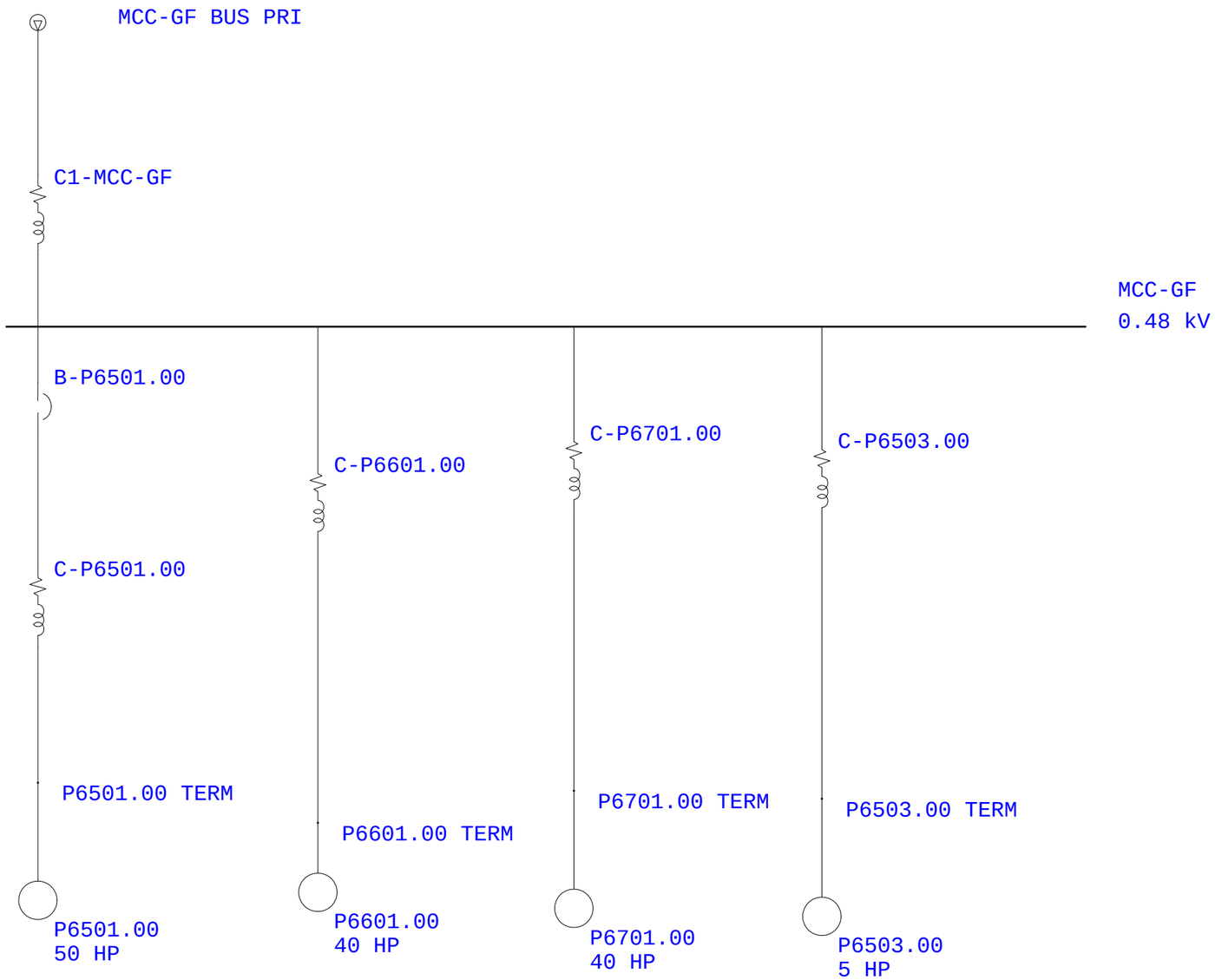
# One-Line Diagram - OLV1 (Edit Mode)

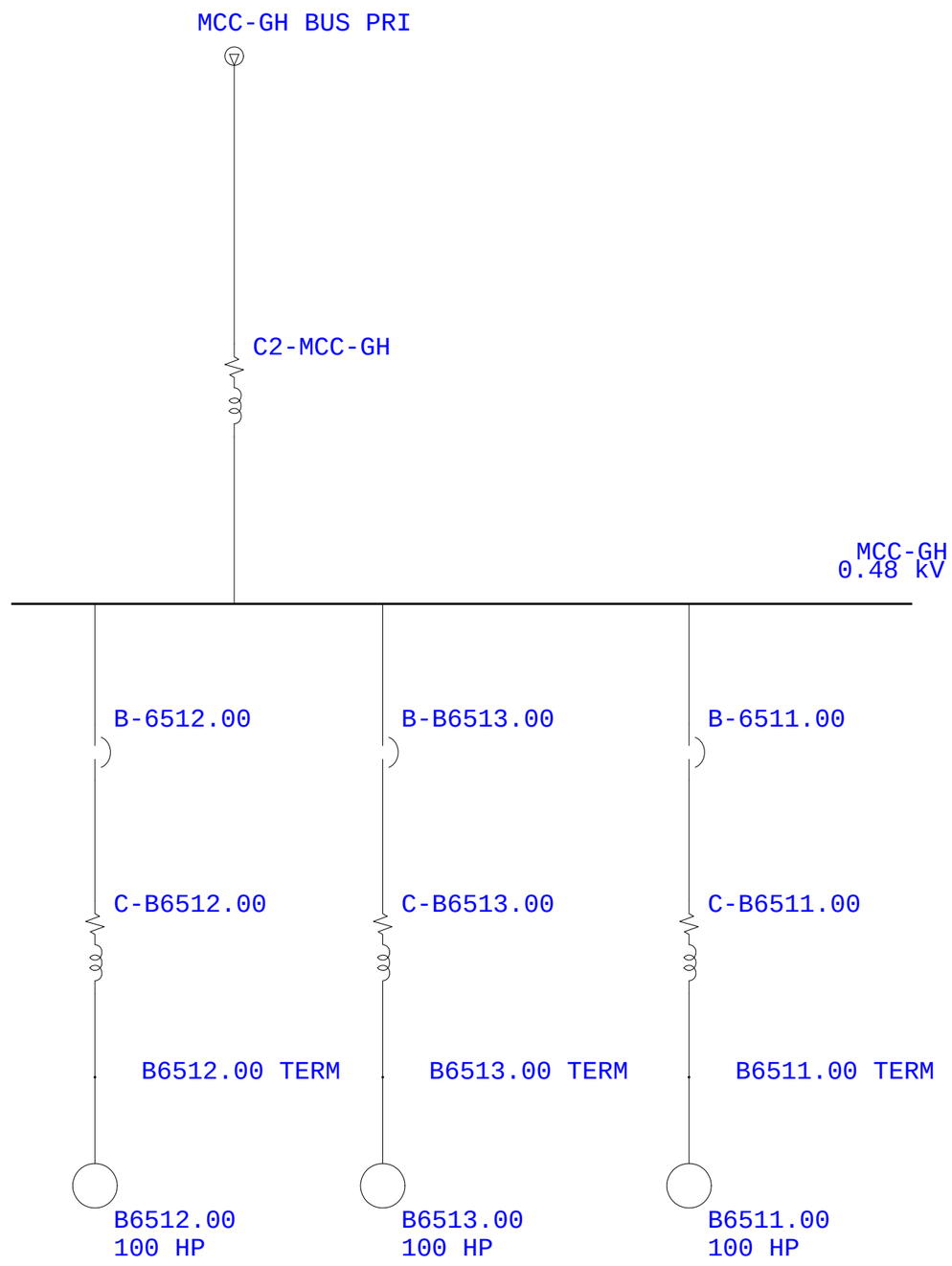


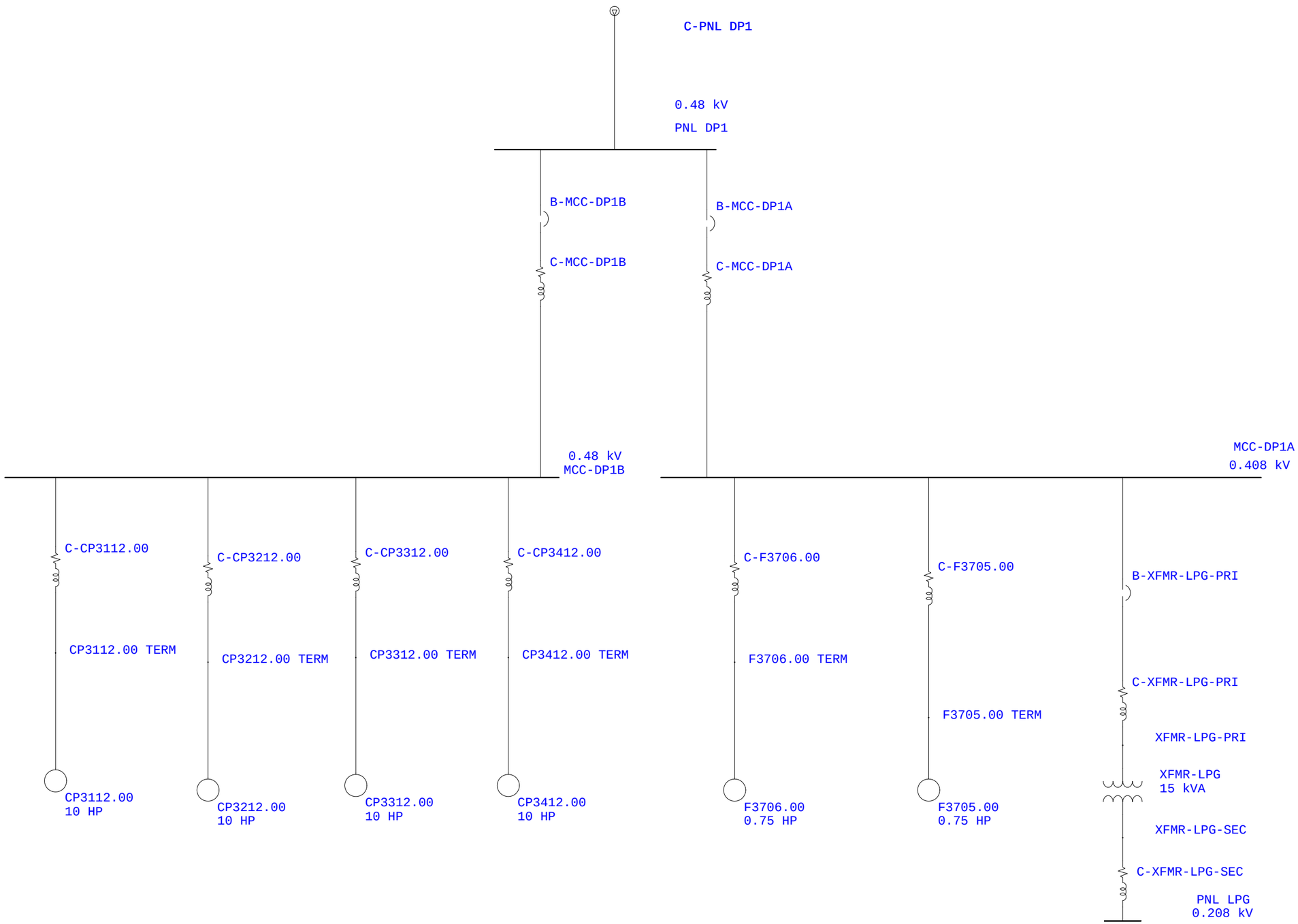

P5471329
102.537 MVAsc
TRANSF B TERM
TRANSF B
2500 kVA
BUS DUCT MS "SLUDGE"
MAIN SWGR BUS B PRI
0.48 kV
B-MAIN SWGR B1
MAIN SWGR "SLUDGE"
0.48 kV
B-MAIN SWGR TIE A1-B1
Open
B-MAIN SWGR A2
Open
COGEN TIE BUS
0.48 kV
B-MAIN SWGR B2
SWBD-GDP
B-FB1
BUS DUCT TRANSF TB
TRANSF TB PRI
TRANSF TB
2000 kVA
TRANSF TB SEC
C-MCC-NA BUS B
MCC NA
B-FB3
C-PNL DP4
PNL_DP4
B-FB2-MCC-HC
C-MCC-HC
MCC-HC
0.48 kV
B-FB4
C-PNL DP2
PNL_DP2
B-FB5-MCC-GE
C-MCC-GE
MCC-GE PRI
RGE
MCC GE
B-FB7-MCC-GA
C-MCC-GA
MCC GA
B-FB8-ATS-8
C-ATS-8
ATS 8
B-FB6-MCC-GC
C-MCC-GC
MCC GC

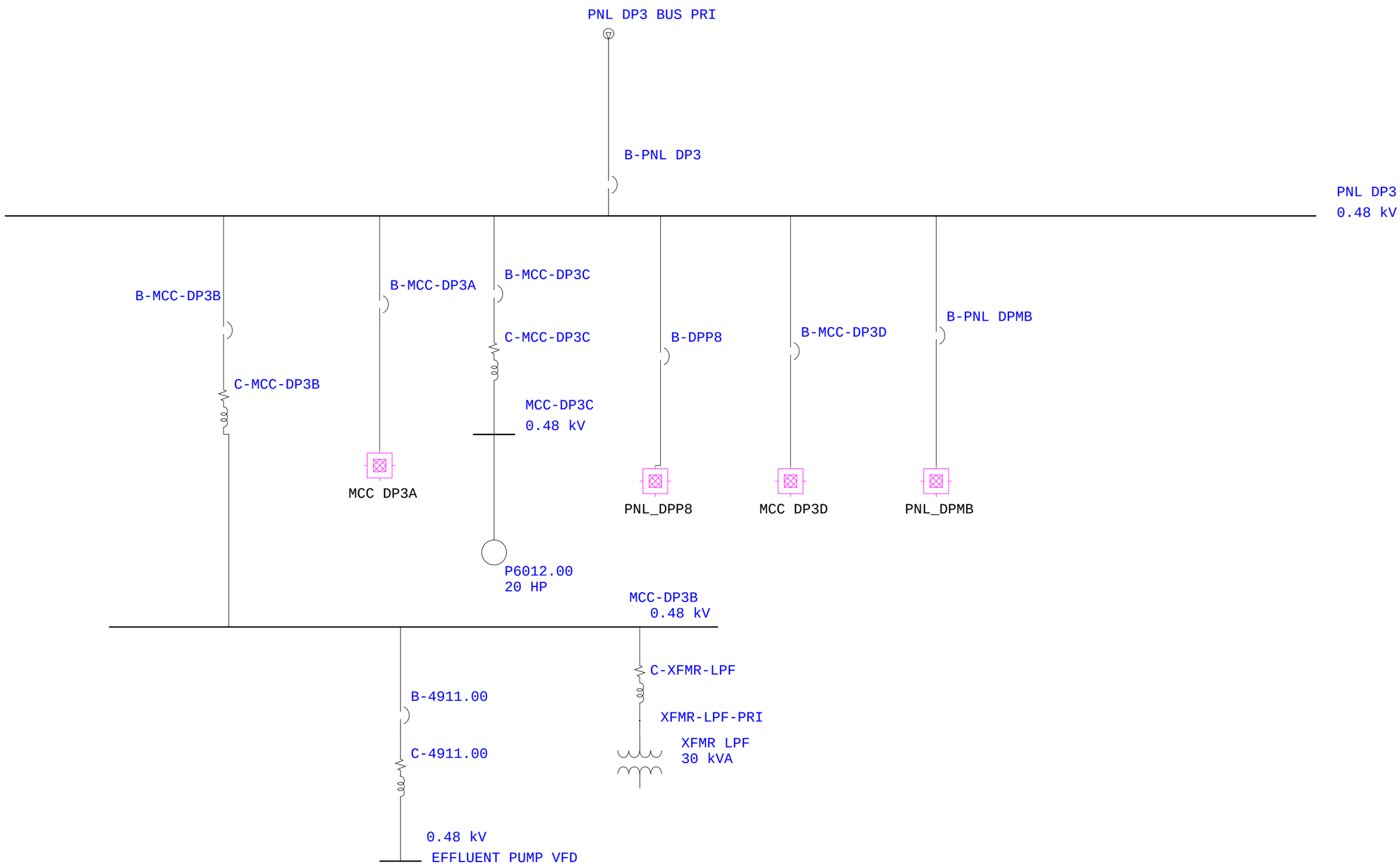

MCC-GD BUS PRI
B-MCC-GD
MCC-GD
0.48 kV
B-EMD GEN #4
B-EMD GEN #5
C-XFRM-T1-LP12-PRI
B-P4014.00
XFRM-T1-LP12-PRI
XFRM-T1-LP12
15 kVA
C-EMD GEN#4
C-EMD GEN#5
C-P4014.00
XFRM-T1-LP12-SEC
C-XFRM-T1-LP12-SEC
P4014.00 TERM
0.48 kV
EMD GEN#4
0.48 kV
EMD GEN#5
LTG LP12
0.208 kV
P4014.00
200 HP

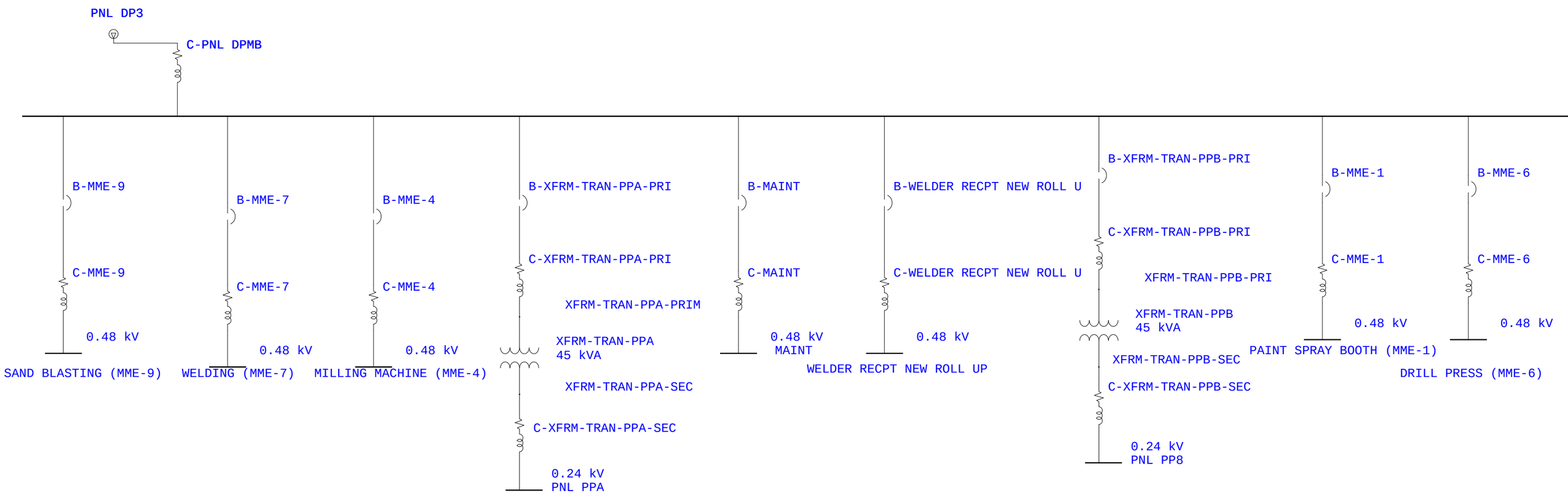

MCC-GB BUS PRI
B-MCC-GB
MCC-GB
0.48 kV
B-B4123.00
B-B4121.00
B-P4011.00
C-B4123.00
C-B4121.00
C-P4011.00
B4123.00 TERM
B4121.00 TERM
P4011.00 TERM
B4123.00
3 HP
B4121.00
3 HP
P4011.00
200 HP

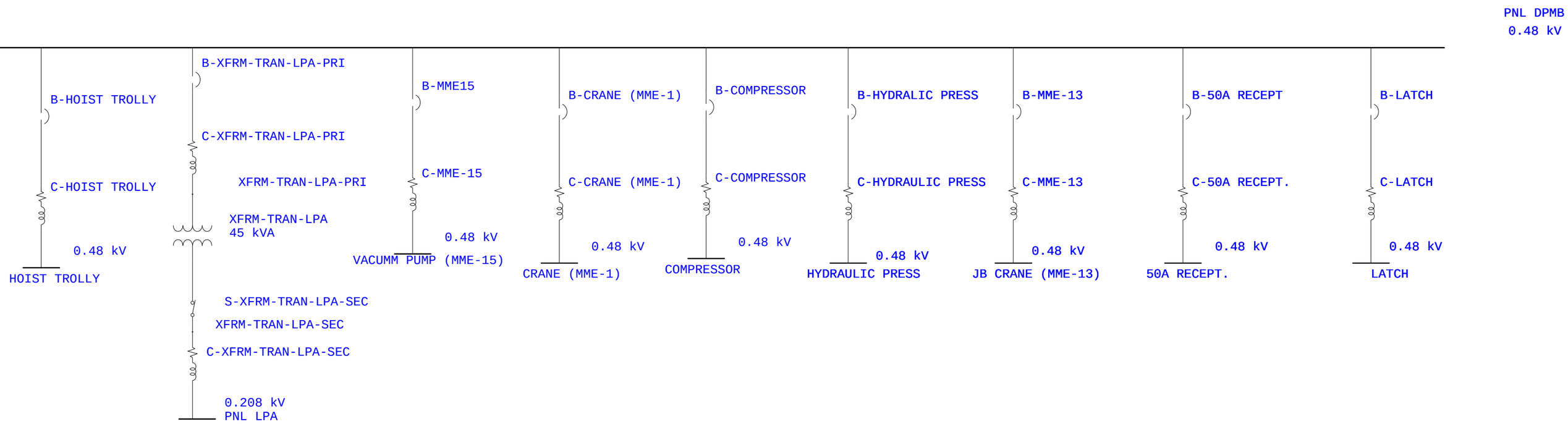

MCC-GF BUS PRI
C1-MCC-GF
MCC-GF
0.48 kV
B-P6501.00
C-P6601.00
C-P6701.00
C-P6503.00
C-P6501.00
P6501.00 TERM
P6601.00 TERM
P6701.00 TERM
P6503.00 TERM
P6501.00
50 HP
P6601.00
40 HP
P6701.00
40 HP
P6503.00
5 HP

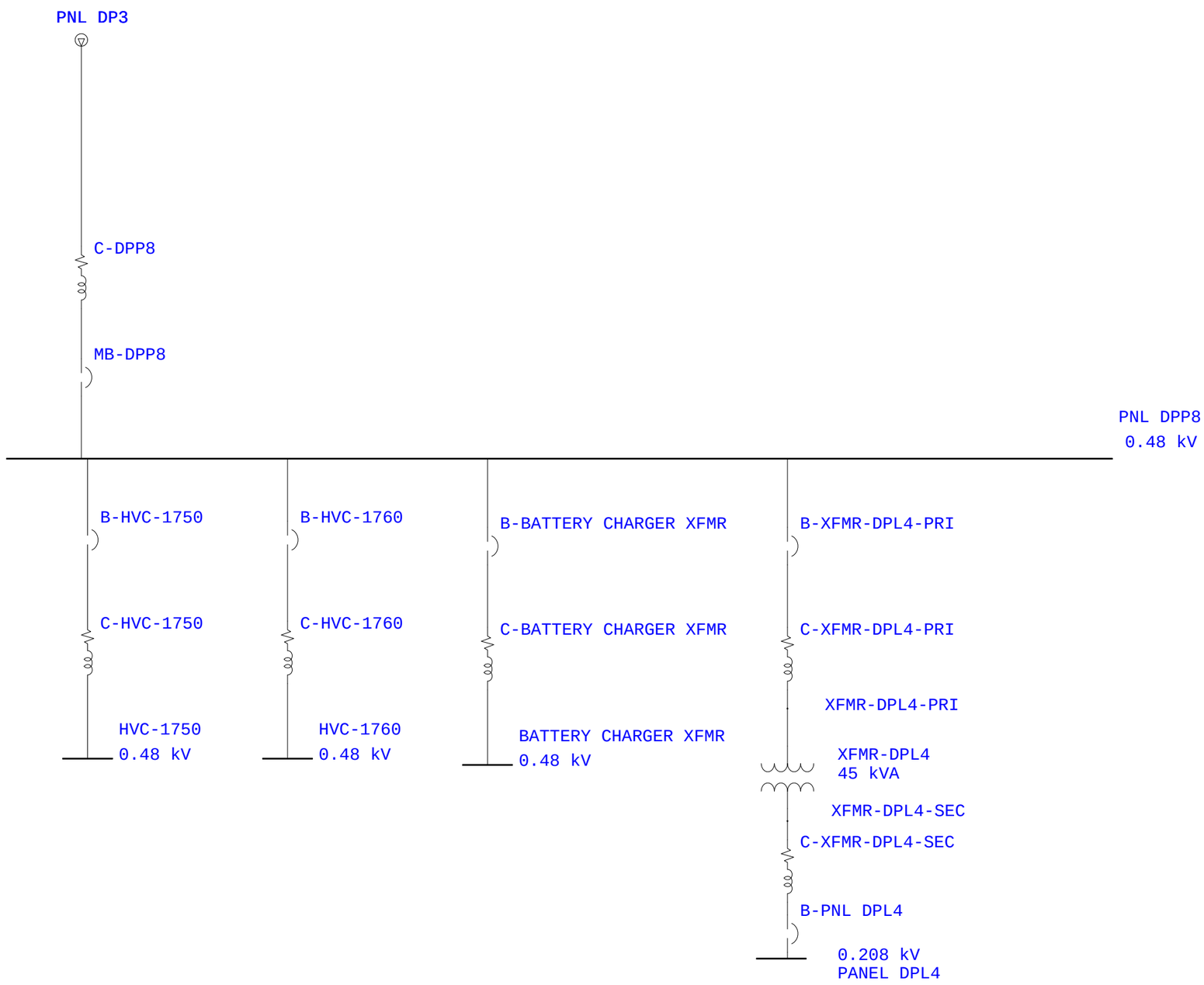

MCC-GH BUS PRI
C2-MCC-GH
MCC-GH
0.48 kV
B-6512.00
B-B6513.00
B-6511.00
C-B6512.00
C-B6513.00
C-B6511.00
B6512.00 TERM
B6513.00 TERM
B6511.00 TERM
B6512.00
100 HP
B6513.00
100 HP
B6511.00
100 HP

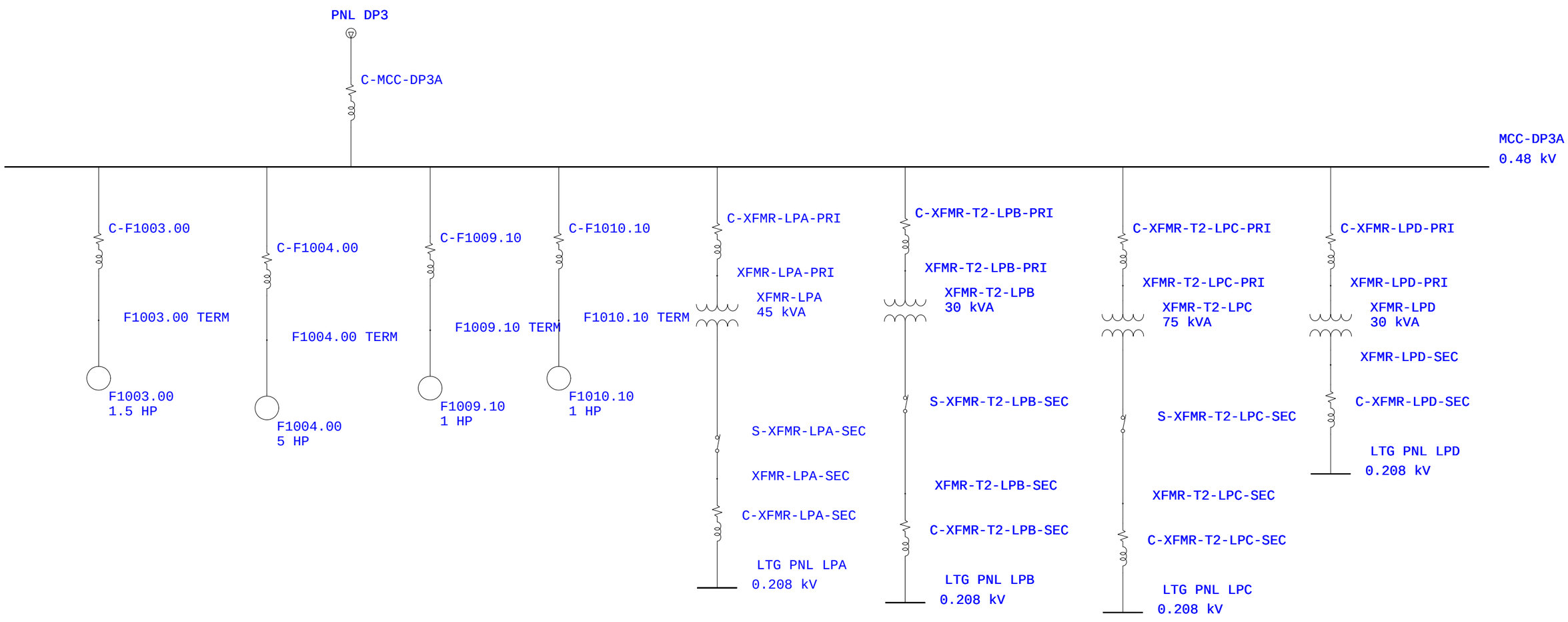

C-PNL DP1
0.48 kV
PNL DP1
B-MCC-DP1B
C-MCC-DP1B
B-MCC-DP1A
C-MCC-DP1A
0.48 kV
MCC-DP1B
MCC-DP1A
0.408 kV
C-CP3112.00
C-CP3212.00
C-CP3312.00
C-CP3412.00
C-F3706.00
C-F3705.00
B-XFMR-LPG-PRI
CP3112.00 TERM
CP3212.00 TERM
CP3312.00 TERM
CP3412.00 TERM
F3706.00 TERM
F3705.00 TERM
C-XFMR-LPG-PRI
XFMR-LPG-PRI
XFMR-LPG
15 kVA
CP3112.00
10 HP
CP3212.00
10 HP
CP3312.00
10 HP
CP3412.00
10 HP
F3706.00
0.75 HP
F3705.00
0.75 HP
XFMR-LPG-SEC
C-XFMR-LPG-SEC
PNL LPG
0.208 kV

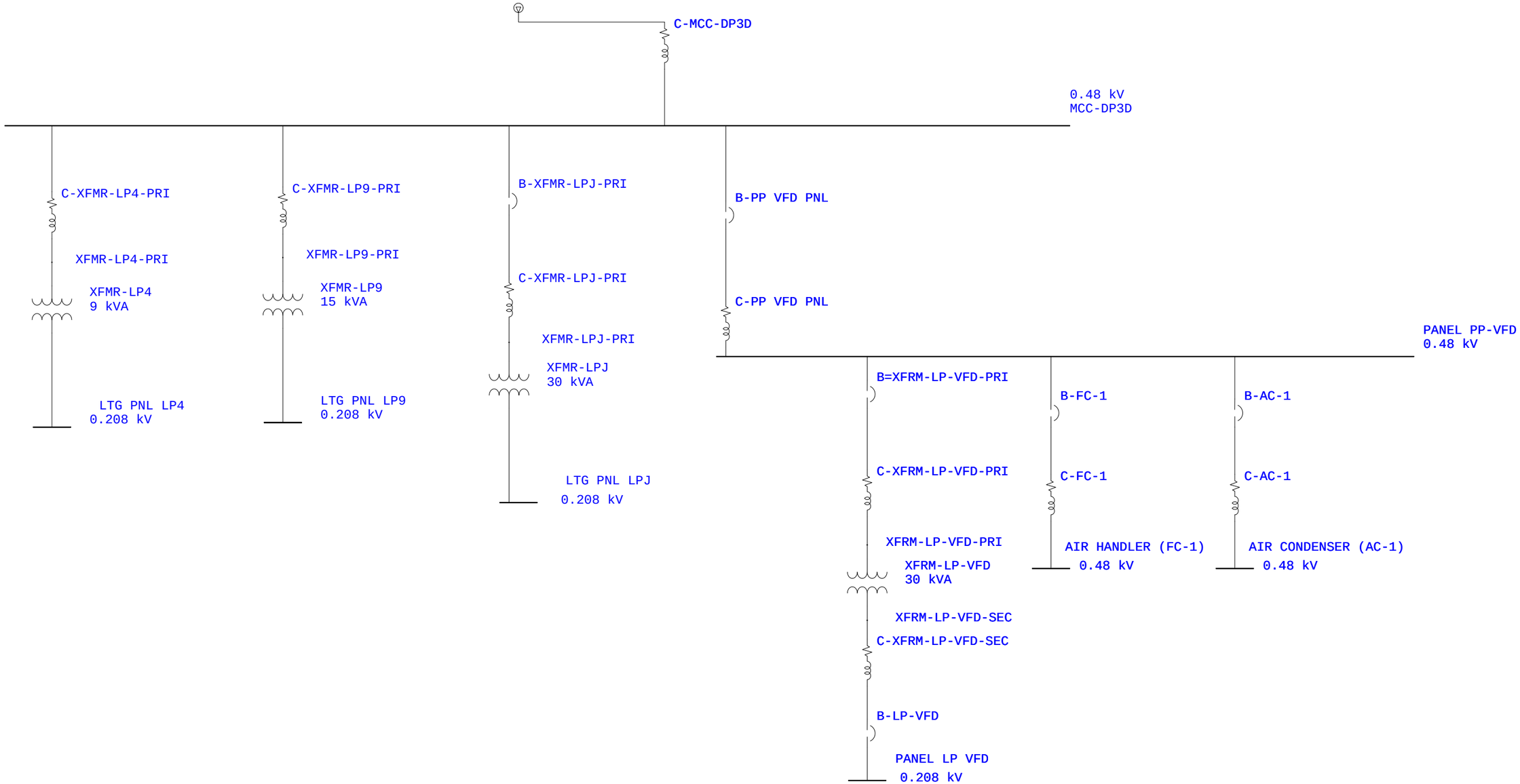

PNL DP3 BUS PRI
B-PNL DP3
PNL DP3
0.48 kV
B-MCC-DP3B
B-MCC-DP3A
B-MCC-DP3C
C-MCC-DP3C
B-DPP8
B-MCC-DP3D
B-PNL DPMB
C-MCC-DP3B
MCC-DP3C
0.48 kV
MCC DP3A
PNL_DPP8
MCC DP3D
PNL_DPMB
P6012.00
20 HP
MCC-DP3B
0.48 kV
C-XFMR-LPF
B-4911.00
XFMR-LPF-PRI
XFMR LPF
30 kVA
C-4911.00
0.48 kV
EFFLUENT PUMP VFD

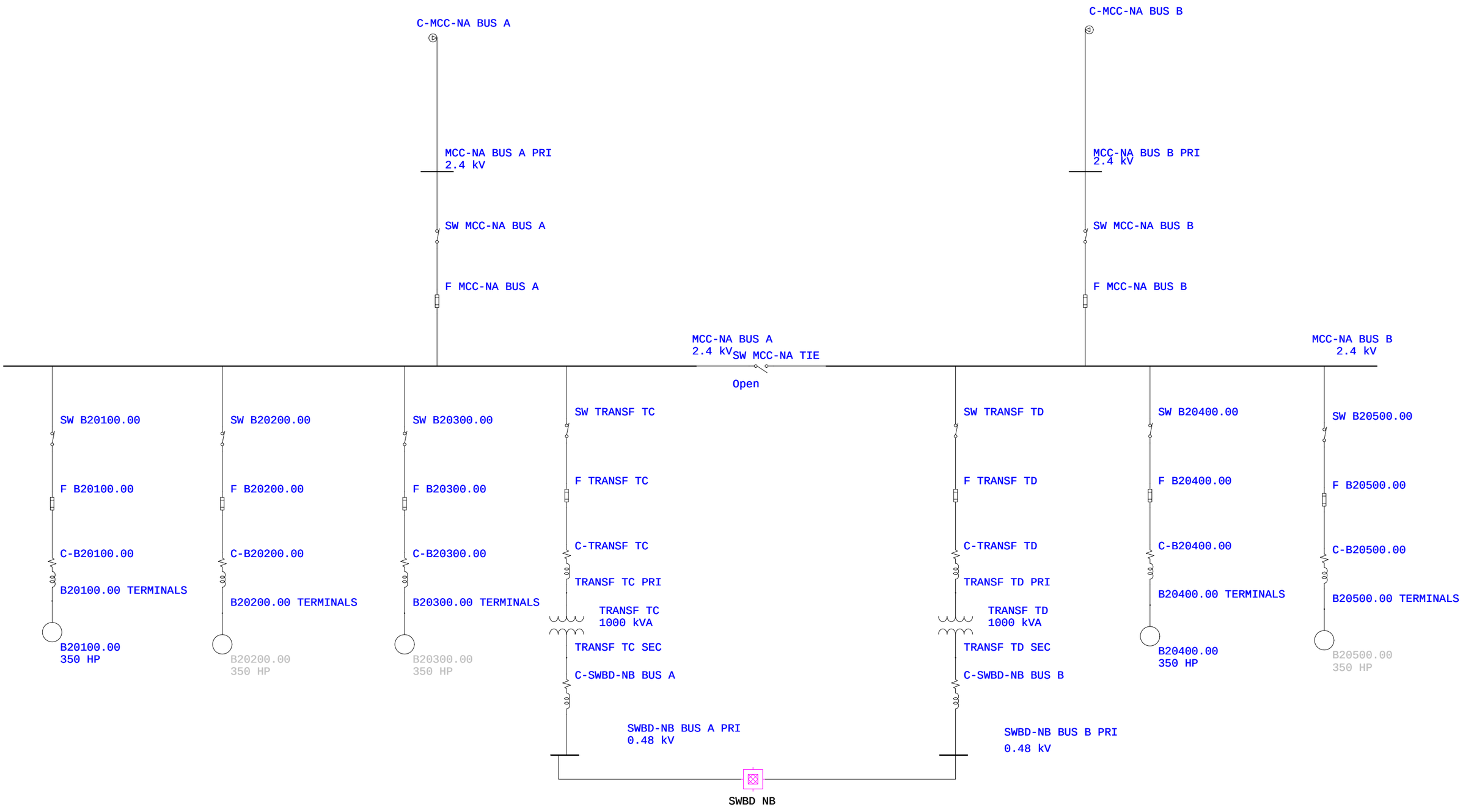

PNL DP3
C-PNL DPMB
B-MME-9
C-MME-9
0.48 kV
SAND BLASTING (MME-9)
B-MME-7
C-MME-7
0.48 kV
WELDING (MME-7)
B-MME-4
C-MME-4
0.48 kV
MILLING MACHINE (MME-4)
B-XFRM-TRAN-PPA-PRI
C-XFRM-TRAN-PPA-PRI
XFRM-TRAN-PPA-PRIM
XFRM-TRAN-PPA
45 kVA
XFRM-TRAN-PPA-SEC
C-XFRM-TRAN-PPA-SEC
0.24 kV
PNL PPA
B-MAINT
C-MAINT
0.48 kV
MAINT
B-WELDER RECPT NEW ROLL U
C-WELDER RECPT NEW ROLL U
0.48 kV
WELDER RECPT NEW ROLL UP
B-XFRM-TRAN-PPB-PRI
C-XFRM-TRAN-PPB-PRI
XFRM-TRAN-PPB-PRI
XFRM-TRAN-PPB
45 kVA
XFRM-TRAN-PPB-SEC
C-XFRM-TRAN-PPB-SEC
0.24 kV
PNL PP8
B-MME-1
C-MME-1
0.48 kV
PAINT SPRAY BOOTH (MME-1)
B-MME-6
C-MME-6
0.48 kV
DRILL PRESS (MME-6)

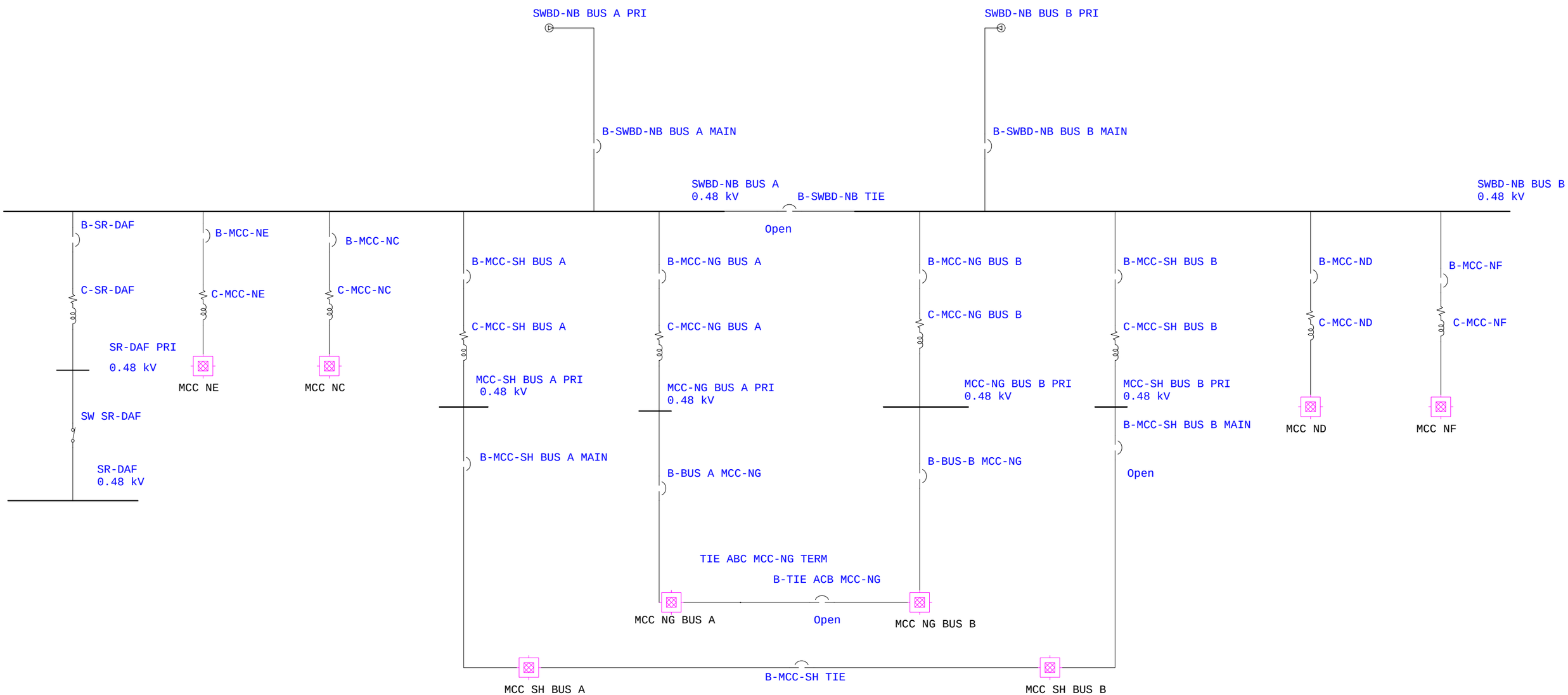

PNL DPMB
0.48 kV
B-HOIST TROLLY
C-HOIST TROLLY
0.48 kV
HOIST TROLLY
B-XFRM-TRAN-LPA-PRI
C-XFRM-TRAN-LPA-PRI
XFRM-TRAN-LPA-PRI
XFRM-TRAN-LPA
45 kVA
S-XFRM-TRAN-LPA-SEC
XFRM-TRAN-LPA-SEC
C-XFRM-TRAN-LPA-SEC
0.208 kV
PNL LPA
B-MME15
C-MME-15
0.48 kV
VACUMM PUMP (MME-15)
B-CRANE (MME-1)
C-CRANE (MME-1)
0.48 kV
CRANE (MME-1)
B-COMPRESSOR
C-COMPRESSOR
0.48 kV
COMPRESSOR
B-HYDRALIC PRESS
C-HYDRAULIC PRESS
0.48 kV
HYDRAULIC PRESS
B-MME-13
C-MME-13
0.48 kV
JB CRANE (MME-13)
B-50A RECEPT
C-50A RECEPT.
0.48 kV
50A RECEPT.
B-LATCH
C-LATCH
0.48 kV
LATCH

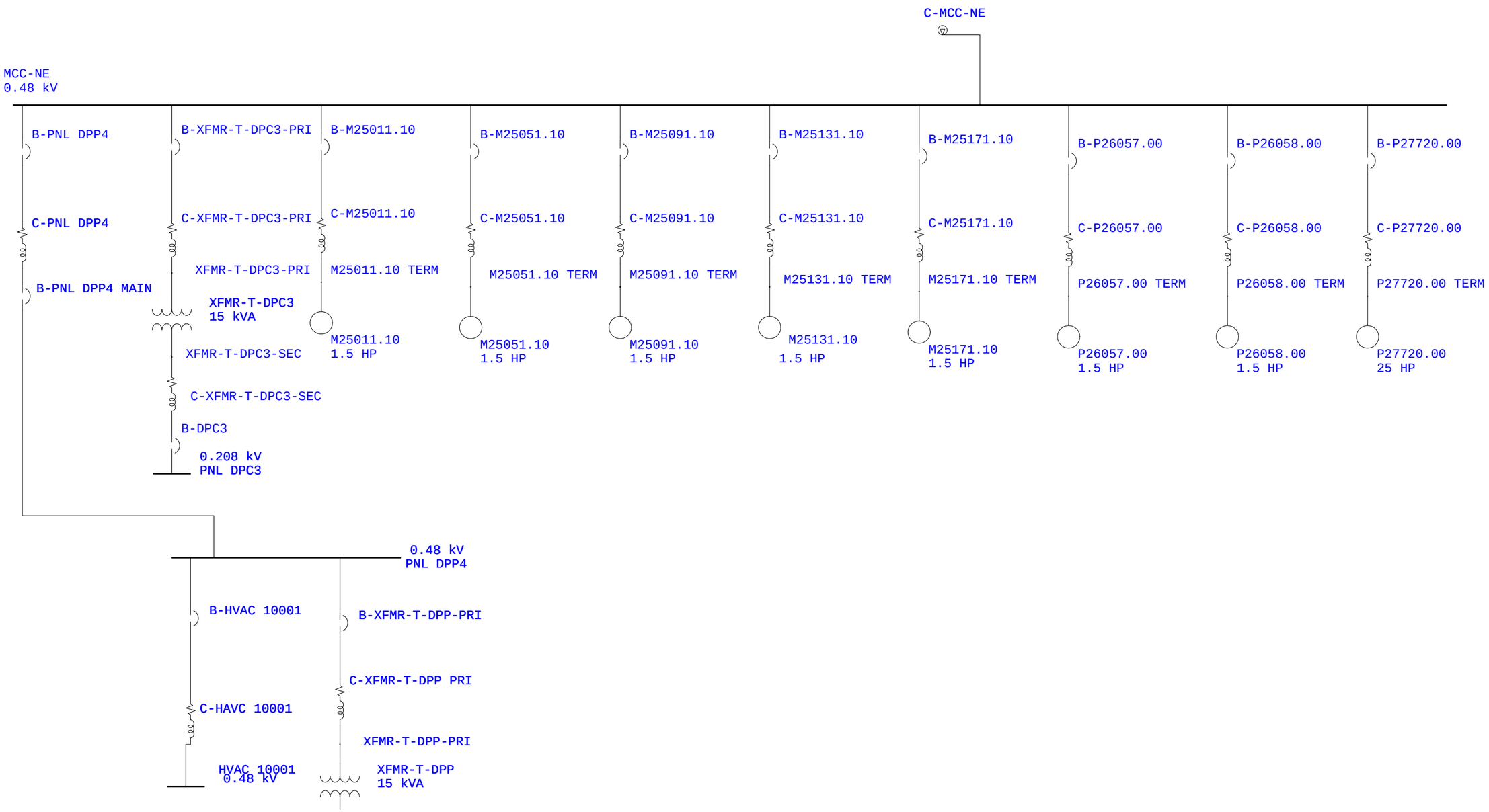

PNL DP3
C-DPP8
MB-DPP8
PNL DPP8
0.48 kV
B-HVC-1750
C-HVC-1750
HVC-1750
0.48 kV
B-HVC-1760
C-HVC-1760
HVC-1760
0.48 kV
B-BATTERY CHARGER XFMR
C-BATTERY CHARGER XFMR
BATTERY CHARGER XFMR
0.48 kV
B-XFMR-DPL4-PRI
C-XFMR-DPL4-PRI
XFMR-DPL4-PRI
XFMR-DPL4
45 kVA
XFMR-DPL4-SEC
C-XFMR-DPL4-SEC
B-PNL DPL4
0.208 kV
PANEL DPL4

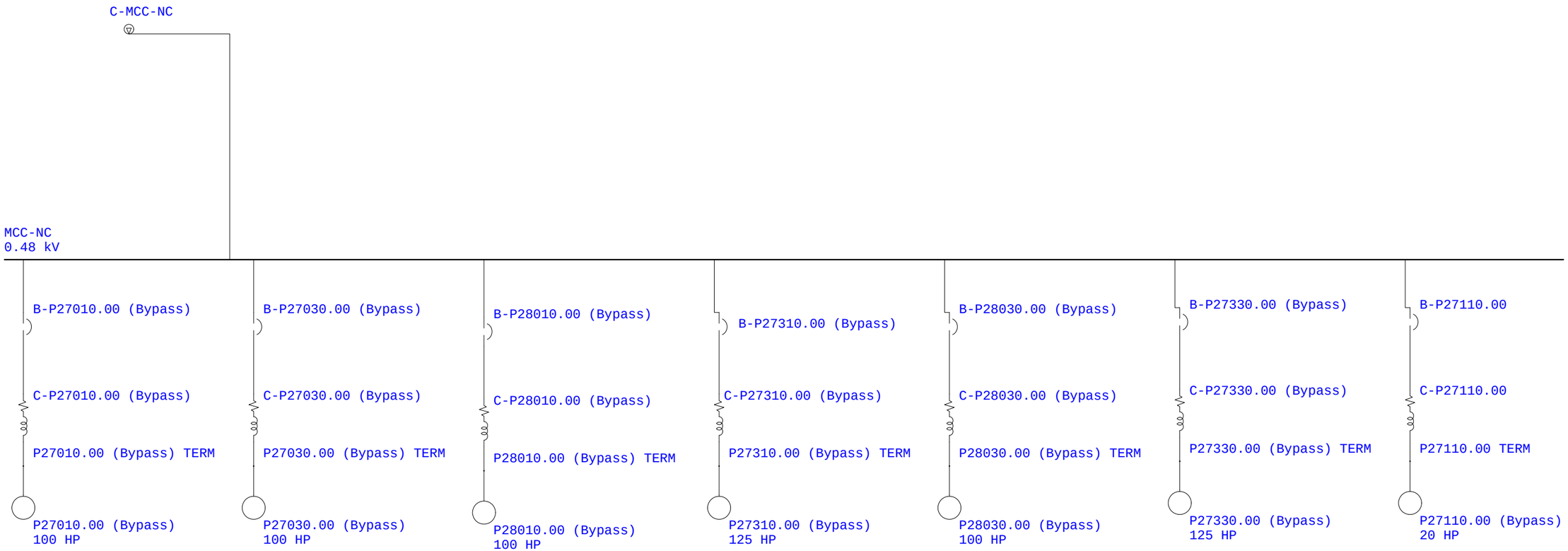

PNL DP3
C-MCC-DP3A
MCC-DP3A
0.48 kV
C-F1003.00
F1003.00 TERM
F1003.00
1.5 HP
C-F1004.00
F1004.00 TERM
F1004.00
5 HP
C-F1009.10
F1009.10 TERM
F1009.10
1 HP
C-F1010.10
F1010.10 TERM
F1010.10
1 HP
C-XFMR-LPA-PRI
XFMR-LPA-PRI
XFMR-LPA
45 kVA
S-XFMR-LPA-SEC
XFMR-LPA-SEC
C-XFMR-LPA-SEC
LTG PNL LPA
0.208 kV
C-XFMR-T2-LPB-PRI
XFMR-T2-LPB-PRI
XFMR-T2-LPB
30 kVA
S-XFMR-T2-LPB-SEC
XFMR-T2-LPB-SEC
C-XFMR-T2-LPB-SEC
LTG PNL LPB
0.208 kV
C-XFMR-T2-LPC-PRI
XFMR-T2-LPC-PRI
XFMR-T2-LPC
75 kVA
S-XFMR-T2-LPC-SEC
XFMR-T2-LPC-SEC
C-XFMR-T2-LPC-SEC
LTG PNL LPC
0.208 kV
C-XFMR-LPD-PRI
XFMR-LPD-PRI
XFMR-LPD
30 kVA
XFMR-LPD-SEC
C-XFMR-LPD-SEC
LTG PNL LPD
0.208 kV


C-MCC-DP3D
0.48 kV
MCC-DP3D
C-XFMR-LP4-PRI
XFMR-LP4-PRI
XFMR-LP4
9 kVA
LTG PNL LP4
0.208 kV
C-XFMR-LP9-PRI
XFMR-LP9-PRI
XFMR-LP9
15 kVA
LTG PNL LP9
0.208 kV
B-XFMR-LPJ-PRI
C-XFMR-LPJ-PRI
XFMR-LPJ-PRI
XFMR-LPJ
30 kVA
LTG PNL LPJ
0.208 kV
B-PP VFD PNL
C-PP VFD PNL
PANEL PP-VFD
0.48 kV
B=XFRM-LP-VFD-PRI
C-XFRM-LP-VFD-PRI
XFRM-LP-VFD-PRI
XFRM-LP-VFD
30 kVA
XFRM-LP-VFD-SEC
C-XFRM-LP-VFD-SEC
B-LP-VFD
PANEL LP VFD
0.208 kV
B-FC-1
C-FC-1
AIR HANDLER (FC-1)
0.48 kV
B-AC-1
C-AC-1
AIR CONDENSER (AC-1)
0.48 kV

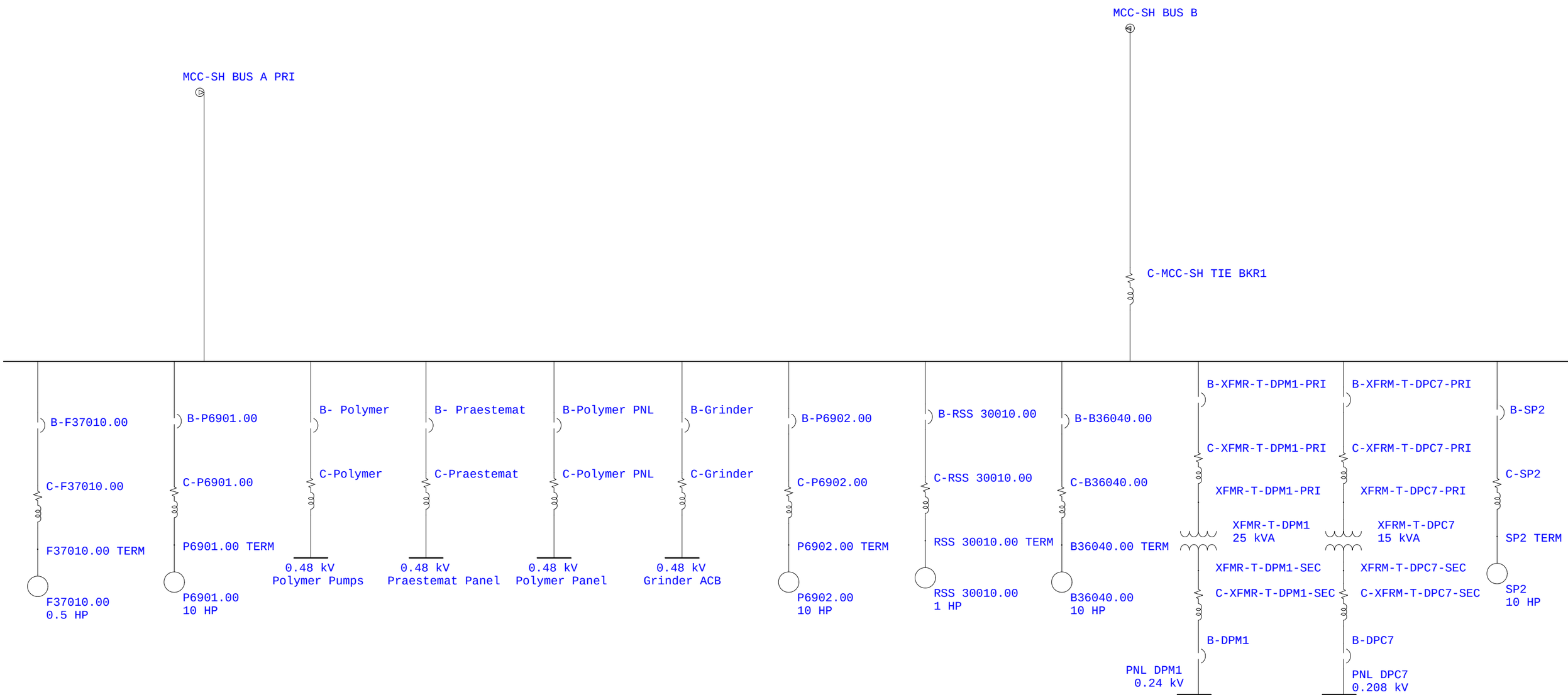

C-MCC-NA BUS A
C-MCC-NA BUS B
MCC-NA BUS A PRI
2.4 kV
MCC-NA BUS B PRI
2.4 kV
SW MCC-NA BUS A
SW MCC-NA BUS B
F MCC-NA BUS A
F MCC-NA BUS B
MCC-NA BUS A
2.4 kV
SW MCC-NA TIE
Open
MCC-NA BUS B
2.4 kV
SW B20100.00
SW B20200.00
SW B20300.00
SW TRANSF TC
SW TRANSF TD
SW B20400.00
SW B20500.00
F B20100.00
F B20200.00
F B20300.00
F TRANSF TC
F TRANSF TD
F B20400.00
F B20500.00
C-B20100.00
C-B20200.00
C-B20300.00
C-TRANSF TC
C-TRANSF TD
C-B20400.00
C-B20500.00
B20100.00 TERMINALS
B20200.00 TERMINALS
B20300.00 TERMINALS
TRANSF TC PRI
TRANSF TD PRI
B20400.00 TERMINALS
B20500.00 TERMINALS
TRANSF TC
1000 kVA
TRANSF TD
1000 kVA
B20100.00
350 HP
B20200.00
350 HP
B20300.00
350 HP
TRANSF TC SEC
TRANSF TD SEC
B20400.00
350 HP
B20500.00
350 HP
C-SWBD-NB BUS A
C-SWBD-NB BUS B
SWBD-NB BUS A PRI
0.48 kV
SWBD-NB BUS B PRI
0.48 kV
SWBD NB

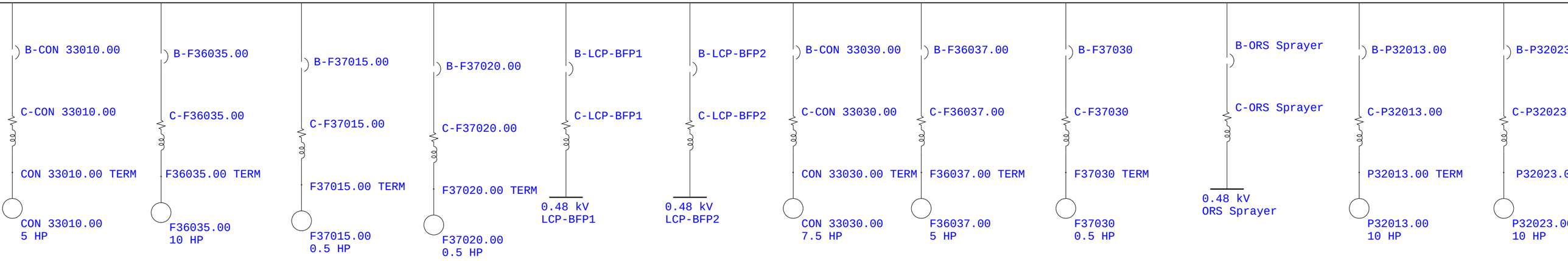

SWBD-NB BUS A PRI
SWBD-NB BUS B PRI
B-SWBD-NB BUS A MAIN
B-SWBD-NB BUS B MAIN
SWBD-NB BUS A
0.48 kV
B-SWBD-NB TIE
Open
SWBD-NB BUS B
0.48 kV
B-SR-DAF
C-SR-DAF
SR-DAF PRI
0.48 kV
SW SR-DAF
SR-DAF
0.48 kV
B-MCC-NE
C-MCC-NE
MCC NE
B-MCC-NC
C-MCC-NC
MCC NC
B-MCC-SH BUS A
C-MCC-SH BUS A
MCC-SH BUS A PRI
0.48 kV
B-MCC-SH BUS A MAIN
B-MCC-NG BUS A
C-MCC-NG BUS A
MCC-NG BUS A PRI
0.48 kV
B-BUS A MCC-NG
B-MCC-NG BUS B
C-MCC-NG BUS B
MCC-NG BUS B PRI
0.48 kV
B-BUS-B MCC-NG
B-MCC-SH BUS B
C-MCC-SH BUS B
MCC-SH BUS B PRI
0.48 kV
B-MCC-SH BUS B MAIN
Open
B-MCC-ND
C-MCC-ND
MCC ND
B-MCC-NF
C-MCC-NF
MCC NF
TIE ABC MCC-NG TERM
B-TIE ACB MCC-NG
MCC NG BUS A
Open
MCC NG BUS B
MCC SH BUS A
B-MCC-SH TIE
MCC SH BUS B

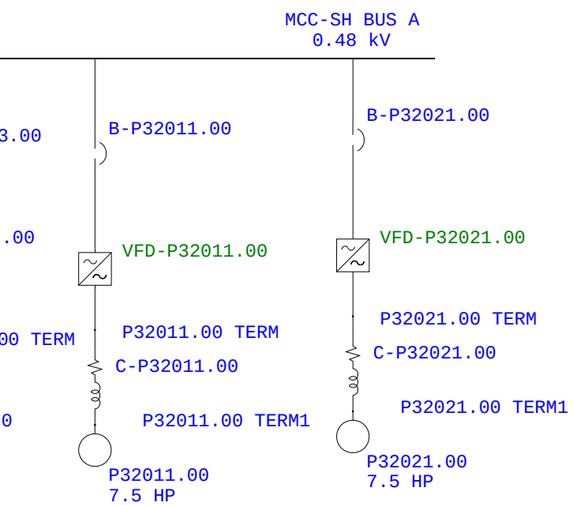

C-MCC-NE
MCC-NE
0.48 kV
B-PNL DPP4
C-PNL DPP4
B-PNL DPP4 MAIN
B-XFMR-T-DPC3-PRI
C-XFMR-T-DPC3-PRI
XFMR-T-DPC3-PRI
XFMR-T-DPC3
15 kVA
XFMR-T-DPC3-SEC
C-XFMR-T-DPC3-SEC
B-DPC3
0.208 kV
PNL DPC3
B-M25011.10
C-M25011.10
M25011.10 TERM
M25011.10
1.5 HP
B-M25051.10
C-M25051.10
M25051.10 TERM
M25051.10
1.5 HP
B-M25091.10
C-M25091.10
M25091.10 TERM
M25091.10
1.5 HP
B-M25131.10
C-M25131.10
M25131.10 TERM
M25131.10
1.5 HP
B-M25171.10
C-M25171.10
M25171.10 TERM
M25171.10
1.5 HP
B-P26057.00
C-P26057.00
P26057.00 TERM
P26057.00
1.5 HP
B-P26058.00
C-P26058.00
P26058.00 TERM
P26058.00
1.5 HP
B-P27720.00
C-P27720.00
P27720.00 TERM
P27720.00
25 HP
0.48 kV
PNL DPP4
B-HVAC 10001
C-HAVC 10001
HVAC 10001
0.48 kV
B-XFMR-T-DPP-PRI
C-XFMR-T-DPP PRI
XFMR-T-DPP-PRI
XFMR-T-DPP
15 kVA

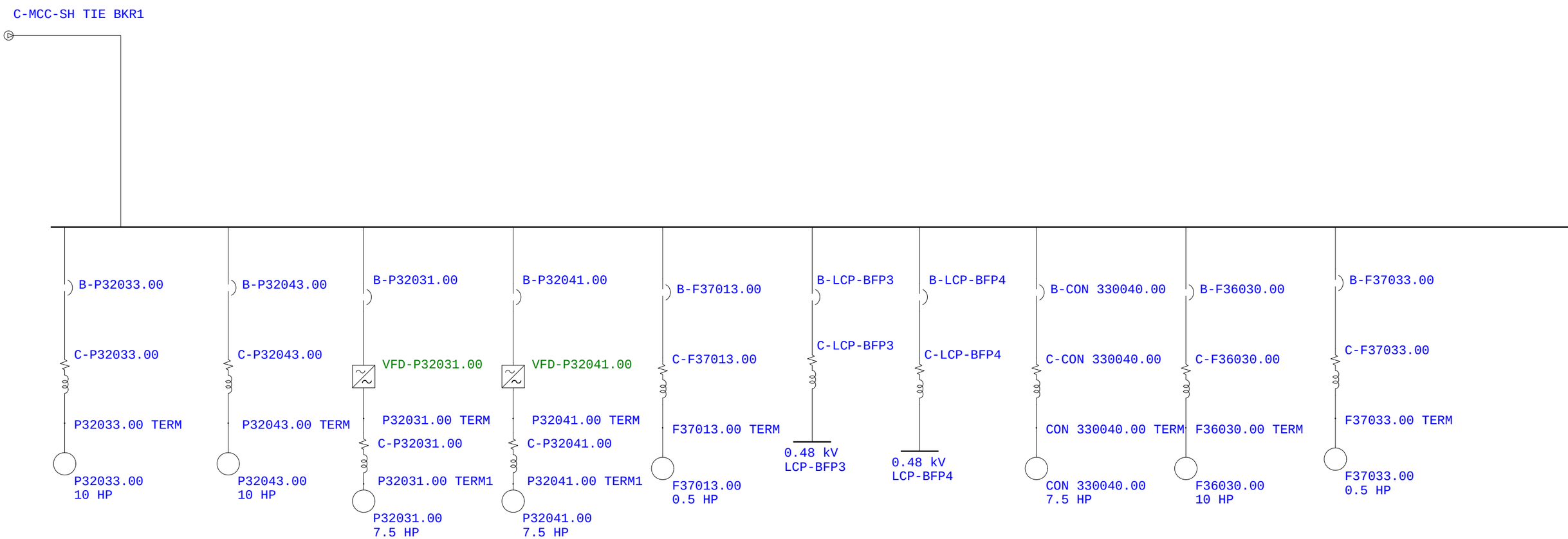

C-MCC-NC
MCC-NC
0.48 kV
B-P27010.00 (Bypass)
C-P27010.00 (Bypass)
P27010.00 (Bypass) TERM
P27010.00 (Bypass)
100 HP
B-P27030.00 (Bypass)
C-P27030.00 (Bypass)
P27030.00 (Bypass) TERM
P27030.00 (Bypass)
100 HP
B-P28010.00 (Bypass)
C-P28010.00 (Bypass)
P28010.00 (Bypass) TERM
P28010.00 (Bypass)
100 HP
B-P27310.00 (Bypass)
C-P27310.00 (Bypass)
P27310.00 (Bypass) TERM
P27310.00 (Bypass)
125 HP
B-P28030.00 (Bypass)
C-P28030.00 (Bypass)
P28030.00 (Bypass) TERM
P28030.00 (Bypass)
100 HP
B-P27330.00 (Bypass)
C-P27330.00 (Bypass)
P27330.00 (Bypass) TERM
P27330.00 (Bypass)
125 HP
B-P27110.00
C-P27110.00
P27110.00 TERM
P27110.00 (Bypass)
20 HP

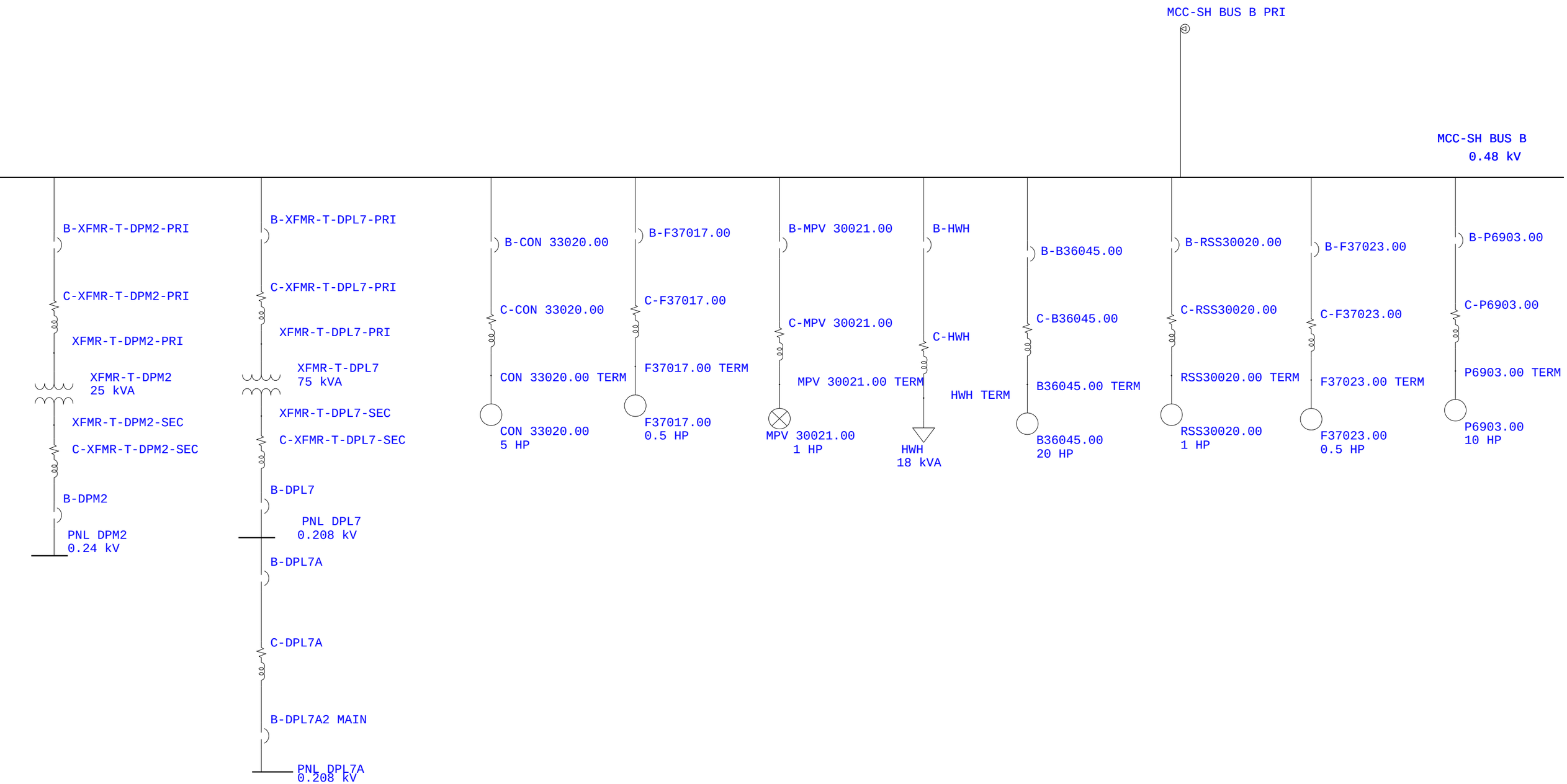
# One-Line Diagram - OLV1=>...=>MCC SH BUS A (Edit Mode)

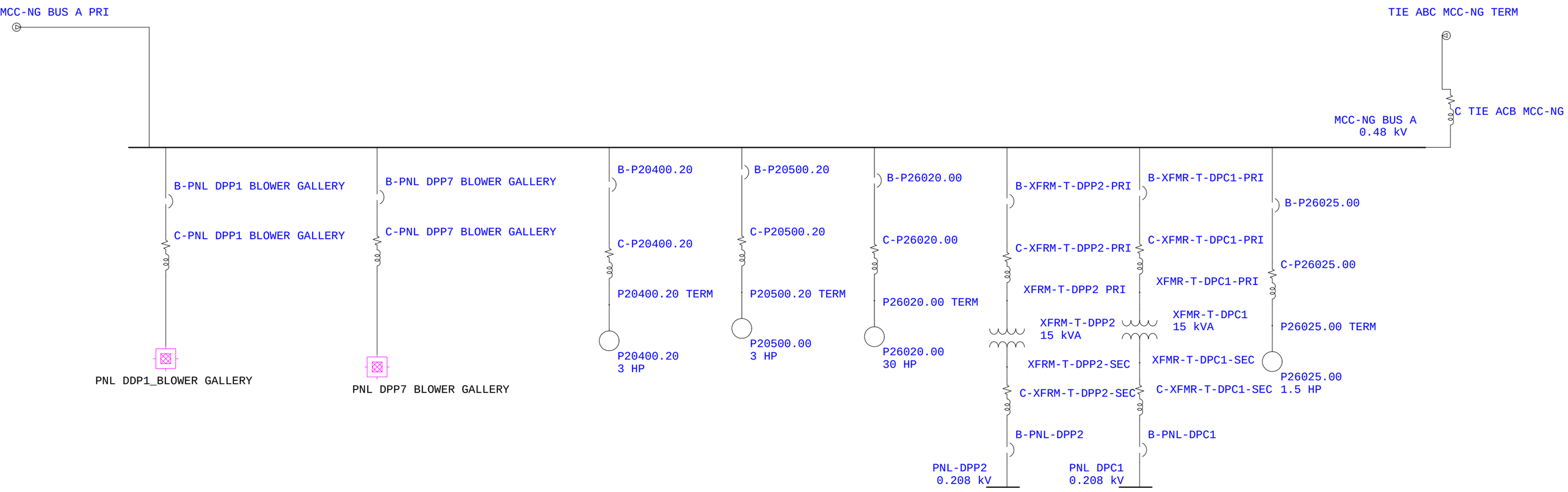


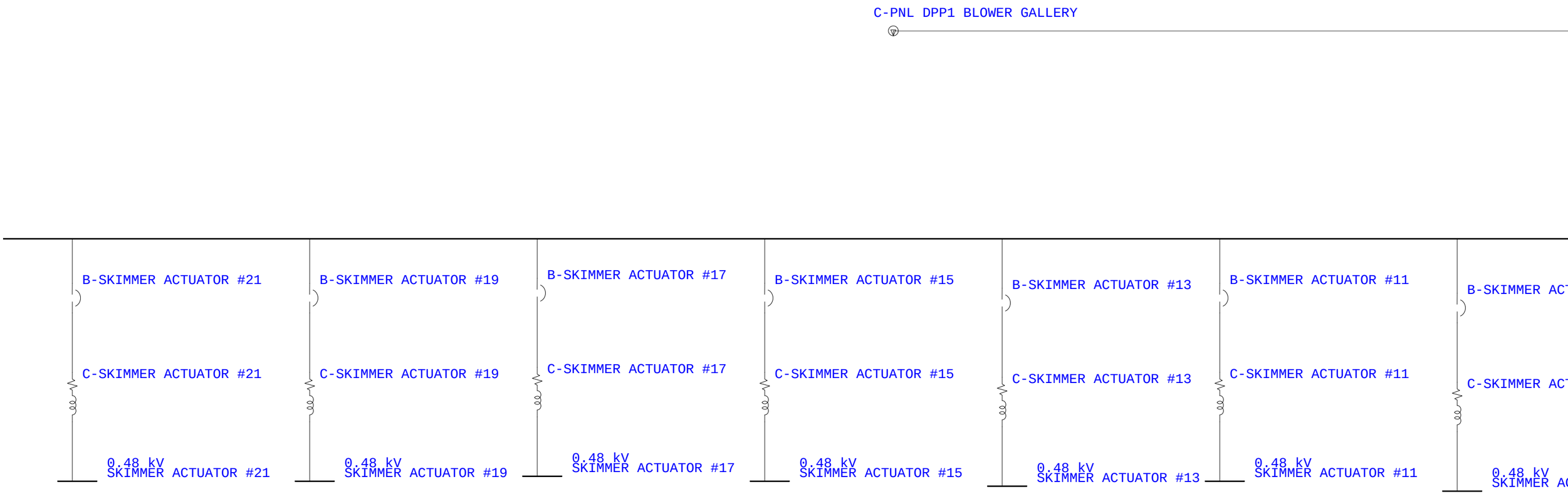

B-CON 33010.00
C-CON 33010.00
CON 33010.00 TERM
CON 33010.00
5 HP
B-F36035.00
C-F36035.00
F36035.00 TERM
F36035.00
10 HP
B-F37015.00
C-F37015.00
F37015.00 TERM
F37015.00
0.5 HP
B-F37020.00
C-F37020.00
F37020.00 TERM
F37020.00
0.5 HP
B-LCP-BFP1
C-LCP-BFP1
0.48 kV
LCP-BFP1
B-LCP-BFP2
C-LCP-BFP2
0.48 kV
LCP-BFP2
B-CON 33030.00
C-CON 33030.00
CON 33030.00 TERM
CON 33030.00
7.5 HP
B-F36037.00
C-F36037.00
F36037.00 TERM
F36037.00
5 HP
B-F37030
C-F37030
F37030 TERM
F37030
0.5 HP
B-ORS Sprayer
C-ORS Sprayer
0.48 kV
ORS Sprayer
B-P32013.00
C-P32013.00
P32013.00 TERM
P32013.00
10 HP
B-P32023
C-P32023
P32023.0
P32023.00
10 HP

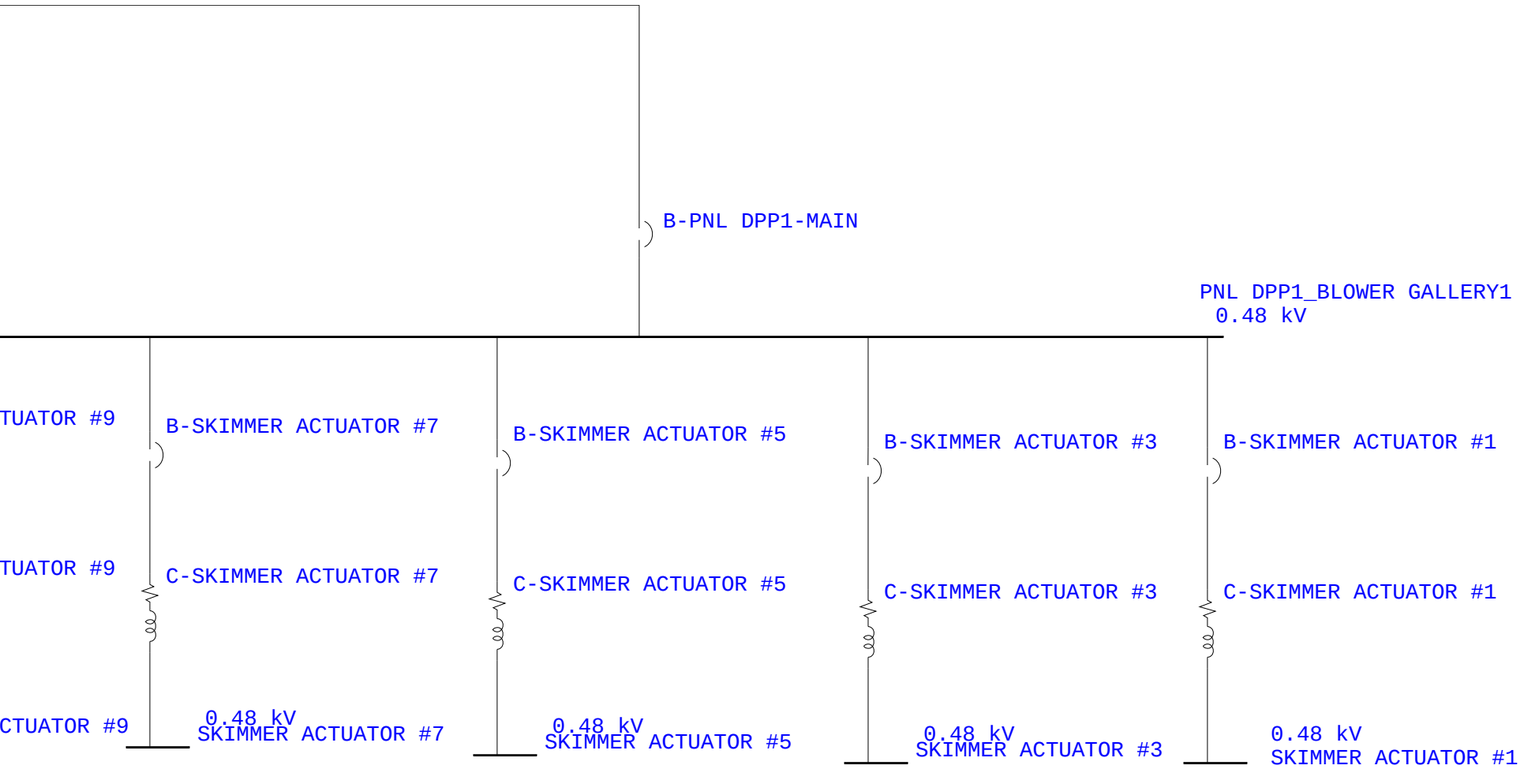

MCC-SH BUS A
0.48 kV
3.00
B-P32011.00
B-P32021.00
.00
VFD-P32011.00
VFD-P32021.00
00 TERM
P32011.00 TERM
P32021.00 TERM
C-P32011.00
C-P32021.00
0
P32011.00 TERM1
P32021.00 TERM1
P32011.00
7.5 HP
P32021.00
7.5 HP

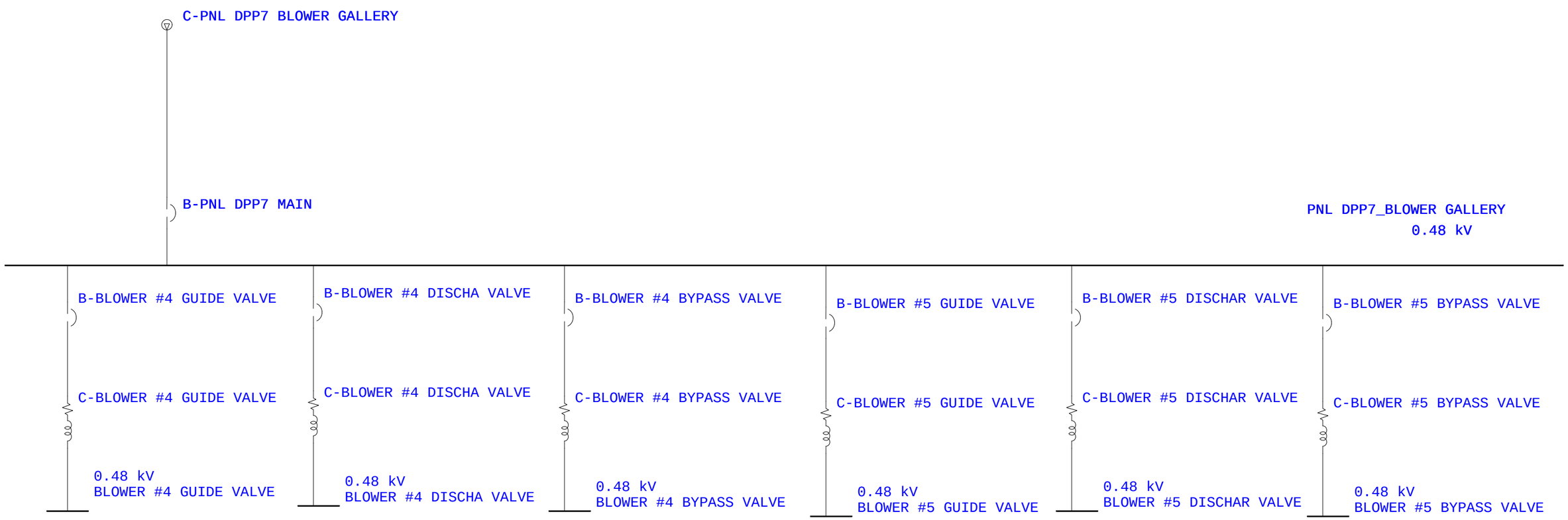

C-MCC-SH TIE BKR1
B-P32033.00
C-P32033.00
P32033.00 TERM
P32033.00
10 HP
B-P32043.00
C-P32043.00
P32043.00 TERM
P32043.00
10 HP
B-P32031.00
VFD-P32031.00
P32031.00 TERM
C-P32031.00
P32031.00 TERM1
P32031.00
7.5 HP
B-P32041.00
VFD-P32041.00
P32041.00 TERM
C-P32041.00
P32041.00 TERM1
P32041.00
7.5 HP
B-F37013.00
C-F37013.00
F37013.00 TERM
F37013.00
0.5 HP
B-LCP-BFP3
C-LCP-BFP3
0.48 kV
LCP-BFP3
B-LCP-BFP4
C-LCP-BFP4
0.48 kV
LCP-BFP4
B-CON 330040.00
C-CON 330040.00
CON 330040.00 TERM
CON 330040.00
7.5 HP
B-F36030.00
C-F36030.00
F36030.00 TERM
F36030.00
10 HP
B-F37033.00
C-F37033.00
F37033.00 TERM
F37033.00
0.5 HP

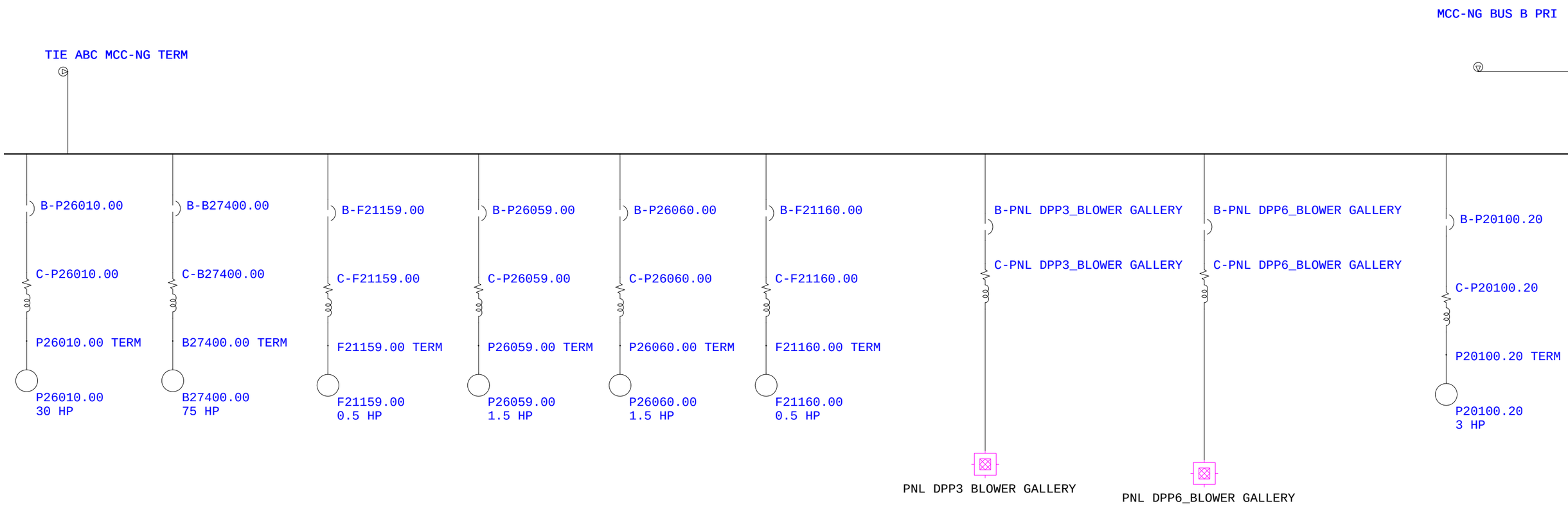

MCC-SH BUS B PRI
MCC-SH BUS B
0.48 kV
B-XFMR-T-DPM2-PRI
C-XFMR-T-DPM2-PRI
XFMR-T-DPM2-PRI
XFMR-T-DPM2
25 kVA
XFMR-T-DPM2-SEC
C-XFMR-T-DPM2-SEC
B-DPM2
PNL DPM2
0.24 kV
B-XFMR-T-DPL7-PRI
C-XFMR-T-DPL7-PRI
XFMR-T-DPL7-PRI
XFMR-T-DPL7
75 kVA
XFMR-T-DPL7-SEC
C-XFMR-T-DPL7-SEC
B-DPL7
PNL DPL7
0.208 kV
B-DPL7A
C-DPL7A
B-DPL7A2 MAIN
PNL DPL7A
0.208 kV
B-CON 33020.00
C-CON 33020.00
CON 33020.00 TERM
CON 33020.00
5 HP
B-F37017.00
C-F37017.00
F37017.00 TERM
F37017.00
0.5 HP
B-MPV 30021.00
C-MPV 30021.00
MPV 30021.00 TERM
MPV 30021.00
1 HP
B-HWH
C-HWH
HWH TERM
HWH
18 kVA
B-B36045.00
C-B36045.00
B36045.00 TERM
B36045.00
20 HP
B-RSS30020.00
C-RSS30020.00
RSS30020.00 TERM
RSS30020.00
1 HP
B-F37023.00
C-F37023.00
F37023.00 TERM
F37023.00
0.5 HP
B-P6903.00
C-P6903.00
P6903.00 TERM
P6903.00
10 HP

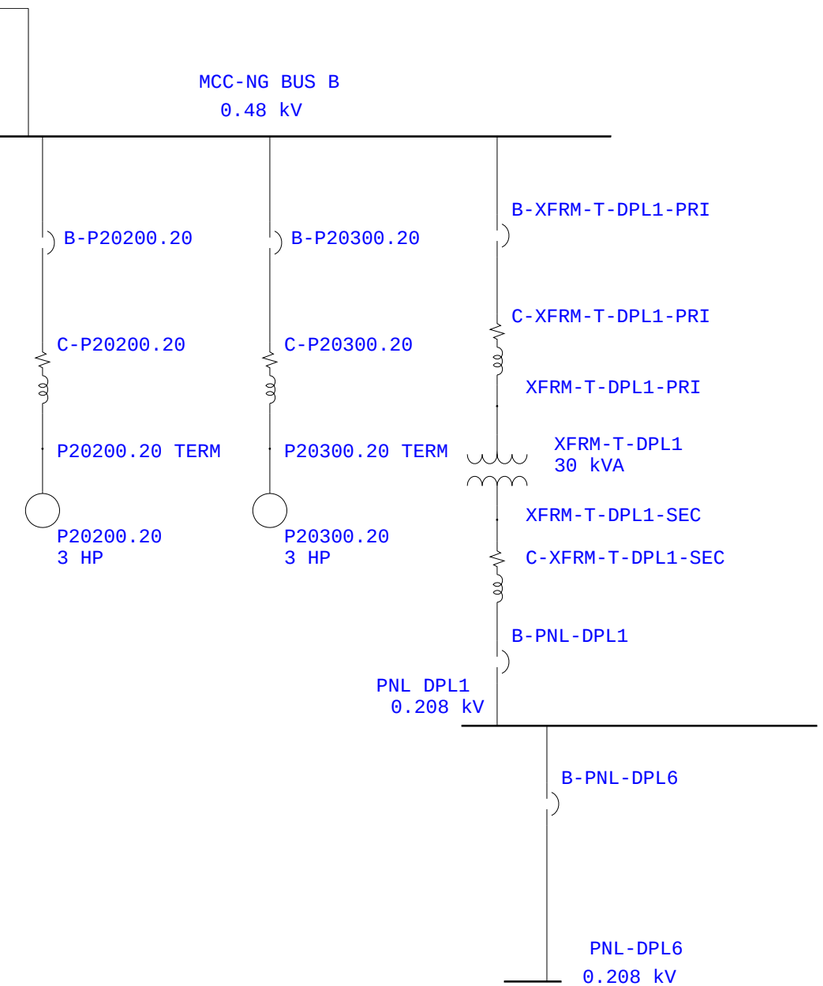

MCC-NG BUS A PRI
TIE ABC MCC-NG TERM
C TIE ACB MCC-NG
MCC-NG BUS A
0.48 kV
B-PNL DPP1 BLOWER GALLERY
C-PNL DPP1 BLOWER GALLERY
PNL DDP1_BLOWER GALLERY
B-PNL DPP7 BLOWER GALLERY
C-PNL DPP7 BLOWER GALLERY
PNL DPP7 BLOWER GALLERY
B-P20400.20
C-P20400.20
P20400.20 TERM
P20400.20
3 HP
B-P20500.20
C-P20500.20
P20500.20 TERM
P20500.00
3 HP
B-P26020.00
C-P26020.00
P26020.00 TERM
P26020.00
30 HP
B-XFRM-T-DPP2-PRI
C-XFRM-T-DPP2-PRI
XFRM-T-DPP2 PRI
XFRM-T-DPP2
15 kVA
XFRM-T-DPP2-SEC
C-XFRM-T-DPP2-SEC
B-PNL-DPP2
PNL-DPP2
0.208 kV
B-XFMR-T-DPC1-PRI
C-XFMR-T-DPC1-PRI
XFMR-T-DPC1-PRI
XFMR-T-DPC1
15 kVA
XFMR-T-DPC1-SEC
C-XFMR-T-DPC1-SEC
B-PNL-DPC1
PNL DPC1
0.208 kV
B-P26025.00
C-P26025.00
P26025.00 TERM
P26025.00
1.5 HP

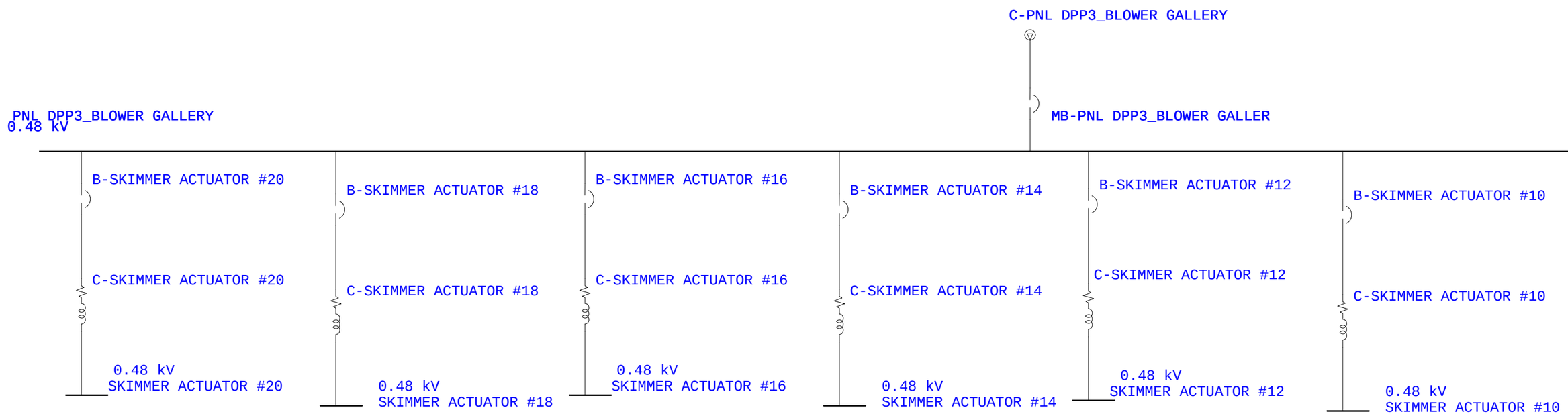

C-PNL DPP1 BLOWER GALLERY
B-SKIMMER ACTUATOR #21
C-SKIMMER ACTUATOR #21
0.48 kV
SKIMMER ACTUATOR #21
B-SKIMMER ACTUATOR #19
C-SKIMMER ACTUATOR #19
0.48 kV
SKIMMER ACTUATOR #19
B-SKIMMER ACTUATOR #17
C-SKIMMER ACTUATOR #17
0.48 kV
SKIMMER ACTUATOR #17
B-SKIMMER ACTUATOR #15
C-SKIMMER ACTUATOR #15
0.48 kV
SKIMMER ACTUATOR #15
B-SKIMMER ACTUATOR #13
C-SKIMMER ACTUATOR #13
0.48 kV
SKIMMER ACTUATOR #13
B-SKIMMER ACTUATOR #11
C-SKIMMER ACTUATOR #11
0.48 kV
SKIMMER ACTUATOR #11
B-SKIMMER AC
C-SKIMMER AC
0.48 kV
SKIMMER A

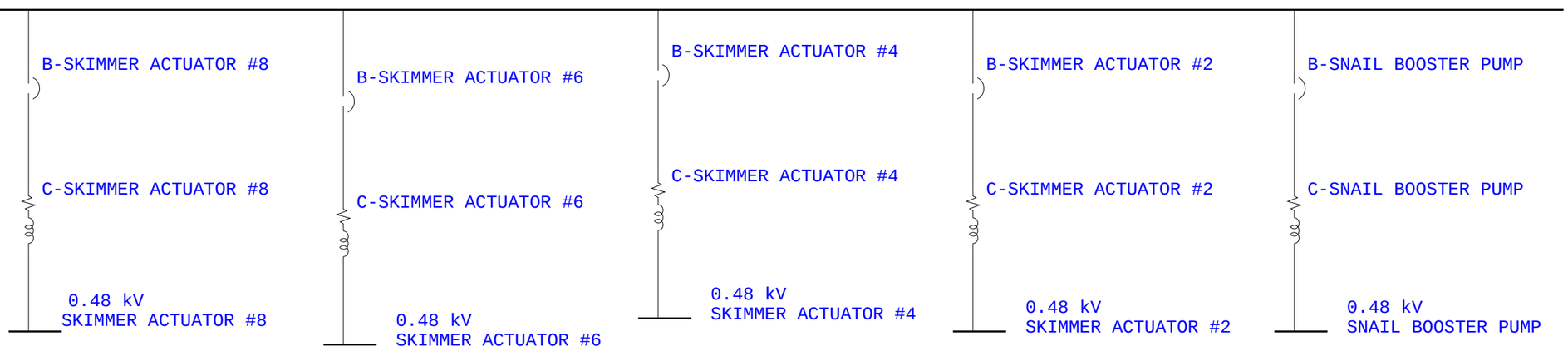

B-PNL DPP1-MAIN
PNL DPP1_BLOWER GALLERY1
0.48 kV
TUATOR #9
B-SKIMMER ACTUATOR #7
B-SKIMMER ACTUATOR #5
B-SKIMMER ACTUATOR #3
B-SKIMMER ACTUATOR #1
TUATOR #9
C-SKIMMER ACTUATOR #7
C-SKIMMER ACTUATOR #5
C-SKIMMER ACTUATOR #3
C-SKIMMER ACTUATOR #1
CTUATOR #9
0.48 kV
SKIMMER ACTUATOR #7
0.48 kV
SKIMMER ACTUATOR #5
0.48 kV
SKIMMER ACTUATOR #3
0.48 kV
SKIMMER ACTUATOR #1

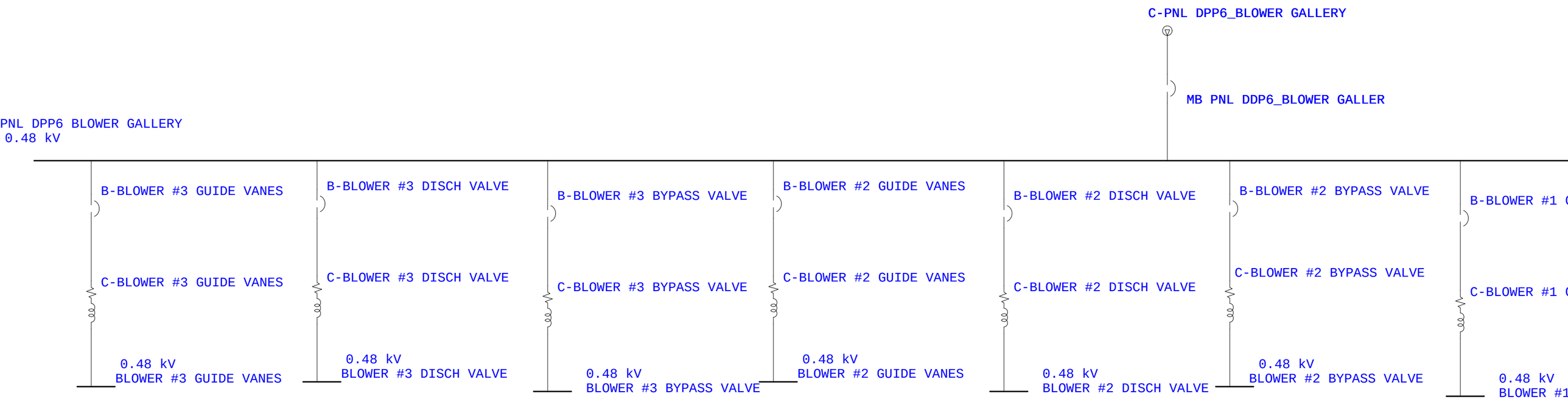

C-PNL DPP7 BLOWER GALLERY
B-PNL DPP7 MAIN
PNL DPP7_BLOWER GALLERY
0.48 kV
B-BLOWER #4 GUIDE VALVE
C-BLOWER #4 GUIDE VALVE
0.48 kV
BLOWER #4 GUIDE VALVE
B-BLOWER #4 DISCHA VALVE
C-BLOWER #4 DISCHA VALVE
0.48 kV
BLOWER #4 DISCHA VALVE
B-BLOWER #4 BYPASS VALVE
C-BLOWER #4 BYPASS VALVE
0.48 kV
BLOWER #4 BYPASS VALVE
B-BLOWER #5 GUIDE VALVE
C-BLOWER #5 GUIDE VALVE
0.48 kV
BLOWER #5 GUIDE VALVE
B-BLOWER #5 DISCHAR VALVE
C-BLOWER #5 DISCHAR VALVE
0.48 kV
BLOWER #5 DISCHAR VALVE
B-BLOWER #5 BYPASS VALVE
C-BLOWER #5 BYPASS VALVE
0.48 kV
BLOWER #5 BYPASS VALVE

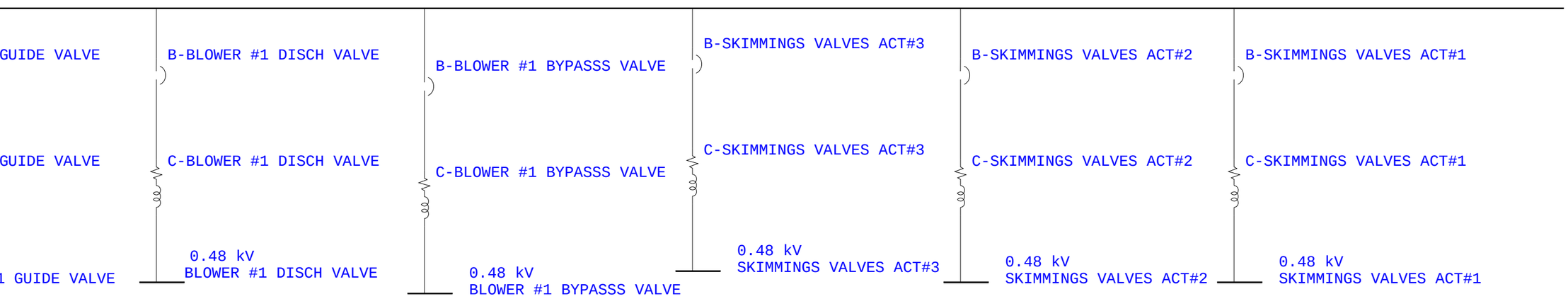

MCC-NG BUS B PRI
TIE ABC MCC-NG TERM
B-P26010.00
C-P26010.00
P26010.00 TERM
P26010.00
30 HP
B-B27400.00
C-B27400.00
B27400.00 TERM
B27400.00
75 HP
B-F21159.00
C-F21159.00
F21159.00 TERM
F21159.00
0.5 HP
B-P26059.00
C-P26059.00
P26059.00 TERM
P26059.00
1.5 HP
B-P26060.00
C-P26060.00
P26060.00 TERM
P26060.00
1.5 HP
B-F21160.00
C-F21160.00
F21160.00 TERM
F21160.00
0.5 HP
B-PNL DPP3_BLOWER GALLERY
C-PNL DPP3_BLOWER GALLERY
PNL DPP3 BLOWER GALLERY
B-PNL DPP6_BLOWER GALLERY
C-PNL DPP6_BLOWER GALLERY
PNL DPP6_BLOWER GALLERY
B-P20100.20
C-P20100.20
P20100.20 TERM
P20100.20
3 HP

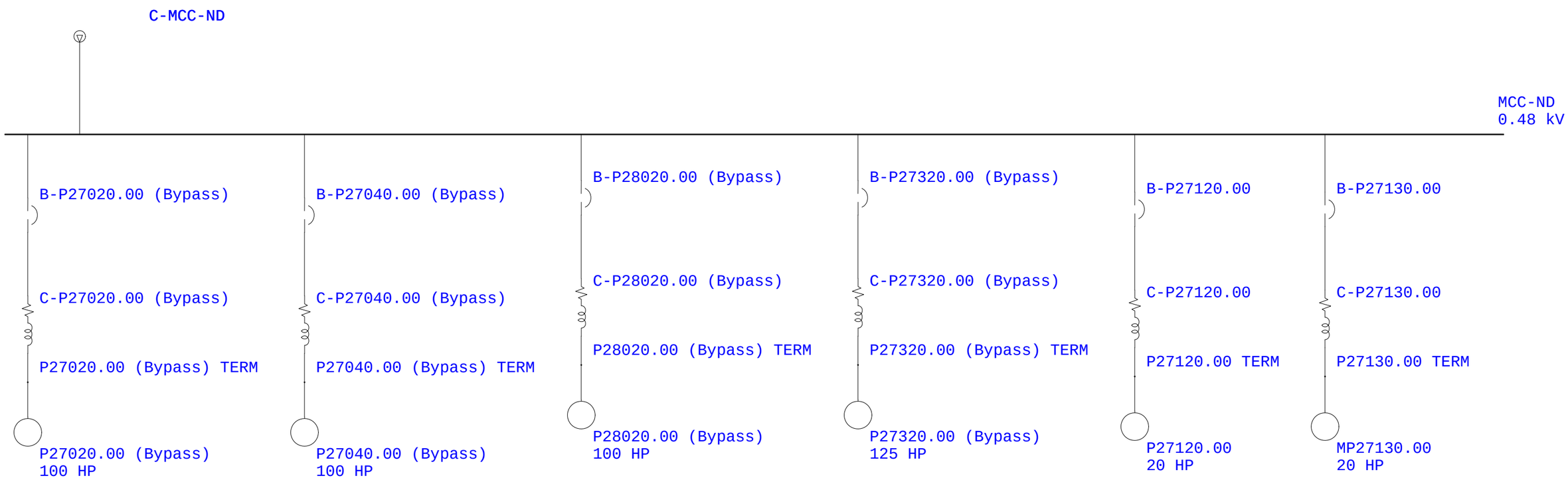

MCC-NG BUS B
0.48 kV
B-P20200.20
B-P20300.20
B-XFRM-T-DPL1-PRI
C-P20200.20
C-P20300.20
C-XFRM-T-DPL1-PRI
XFRM-T-DPL1-PRI
P20200.20 TERM
P20300.20 TERM
XFRM-T-DPL1
30 kVA
XFRM-T-DPL1-SEC
P20200.20
3 HP
P20300.20
3 HP
C-XFRM-T-DPL1-SEC
B-PNL-DPL1
PNL DPL1
0.208 kV
B-PNL-DPL6
PNL-DPL6
0.208 kV


C-PNL DPP3_BLOWER GALLERY
PNL DPP3_BLOWER GALLERY
0.48 kV
MB-PNL DPP3_BLOWER GALLER
B-SKIMMER ACTUATOR #20
C-SKIMMER ACTUATOR #20
0.48 kV
SKIMMER ACTUATOR #20
B-SKIMMER ACTUATOR #18
C-SKIMMER ACTUATOR #18
0.48 kV
SKIMMER ACTUATOR #18
B-SKIMMER ACTUATOR #16
C-SKIMMER ACTUATOR #16
0.48 kV
SKIMMER ACTUATOR #16
B-SKIMMER ACTUATOR #14
C-SKIMMER ACTUATOR #14
0.48 kV
SKIMMER ACTUATOR #14
B-SKIMMER ACTUATOR #12
C-SKIMMER ACTUATOR #12
0.48 kV
SKIMMER ACTUATOR #12
B-SKIMMER ACTUATOR #10
C-SKIMMER ACTUATOR #10
0.48 kV
SKIMMER ACTUATOR #10

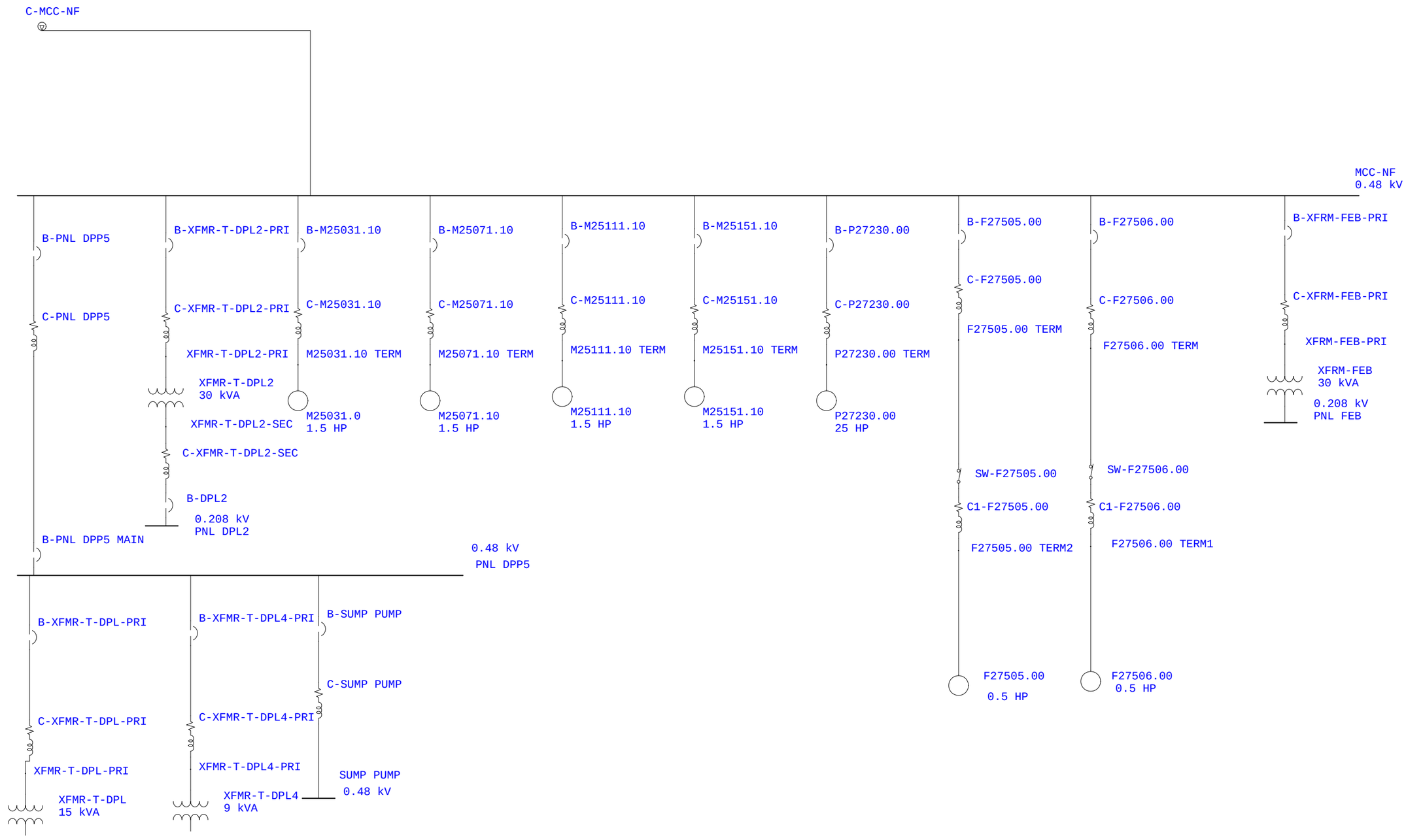

B-SKIMMER ACTUATOR #8
C-SKIMMER ACTUATOR #8
0.48 kV
SKIMMER ACTUATOR #8
B-SKIMMER ACTUATOR #6
C-SKIMMER ACTUATOR #6
0.48 kV
SKIMMER ACTUATOR #6
B-SKIMMER ACTUATOR #4
C-SKIMMER ACTUATOR #4
0.48 kV
SKIMMER ACTUATOR #4
B-SKIMMER ACTUATOR #2
C-SKIMMER ACTUATOR #2
0.48 kV
SKIMMER ACTUATOR #2
B-SNAIL BOOSTER PUMP
C-SNAIL BOOSTER PUMP
0.48 kV
SNAIL BOOSTER PUMP

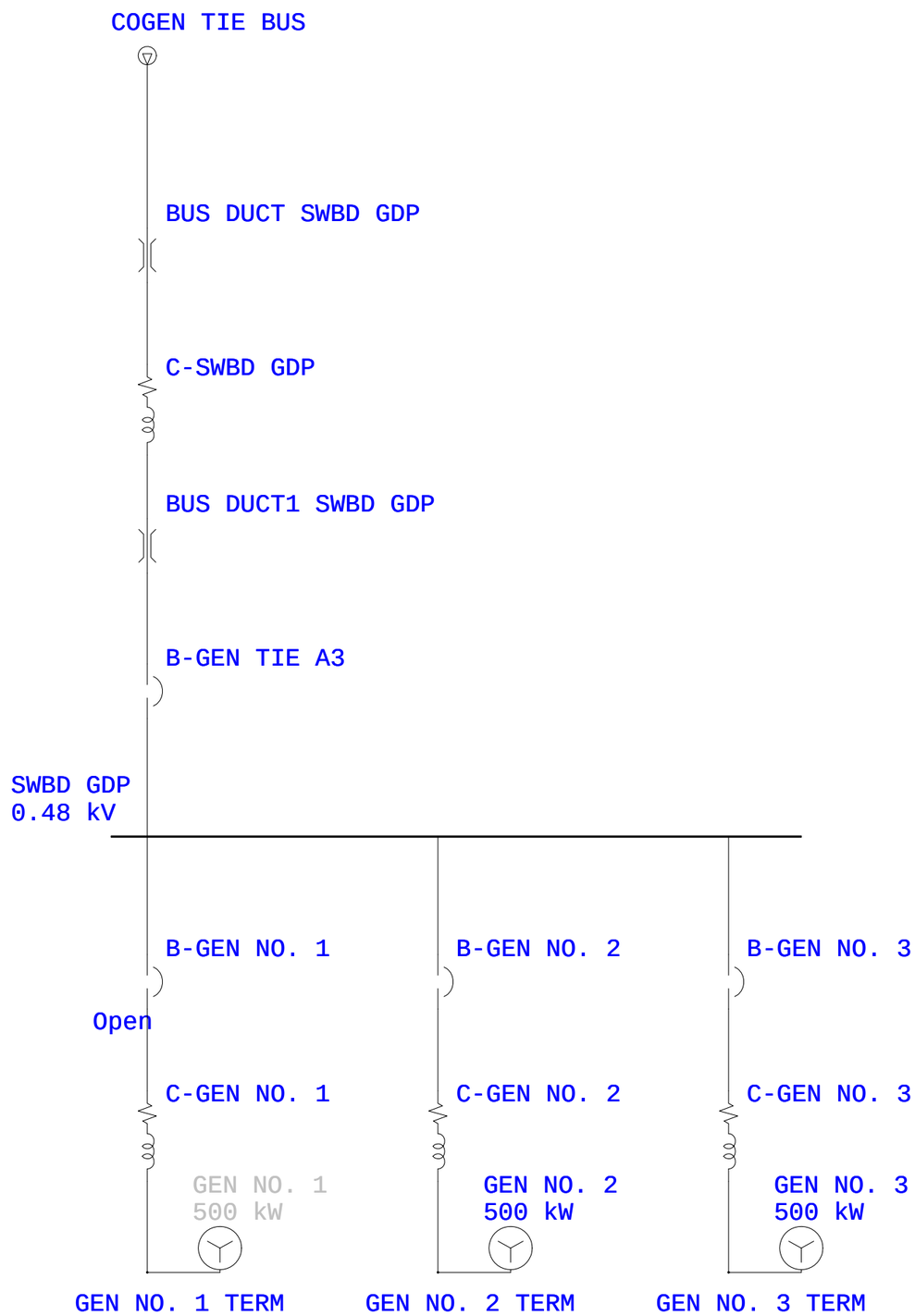

C-PNL DPP6_BLOWER GALLERY
MB PNL DDP6_BLOWER GALLER
PNL DPP6 BLOWER GALLERY
0.48 kV
B-BLOWER #3 GUIDE VANES
C-BLOWER #3 GUIDE VANES
0.48 kV
BLOWER #3 GUIDE VANES
B-BLOWER #3 DISCH VALVE
C-BLOWER #3 DISCH VALVE
0.48 kV
BLOWER #3 DISCH VALVE
B-BLOWER #3 BYPASS VALVE
C-BLOWER #3 BYPASS VALVE
0.48 kV
BLOWER #3 BYPASS VALVE
B-BLOWER #2 GUIDE VANES
C-BLOWER #2 GUIDE VANES
0.48 kV
BLOWER #2 GUIDE VANES
B-BLOWER #2 DISCH VALVE
C-BLOWER #2 DISCH VALVE
0.48 kV
BLOWER #2 DISCH VALVE
B-BLOWER #2 BYPASS VALVE
C-BLOWER #2 BYPASS VALVE
0.48 kV
BLOWER #2 BYPASS VALVE
B-BLOWER #1
C-BLOWER #1
0.48 kV
BLOWER #1

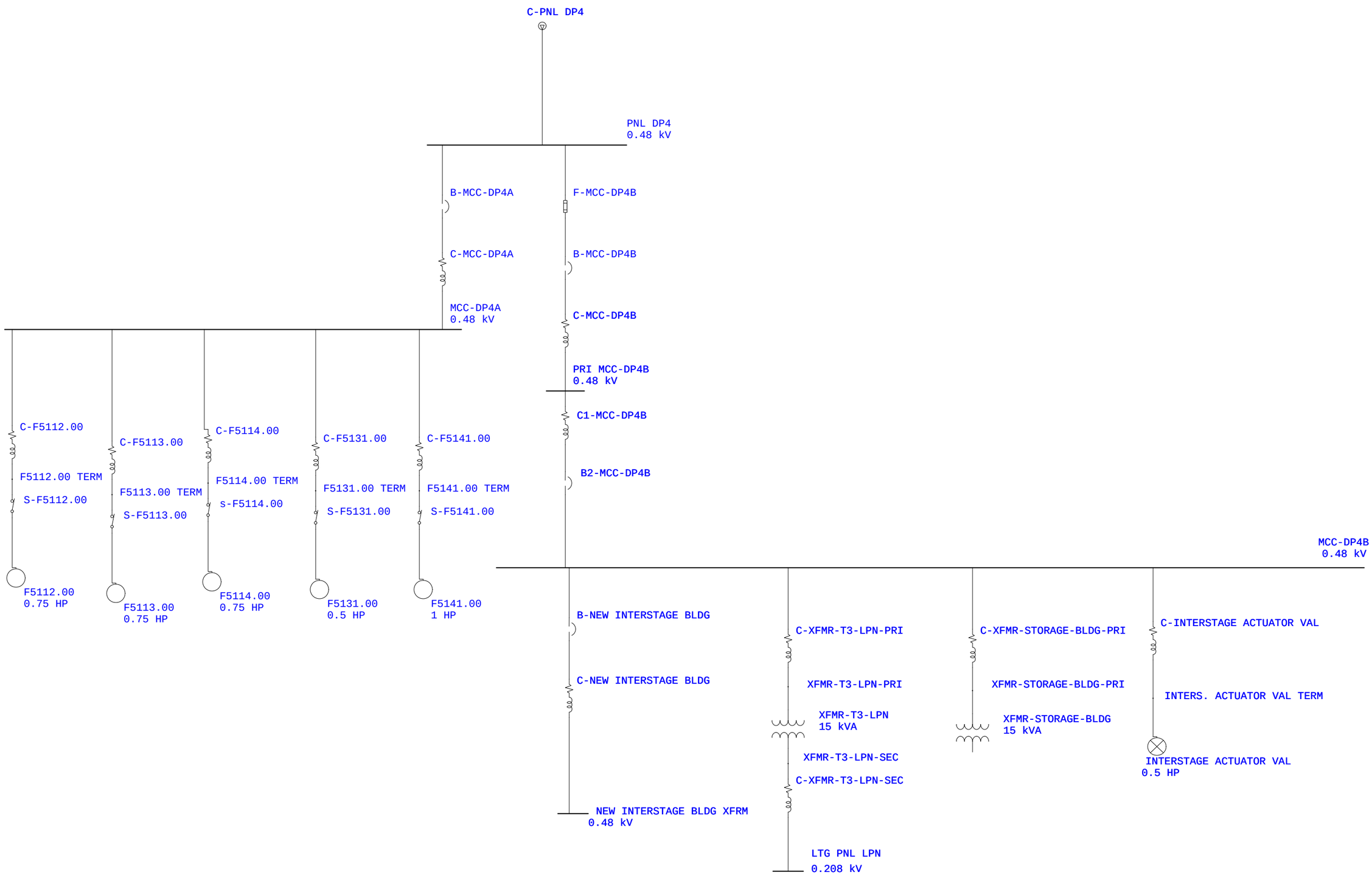

GUIDE VALVE
B-BLOWER #1 DISCH VALVE
B-BLOWER #1 BYPASSS VALVE
B-SKIMMINGS VALVES ACT#3
B-SKIMMINGS VALVES ACT#2
B-SKIMMINGS VALVES ACT#1
GUIDE VALVE
C-BLOWER #1 DISCH VALVE
C-BLOWER #1 BYPASSS VALVE
C-SKIMMINGS VALVES ACT#3
C-SKIMMINGS VALVES ACT#2
C-SKIMMINGS VALVES ACT#1
1 GUIDE VALVE
0.48 kV
BLOWER #1 DISCH VALVE
0.48 kV
BLOWER #1 BYPASSS VALVE
0.48 kV
SKIMMINGS VALVES ACT#3
0.48 kV
SKIMMINGS VALVES ACT#2
0.48 kV
SKIMMINGS VALVES ACT#1

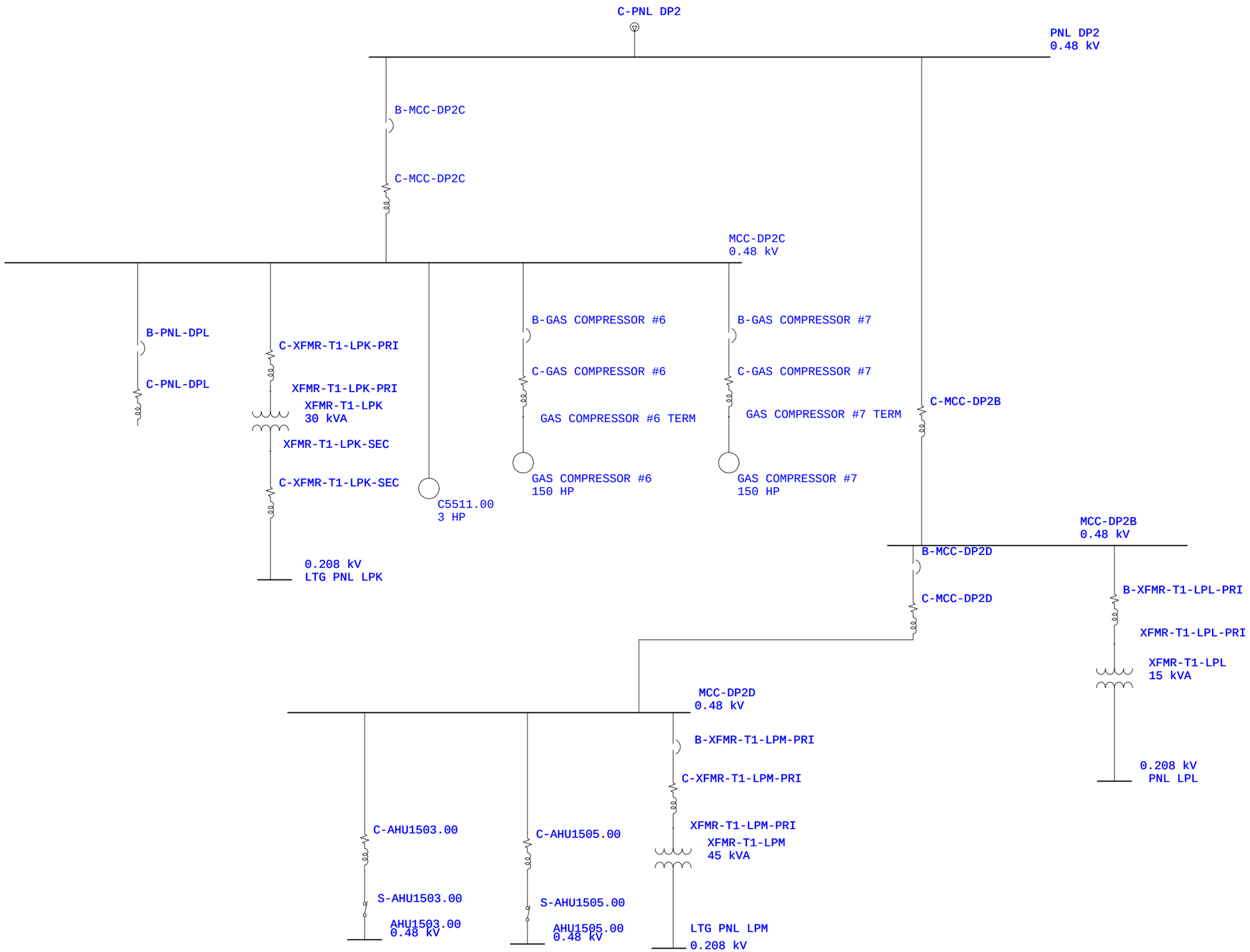

C-MCC-ND
MCC-ND
0.48 kV
B-P27020.00 (Bypass)
C-P27020.00 (Bypass)
P27020.00 (Bypass) TERM
P27020.00 (Bypass)
100 HP
B-P27040.00 (Bypass)
C-P27040.00 (Bypass)
P27040.00 (Bypass) TERM
P27040.00 (Bypass)
100 HP
B-P28020.00 (Bypass)
C-P28020.00 (Bypass)
P28020.00 (Bypass) TERM
P28020.00 (Bypass)
100 HP
B-P27320.00 (Bypass)
C-P27320.00 (Bypass)
P27320.00 (Bypass) TERM
P27320.00 (Bypass)
125 HP
B-P27120.00
C-P27120.00
P27120.00 TERM
P27120.00
20 HP
B-P27130.00
C-P27130.00
P27130.00 TERM
MP27130.00
20 HP

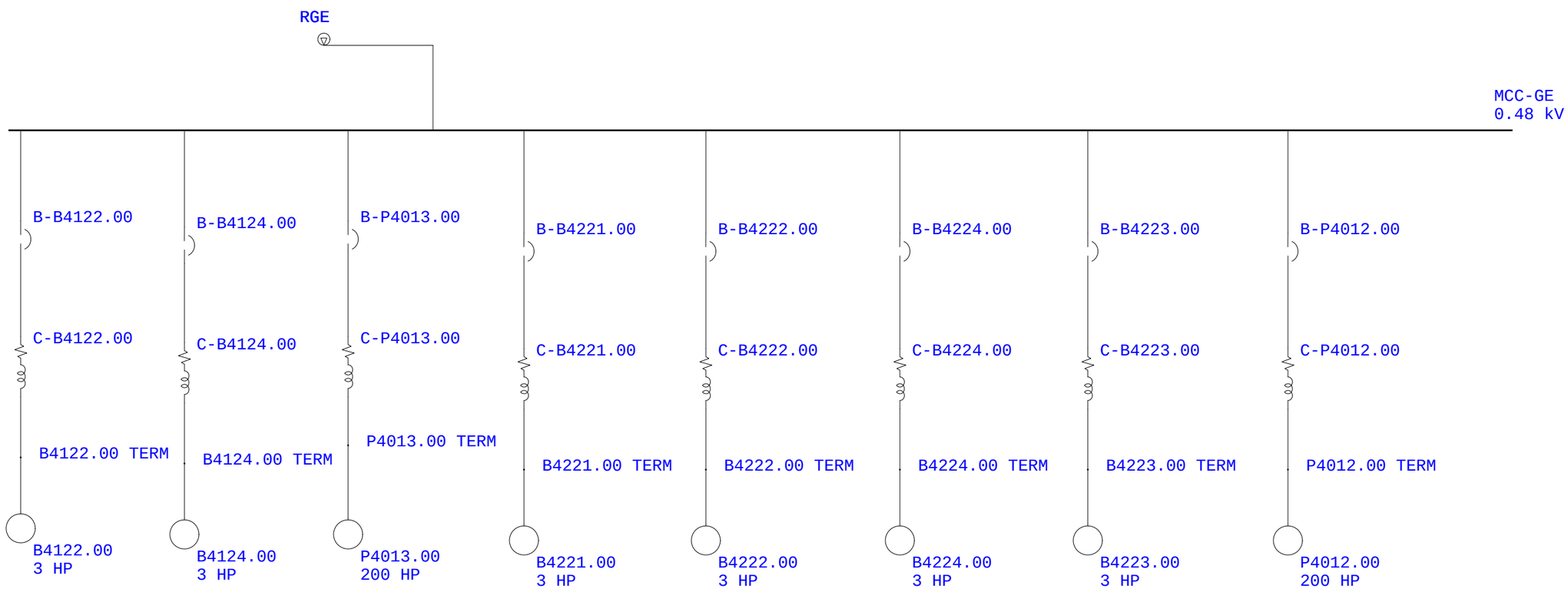
# One-Line Diagram - OLV1=>...=>MCC NF (Edit Mode)

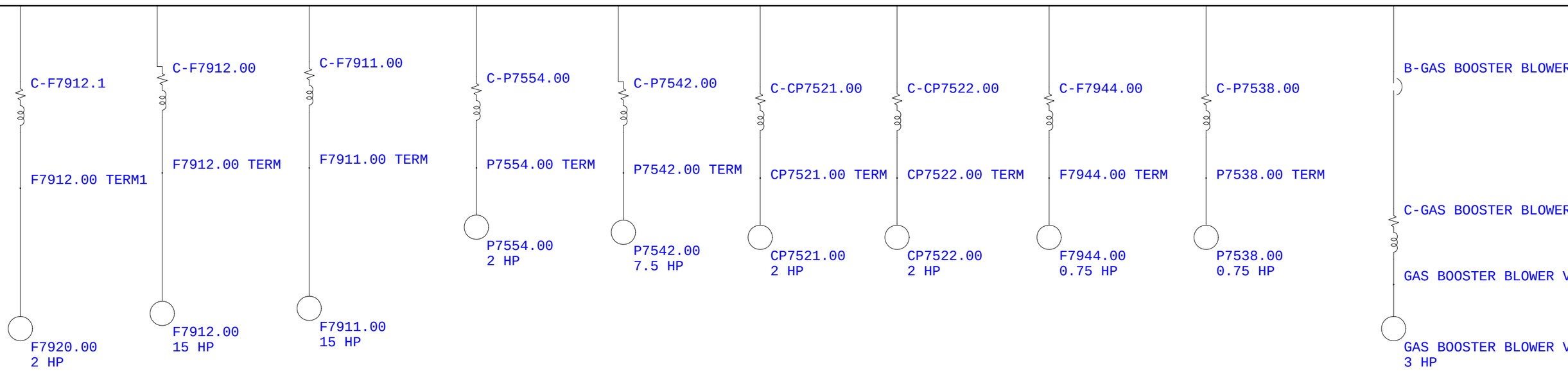


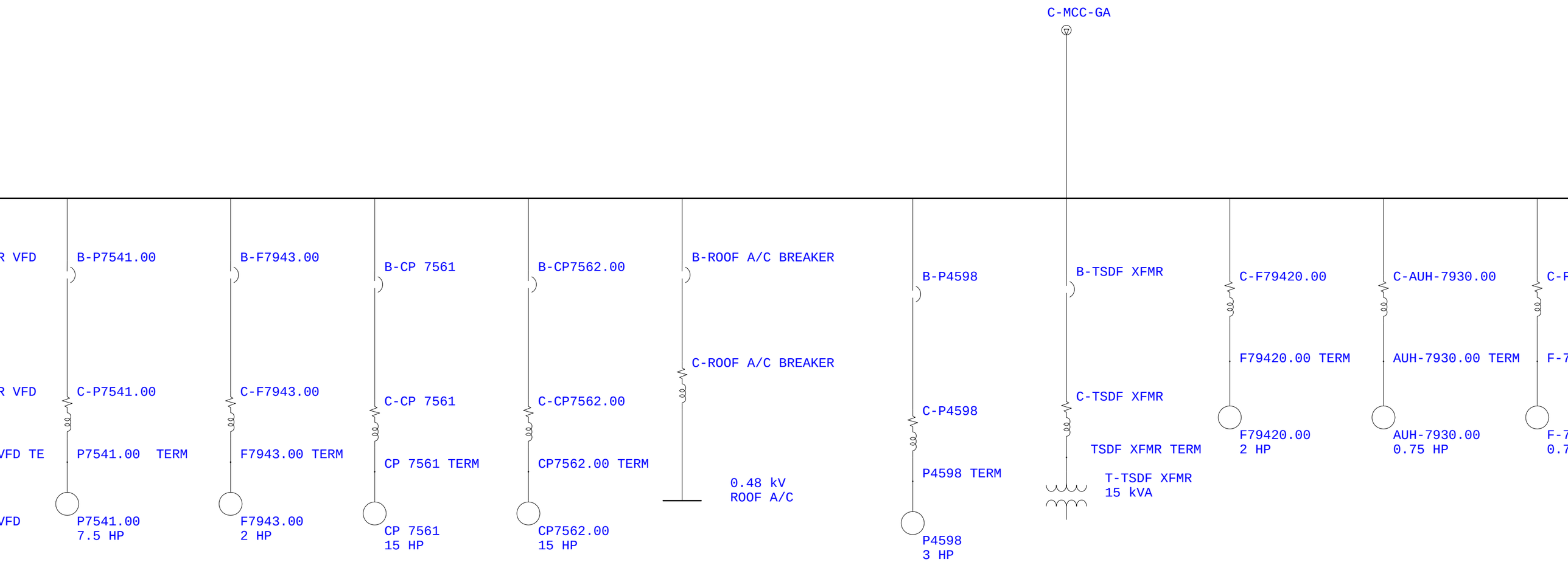

COGEN TIE BUS
BUS DUCT SWBD GDP
C-SWBD GDP
BUS DUCT1 SWBD GDP
B-GEN TIE A3
SWBD GDP
0.48 kV
B-GEN NO. 1
B-GEN NO. 2
B-GEN NO. 3
Open
C-GEN NO. 1
C-GEN NO. 2
C-GEN NO. 3
GEN NO. 1
500 kW
GEN NO. 2
500 kW
GEN NO. 3
500 kW
GEN NO. 1 TERM
GEN NO. 2 TERM
GEN NO. 3 TERM

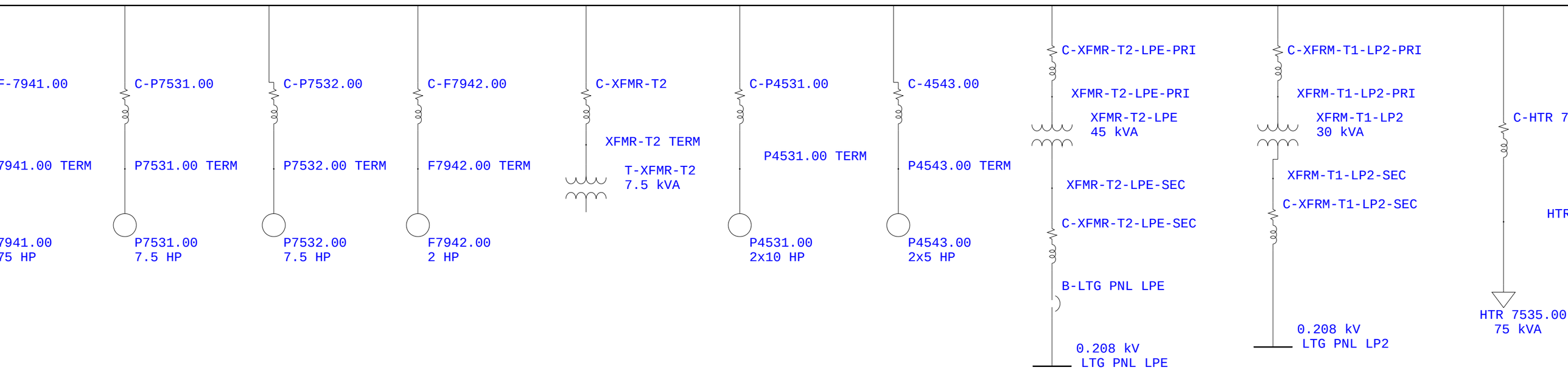

C-PNL DP4
PNL DP4
0.48 kV
B-MCC-DP4A
F-MCC-DP4B
C-MCC-DP4A
B-MCC-DP4B
MCC-DP4A
0.48 kV
C-MCC-DP4B
PRI MCC-DP4B
0.48 kV
C1-MCC-DP4B
B2-MCC-DP4B
C-F5112.00
C-F5113.00
C-F5114.00
C-F5131.00
C-F5141.00
F5112.00 TERM
F5113.00 TERM
F5114.00 TERM
F5131.00 TERM
F5141.00 TERM
S-F5112.00
S-F5113.00
s-F5114.00
S-F5131.00
S-F5141.00
F5112.00
0.75 HP
F5113.00
0.75 HP
F5114.00
0.75 HP
F5131.00
0.5 HP
F5141.00
1 HP
MCC-DP4B
0.48 kV
B-NEW INTERSTAGE BLDG
C-NEW INTERSTAGE BLDG
NEW INTERSTAGE BLDG XFRM
0.48 kV
C-XFMR-T3-LPN-PRI
XFMR-T3-LPN-PRI
XFMR-T3-LPN
15 kVA
XFMR-T3-LPN-SEC
C-XFMR-T3-LPN-SEC
LTG PNL LPN
0.208 kV
C-XFMR-STORAGE-BLDG-PRI
XFMR-STORAGE-BLDG-PRI
XFMR-STORAGE-BLDG
15 kVA
C-INTERSTAGE ACTUATOR VAL
INTERS. ACTUATOR VAL TERM
INTERSTAGE ACTUATOR VAL
0.5 HP

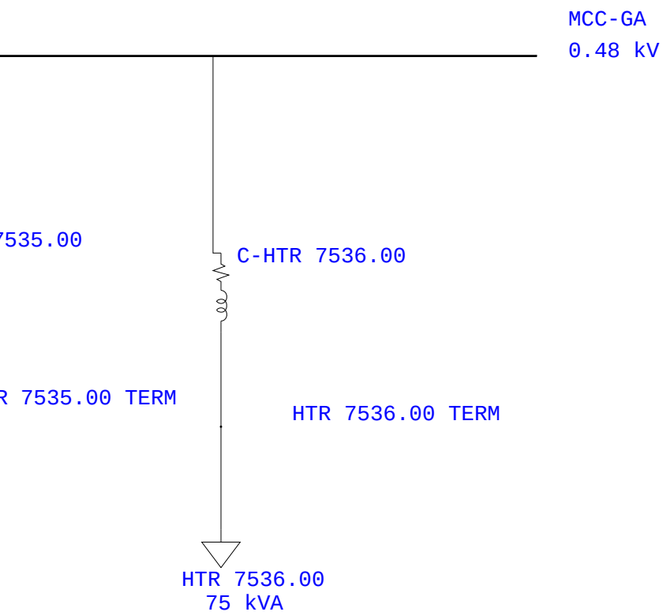

C-PNL DP2
PNL DP2
0.48 kV
B-MCC-DP2C
C-MCC-DP2C
MCC-DP2C
0.48 kV
B-PNL-DPL
C-PNL-DPL
C-XFMR-T1-LPK-PRI
XFMR-T1-LPK-PRI
XFMR-T1-LPK
30 kVA
XFMR-T1-LPK-SEC
C-XFMR-T1-LPK-SEC
0.208 kV
LTG PNL LPK
C5511.00
3 HP
B-GAS COMPRESSOR #6
C-GAS COMPRESSOR #6
GAS COMPRESSOR #6 TERM
GAS COMPRESSOR #6
150 HP
B-GAS COMPRESSOR #7
C-GAS COMPRESSOR #7
GAS COMPRESSOR #7 TERM
GAS COMPRESSOR #7
150 HP
C-MCC-DP2B
MCC-DP2B
0.48 kV
B-MCC-DP2D
C-MCC-DP2D
B-XFMR-T1-LPL-PRI
XFMR-T1-LPL-PRI
XFMR-T1-LPL
15 kVA
0.208 kV
PNL LPL
MCC-DP2D
0.48 kV
B-XFMR-T1-LPM-PRI
C-XFMR-T1-LPM-PRI
XFMR-T1-LPM-PRI
XFMR-T1-LPM
45 kVA
LTG PNL LPM
0.208 kV
C-AHU1503.00
S-AHU1503.00
AHU1503.00
0.48 kV
C-AHU1505.00
S-AHU1505.00
AHU1505.00
0.48 kV

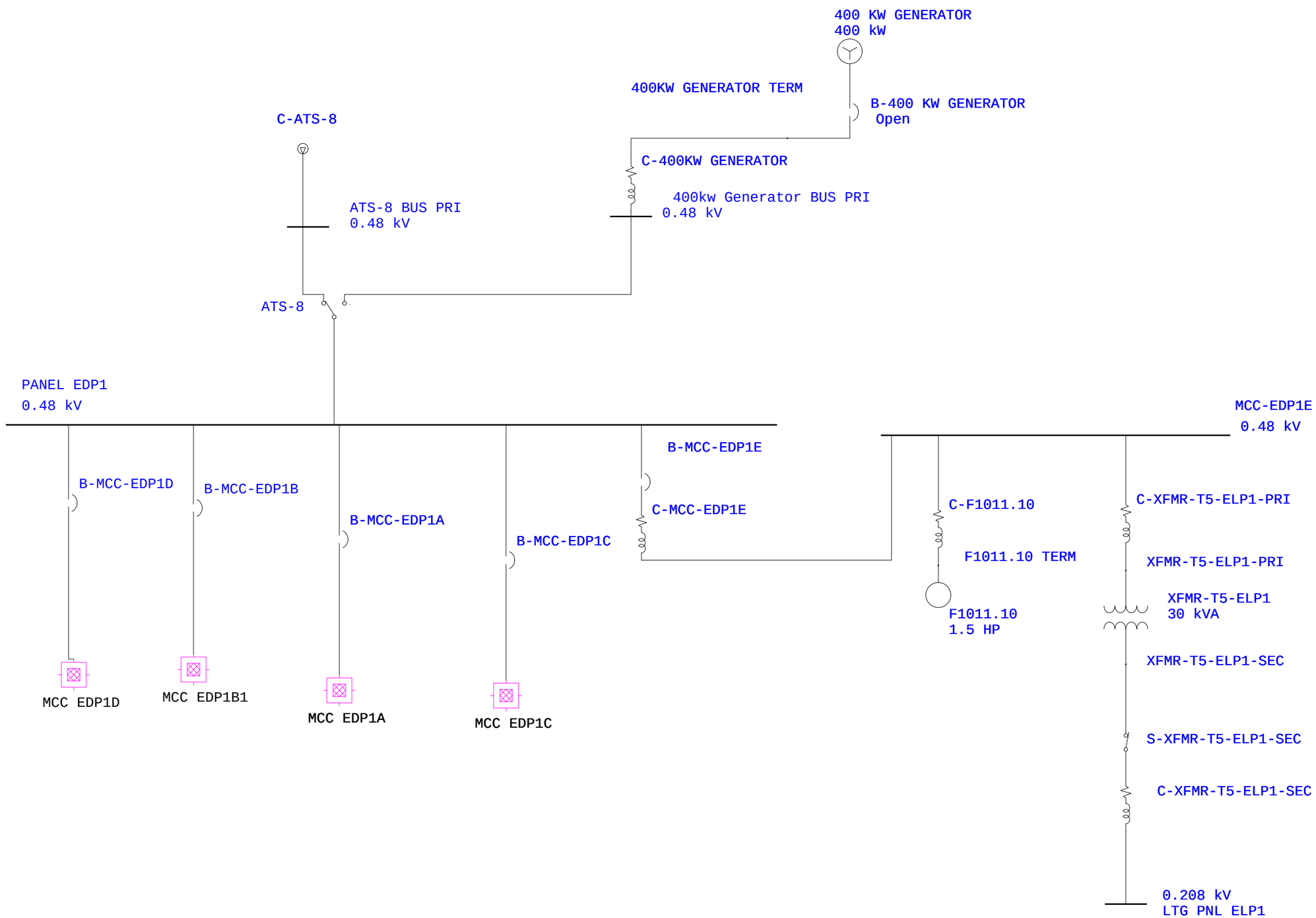

RGE
MCC-GE
0.48 kV
B-B4122.00
B-B4124.00
B-P4013.00
B-B4221.00
B-B4222.00
B-B4224.00
B-B4223.00
B-P4012.00
C-B4122.00
C-B4124.00
C-P4013.00
C-B4221.00
C-B4222.00
C-B4224.00
C-B4223.00
C-P4012.00
B4122.00 TERM
B4124.00 TERM
P4013.00 TERM
B4221.00 TERM
B4222.00 TERM
B4224.00 TERM
B4223.00 TERM
P4012.00 TERM
B4122.00
3 HP
B4124.00
3 HP
P4013.00
200 HP
B4221.00
3 HP
B4222.00
3 HP
B4224.00
3 HP
B4223.00
3 HP
P4012.00
200 HP

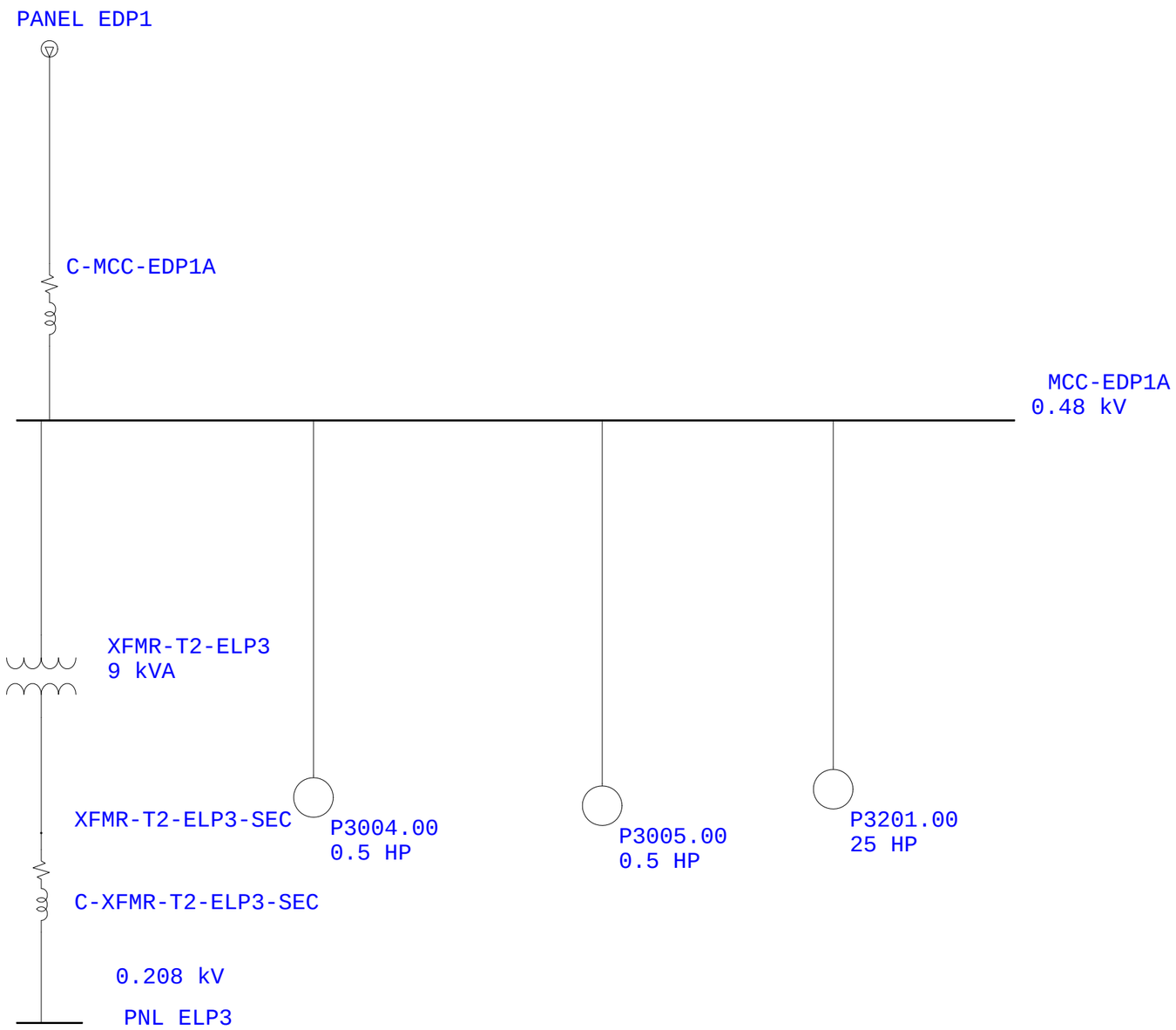

C-F7912.1
F7912.00 TERM1
F7920.00
2 HP
C-F7912.00
F7912.00 TERM
F7912.00
15 HP
C-F7911.00
F7911.00 TERM
F7911.00
15 HP
C-P7554.00
P7554.00 TERM
P7554.00
2 HP
C-P7542.00
P7542.00 TERM
P7542.00
7.5 HP
C-CP7521.00
CP7521.00 TERM
CP7521.00
2 HP
C-CP7522.00
CP7522.00 TERM
CP7522.00
2 HP
C-F7944.00
F7944.00 TERM
F7944.00
0.75 HP
C-P7538.00
P7538.00 TERM
P7538.00
0.75 HP
B-GAS BOOSTER BLOWER
C-GAS BOOSTER BLOWER
GAS BOOSTER BLOWER V
GAS BOOSTER BLOWER V
3 HP

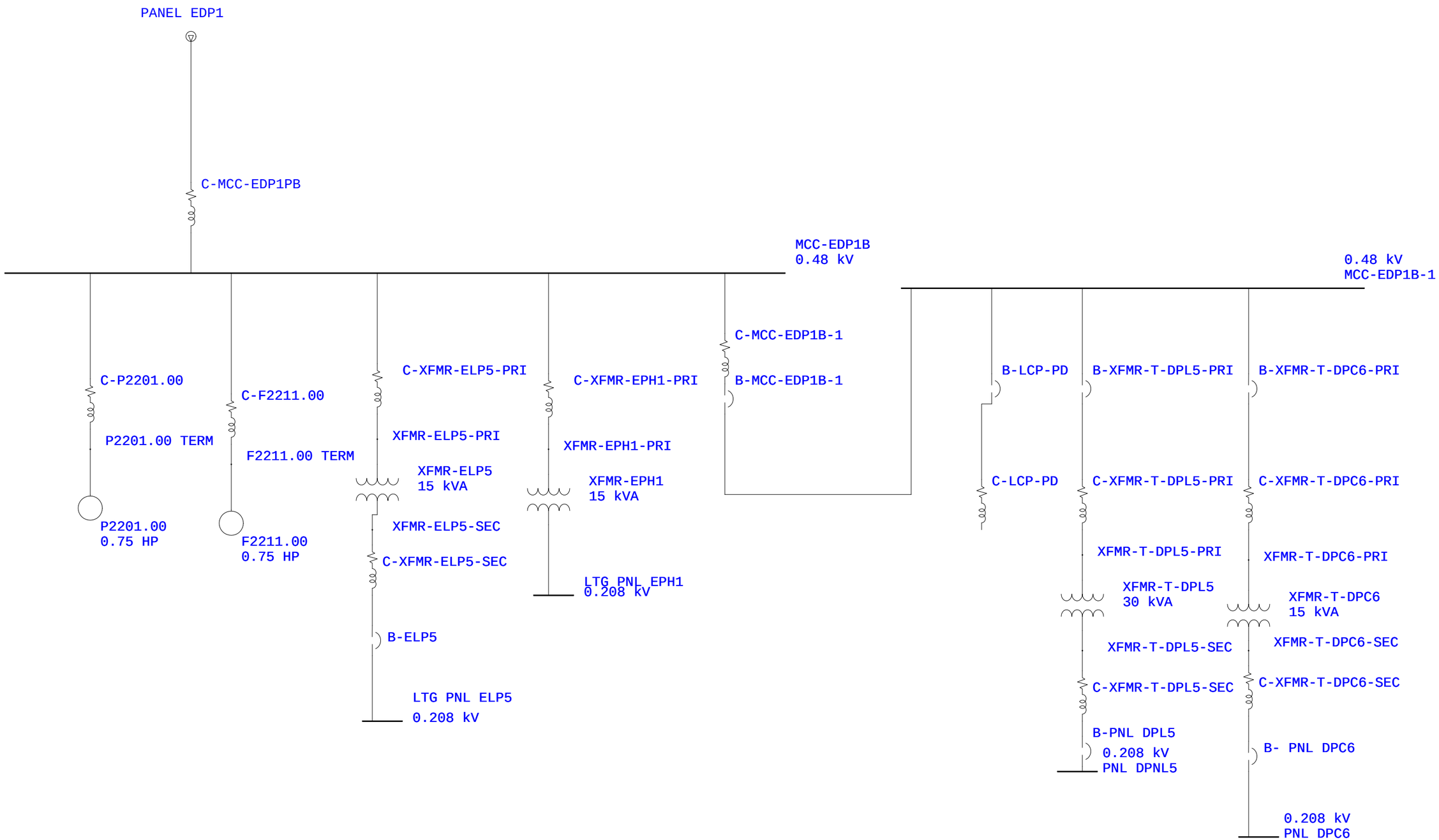

C-MCC-GA
R VFD
B-P7541.00
B-F7943.00
B-CP 7561
B-CP7562.00
B-ROOF A/C BREAKER
B-P4598
B-TSDF XFMR
C-F79420.00
C-AUH-7930.00
C-F
C-ROOF A/C BREAKER
F79420.00 TERM
AUH-7930.00 TERM
F-7
R VFD
C-P7541.00
C-F7943.00
C-CP 7561
C-CP7562.00
C-P4598
C-TSDF XFMR
VFD TE
P7541.00 TERM
F7943.00 TERM
CP 7561 TERM
CP7562.00 TERM
TSDF XFMR TERM
F79420.00
2 HP
AUH-7930.00
0.75 HP
F-7
0.7
0.48 kV
ROOF A/C
P4598 TERM
T-TSDF XFMR
15 kVA
VFD
P7541.00
7.5 HP
F7943.00
2 HP
CP 7561
15 HP
CP7562.00
15 HP
P4598
3 HP

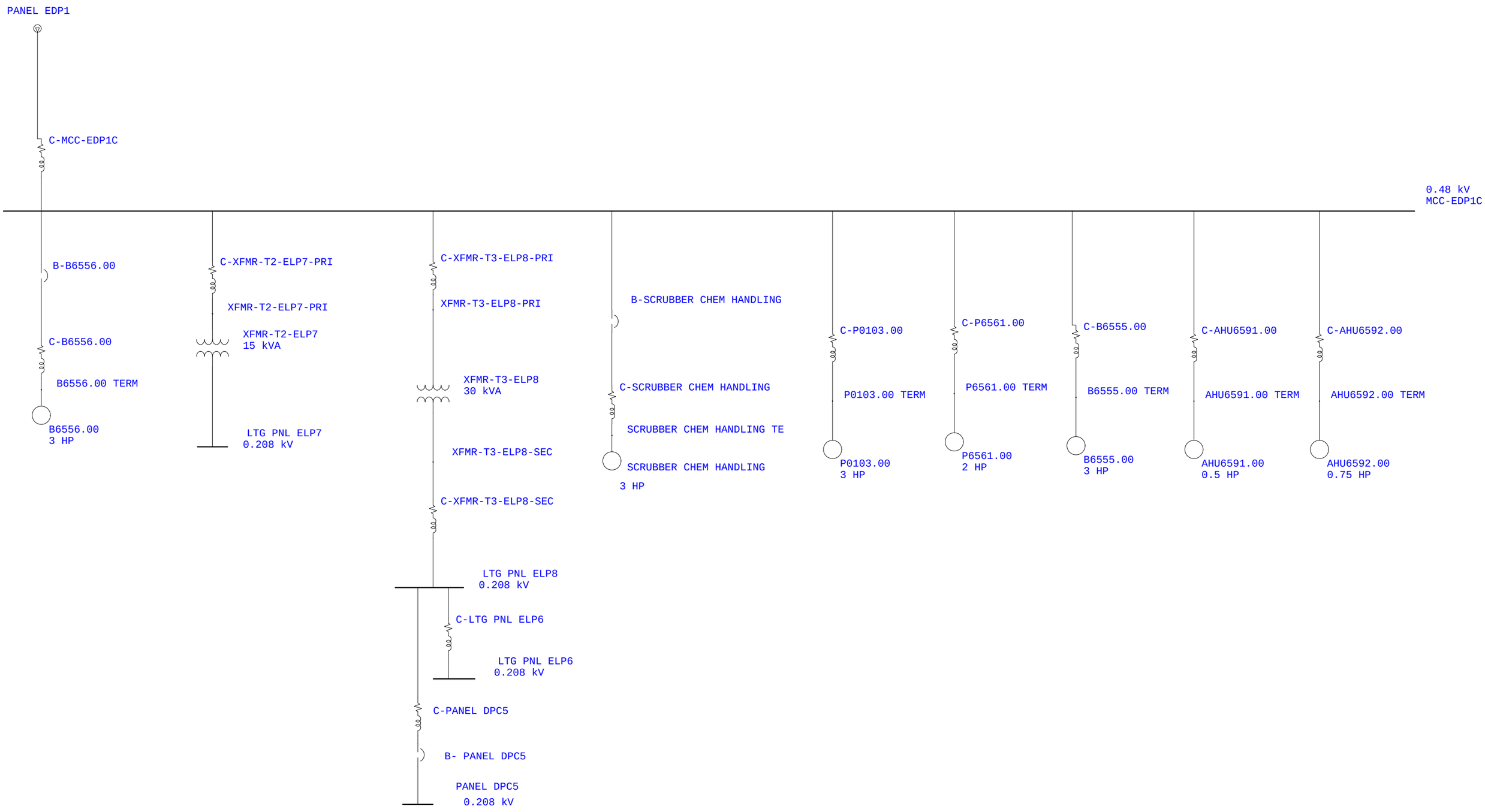

F-7941.00
7941.00 TERM
7941.00
75 HP
C-P7531.00
P7531.00 TERM
P7531.00
7.5 HP
C-P7532.00
P7532.00 TERM
P7532.00
7.5 HP
C-F7942.00
F7942.00 TERM
F7942.00
2 HP
C-XFMR-T2
XFMR-T2 TERM
T-XFMR-T2
7.5 kVA
C-P4531.00
P4531.00 TERM
P4531.00
2x10 HP
C-4543.00
P4543.00 TERM
P4543.00
2x5 HP
C-XFMR-T2-LPE-PRI
XFMR-T2-LPE-PRI
XFMR-T2-LPE
45 kVA
XFMR-T2-LPE-SEC
C-XFMR-T2-LPE-SEC
B-LTG PNL LPE
0.208 kV
LTG PNL LPE
C-XFRM-T1-LP2-PRI
XFRM-T1-LP2-PRI
XFRM-T1-LP2
30 kVA
XFRM-T1-LP2-SEC
C-XFRM-T1-LP2-SEC
0.208 kV
LTG PNL LP2
C-HTR 7
HTR
HTR 7535.00
75 kVA

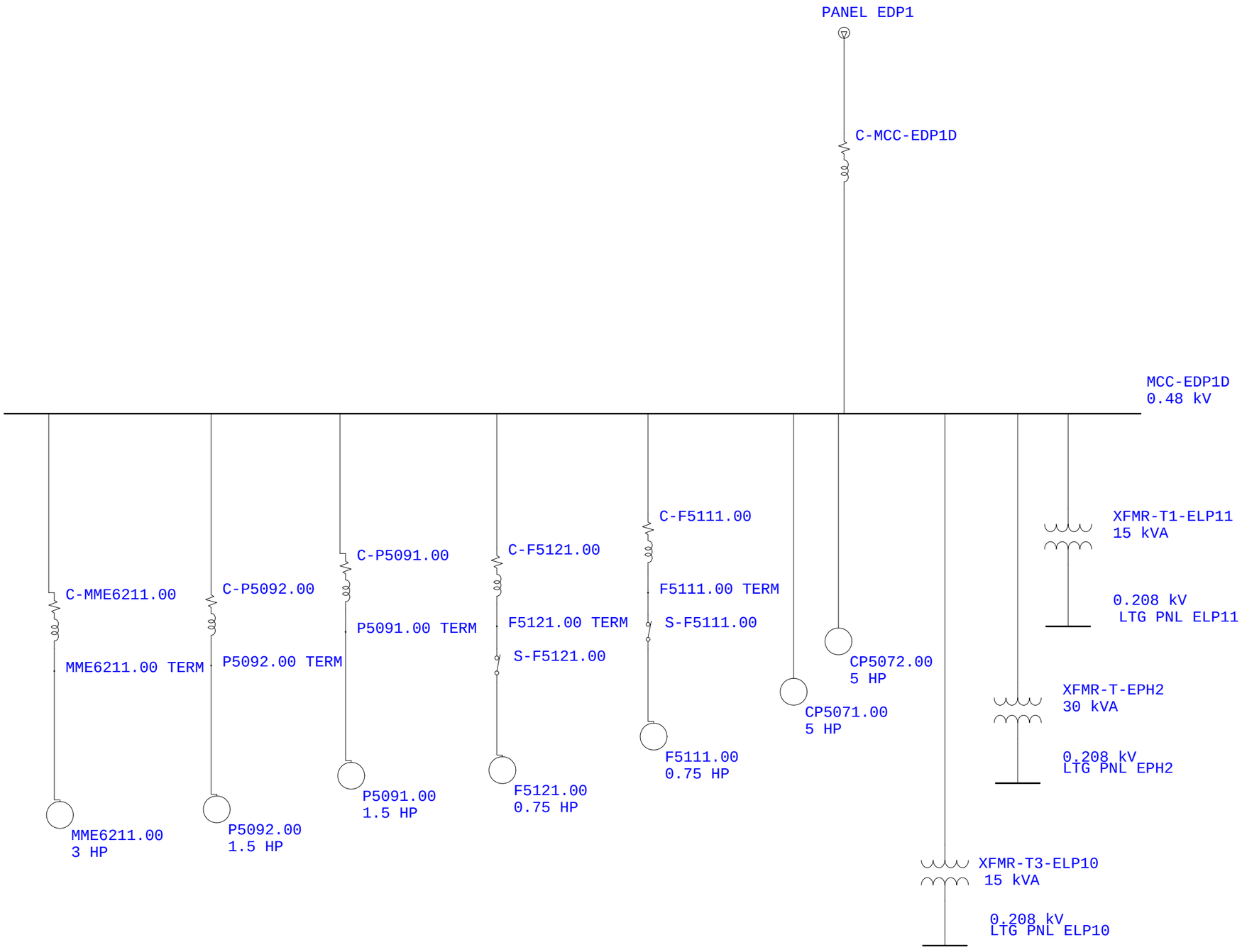

MCC-GA
0.48 kV
7535.00
C-HTR 7536.00
R 7535.00 TERM
HTR 7536.00 TERM
HTR 7536.00
75 kVA

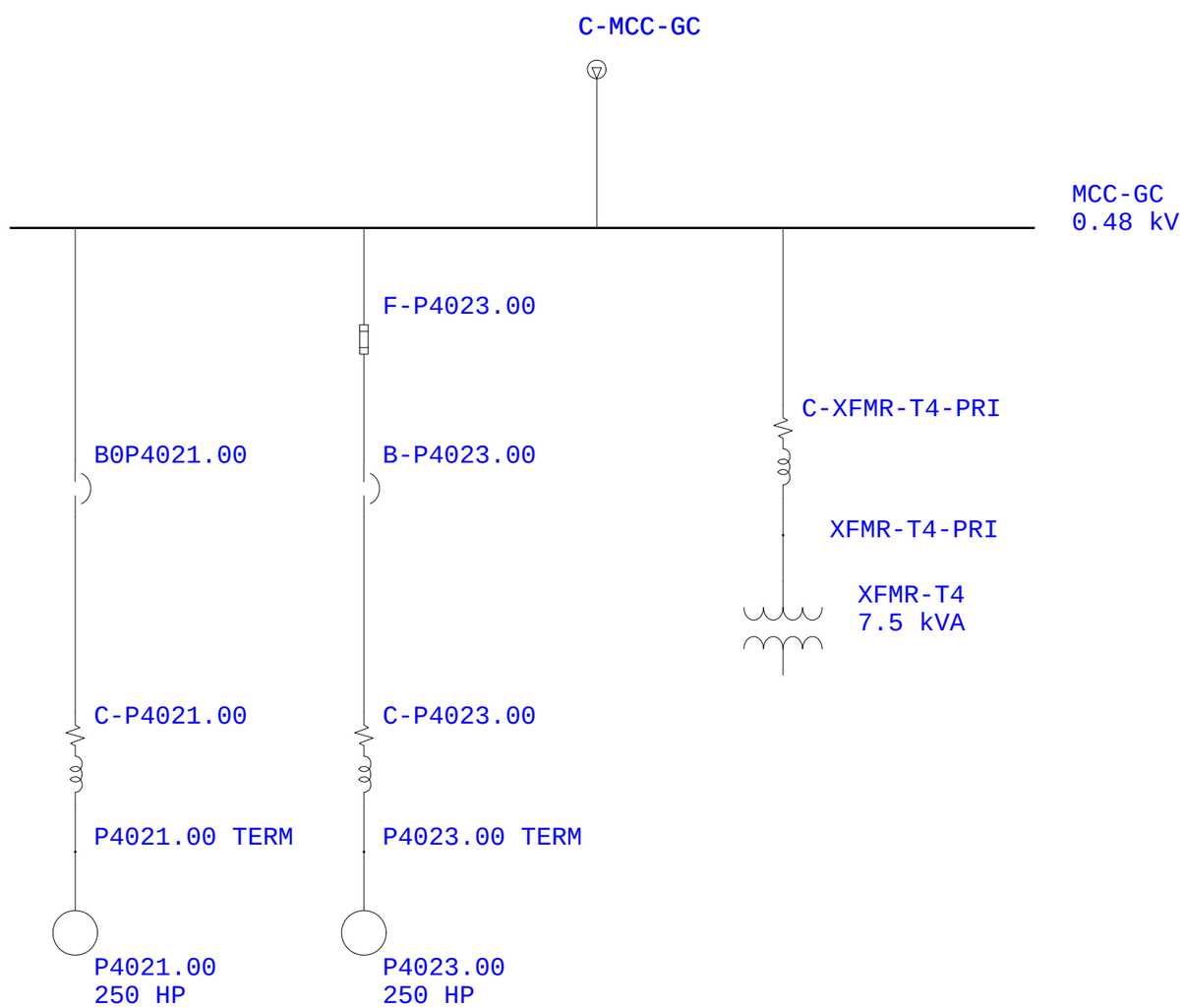

400 KW GENERATOR
400 kW
400KW GENERATOR TERM
B-400 KW GENERATOR
Open
C-ATS-8
C-400KW GENERATOR
400kw Generator BUS PRI
0.48 kV
ATS-8 BUS PRI
0.48 kV
ATS-8
PANEL EDP1
0.48 kV
MCC-EDP1E
0.48 kV
B-MCC-EDP1E
B-MCC-EDP1D
B-MCC-EDP1B
B-MCC-EDP1A
B-MCC-EDP1C
C-MCC-EDP1E
C-F1011.10
C-XFMR-T5-ELP1-PRI
F1011.10 TERM
XFMR-T5-ELP1-PRI
XFMR-T5-ELP1
30 kVA
F1011.10
1.5 HP
XFMR-T5-ELP1-SEC
MCC EDP1D
MCC EDP1B1
MCC EDP1A
MCC EDP1C
S-XFMR-T5-ELP1-SEC
C-XFMR-T5-ELP1-SEC
0.208 kV
LTG PNL ELP1


PANEL EDP1
C-MCC-EDP1A
MCC-EDP1A
0.48 kV
XFMR-T2-ELP3
9 kVA
XFMR-T2-ELP3-SEC
P3004.00
0.5 HP
P3005.00
0.5 HP
P3201.00
25 HP
C-XFMR-T2-ELP3-SEC
0.208 kV
PNL ELP3


PANEL EDP1
C-MCC-EDP1PB
MCC-EDP1B
0.48 kV
0.48 kV
MCC-EDP1B-1
C-P2201.00
P2201.00 TERM
P2201.00
0.75 HP
C-F2211.00
F2211.00 TERM
F2211.00
0.75 HP
C-XFMR-ELP5-PRI
XFMR-ELP5-PRI
XFMR-ELP5
15 kVA
XFMR-ELP5-SEC
C-XFMR-ELP5-SEC
B-ELP5
LTG PNL ELP5
0.208 kV
C-XFMR-EPH1-PRI
XFMR-EPH1-PRI
XFMR-EPH1
15 kVA
LTG PNL EPH1
0.208 kV
C-MCC-EDP1B-1
B-MCC-EDP1B-1
B-LCP-PD
B-XFMR-T-DPL5-PRI
B-XFMR-T-DPC6-PRI
C-LCP-PD
C-XFMR-T-DPL5-PRI
C-XFMR-T-DPC6-PRI
XFMR-T-DPL5-PRI
XFMR-T-DPL5
30 kVA
XFMR-T-DPL5-SEC
C-XFMR-T-DPL5-SEC
B-PNL DPL5
0.208 kV
PNL DPNL5
XFMR-T-DPC6-PRI
XFMR-T-DPC6
15 kVA
XFMR-T-DPC6-SEC
C-XFMR-T-DPC6-SEC
B- PNL DPC6
0.208 kV
PNL DPC6


PANEL EDP1
C-MCC-EDP1C
0.48 kV
MCC-EDP1C
B-B6556.00
C-B6556.00
B6556.00 TERM
B6556.00
3 HP
C-XFMR-T2-ELP7-PRI
XFMR-T2-ELP7-PRI
XFMR-T2-ELP7
15 kVA
LTG PNL ELP7
0.208 kV
C-XFMR-T3-ELP8-PRI
XFMR-T3-ELP8-PRI
XFMR-T3-ELP8
30 kVA
XFMR-T3-ELP8-SEC
C-XFMR-T3-ELP8-SEC
LTG PNL ELP8
0.208 kV
C-LTG PNL ELP6
LTG PNL ELP6
0.208 kV
C-PANEL DPC5
B- PANEL DPC5
PANEL DPC5
0.208 kV
B-SCRUBBER CHEM HANDLING
C-SCRUBBER CHEM HANDLING
SCRUBBER CHEM HANDLING TE
SCRUBBER CHEM HANDLING
3 HP
C-P0103.00
P0103.00 TERM
P0103.00
3 HP
C-P6561.00
P6561.00 TERM
P6561.00
2 HP
C-B6555.00
B6555.00 TERM
B6555.00
3 HP
C-AHU6591.00
AHU6591.00 TERM
AHU6591.00
0.5 HP
C-AHU6592.00
AHU6592.00 TERM
AHU6592.00
0.75 HP


PANEL EDP1
C-MCC-EDP1D
MCC-EDP1D
0.48 kV
C-MME6211.00
MME6211.00 TERM
MME6211.00
3 HP
C-P5092.00
P5092.00 TERM
P5092.00
1.5 HP
C-P5091.00
P5091.00 TERM
P5091.00
1.5 HP
C-F5121.00
F5121.00 TERM
S-F5121.00
F5121.00
0.75 HP
C-F5111.00
F5111.00 TERM
S-F5111.00
F5111.00
0.75 HP
CP5071.00
5 HP
CP5072.00
5 HP
XFMR-T1-ELP11
15 kVA
0.208 kV
LTG PNL ELP11
XFMR-T-EPH2
30 kVA
0.208 kV
LTG PNL EPH2
XFMR-T3-ELP10
15 kVA
0.208 kV
LTG PNL ELP10


C-MCC-GC
MCC-GC
0.48 kV
F-P4023.00
C-XFMR-T4-PRI
B0P4021.00
B-P4023.00
XFMR-T4-PRI
XFMR-T4
7.5 kVA
C-P4021.00
C-P4023.00
P4021.00 TERM
P4023.00 TERM
P4021.00
250 HP
P4023.00
250 HP

# APPENDIX B1 – SHORT CIRCUIT STUDY (MOMENTARY DUTY SUMMARY REPORT)

## Momentary Duty Summary Report

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | Momentary Duty | | | | | Device Capability | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | Symm. kA rms | X/R Ratio | M.F. | Asymm. kA rms | Asymm. kA Peak | Symm. kA rms | Asymm. kA rms | Asymm. kA Peak |
| ATS-L BUS A | 0.480 | ATS-L BUS A | MCC | 30.392 | 3.4 | 1.149 | 34.916 | 60.169 | 65.000 | 81.100 | |
| ATS-L BUS B | 0.480 | ATS-L BUS B | MCC | 26.452 | 2.0 | 1.039 | 27.491 | 44.894 | 65.000 | 81.100 | |
| ATS-L SEC | 0.480 | ATS-L SEC | MCC | 30.392 | 3.4 | 1.149 | 34.916 | 60.169 | 65.000 | 81.100 | |
| B20100.00 TERMINALS | 2.400 | B20100.00 TERMINALS | MCC | 4.779 | 6.1 | 1.310 | 6.260 | 10.802 | | 81.100 | 0.000 * |
| B20200.00 TERMINALS | 2.400 | B20200.00 TERMINALS | MCC | 4.723 | 5.5 | 1.278 | 6.037 | 10.439 | | 81.100 | 0.000 * |
| B20400.00 TERMINALS | 2.400 | B20400.00 TERMINALS | MCC | 4.811 | 5.8 | 1.297 | 6.240 | 10.778 | | 81.100 | 0.000 * |
| B52180.00 DISC | 0.480 | B52180.00 DISC | Bus | 5.714 | 0.5 | 1.000 | 5.714 | 8.101 | | | |
| B52180.00 TERM | 0.480 | B52180.00 TERM | Bus | 5.544 | 0.5 | 1.000 | 5.544 | 7.858 | | | |
| B52190.00 DISC | 0.480 | B52190.00 DISC | Bus | 4.218 | 0.4 | 1.000 | 4.218 | 5.966 | | | |
| B52190.00 TERM | 0.480 | B52190.00 TERM | Bus | 4.123 | 0.4 | 1.000 | 4.123 | 5.832 | | | |
| B52210.00 DISC | 0.480 | B52210.00 DISC | Bus | 1.587 | 0.2 | 1.000 | 1.587 | 2.244 | | | |
| B52210.00 TERM | 0.480 | B52210.00 TERM | Bus | 1.553 | 0.2 | 1.000 | 1.553 | 2.197 | | | |
| B52220.00 DISC | 0.480 | B52220.00 DISC | Bus | 1.491 | 0.2 | 1.000 | 1.491 | 2.109 | | | |
| B52220.00 TERM | 0.480 | B52220.00 TERM | Bus | 1.462 | 0.2 | 1.000 | 1.462 | 2.068 | | | |
| BLWR BLDG TROLLEY | 0.480 | BLWR BLDG TROLLEY | MCC | 4.420 | 0.3 | 1.000 | 4.420 | 6.251 | 65.000 | 81.100 | |
| BSN51240.00 DISC | 0.480 | BSN51240.00 DISC | Bus | 0.765 | 0.1 | 1.000 | 0.765 | 1.082 | | | |
| BSN51240.00 TERM | 0.480 | BSN51240.00 TERM | Bus | 0.752 | 0.1 | 1.000 | 0.752 | 1.064 | | | |
| BSN51250.00 DISC | 0.480 | BSN51250.00 DISC | Bus | 0.765 | 0.1 | 1.000 | 0.765 | 1.081 | | | |
| BSN51250.00 TERM | 0.480 | BSN51250.00 TERM | Bus | 0.752 | 0.1 | 1.000 | 0.752 | 1.064 | | | |
| BSN51260.00 DISC | 0.480 | BSN51260.00 DISC | Bus | 0.765 | 0.1 | 1.000 | 0.765 | 1.082 | | | |
| BSN51260.00 TERM | 0.480 | BSN51260.00 TERM | Bus | 0.752 | 0.1 | 1.000 | 0.752 | 1.064 | | | |
| BSN51270.00 DISC | 0.480 | BSN51270.00 DISC | Bus | 0.765 | 0.1 | 1.000 | 0.765 | 1.081 | | | |
| BSN51270.00 TERM | 0.480 | BSN51270.00 TERM | Bus | 0.752 | 0.1 | 1.000 | 0.752 | 1.064 | | | |
| COGEN TIE BUS | 0.480 | COGEN TIE BUS | Switchgear | 57.915 | 13.6 | 1.504 | 87.095 | 146.954 | 100.000 | 133.000 | |
| COM53030.00 DISC | 0.480 | COM53030.00 DISC | Bus | 0.795 | 0.1 | 1.000 | 0.795 | 1.125 | | | |
| COM53030.00 TERM | 0.480 | COM53030.00 TERM | Bus | 0.782 | 0.1 | 1.000 | 0.782 | 1.106 | | | |
| COM53040.00 DISC | 0.480 | COM53040.00 DISC | Bus | 0.869 | 0.1 | 1.000 | 0.869 | 1.229 | | | |
| COM53040.00 TERM | 0.480 | COM53040.00 TERM | Bus | 0.853 | 0.1 | 1.000 | 0.853 | 1.207 | | | |
| CON51300.00 DISC | 0.480 | CON51300.00 DISC | Bus | 0.798 | 0.1 | 1.000 | 0.798 | 1.129 | | | |
| CON51300.00 TERM | 0.480 | CON51300.00 TERM | Bus | 0.785 | 0.1 | 1.000 | 0.785 | 1.110 | | | |
| CON51320.00 DISC | 0.480 | CON51320.00 DISC | Bus | 0.798 | 0.1 | 1.000 | 0.798 | 1.129 | | | |
| CON51320.00 TERM | 0.480 | CON51320.00 TERM | Bus | 0.785 | 0.1 | 1.000 | 0.785 | 1.110 | | | |
| CON53020.00 DISC | 0.480 | CON53020.00 DISC | Bus | 0.748 | 0.1 | 1.000 | 0.748 | 1.057 | | | |
| CON53020.00 TERM | 0.480 | CON53020.00 TERM | Bus | 0.736 | 0.1 | 1.000 | 0.736 | 1.041 | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | Momentary Duty | | | | | Device Capability | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | Symm. kA rms | X/R Ratio | M.F. | Asymm. kA rms | Asymm. kA Peak | Symm. kA rms | Asymm. kA rms | Asymm. kA Peak |
| CON53030.00 DISC | 0.480 | CON53030.00 DISC | Bus | 0.748 | 0.1 | 1.000 | 0.748 | 1.057 | | | |
| CON53030.00 TERM | 0.480 | CON53030.00 TERM | Bus | 0.736 | 0.1 | 1.000 | 0.736 | 1.041 | | | |
| EFF PS SWGR BUS A | 0.480 | EFF PS SWGR BUS A | Switchgear | 19.810 | 5.8 | 1.294 | 25.632 | 44.281 | 65.000 | 86.500 | |
| EFF PS SWGR BUS A PRI | 0.480 | EFF PS SWGR BUS A PRI | Bus | 19.810 | 5.8 | 1.294 | 25.632 | 44.281 | | | |
| EFF PS SWGR BUS B | 0.480 | EFF PS SWGR BUS B | Switchgear | 19.809 | 5.8 | 1.297 | 25.687 | 44.368 | 65.000 | 86.500 | |
| EFF PS SWGR BUS B PRI | 0.480 | EFF PS SWGR BUS B PRI | Bus | 19.809 | 5.8 | 1.297 | 25.687 | 44.368 | | | |
| EFF PUMP NO. 2 VFD PRI | 0.480 | EFF PUMP NO. 2 VFD PRI | Bus | 19.060 | 5.0 | 1.252 | 23.864 | 41.314 | | | |
| EFF PUMP NO. 4 VFD PRI | 0.480 | EFF PUMP NO. 4 VFD PRI | Bus | 19.061 | 4.9 | 1.250 | 23.819 | 41.240 | | | |
| F52410.00 DISC | 0.480 | F52410.00 DISC | Bus | 0.627 | 0.1 | 1.000 | 0.627 | 0.887 | | | |
| F52410.00 STR | 0.480 | F52410.00 STR | Bus | 0.673 | 0.1 | 1.000 | 0.673 | 0.951 | | | |
| F52420.00 DISC | 0.480 | F52420.00 DISC | Bus | 0.503 | 0.1 | 1.000 | 0.503 | 0.712 | | | |
| F52420.00 STR | 0.480 | F52420.00 STR | Bus | 0.532 | 0.1 | 1.000 | 0.532 | 0.752 | | | |
| F54330.00 DISC | 0.480 | F54330.00 DISC | Bus | 2.516 | 0.1 | 1.000 | 2.516 | 3.558 | | | |
| F54330.00 TERM | 0.480 | F54330.00 TERM | Bus | 2.388 | 0.1 | 1.000 | 2.388 | 3.377 | | | |
| F55010.00 TERM | 0.480 | F55010.00 TERM | Bus | 4.157 | 0.4 | 1.000 | 4.157 | 5.881 | | | |
| GEN NO. 2 TERM | 0.480 | GEN NO. 2 TERM | Bus | 22.464 | 9.3 | 1.421 | 31.923 | 54.450 | | | |
| GEN NO. 3 TERM | 0.480 | GEN NO. 3 TERM | Bus | 22.780 | 9.6 | 1.429 | 32.544 | 55.457 | | | |
| GRIT SCR TROLLEY | 0.480 | GRIT SCR TROLLEY | MCC | 0.739 | 0.1 | 1.000 | 0.739 | 1.046 | 65.000 | 81.100 | |
| HVAC56100.00 DISC | 0.480 | HVAC56100.00 DISC | Bus | 6.021 | 0.3 | 1.000 | 6.021 | 8.516 | | | |
| HVAC56100.00 TERM | 0.480 | HVAC56100.00 TERM | Bus | 5.563 | 0.3 | 1.000 | 5.563 | 7.867 | | | |
| HVAC56110.00 DISC | 0.480 | HVAC56110.00 DISC | Bus | 2.531 | 0.2 | 1.000 | 2.531 | 3.579 | | | |
| HVAC56110.00 TERM | 0.480 | HVAC56110.00 TERM | Bus | 2.401 | 0.2 | 1.000 | 2.401 | 3.395 | | | |
| HW ELEVATOR | 0.480 | HW ELEVATOR | MCC | 8.455 | 0.5 | 1.000 | 8.455 | 11.973 | 65.000 | 81.100 | |
| HW GATES | 0.480 | HW GATES | MCC | 0.418 | 0.1 | 1.000 | 0.418 | 0.591 | 65.000 | 81.100 | |
| INFL PUMP 1 TERMINALS | 0.480 | INFL PUMP 1 TERMINALS | Bus | 24.231 | 4.7 | 1.236 | 29.944 | 51.860 | | | |
| INFL PUMP 1 VFD PRI | 0.480 | INFL PUMP 1 VFD PRI | Bus | 31.573 | 5.7 | 1.288 | 40.655 | 70.262 | | | |
| INFL PUMP 2 TERMINALS | 0.480 | INFL PUMP 2 TERMINALS | Bus | 21.921 | 3.7 | 1.170 | 25.657 | 44.333 | | | |
| INFL PUMP 2 VFD | 0.480 | INFL PUMP 2 VFD | Bus | 30.017 | 5.3 | 1.267 | 38.025 | 65.793 | | | |
| INFL PUMP 2 VFD PRI | 0.480 | INFL PUMP 2 VFD PRI | Bus | 30.017 | 5.3 | 1.267 | 38.025 | 65.793 | | | |
| INFL PUMP 3 TERMINALS | 0.480 | INFL PUMP 3 TERMINALS | Bus | 22.707 | 3.7 | 1.167 | 26.499 | 45.772 | | | |
| INFL PUMP 3 VFD | 0.480 | INFL PUMP 3 VFD | Bus | 31.575 | 5.6 | 1.283 | 40.525 | 70.056 | | | |
| INFL PUMP 3 VFD PRI | 0.480 | INFL PUMP 3 VFD PRI | Bus | 31.575 | 5.6 | 1.283 | 40.525 | 70.056 | | | |
| INFL PUMP 4 TERMINALS | 0.480 | INFL PUMP 4 TERMINALS | Bus | 22.114 | 3.7 | 1.170 | 25.872 | 44.702 | | | |
| INFL PUMP 4 VFD | 0.480 | INFL PUMP 4 VFD | Bus | 30.385 | 5.3 | 1.272 | 38.649 | 66.856 | | | |
| INFL PUMP 4 VFD PRI | 0.480 | INFL PUMP 4 VFD PRI | Bus | 30.385 | 5.3 | 1.272 | 38.649 | 66.856 | | | |
| INFL PUMP 5 TERMINALS | 0.480 | INFL PUMP 5 TERMINALS | Bus | 22.707 | 3.7 | 1.167 | 26.499 | 45.772 | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | Momentary Duty | | | | | Device Capability | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | Symm. kA rms | X/R Ratio | M.F. | Asymm. kA rms | Asymm. kA Peak | Symm. kA rms | Asymm. kA rms | Asymm. kA Peak |
| INFL PUMP 5 VFD | 0.480 | INFL PUMP 5 VFD | Bus | 31.575 | 5.6 | 1.283 | 40.525 | 70.056 | | | |
| INFL PUMP 5 VFD PRI | 0.480 | INFL PUMP 5 VFD PRI | Bus | 31.575 | 5.6 | 1.283 | 40.525 | 70.056 | | | |
| INFL PUMP 6 TERMINALS | 0.480 | INFL PUMP 6 TERMINALS | Bus | 23.125 | 4.7 | 1.233 | 28.520 | 49.396 | | | |
| INFL PUMP 6 VFD PRI | 0.480 | INFL PUMP 6 VFD PRI | Bus | 29.655 | 5.3 | 1.269 | 37.623 | 65.092 | | | |
| LCP-HWOCS | 0.480 | LCP-HWOCS | MCC | 4.308 | 0.4 | 1.000 | 4.308 | 6.095 | 65.000 | 81.100 | |
| MAIN SWGR "FILTER" | 0.480 | MAIN SWGR "FILTER" | Switchgear | 49.949 | 14.1 | 1.510 | 75.420 | 127.147 | 100.000 | 133.000 | |
| MAIN SWGR "SLUDGE" | 0.480 | MAIN SWGR "SLUDGE" | Switchgear | 57.915 | 13.6 | 1.504 | 87.095 | 146.954 | 100.000 | 133.000 | |
| MAIN SWGR BUS A PRI | 0.480 | MAIN SWGR BUS A PRI | Bus | 49.949 | 14.1 | 1.510 | 75.420 | 127.147 | | | |
| MAIN SWGR BUS B PRI | 0.480 | MAIN SWGR BUS B PRI | Bus | 57.915 | 13.6 | 1.504 | 87.095 | 146.954 | | | |
| MCC-DP2C | 0.480 | MCC-DP2C | MCC | 16.279 | 2.7 | 1.095 | 17.833 | 30.304 | 25.000 | 31.200 | |
| MCC-DP4A | 0.480 | MCC-DP4A | MCC | 1.724 | 0.2 | 1.000 | 1.724 | 2.437 | 25.000 | 31.200 | |
| MCC-DP4B | 0.480 | MCC-DP4B | MCC | 48.572 | 6.1 | 1.311 | 63.699 | 109.902 | 65.000 | 81.100 | |
| MCC-GE | 0.480 | MCC-GE | MCC | 15.296 | 9.2 | 1.417 | 21.676 | 36.990 | 35.000 | 43.600 | |
| MCC-GE PRI | 0.480 | MCC-GE PRI | MCC | 42.998 | 4.4 | 1.213 | 52.170 | 90.352 | 65.000 | 81.100 | |
| MCC-HW BUS A | 0.480 | MCC-HW BUS A | MCC | 31.811 | 5.3 | 1.270 | 40.387 | 69.871 | 65.000 | 81.100 | |
| MCC-HW BUS A PRI | 0.480 | MCC-HW BUS A PRI | Bus | 31.811 | 5.3 | 1.270 | 40.387 | 69.871 | | | |
| MCC-HW BUS B | 0.480 | MCC-HW BUS B | MCC | 31.318 | 5.3 | 1.269 | 39.736 | 68.746 | 65.000 | 81.100 | |
| MCC-HW BUS B PRI | 0.480 | MCC-HW BUS B PRI | Bus | 31.318 | 5.3 | 1.269 | 39.736 | 68.746 | | | |
| MCC-NA BUS A | 2.400 | MCC-NA BUS A | MCC | 5.016 | 7.3 | 1.360 | 6.821 | 11.716 | | 50.000 | 84.375 |
| MCC-NA BUS A PRI | 2.400 | MCC-NA BUS A PRI | MCC | 5.016 | 7.3 | 1.360 | 6.821 | 11.716 | | 81.100 | 25.000 |
| MCC-NA BUS B | 2.400 | MCC-NA BUS B | MCC | 5.091 | 7.1 | 1.352 | 6.883 | 11.833 | | 50.000 | 84.375 |
| MCC-NA BUS B PRI | 2.400 | MCC-NA BUS B PRI | MCC | 5.091 | 7.1 | 1.352 | 6.883 | 11.833 | | 81.100 | 25.000 |
| MCC-NC | 0.480 | MCC-NC | MCC | 15.294 | 6.0 | 1.306 | 19.980 | 34.485 | 65.000 | 81.100 | |
| MCC-ND | 0.480 | MCC-ND | MCC | 14.124 | 5.9 | 1.300 | 18.366 | 31.713 | 65.000 | 81.100 | |
| MCC-NE | 0.480 | MCC-NE | MCC | 14.305 | 4.9 | 1.247 | 17.838 | 30.887 | 65.000 | 81.100 | |
| MCC-NF | 0.480 | MCC-NF | MCC | 13.303 | 4.9 | 1.249 | 16.613 | 28.764 | 65.000 | 81.100 | |
| MCC-NG BUS A | 0.480 | MCC-NG BUS A | MCC | 8.191 | 2.3 | 1.066 | 8.733 | 14.613 | 65.000 | 81.100 | |
| MCC-NG BUS A PRI | 0.480 | MCC-NG BUS A PRI | Bus | 8.191 | 2.3 | 1.066 | 8.733 | 14.613 | | | |
| MCC-NG BUS B | 0.480 | MCC-NG BUS B | MCC | 8.233 | 2.6 | 1.089 | 8.963 | 15.187 | 65.000 | 81.100 | |
| MCC-NG BUS B PRI | 0.480 | MCC-NG BUS B PRI | Bus | 8.233 | 2.6 | 1.089 | 8.963 | 15.187 | | | |
| MCC-SH BUS A | 0.480 | MCC-SH BUS A | MCC | 8.185 | 2.3 | 1.061 | 8.686 | 14.481 | 65.000 | 81.100 | |
| MCC-SH BUS A PRI | 0.480 | MCC-SH BUS A PRI | Bus | 8.185 | 2.3 | 1.061 | 8.686 | 14.481 | | | |
| MCC-SH BUS B | 0.480 | MCC-SH BUS B | MCC | 8.118 | 2.3 | 1.060 | 8.607 | 14.340 | 65.000 | 81.100 | |
| MCC-SH BUS B PRI | 0.480 | MCC-SH BUS B PRI | Bus | 7.425 | 2.3 | 1.063 | 7.891 | 13.171 | | | |
| MS-HW BUS A | 0.480 | MS-HW BUS A | Switchgear | 33.733 | 6.3 | 1.320 | 44.511 | 76.746 | 100.000 | 133.000 | |
| MS-HW BUS A PRI | 0.480 | MS-HW BUS A PRI | Bus | 33.733 | 6.3 | 1.320 | 44.511 | 76.746 | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | Momentary Duty | | | | | Device Capability | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | Symm. kA rms | X/R Ratio | M.F. | Asymm. kA rms | Asymm. kA Peak | Symm. kA rms | Asymm. kA rms | Asymm. kA Peak |
| MS-HW BUS B | 0.480 | MS-HW BUS B | Switchgear | 33.241 | 6.3 | 1.318 | 43.828 | 75.574 | 100.000 | 133.000 | |
| MS-HW BUS B PRI | 0.480 | MS-HW BUS B PRI | Bus | 33.241 | 6.3 | 1.318 | 43.828 | 75.574 | | | |
| P52100.00 DISC | 0.480 | P52100.00 DISC | Bus | 3.998 | 0.5 | 1.000 | 3.998 | 5.663 | | | |
| P52100.00 TERM | 0.480 | P52100.00 TERM | Bus | 3.942 | 0.5 | 1.000 | 3.942 | 5.583 | | | |
| P52110.00 DISC | 0.480 | P52110.00 DISC | Bus | 2.808 | 0.4 | 1.000 | 2.808 | 3.972 | | | |
| P52110.00 TERM | 0.480 | P52110.00 TERM | Bus | 2.766 | 0.4 | 1.000 | 2.766 | 3.913 | | | |
| P52120.00 DISC | 0.480 | P52120.00 DISC | Bus | 4.240 | 0.5 | 1.000 | 4.240 | 6.006 | | | |
| P52120.00 TERM | 0.480 | P52120.00 TERM | Bus | 4.177 | 0.5 | 1.000 | 4.177 | 5.916 | | | |
| P52130.00 DISC | 0.480 | P52130.00 DISC | Bus | 2.989 | 0.4 | 1.000 | 2.989 | 4.227 | | | |
| P52130.00 TERM | 0.480 | P52130.00 TERM | Bus | 2.941 | 0.4 | 1.000 | 2.941 | 4.160 | | | |
| P52140.00 DISC | 0.480 | P52140.00 DISC | Bus | 4.998 | 0.5 | 1.000 | 4.998 | 7.082 | | | |
| P52140.00 TERM | 0.480 | P52140.00 TERM | Bus | 4.910 | 0.5 | 1.000 | 4.910 | 6.957 | | | |
| P52150.00 DISC | 0.480 | P52150.00 DISC | Bus | 3.564 | 0.4 | 1.000 | 3.564 | 5.042 | | | |
| P52150.00 TERM | 0.480 | P52150.00 TERM | Bus | 3.497 | 0.4 | 1.000 | 3.497 | 4.946 | | | |
| P52160.00 DISC | 0.480 | P52160.00 DISC | Bus | 3.710 | 0.4 | 1.000 | 3.710 | 5.248 | | | |
| P52160.00 TERM | 0.480 | P52160.00 TERM | Bus | 3.637 | 0.4 | 1.000 | 3.637 | 5.144 | | | |
| P52170.00 DISC | 0.480 | P52170.00 DISC | Bus | 3.946 | 0.4 | 1.000 | 3.946 | 5.582 | | | |
| P52170.00 TERM | 0.480 | P52170.00 TERM | Bus | 3.863 | 0.4 | 1.000 | 3.863 | 5.465 | | | |
| P52220.00 DISC | 0.480 | P52220.00 DISC | Bus | 0.693 | 0.1 | 1.000 | 0.693 | 0.980 | | | |
| P52220.00 TERM | 0.480 | P52220.00 TERM | Bus | 0.683 | 0.1 | 1.000 | 0.683 | 0.966 | | | |
| P52230.00 DISC | 0.480 | P52230.00 DISC | Bus | 0.693 | 0.1 | 1.000 | 0.693 | 0.980 | | | |
| P52230.00 TERM | 0.480 | P52230.00 TERM | Bus | 0.683 | 0.1 | 1.000 | 0.683 | 0.966 | | | |
| P52240.00 DISC | 0.480 | P52240.00 DISC | Bus | 0.872 | 0.1 | 1.000 | 0.872 | 1.233 | | | |
| P52240.00 TERM | 0.480 | P52240.00 TERM | Bus | 0.856 | 0.1 | 1.000 | 0.856 | 1.211 | | | |
| P52250.00 DISC | 0.480 | P52250.00 DISC | Bus | 0.872 | 0.1 | 1.000 | 0.872 | 1.233 | | | |
| P52250.00 TERM | 0.480 | P52250.00 TERM | Bus | 0.856 | 0.1 | 1.000 | 0.856 | 1.211 | | | |
| P54080.00 DISC | 0.480 | P54080.00 DISC | Bus | 1.432 | 0.1 | 1.000 | 1.432 | 2.025 | | | |
| P54080.00 TERM | 0.480 | P54080.00 TERM | Bus | 1.389 | 0.1 | 1.000 | 1.389 | 1.965 | | | |
| P54090.00 DISC | 0.480 | P54090.00 DISC | Bus | 1.432 | 0.1 | 1.000 | 1.432 | 2.025 | | | |
| P54090.00 TERM | 0.480 | P54090.00 TERM | Bus | 1.389 | 0.1 | 1.000 | 1.389 | 1.965 | | | |
| P55020.00 TERM | 0.480 | P55020.00 TERM | MCC | 3.398 | 0.3 | 1.000 | 3.398 | 4.805 | 65.000 | 81.100 | |
| P55030.00 TERM | 0.480 | P55030.00 TERM | Bus | 3.398 | 0.3 | 1.000 | 3.398 | 4.805 | | | |
| PNL DP2 | 0.480 | PNL DP2 | Switchboard | 19.957 | 2.8 | 1.098 | 21.906 | 37.256 | 22.000 | 27.400 | |
| PNL DP4 | 0.480 | PNL DP4 | Switchboard | 53.398 | 8.0 | 1.382 | 73.820 | 126.487 | 14.000 * | 17.500 * | |
| PNL DPLC-1 | 0.208 | PNL DPLC-1 | Panelboard | 1.963 | 1.5 | 1.017 | 1.996 | 3.141 | 10.000 | 12.500 | |
| PNL DPLC-2 | 0.208 | PNL DPLC-2 | Panelboard | 1.560 | 1.2 | 1.005 | 1.568 | 2.362 | 10.000 | 12.500 | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | Momentary Duty | | | | | Device Capability | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | Symm. kA rms | X/R Ratio | M.F. | Asymm. kA rms | Asymm. kA Peak | Symm. kA rms | Asymm. kA rms | Asymm. kA Peak |
| PNL DPLC-3 | 0.208 | PNL DPLC-3 | Panelboard | 1.862 | 1.4 | 1.010 | 1.881 | 2.898 | 10.000 | 12.500 | |
| PNL DPLC-4 | 0.208 | PNL DPLC-4 | Panelboard | 0.881 | 1.0 | 1.002 | 0.883 | 1.305 | 10.000 | 12.500 | |
| PNL DPP1 | 0.480 | PNL DPP1 | Panelboard | 16.073 | 0.9 | 1.001 | 16.091 | 23.497 | 160.000 | 200.000 | |
| PNL DPP1 PRI | 0.480 | PNL DPP1 PRI | MCC | 16.073 | 0.9 | 1.001 | 16.091 | 23.497 | 65.000 | 81.100 | |
| SCR BLDG N OH DOOR DISC | 0.480 | SCR BLDG N OH DOOR DISC | Bus | 1.240 | 0.1 | 1.000 | 1.240 | 1.753 | | | |
| SCR BLDG N OH DOOR TERM | 0.480 | SCR BLDG N OH DOOR TERM | Bus | 1.207 | 0.1 | 1.000 | 1.207 | 1.707 | | | |
| SCR BLDG S OH DOOR DISC | 0.480 | SCR BLDG S OH DOOR DISC | Bus | 1.348 | 0.1 | 1.000 | 1.348 | 1.906 | | | |
| SCR BLDG S OH DOOR TERM | 0.480 | SCR BLDG S OH DOOR TERM | Bus | 1.310 | 0.1 | 1.000 | 1.310 | 1.852 | | | |
| SEP53000.00 DISC | 0.480 | SEP53000.00 DISC | Bus | 0.742 | 0.1 | 1.000 | 0.742 | 1.050 | | | |
| SEP53000.00 TERM | 0.480 | SEP53000.00 TERM | Bus | 0.731 | 0.1 | 1.000 | 0.731 | 1.033 | | | |
| SEP53010.00 DISC | 0.480 | SEP53010.00 DISC | Bus | 0.742 | 0.1 | 1.000 | 0.742 | 1.050 | | | |
| SEP53010.00 TERM | 0.480 | SEP53010.00 TERM | Bus | 0.731 | 0.1 | 1.000 | 0.731 | 1.033 | | | |
| SEP53020.00 DISC | 0.480 | SEP53020.00 DISC | Bus | 0.719 | 0.1 | 1.000 | 0.719 | 1.017 | | | |
| SEP53020.00 TERM | 0.480 | SEP53020.00 TERM | Bus | 0.708 | 0.1 | 1.000 | 0.708 | 1.002 | | | |
| SR-DAF | 0.480 | SR-DAF | Cable Bus | 9.941 | 2.9 | 1.109 | 11.026 | 18.828 | | | |
| SR-DAF PRI | 0.480 | SR-DAF PRI | Bus | 9.941 | 2.9 | 1.109 | 11.026 | 18.828 | | | |
| SWBD GDP | 0.480 | SWBD GDP | Switchboard | 24.385 | 11.9 | 1.476 | 35.980 | 60.942 | 100.000 | 125.000 | |
| SWBD-NB BUS A | 0.480 | SWBD-NB BUS A | Switchboard | 15.403 | 6.1 | 1.310 | 20.180 | 34.821 | 50.000 | 62.300 | |
| SWBD-NB BUS A PRI | 0.480 | SWBD-NB BUS A PRI | Switchboard | 15.403 | 6.1 | 1.310 | 20.180 | 34.821 | 50.000 | 62.300 | |
| SWBD-NB BUS B | 0.480 | SWBD-NB BUS B | Switchboard | 14.246 | 6.0 | 1.307 | 18.617 | 32.132 | 50.000 | 62.300 | |
| SWBD-NB BUS B PRI | 0.480 | SWBD-NB BUS B PRI | Switchboard | 14.246 | 6.0 | 1.307 | 18.617 | 32.132 | 50.000 | 62.300 | |
| TRANSF TA PRI | 0.480 | TRANSF TA PRI | Bus | 49.949 | 14.1 | 1.510 | 75.420 | 127.147 | | | |
| TRANSF TB PRI | 0.480 | TRANSF TB PRI | Bus | 57.915 | 13.6 | 1.504 | 87.095 | 146.954 | | | |
| TRANSF TB SEC | 2.400 | TRANSF TB SEC | Bus | 5.694 | 8.9 | 1.411 | 8.033 | 13.719 | | | |
| TRANSF TC PRI | 2.400 | TRANSF TC PRI | Bus | 4.986 | 7.1 | 1.353 | 6.744 | 11.592 | | | |
| TRANSF TC SEC | 0.480 | TRANSF TC SEC | Bus | 15.560 | 6.3 | 1.318 | 20.511 | 35.369 | | | |
| TRANSF TD PRI | 2.400 | TRANSF TD PRI | Bus | 5.056 | 6.9 | 1.344 | 6.797 | 11.693 | | | |
| TRANSF TD SEC | 0.480 | TRANSF TD SEC | Bus | 14.441 | 6.3 | 1.317 | 19.015 | 32.794 | | | |
| XFMR T-C4 PRI | 0.480 | XFMR T-C4 PRI | MCC | 8.349 | 0.4 | 1.000 | 8.349 | 11.813 | 65.000 | 81.100 | |
| XFMR T-C4 SEC | 0.208 | XFMR T-C4 SEC | MCC | 0.906 | 1.1 | 1.003 | 0.909 | 1.352 | 65.000 | 81.100 | |
| XFMR T-LC1 PRI | 0.480 | XFMR T-LC1 PRI | MCC | 11.990 | 0.6 | 1.000 | 11.991 | 17.057 | 65.000 | 81.100 | |
| XFMR T-LC1 SEC | 0.208 | XFMR T-LC1 SEC | MCC | 1.982 | 1.6 | 1.018 | 2.018 | 3.181 | 65.000 | 81.100 | |
| XFMR T-LC2 PRI | 0.480 | XFMR T-LC2 PRI | MCC | 2.958 | 0.2 | 1.000 | 2.958 | 4.183 | 65.000 | 81.100 | |
| XFMR T-LC2 SEC | 0.208 | XFMR T-LC2 SEC | MCC | 1.565 | 1.2 | 1.005 | 1.573 | 2.370 | 65.000 | 81.100 | |

Method: IEEE - X/R is calculated from separate R & X networks.
Protective device duty is calculated based on total fault current.
The multiplication factors for high voltage circuit-breaker and high voltage bus momentary duty (asymmetrical and crest values) are calculated based on system X/R.

* Indicates a device with momentary duty exceeding the device capability

# APPENDIX B2 – SHORT CIRCUIT STUDY (INTERRUPTING DUTY SUMMARY REPORT)

## Interrupting Duty Summary Report

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| ATS-L BUS A | 0.480 | | | | 30.392 | 3.4 | | | | | | |
| ATS-L BUS B | 0.480 | | | | 26.452 | 2.0 | | | | | | |
| ATS-L SEC | 0.480 | | | | 30.392 | 3.4 | | | | | | |
| B20100.00 TERMINALS | 2.400 | | | | 3.982 | 6.1 | | | | | | |
| B20200.00 TERMINALS | 2.400 | | | | 3.959 | 5.8 | | | | | | |
| B20400.00 TERMINALS | 2.400 | | | | 4.102 | 5.7 | | | | | | |
| B52180.00 DISC | 0.480 | | | | 5.714 | 0.5 | | | | | | |
| B52180.00 TERM | 0.480 | | | | 5.544 | 0.5 | | | | | | |
| B52190.00 DISC | 0.480 | | | | 4.218 | 0.4 | | | | | | |
| B52190.00 TERM | 0.480 | | | | 4.123 | 0.4 | | | | | | |
| B52210.00 DISC | 0.480 | | | | 1.587 | 0.2 | | | | | | |
| B52210.00 TERM | 0.480 | | | | 1.553 | 0.2 | | | | | | |
| B52220.00 DISC | 0.480 | | | | 1.491 | 0.2 | | | | | | |
| B52220.00 TERM | 0.480 | | | | 1.462 | 0.2 | | | | | | |
| BLWR BLDG TROLLEY | 0.480 | | | | 4.420 | 0.3 | | | | | | |
| BSN51240.00 DISC | 0.480 | | | | 0.765 | 0.1 | | | | | | |
| BSN51240.00 TERM | 0.480 | | | | 0.752 | 0.1 | | | | | | |
| BSN51250.00 DISC | 0.480 | | | | 0.765 | 0.1 | | | | | | |
| BSN51250.00 TERM | 0.480 | | | | 0.752 | 0.1 | | | | | | |
| BSN51260.00 DISC | 0.480 | | | | 0.765 | 0.1 | | | | | | |
| BSN51260.00 TERM | 0.480 | | | | 0.752 | 0.1 | | | | | | |
| BSN51270.00 DISC | 0.480 | | | | 0.765 | 0.1 | | | | | | |
| BSN51270.00 TERM | 0.480 | | | | 0.752 | 0.1 | | | | | | |
| COGEN TIE BUS | 0.480 | B-MAIN SWGR B2 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| COM53030.00 DISC | 0.480 | | | | 0.795 | 0.1 | | | | | | |
| COM53030.00 TERM | 0.480 | | | | 0.782 | 0.1 | | | | | | |
| COM53040.00 DISC | 0.480 | | | | 0.869 | 0.1 | | | | | | |
| COM53040.00 TERM | 0.480 | | | | 0.853 | 0.1 | | | | | | |
| CON51300.00 DISC | 0.480 | | | | 0.798 | 0.1 | | | | | | |
| CON51300.00 TERM | 0.480 | | | | 0.785 | 0.1 | | | | | | |
| CON51320.00 DISC | 0.480 | | | | 0.798 | 0.1 | | | | | | |
| CON51320.00 TERM | 0.480 | | | | 0.785 | 0.1 | | | | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| CON53020.00 DISC | 0.480 | | | | 0.748 | 0.1 | | | | | | |
| CON53020.00 TERM | 0.480 | | | | 0.736 | 0.1 | | | | | | |
| CON53030.00 DISC | 0.480 | | | | 0.748 | 0.1 | | | | | | |
| CON53030.00 TERM | 0.480 | | | | 0.736 | 0.1 | | | | | | |
| EFF PS SWGR BUS A | 0.480 | B-EFF PS SWGR BUS A | PowerUnfuse | | 19.810 | 5.8 | 1.000 | 19.810 | 0.480 | 15.00 | 65.000 | 65.000 |
| | | B-EFF PUMP NO. 4 VFD | PowerUnfuse | | 19.810 | 5.8 | 1.000 | 19.810 | 0.480 | 15.00 | 65.000 | 65.000 |
| EFF PS SWGR BUS A PRI | 0.480 | B-EFF PS SWGR BUS A | PowerUnfuse | | 19.810 | 5.8 | 1.000 | 19.810 | 0.480 | 15.00 | 65.000 | 65.000 |
| EFF PS SWGR BUS B | 0.480 | B-EFF PS SWGR BUS B | PowerUnfuse | | 19.809 | 5.8 | 1.000 | 19.809 | 0.480 | 15.00 | 65.000 | 65.000 |
| | | B-EFF PUMP NO. 2 VFD | PowerUnfuse | | 19.809 | 5.8 | 1.000 | 19.809 | 0.480 | 15.00 | 65.000 | 65.000 |
| EFF PS SWGR BUS B PRI | 0.480 | B-EFF PS SWGR BUS B | PowerUnfuse | | 19.809 | 5.8 | 1.000 | 19.809 | 0.480 | 15.00 | 65.000 | 65.000 |
| EFF PUMP NO. 2 VFD PRI | 0.480 | F-EFF PUMP NO. 2 VFD | Fuse | | 19.060 | 5.0 | 1.004 | 19.139 | 0.600 | 20.00 | 300.000 | 300.000 |
| EFF PUMP NO. 4 VFD PRI | 0.480 | F-EFF PUMP NO. 4 VFD | Fuse | | 19.061 | 4.9 | 1.002 | 19.103 | 0.600 | 20.00 | 300.000 | 300.000 |
| F52410.00 DISC | 0.480 | | | | 0.627 | 0.1 | | | | | | |
| F52410.00 STR | 0.480 | | | | 0.673 | 0.1 | | | | | | |
| F52420.00 DISC | 0.480 | | | | 0.503 | 0.1 | | | | | | |
| F52420.00 STR | 0.480 | | | | 0.532 | 0.1 | | | | | | |
| F54330.00 DISC | 0.480 | | | | 2.516 | 0.1 | | | | | | |
| F54330.00 TERM | 0.480 | | | | 2.388 | 0.1 | | | | | | |
| F55010.00 TERM | 0.480 | | | | 4.157 | 0.4 | | | | | | |
| GEN NO. 2 TERM | 0.480 | | | | 22.464 | 9.3 | | | | | | |
| GEN NO. 3 TERM | 0.480 | | | | 22.780 | 9.6 | | | | | | |
| GRIT SCR TROLLEY | 0.480 | | | | 0.739 | 0.1 | | | | | | |
| HVAC56100.00 DISC | 0.480 | F-HVAC56100.00 | Fuse | | 6.021 | 0.3 | 1.000 | 6.021 | 0.480 | 6.65 | 14.000 | 14.000 |
| HVAC56100.00 TERM | 0.480 | | | | 5.563 | 0.3 | | | | | | |
| HVAC56110.00 DISC | 0.480 | F-HVAC56110.00 | Fuse | | 2.531 | 0.2 | 1.000 | 2.531 | 0.480 | 6.65 | 14.000 | 14.000 |
| HVAC56110.00 TERM | 0.480 | | | | 2.401 | 0.2 | | | | | | |
| HW ELEVATOR | 0.480 | | | | 8.455 | 0.5 | | | | | | |
| HW GATES | 0.480 | | | | 0.418 | 0.1 | | | | | | |
| INFL PUMP 1 TERMINALS | 0.480 | | | | 24.231 | 4.7 | | | | | | |
| INFL PUMP 1 VFD PRI | 0.480 | B-INFL PUMP 1 | Molded Case | | 31.573 | 5.7 | 1.033 | 32.606 | 0.480 | 20.00 | 65.000 | 65.000 |
| INFL PUMP 2 TERMINALS | 0.480 | | | | 21.921 | 3.7 | | | | | | |
| INFL PUMP 2 VFD | 0.480 | B-INFL PUMP 2 VFD MAIN | Molded Case | | 30.017 | 5.3 | 1.016 | 30.497 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-INFL PUMP 2 | Molded Case | | 30.017 | 5.3 | 1.016 | 30.497 | 0.480 | 20.00 | 50.000 | 50.000 |
| INFL PUMP 2 VFD PRI | 0.480 | B-INFL PUMP 2 VFD MAIN | Molded Case | | 30.017 | 5.3 | 1.016 | 30.497 | 0.480 | 20.00 | 65.000 | 65.000 |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| INFL PUMP 3 TERMINALS | 0.480 | | | | 22.707 | 3.7 | | | | | | |
| INFL PUMP 3 VFD | 0.480 | B-INFL PUMP 3 VFD MAIN | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-INFL PUMP 3 | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 50.000 | 50.000 |
| INFL PUMP 3 VFD PRI | 0.480 | B-INFL PUMP 3 VFD MAIN | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 65.000 | 65.000 |
| INFL PUMP 4 TERMINALS | 0.480 | | | | 22.114 | 3.7 | | | | | | |
| INFL PUMP 4 VFD | 0.480 | B-INFL PUMP 4 VFD MAIN | Molded Case | | 30.385 | 5.3 | 1.020 | 30.997 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-INFL PUMP 4 | Molded Case | | 30.385 | 5.3 | 1.020 | 30.997 | 0.480 | 20.00 | 50.000 | 50.000 |
| INFL PUMP 4 VFD PRI | 0.480 | B-INFL PUMP 4 VFD MAIN | Molded Case | | 30.385 | 5.3 | 1.020 | 30.997 | 0.480 | 20.00 | 65.000 | 65.000 |
| INFL PUMP 5 TERMINALS | 0.480 | | | | 22.707 | 3.7 | | | | | | |
| INFL PUMP 5 VFD | 0.480 | B-INFL PUMP 5 VFD MAIN | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-INFL PUMP 5 | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 50.000 | 50.000 |
| INFL PUMP 5 VFD PRI | 0.480 | B-INFL PUMP 5 VFD MAIN | Molded Case | | 31.575 | 5.6 | 1.029 | 32.502 | 0.480 | 20.00 | 65.000 | 65.000 |
| INFL PUMP 6 TERMINALS | 0.480 | | | | 23.125 | 4.7 | | | | | | |
| INFL PUMP 6 VFD PRI | 0.480 | B-INFL PUMP 6 | Molded Case | | 29.655 | 5.3 | 1.018 | 30.174 | 0.480 | 20.00 | 65.000 | 65.000 |
| LCP-HWOCS | 0.480 | | | | 4.308 | 0.4 | | | | | | |
| MAIN SWGR "FILTER" | 0.480 | B-FA5-MCC-GB | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA7-MCC-GH | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA6-MCC-GF | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-PNL DP1 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA2-MCC-HCC | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA1 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA3-PNL DP3 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FA4-MCC-GD | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-MAIN SWGR A1 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| MAIN SWGR "SLUDGE" | 0.480 | B-MAIN SWGR B2 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB1 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB3 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB4 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB5-MCC-GE | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB8-ATS-8 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB7-MCC-GA | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB6-MCC-GC | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-FB2-MCC-HC | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| | | B-MAIN SWGR B1 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. | |
| MAIN SWGR BUS A PRI | 0.480 | B-MAIN SWGR A1 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 | |
| MAIN SWGR BUS B PRI | 0.480 | B-MAIN SWGR B1 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 | |
| MCC-DP2C | 0.480 | B-GAS COMPRESSOR #6 | Molded Case | | 16.279 | 2.7 | 1.000 | 16.279 | 0.480 | 20.00 | 35.000 | 35.000 | |
| | | B-GAS COMPRESSOR #7 | Molded Case | | 16.279 | 2.7 | 1.000 | 16.279 | 0.480 | 20.00 | 35.000 | 35.000 | |
| MCC-DP4A | 0.480 | | | | 1.724 | 0.2 | | | | | | | |
| MCC-DP4B | 0.480 | B-NEW INTERSTAGE BLDG | Molded Case | | 48.572 | 6.1 | 1.052 | 51.088 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B2-MCC-DP4B | Molded Case | | 48.572 | 6.1 | 1.052 | 51.088 | 0.480 | 20.00 | 200.000 | 200.000 | |
| MCC-GE | 0.480 | B-P4013.00 | Molded Case | | 15.296 | 9.2 | 1.137 | 17.384 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P4012.00 | Molded Case | | 15.296 | 9.2 | 1.137 | 17.384 | 0.600 | 20.00 | 200.000 | 200.000 | |
| MCC-GE PRI | 0.480 | | | | 42.998 | 4.4 | | | | | | | |
| MCC-HW BUS A | 0.480 | B-MCC-HW BUS A MAIN | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-P52160.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52140.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52120.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52100.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-BSN51260.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-BSN51240.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52230.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-B52180.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-B52220.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-COM53030.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-SEP53000.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52220.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P54090.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P54080.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-CON51320.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-CON51300.00 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-HW ELEVATOR | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-ATS-L BUS A | Molded Case | | 31.811 | 5.3 | 1.123 | 35.736 | 0.480 | 30.00 | 14.000 | 14.000 | * |
| | | B-GRIT SCR TROLLEY | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-BLRW BLDG TROLLEY | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-PNL DPP1 | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-LCP-HWOCS | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |
| MCC-HW BUS A PRI | 0.480 | B-MCC-HW BUS A MAIN | Molded Case | | 31.811 | 5.3 | 1.018 | 32.391 | 0.480 | 20.00 | 65.000 | 65.000 | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. | |
| MCC-HW BUS B | 0.480 | B-MCC-HW BUS B MAIN | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 65.000 | 65.000 | |
| | | B-F54330.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-BSN51250.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-BSN51270.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52150.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52170.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52110.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52130.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-SEP53010.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52250.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-COM53040.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-B52190.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-B52210.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-SEP53020.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-CON53020.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-CON53030.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P52240.00 | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-ATS-L BUS B | Molded Case | | 31.318 | 5.3 | 1.123 | 35.159 | 0.480 | 30.00 | 18.000 | 18.000 | * |
| MCC-HW BUS B PRI | 0.480 | B-MCC-HW BUS B MAIN | Molded Case | | 31.318 | 5.3 | 1.018 | 31.869 | 0.480 | 20.00 | 65.000 | 65.000 | |
| MCC-NA BUS A | 2.400 | F MCC-NA BUS A | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.500 | 6.65 | 25.000 | 25.000 | |
| | | F TRANSF TC | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.500 | 6.65 | 25.000 | 25.000 | |
| | | F B20100.00 | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.080 | 3.95 | 50.000 | 50.000 | |
| | | F B20200.00 | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.080 | 3.95 | 50.000 | 50.000 | |
| | | F B20300.00 | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.080 | 3.95 | 50.000 | 50.000 | |
| MCC-NA BUS A PRI | 2.400 | F MCC-NA BUS A | Fuse | | 5.016 | 7.3 | 1.000 | 5.016 | 5.500 | 6.65 | 25.000 | 25.000 | |
| MCC-NA BUS B | 2.400 | F MCC-NA BUS B | Fuse | | 5.091 | 7.1 | 1.000 | 5.091 | 5.500 | 6.65 | 25.000 | 25.000 | |
| | | F TRANSF TD | Fuse | | 5.091 | 7.1 | 1.000 | 5.091 | 5.500 | 6.65 | 25.000 | 25.000 | |
| | | F B20400.00 | Fuse | | 5.091 | 7.1 | 1.000 | 5.091 | 5.080 | 3.95 | 50.000 | 50.000 | |
| | | F B20500.00 | Fuse | | 5.091 | 7.1 | 1.000 | 5.091 | 5.080 | 3.95 | 50.000 | 50.000 | |
| MCC-NA BUS B PRI | 2.400 | F MCC-NA BUS B | Fuse | | 5.091 | 7.1 | 1.000 | 5.091 | 5.500 | 6.65 | 25.000 | 25.000 | |
| MCC-NC | 0.480 | B-P27010.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P27030.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P28010.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 | |
| | | B-P27310.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| MCC-NC | | B-P28030.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27330.00 (Bypass) | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27110.00 | Molded Case | | 15.294 | 6.0 | 1.048 | 16.024 | 0.480 | 20.00 | 100.000 | 100.000 |
| MCC-ND | 0.480 | B-P27020.00 (Bypass) | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27040.00 (Bypass) | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P28020.00 (Bypass) | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27320.00 (Bypass) | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27120.00 | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27130.00 | Molded Case | | 14.124 | 5.9 | 1.043 | 14.729 | 0.480 | 20.00 | 100.000 | 100.000 |
| MCC-NE | 0.480 | B-PNL DPP4 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-XFMR-T-DPC3-PRI | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-M25011.10 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25051.10 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25131.10 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25091.10 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25171.10 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P26057.00 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P26058.00 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27720.00 | Molded Case | | 14.305 | 4.9 | 1.000 | 14.307 | 0.480 | 20.00 | 100.000 | 100.000 |
| MCC-NF | 0.480 | B-PNL DPP5 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-XFMR-T-DPL2-PRI | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-M25031.10 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25071.10 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25111.10 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-M25151.10 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P27230.00 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F27505.00 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F27506.00 | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-XFRM-FEB-PRI | Molded Case | | 13.303 | 4.9 | 1.002 | 13.324 | 0.480 | 20.00 | 65.000 | 65.000 |
| MCC-NG BUS A | 0.480 | B-PNL DPP7 BLOWER GALLERY | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-P20400.20 | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P20500.20 | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P26020.00 | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-XFRM-T-DPP2-PRI | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| MCC-NG BUS A | | B-XFMR-T-DPC1-PRI | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-P26025.00 | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-PNL DPP1 BLOWER GALLERY | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-BUS A MCC-NG | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |
| MCC-NG BUS A PRI | 0.480 | B-BUS A MCC-NG | Molded Case | | 8.191 | 2.3 | 1.000 | 8.191 | 0.480 | 20.00 | 65.000 | 65.000 |
| MCC-NG BUS B | 0.480 | B-P26010.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-B27400.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F21159.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P26059.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P26060.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F21160.00 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-PNL DPP3_BLOWER GALLERY | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-PNL DPP6_BLOWER GALLERY | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-P20100.20 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P20200.20 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P20300.20 | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-XFRM-T-DPL1-PRI | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-BUS-B MCC-NG | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 65.000 | 65.000 |
| MCC-NG BUS B PRI | 0.480 | B-BUS-B MCC-NG | Molded Case | | 8.233 | 2.6 | 1.000 | 8.233 | 0.480 | 20.00 | 65.000 | 65.000 |
| MCC-SH BUS A | 0.480 | B-P6901.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37010.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B- Polymer | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B- Praestemat | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-Polymer PNL | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-Grinder | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-P6902.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-RSS 30010.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-B36040.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-XFMR-T-DPM1-PRI | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-XFRM-T-DPC7-PRI | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-SP2 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-CON 33010.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F36035.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| MCC-SH BUS A | | B-F37015.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37020.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-LCP-BFP2 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-LCP-BFP1 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-CON 33030.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F36037.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37030 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-ORS Sprayer | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 35.000 | 35.000 |
| | | B-P32013.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32023.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32011.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32021.00 | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-MCC-SH BUS A MAIN | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 30.000 | 30.000 |
| MCC-SH BUS A PRI | 0.480 | B-MCC-SH BUS A MAIN | Molded Case | | 8.185 | 2.3 | 1.000 | 8.185 | 0.480 | 20.00 | 30.000 | 30.000 |
| MCC-SH BUS B | 0.480 | B-P32033.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32043.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32031.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P32041.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37013.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-LCP-BFP3 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-LCP-BFP4 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-CON 330040.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F36030.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37033.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-XFMR-T-DPM2-PRI | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-XFMR-T-DPL7-PRI | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 65.000 | 65.000 |
| | | B-CON 33020.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37017.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-MPV 30021.00 | InsulUnfuse | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-HWH | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-B36045.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-RSS30020.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-F37023.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |
| | | B-P6903.00 | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 100.000 | 100.000 |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| MCC-SH BUS B | | B-MCC-SH TIE | Molded Case | | 8.118 | 2.3 | 1.000 | 8.118 | 0.480 | 20.00 | 30.000 | 30.000 |
| MCC-SH BUS B PRI | 0.480 | | | | 7.425 | 2.3 | | | | | | |
| MS-HW BUS A | 0.480 | B-MS-HW 52-A | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-2B | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-2C | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-2D | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-3C | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| MS-HW BUS A PRI | 0.480 | B-MS-HW 52-A | PowerUnfuse | | 33.733 | 6.3 | 1.000 | 33.733 | 0.508 | 15.00 | 100.000 | 100.000 |
| MS-HW BUS B | 0.480 | B-52-5C | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-MS-HW 52-B | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-6B | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-6C | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| | | B-52-6D | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| MS-HW BUS B PRI | 0.480 | B-MS-HW 52-B | PowerUnfuse | | 33.241 | 6.3 | 1.000 | 33.241 | 0.508 | 15.00 | 100.000 | 100.000 |
| P52100.00 DISC | 0.480 | | | | 3.998 | 0.5 | | | | | | |
| P52100.00 TERM | 0.480 | | | | 3.942 | 0.5 | | | | | | |
| P52110.00 DISC | 0.480 | | | | 2.808 | 0.4 | | | | | | |
| P52110.00 TERM | 0.480 | | | | 2.766 | 0.4 | | | | | | |
| P52120.00 DISC | 0.480 | | | | 4.240 | 0.5 | | | | | | |
| P52120.00 TERM | 0.480 | | | | 4.177 | 0.5 | | | | | | |
| P52130.00 DISC | 0.480 | | | | 2.989 | 0.4 | | | | | | |
| P52130.00 TERM | 0.480 | | | | 2.941 | 0.4 | | | | | | |
| P52140.00 DISC | 0.480 | | | | 4.998 | 0.5 | | | | | | |
| P52140.00 TERM | 0.480 | | | | 4.910 | 0.5 | | | | | | |
| P52150.00 DISC | 0.480 | | | | 3.564 | 0.4 | | | | | | |
| P52150.00 TERM | 0.480 | | | | 3.497 | 0.4 | | | | | | |
| P52160.00 DISC | 0.480 | | | | 3.710 | 0.4 | | | | | | |
| P52160.00 TERM | 0.480 | | | | 3.637 | 0.4 | | | | | | |
| P52170.00 DISC | 0.480 | | | | 3.946 | 0.4 | | | | | | |
| P52170.00 TERM | 0.480 | | | | 3.863 | 0.4 | | | | | | |
| P52220.00 DISC | 0.480 | | | | 0.693 | 0.1 | | | | | | |
| P52220.00 TERM | 0.480 | | | | 0.683 | 0.1 | | | | | | |
| P52230.00 DISC | 0.480 | | | | 0.693 | 0.1 | | | | | | |
| P52230.00 TERM | 0.480 | | | | 0.683 | 0.1 | | | | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. | |
| P52240.00 DISC | 0.480 | | | | 0.872 | 0.1 | | | | | | | |
| P52240.00 TERM | 0.480 | | | | 0.856 | 0.1 | | | | | | | |
| P52250.00 DISC | 0.480 | | | | 0.872 | 0.1 | | | | | | | |
| P52250.00 TERM | 0.480 | | | | 0.856 | 0.1 | | | | | | | |
| P54080.00 DISC | 0.480 | | | | 1.432 | 0.1 | | | | | | | |
| P54080.00 TERM | 0.480 | | | | 1.389 | 0.1 | | | | | | | |
| P54090.00 DISC | 0.480 | | | | 1.432 | 0.1 | | | | | | | |
| P54090.00 TERM | 0.480 | | | | 1.389 | 0.1 | | | | | | | |
| P55020.00 TERM | 0.480 | | | | 3.398 | 0.3 | | | | | | | |
| P55030.00 TERM | 0.480 | | | | 3.398 | 0.3 | | | | | | | |
| PNL DP2 | 0.480 | B-MCC-DP2C | Molded Case | | 19.957 | 2.8 | 1.000 | 19.957 | 0.480 | 20.00 | 30.000 | 30.000 | |
| PNL DP4 | 0.480 | B-MCC-DP4A | Molded Case | | 53.398 | 8.0 | 1.223 | 65.318 | 0.600 | 30.00 | 14.000 | 14.000 | * |
| | | F-MCC-DP4B | Fuse | | 53.398 | 8.0 | 1.109 | 59.204 | 0.600 | 20.00 | 200.000 | 200.000 | |
| | | B-MCC-DP4B | Molded Case | | 53.398 | 8.0 | 1.109 | 59.204 | 0.600 | 20.00 | 200.000 | 200.000 | |
| PNL DPLC-1 | 0.208 | B-PNL DPLC-3 | Molded Case | | 1.963 | 1.5 | 1.000 | 1.963 | 0.240 | 50.00 | 10.000 | 10.000 | |
| | | B-STANDBY GEN PNL | Molded Case | | 1.963 | 1.5 | 1.000 | 1.963 | 0.240 | 50.00 | 10.000 | 10.000 | |
| | | B-PURGING COMPROSSER | Molded Case | | 1.963 | 1.5 | 1.000 | 1.963 | 0.240 | 50.00 | 10.000 | 10.000 | |
| | | B-PNL DPLC-1 | Molded Case | | 1.963 | 1.5 | 1.000 | 1.963 | 0.240 | 20.00 | 65.000 | 65.000 | |
| PNL DPLC-2 | 0.208 | B-PNL DPLC-2 MAIN | Molded Case | | 1.560 | 1.2 | 1.000 | 1.560 | 0.240 | 20.00 | 65.000 | 65.000 | |
| PNL DPLC-3 | 0.208 | B-PNL DPLC-3 MAIN | Molded Case | | 1.862 | 1.4 | 1.000 | 1.862 | 0.240 | 50.00 | 10.000 | 10.000 | |
| PNL DPLC-4 | 0.208 | B-PNL DPLC-4 MAIN | Molded Case | | 0.881 | 1.0 | 1.000 | 0.881 | 0.240 | 50.00 | 10.000 | 10.000 | |
| PNL DPP1 | 0.480 | B-XFMR T-C4 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-HVAC56100.00 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-HVAC56110.00 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-F52420.00 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-F52410.00 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-SCR BLDG S OH DOOR | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-XFMR T-LC2 | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-SCR BLDG N OH DOOR | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-HW GATES | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 30.00 | 18.000 | 18.000 | |
| | | B-PNL DPP1 MAIN | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 20.00 | 42.000 | 42.000 | |
| PNL DPP1 PRI | 0.480 | B-PNL DPP1 MAIN | MoldedFused | | 16.073 | 0.9 | 1.000 | 16.073 | 0.480 | 20.00 | 42.000 | 42.000 | |
| SCR BLDG N OH DOOR DISC | 0.480 | | | | 1.240 | 0.1 | | | | | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| SCR BLDG N OH DOOR TERM | 0.480 | | | | 1.207 | 0.1 | | | | | | |
| SCR BLDG S OH DOOR DISC | 0.480 | | | | 1.348 | 0.1 | | | | | | |
| SCR BLDG S OH DOOR TERM | 0.480 | | | | 1.310 | 0.1 | | | | | | |
| SEP53000.00 DISC | 0.480 | | | | 0.742 | 0.1 | | | | | | |
| SEP53000.00 TERM | 0.480 | | | | 0.731 | 0.1 | | | | | | |
| SEP53010.00 DISC | 0.480 | | | | 0.742 | 0.1 | | | | | | |
| SEP53010.00 TERM | 0.480 | | | | 0.731 | 0.1 | | | | | | |
| SEP53020.00 DISC | 0.480 | | | | 0.719 | 0.1 | | | | | | |
| SEP53020.00 TERM | 0.480 | | | | 0.708 | 0.1 | | | | | | |
| SR-DAF | 0.480 | | | | 9.941 | 2.9 | | | | | | |
| SR-DAF PRI | 0.480 | | | | 9.941 | 2.9 | | | | | | |
| SWBD GDP | 0.480 | B-GEN NO. 2 | PowerUnfuse | | 24.385 | 11.9 | 1.090 | 26.586 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-GEN NO. 3 | PowerUnfuse | | 24.385 | 11.9 | 1.090 | 26.586 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-GEN TIE A3 | InsulUnfuse | | 24.385 | 11.9 | 1.109 | 27.037 | 0.480 | 15.00 | 100.000 | 100.000 |
| SWBD-NB BUS A | 0.480 | B-SWBD-NB BUS A MAIN | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 65.000 | 65.000 |
| | | B-MCC-NG BUS A | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-MCC-SH BUS A | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-MCC-NC | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 65.000 | 65.000 |
| | | B-MCC-NE | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-SR-DAF | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 50.000 | 50.000 |
| SWBD-NB BUS A PRI | 0.480 | B-SWBD-NB BUS A MAIN | InsulUnfuse | | 15.403 | 6.1 | 1.000 | 15.403 | 0.480 | 15.00 | 65.000 | 65.000 |
| SWBD-NB BUS B | 0.480 | B-MCC-NG BUS B | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-MCC-SH BUS B | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-SWBD-NB BUS B MAIN | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 65.000 | 65.000 |
| | | B-MCC-NF | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 50.000 | 50.000 |
| | | B-MCC-ND | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 65.000 | 65.000 |
| SWBD-NB BUS B PRI | 0.480 | B-SWBD-NB BUS B MAIN | InsulUnfuse | | 14.246 | 6.0 | 1.000 | 14.246 | 0.480 | 15.00 | 65.000 | 65.000 |
| TRANSF TA PRI | 0.480 | B-FA1 | InsulUnfuse | | 49.949 | 14.1 | 1.135 | 56.673 | 0.480 | 15.00 | 100.000 | 100.000 |
| TRANSF TB PRI | 0.480 | B-FB1 | InsulUnfuse | | 57.915 | 13.6 | 1.130 | 65.447 | 0.480 | 15.00 | 100.000 | 100.000 |
| TRANSF TB SEC | 2.400 | | | | 4.909 | 9.4 | | | | | | |
| TRANSF TC PRI | 2.400 | | | | 4.133 | 7.2 | | | | | | |
| TRANSF TC SEC | 0.480 | | | | 15.560 | 6.3 | | | | | | |
| TRANSF TD PRI | 2.400 | | | | 4.294 | 6.9 | | | | | | |

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

| Bus | | Device | | | Interrupting Duty | | | | Device Capability | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | ID | Type | CPT (Cy) | Symm. kA rms | X/R Ratio | M.F. | Adj. Sym. kA rms | kV | Test PF | Rated Int. | Adjusted Int. |
| TRANSF TD SEC | 0.480 | | | | 14.441 | 6.3 | | | | | | |
| XFMR T-C4 PRI | 0.480 | | | | 8.349 | 0.4 | | | | | | |
| XFMR T-C4 SEC | 0.208 | | | | 0.906 | 1.1 | | | | | | |
| XFMR T-LC1 PRI | 0.480 | | | | 11.990 | 0.6 | | | | | | |
| XFMR T-LC1 SEC | 0.208 | | | | 1.982 | 1.6 | | | | | | |
| XFMR T-LC2 PRI | 0.480 | | | | 2.958 | 0.2 | | | | | | |
| XFMR T-LC2 SEC | 0.208 | | | | 1.565 | 1.2 | | | | | | |

Method: IEEE - X/R is calculated from separate R & X networks.
HV CB interrupting capability is adjusted based on bus nominal voltage
Short-circuit multiplying factor for LV Molded Case and Insulated Case Circuit Breakers is calculated based on asymmetrical current.
Generator protective device duty is calculated based on maximum through fault current. Other protective device duty is calculated based on total fault current.

* Indicates a device with interrupting duty exceeding the device capability

** Indicates that the circuit breaker has been flagged as a generator circuit breaker. However, ETAP could not detect a single path, without a transformer, to the specified generator. Therefore, this circuit breaker is treated as a regular circuit breaker in short-circuit calculations.

\+ The prefault voltage exceeds the rated maximum kV limit of the circuit breaker - The rated interrupting kA must be derated.

# APPENDIX B3 – SHORT CIRCUIT STUDY (1/2 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

## Short-Circuit Summary Report

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| ATS-L BUS A | 0.48 | 8.990 | -29.032 | 30.392 | 10.625 | -26.498 | 28.549 | 25.142 | 7.785 | 26.320 | -30.997 | 4.251 | 31.287 |
| ATS-L BUS B | 0.48 | 12.342 | -23.396 | 26.452 | 13.709 | -18.132 | 22.731 | 20.262 | 10.689 | 22.908 | -27.061 | -3.636 | 27.304 |
| ATS-L SEC | 0.48 | 8.990 | -29.032 | 30.392 | 10.625 | -26.498 | 28.549 | 25.142 | 7.785 | 26.320 | -30.997 | 4.251 | 31.287 |
| B20100.00 TERMINALS | 2.40 | 0.874 | -4.698 | 4.779 | 1.291 | -3.882 | 4.091 | 4.069 | 0.757 | 4.139 | -4.793 | 0.854 | 4.868 |
| B20200.00 TERMINALS | 2.40 | 0.910 | -4.634 | 4.723 | 1.300 | -3.834 | 4.048 | 4.013 | 0.788 | 4.090 | -4.736 | 0.807 | 4.804 |
| B20400.00 TERMINALS | 2.40 | 0.908 | -4.724 | 4.811 | 1.313 | -3.843 | 4.061 | 4.092 | 0.790 | 4.168 | -4.813 | 0.789 | 4.877 |
| B52180.00 DISC | 0.48 | 5.122 | -2.533 | 5.714 | 3.260 | -1.193 | 3.471 | 2.194 | 4.436 | 4.949 | -3.379 | -4.064 | 5.285 |
| B52180.00 TERM | 0.48 | 4.986 | -2.425 | 5.544 | 3.162 | -1.138 | 3.361 | 2.100 | 4.318 | 4.801 | -3.248 | -3.964 | 5.125 |
| B52190.00 DISC | 0.48 | 3.964 | -1.442 | 4.218 | 2.423 | -0.631 | 2.504 | 1.249 | 3.433 | 3.653 | -2.116 | -3.243 | 3.873 |
| B52190.00 TERM | 0.48 | 3.877 | -1.402 | 4.123 | 2.368 | -0.613 | 2.446 | 1.214 | 3.358 | 3.571 | -2.062 | -3.174 | 3.785 |
| B52210.00 DISC | 0.48 | 1.561 | -0.286 | 1.587 | 0.912 | -0.110 | 0.918 | 0.248 | 1.352 | 1.374 | -0.569 | -1.321 | 1.438 |
| B52210.00 TERM | 0.48 | 1.528 | -0.280 | 1.553 | 0.892 | -0.107 | 0.899 | 0.242 | 1.323 | 1.345 | -0.557 | -1.293 | 1.408 |
| B52220.00 DISC | 0.48 | 1.467 | -0.268 | 1.491 | 0.856 | -0.102 | 0.862 | 0.232 | 1.271 | 1.292 | -0.534 | -1.242 | 1.352 |
| B52220.00 TERM | 0.48 | 1.438 | -0.263 | 1.462 | 0.839 | -0.100 | 0.845 | 0.228 | 1.245 | 1.266 | -0.523 | -1.218 | 1.325 |
| BLWR BLDG TROLLEY | 0.48 | 4.270 | -1.143 | 4.420 | 2.592 | -0.508 | 2.642 | 0.990 | 3.698 | 3.828 | -1.917 | -3.544 | 4.029 |
| BSN51240.00 DISC | 0.48 | 0.763 | -0.058 | 0.765 | 0.446 | -0.027 | 0.446 | 0.051 | 0.660 | 0.662 | -0.208 | -0.652 | 0.684 |
| BSN51240.00 TERM | 0.48 | 0.750 | -0.057 | 0.752 | 0.438 | -0.026 | 0.439 | 0.050 | 0.650 | 0.652 | -0.204 | -0.642 | 0.673 |
| BSN51250.00 DISC | 0.48 | 0.762 | -0.059 | 0.765 | 0.446 | -0.027 | 0.446 | 0.051 | 0.660 | 0.662 | -0.208 | -0.652 | 0.684 |
| BSN51250.00 TERM | 0.48 | 0.750 | -0.057 | 0.752 | 0.438 | -0.026 | 0.439 | 0.050 | 0.650 | 0.652 | -0.205 | -0.641 | 0.673 |
| BSN51260.00 DISC | 0.48 | 0.763 | -0.058 | 0.765 | 0.446 | -0.027 | 0.446 | 0.051 | 0.660 | 0.662 | -0.208 | -0.652 | 0.684 |
| BSN51260.00 TERM | 0.48 | 0.750 | -0.057 | 0.752 | 0.438 | -0.026 | 0.439 | 0.050 | 0.650 | 0.652 | -0.204 | -0.642 | 0.673 |
| BSN51270.00 DISC | 0.48 | 0.762 | -0.059 | 0.765 | 0.446 | -0.027 | 0.446 | 0.051 | 0.660 | 0.662 | -0.208 | -0.652 | 0.684 |
| BSN51270.00 TERM | 0.48 | 0.750 | -0.057 | 0.752 | 0.438 | -0.026 | 0.439 | 0.050 | 0.650 | 0.652 | -0.205 | -0.641 | 0.673 |
| COGEN TIE BUS | 0.48 | 4.920 | -57.705 | 57.915 | 5.767 | -61.084 | 61.356 | 50.056 | 4.382 | 50.248 | -53.253 | 27.990 | 60.161 |
| COM53030.00 DISC | 0.48 | 0.793 | -0.065 | 0.795 | 0.462 | -0.029 | 0.463 | 0.056 | 0.686 | 0.689 | -0.219 | -0.678 | 0.712 |
| COM53030.00 TERM | 0.48 | 0.779 | -0.064 | 0.782 | 0.454 | -0.028 | 0.455 | 0.055 | 0.675 | 0.677 | -0.215 | -0.666 | 0.700 |
| COM53040.00 DISC | 0.48 | 0.866 | -0.073 | 0.869 | 0.505 | -0.032 | 0.506 | 0.063 | 0.750 | 0.753 | -0.241 | -0.740 | 0.779 |
| COM53040.00 TERM | 0.48 | 0.850 | -0.071 | 0.853 | 0.496 | -0.031 | 0.497 | 0.062 | 0.736 | 0.739 | -0.237 | -0.727 | 0.764 |
| CON51300.00 DISC | 0.48 | 0.795 | -0.070 | 0.798 | 0.462 | -0.030 | 0.463 | 0.061 | 0.689 | 0.691 | -0.224 | -0.680 | 0.716 |
| CON51300.00 TERM | 0.48 | 0.782 | -0.069 | 0.785 | 0.455 | -0.029 | 0.456 | 0.060 | 0.677 | 0.680 | -0.220 | -0.668 | 0.704 |
| CON51320.00 DISC | 0.48 | 0.795 | -0.070 | 0.798 | 0.462 | -0.030 | 0.463 | 0.061 | 0.689 | 0.691 | -0.224 | -0.680 | 0.716 |

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| CON51320.00 TERM | 0.48 | 0.782 | -0.069 | 0.785 | 0.455 | -0.029 | 0.456 | 0.060 | 0.677 | 0.680 | -0.220 | -0.668 | 0.704 |
| CON53020.00 DISC | 0.48 | 0.745 | -0.066 | 0.748 | 0.433 | -0.028 | 0.434 | 0.057 | 0.645 | 0.647 | -0.209 | -0.637 | 0.670 |
| CON53020.00 TERM | 0.48 | 0.733 | -0.065 | 0.736 | 0.426 | -0.027 | 0.427 | 0.056 | 0.635 | 0.637 | -0.206 | -0.627 | 0.660 |
| CON53030.00 DISC | 0.48 | 0.745 | -0.066 | 0.748 | 0.433 | -0.028 | 0.434 | 0.057 | 0.645 | 0.647 | -0.209 | -0.637 | 0.670 |
| CON53030.00 TERM | 0.48 | 0.733 | -0.065 | 0.736 | 0.426 | -0.027 | 0.427 | 0.056 | 0.635 | 0.637 | -0.206 | -0.627 | 0.660 |
| EFF PS SWGR BUS A | 0.48 | 4.127 | -19.376 | 19.810 | 3.635 | -19.734 | 20.066 | 16.669 | 3.333 | 16.999 | 14.870 | 13.605 | 20.155 |
| EFF PS SWGR BUS A PRI | 0.48 | 4.127 | -19.376 | 19.810 | 3.635 | -19.734 | 20.066 | 16.669 | 3.333 | 16.999 | 14.870 | 13.605 | 20.155 |
| EFF PS SWGR BUS B | 0.48 | 4.100 | -19.380 | 19.809 | 3.609 | -19.738 | 20.065 | 16.673 | 3.309 | 16.998 | 14.886 | 13.583 | 20.152 |
| EFF PS SWGR BUS B PRI | 0.48 | 4.100 | -19.380 | 19.809 | 3.609 | -19.738 | 20.065 | 16.673 | 3.309 | 16.998 | 14.886 | 13.583 | 20.152 |
| EFF PUMP NO. 2 VFD PRI | 0.48 | 4.409 | -18.543 | 19.060 | 4.204 | -18.202 | 18.681 | 15.947 | 3.573 | 16.342 | -18.259 | 5.406 | 19.043 |
| EFF PUMP NO. 4 VFD PRI | 0.48 | 4.434 | -18.538 | 19.061 | 4.226 | -18.197 | 18.681 | 15.942 | 3.595 | 16.342 | -18.265 | 5.382 | 19.041 |
| F52410.00 DISC | 0.48 | 0.626 | -0.039 | 0.627 | 0.365 | -0.017 | 0.365 | 0.033 | 0.542 | 0.543 | -0.162 | -0.537 | 0.561 |
| F52410.00 STR | 0.48 | 0.671 | -0.043 | 0.673 | 0.391 | -0.019 | 0.392 | 0.037 | 0.581 | 0.583 | -0.175 | -0.576 | 0.602 |
| F52420.00 DISC | 0.48 | 0.502 | -0.029 | 0.503 | 0.292 | -0.013 | 0.293 | 0.025 | 0.435 | 0.436 | -0.128 | -0.431 | 0.450 |
| F52420.00 STR | 0.48 | 0.531 | -0.031 | 0.532 | 0.309 | -0.014 | 0.309 | 0.027 | 0.460 | 0.461 | -0.136 | -0.456 | 0.475 |
| F54330.00 DISC | 0.48 | 2.493 | -0.343 | 2.516 | 1.469 | -0.139 | 1.476 | 0.297 | 2.159 | 2.179 | -0.817 | -2.119 | 2.271 |
| F54330.00 TERM | 0.48 | 2.366 | -0.317 | 2.388 | 1.393 | -0.129 | 1.399 | 0.275 | 2.049 | 2.068 | -0.768 | -2.012 | 2.154 |
| F55010.00 TERM | 0.48 | 3.906 | -1.421 | 4.157 | 2.350 | -0.541 | 2.411 | 1.231 | 3.383 | 3.600 | -2.063 | -3.235 | 3.837 |
| GEN NO. 2 TERM | 0.48 | 2.839 | -22.284 | 22.464 | 4.116 | -24.096 | 24.445 | 19.429 | 2.656 | 19.610 | -21.985 | 10.320 | 24.287 |
| GEN NO. 3 TERM | 0.48 | 2.751 | -22.613 | 22.780 | 4.027 | -24.546 | 24.874 | 19.716 | 2.581 | 19.885 | -22.230 | 10.697 | 24.670 |
| GRIT SCR TROLLEY | 0.48 | 0.737 | -0.055 | 0.739 | 0.431 | -0.025 | 0.432 | 0.048 | 0.639 | 0.640 | -0.200 | -0.631 | 0.662 |
| HVAC56100.00 DISC | 0.48 | 5.719 | -1.882 | 6.021 | 3.537 | -0.826 | 3.632 | 1.630 | 4.953 | 5.214 | -2.903 | -4.707 | 5.530 |
| HVAC56100.00 TERM | 0.48 | 5.314 | -1.646 | 5.563 | 3.264 | -0.720 | 3.342 | 1.425 | 4.602 | 4.818 | -2.598 | -4.387 | 5.098 |
| HVAC56110.00 DISC | 0.48 | 2.499 | -0.397 | 2.531 | 1.476 | -0.169 | 1.486 | 0.344 | 2.165 | 2.192 | -0.867 | -2.114 | 2.285 |
| HVAC56110.00 TERM | 0.48 | 2.373 | -0.365 | 2.401 | 1.400 | -0.155 | 1.409 | 0.316 | 2.055 | 2.079 | -0.812 | -2.009 | 2.166 |
| HW ELEVATOR | 0.48 | 7.654 | -3.594 | 8.455 | 4.989 | -1.676 | 5.263 | 3.112 | 6.628 | 7.323 | -4.944 | -6.116 | 7.865 |
| HW GATES | 0.48 | 0.417 | -0.021 | 0.418 | 0.243 | -0.010 | 0.244 | 0.018 | 0.361 | 0.362 | -0.104 | -0.358 | 0.373 |
| INFL PUMP 1 TERMINALS | 0.48 | 6.511 | -23.340 | 24.231 | 6.987 | -18.995 | 20.239 | 20.213 | 5.639 | 20.985 | -23.661 | 2.298 | 23.773 |
| INFL PUMP 1 VFD PRI | 0.48 | 6.263 | -30.945 | 31.573 | 6.724 | -29.682 | 30.434 | 26.800 | 5.424 | 27.343 | -30.350 | 8.821 | 31.606 |
| INFL PUMP 2 TERMINALS | 0.48 | 8.389 | -20.252 | 21.921 | 8.917 | -14.803 | 17.282 | 17.539 | 7.265 | 18.984 | -21.737 | -1.604 | 21.796 |
| INFL PUMP 2 VFD | 0.48 | 6.280 | -29.353 | 30.017 | 6.902 | -27.570 | 28.420 | 25.420 | 5.439 | 25.996 | -29.097 | 7.529 | 30.056 |
| INFL PUMP 2 VFD PRI | 0.48 | 6.280 | -29.353 | 30.017 | 6.902 | -27.570 | 28.420 | 25.420 | 5.439 | 25.996 | -29.097 | 7.529 | 30.056 |
| INFL PUMP 3 TERMINALS | 0.48 | 8.720 | -20.966 | 22.707 | 9.310 | -15.430 | 18.021 | 18.157 | 7.552 | 19.665 | -22.561 | -1.629 | 22.620 |
| INFL PUMP 3 VFD | 0.48 | 6.270 | -30.946 | 31.575 | 6.729 | -29.682 | 30.435 | 26.800 | 5.430 | 27.345 | -30.351 | 8.815 | 31.605 |

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| INFL PUMP 3 VFD PRI | 0.48 | 6.270 | -30.946 | 31.575 | 6.729 | -29.682 | 30.435 | 26.800 | 5.430 | 27.345 | -30.351 | 8.815 | 31.605 |
| INFL PUMP 4 TERMINALS | 0.48 | 8.451 | -20.435 | 22.114 | 9.020 | -14.992 | 17.497 | 17.697 | 7.319 | 19.151 | -21.958 | -1.575 | 22.014 |
| INFL PUMP 4 VFD | 0.48 | 6.240 | -29.738 | 30.385 | 6.828 | -28.166 | 28.982 | 25.754 | 5.404 | 26.314 | -29.393 | 7.949 | 30.449 |
| INFL PUMP 4 VFD PRI | 0.48 | 6.240 | -29.738 | 30.385 | 6.828 | -28.166 | 28.982 | 25.754 | 5.404 | 26.314 | -29.393 | 7.949 | 30.449 |
| INFL PUMP 5 TERMINALS | 0.48 | 8.720 | -20.966 | 22.707 | 9.310 | -15.430 | 18.021 | 18.157 | 7.552 | 19.665 | -22.561 | -1.629 | 22.620 |
| INFL PUMP 5 VFD | 0.48 | 6.270 | -30.946 | 31.575 | 6.729 | -29.682 | 30.435 | 26.800 | 5.430 | 27.345 | -30.351 | 8.815 | 31.605 |
| INFL PUMP 5 VFD PRI | 0.48 | 6.270 | -30.946 | 31.575 | 6.729 | -29.682 | 30.435 | 26.800 | 5.430 | 27.345 | -30.351 | 8.815 | 31.605 |
| INFL PUMP 6 TERMINALS | 0.48 | 6.352 | -22.236 | 23.125 | 6.791 | -17.815 | 19.065 | 19.257 | 5.501 | 20.027 | -22.580 | 1.857 | 22.656 |
| INFL PUMP 6 VFD PRI | 0.48 | 6.304 | -28.977 | 29.655 | 6.957 | -26.995 | 27.877 | 25.095 | 5.460 | 25.682 | -28.799 | 7.142 | 29.671 |
| LCP-HWOCS | 0.48 | 4.057 | -1.451 | 4.308 | 2.440 | -0.549 | 2.501 | 1.257 | 3.513 | 3.731 | -2.121 | -3.363 | 3.976 |
| MAIN SWGR "FILTER" | 0.48 | 4.399 | -49.755 | 49.949 | 4.776 | -53.100 | 53.315 | 43.089 | 3.810 | 43.257 | -45.699 | 24.654 | 51.925 |
| MAIN SWGR "SLUDGE" | 0.48 | 4.920 | -57.705 | 57.915 | 5.767 | -61.084 | 61.356 | 50.056 | 4.382 | 50.248 | -53.253 | 27.990 | 60.161 |
| MAIN SWGR BUS A PRI | 0.48 | 4.399 | -49.755 | 49.949 | 4.776 | -53.100 | 53.315 | 43.089 | 3.810 | 43.257 | -45.699 | 24.654 | 51.925 |
| MAIN SWGR BUS B PRI | 0.48 | 4.920 | -57.705 | 57.915 | 5.767 | -61.084 | 61.356 | 50.056 | 4.382 | 50.248 | -53.253 | 27.990 | 60.161 |
| MCC-DP2C | 0.48 | 6.281 | -15.018 | 16.279 | 5.390 | -9.536 | 10.954 | 13.005 | 5.449 | 14.101 | -15.231 | -1.999 | 15.362 |
| MCC-DP4A | 0.48 | 1.700 | -0.282 | 1.724 | 0.996 | -0.132 | 1.005 | 0.244 | 1.472 | 1.493 | -0.596 | -1.431 | 1.550 |
| MCC-DP4B | 0.48 | 8.250 | -47.867 | 48.572 | 10.945 | -45.410 | 46.711 | 41.496 | 7.238 | 42.123 | -47.948 | 14.191 | 50.004 |
| MCC-GE | 0.48 | 1.722 | -15.199 | 15.296 | 2.166 | -13.764 | 13.933 | 13.167 | 1.498 | 13.252 | -14.380 | 4.771 | 15.151 |
| MCC-GE PRI | 0.48 | 10.352 | -41.733 | 42.998 | 13.201 | -35.752 | 38.111 | 36.162 | 9.041 | 37.275 | -43.337 | 6.322 | 43.795 |
| MCC-HW BUS A | 0.48 | 6.453 | -31.150 | 31.811 | 6.942 | -30.099 | 30.889 | 26.977 | 5.589 | 27.550 | -30.656 | 8.956 | 31.937 |
| MCC-HW BUS A PRI | 0.48 | 6.453 | -31.150 | 31.811 | 6.942 | -30.099 | 30.889 | 26.977 | 5.589 | 27.550 | -30.656 | 8.956 | 31.937 |
| MCC-HW BUS B | 0.48 | 6.329 | -30.672 | 31.318 | 6.852 | -29.800 | 30.577 | 26.562 | 5.481 | 27.122 | -30.219 | 8.993 | 31.529 |
| MCC-HW BUS B PRI | 0.48 | 6.329 | -30.672 | 31.318 | 6.852 | -29.800 | 30.577 | 26.562 | 5.481 | 27.122 | -30.219 | 8.993 | 31.529 |
| MCC-NA BUS A | 2.40 | 0.748 | -4.960 | 5.016 | 1.238 | -4.374 | 4.546 | 4.296 | 0.648 | 4.344 | -5.055 | 1.260 | 5.210 |
| MCC-NA BUS A PRI | 2.40 | 0.748 | -4.960 | 5.016 | 1.238 | -4.374 | 4.546 | 4.296 | 0.648 | 4.344 | -5.055 | 1.260 | 5.210 |
| MCC-NA BUS B | 2.40 | 0.760 | -5.034 | 5.091 | 1.257 | -4.412 | 4.588 | 4.362 | 0.662 | 4.412 | -5.125 | 1.253 | 5.276 |
| MCC-NA BUS B PRI | 2.40 | 0.760 | -5.034 | 5.091 | 1.257 | -4.412 | 4.588 | 4.362 | 0.662 | 4.412 | -5.125 | 1.253 | 5.276 |
| MCC-NC | 0.48 | 2.723 | -15.050 | 15.294 | 3.184 | -15.936 | 16.251 | 13.034 | 2.358 | 13.245 | -14.905 | 6.101 | 16.106 |
| MCC-ND | 0.48 | 2.468 | -13.907 | 14.124 | 2.983 | -15.052 | 15.344 | 12.045 | 2.142 | 12.234 | -13.865 | 6.050 | 15.127 |
| MCC-NE | 0.48 | 3.042 | -13.978 | 14.305 | 3.728 | -14.176 | 14.658 | 12.105 | 2.635 | 12.388 | -14.336 | 4.526 | 15.034 |
| MCC-NF | 0.48 | 2.734 | -13.019 | 13.303 | 3.453 | -13.512 | 13.946 | 11.276 | 2.372 | 11.523 | -13.415 | 4.619 | 14.188 |
| MCC-NG BUS A | 0.48 | 3.275 | -7.508 | 8.191 | 3.295 | -5.655 | 6.545 | 6.502 | 2.836 | 7.094 | -8.039 | -0.610 | 8.062 |
| MCC-NG BUS A PRI | 0.48 | 3.275 | -7.508 | 8.191 | 3.295 | -5.655 | 6.545 | 6.502 | 2.836 | 7.094 | -8.039 | -0.610 | 8.062 |
| MCC-NG BUS B | 0.48 | 3.062 | -7.642 | 8.233 | 3.221 | -5.732 | 6.575 | 6.618 | 2.653 | 7.130 | -8.144 | -0.412 | 8.154 |

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| MCC-NG BUS B PRI | 0.48 | 3.062 | -7.642 | 8.233 | 3.221 | -5.732 | 6.575 | 6.618 | 2.653 | 7.130 | -8.144 | -0.412 | 8.154 |
| MCC-SH BUS A | 0.48 | 3.325 | -7.479 | 8.185 | 3.221 | -5.332 | 6.230 | 6.477 | 2.880 | 7.089 | -7.926 | -0.849 | 7.972 |
| MCC-SH BUS A PRI | 0.48 | 3.325 | -7.479 | 8.185 | 3.221 | -5.332 | 6.230 | 6.477 | 2.880 | 7.089 | -7.926 | -0.849 | 7.972 |
| MCC-SH BUS B | 0.48 | 3.313 | -7.411 | 8.118 | 3.198 | -5.269 | 6.164 | 6.418 | 2.869 | 7.031 | -7.854 | -0.865 | 7.901 |
| MCC-SH BUS B PRI | 0.48 | 2.988 | -6.797 | 7.425 | 3.048 | -5.186 | 6.016 | 5.886 | 2.589 | 6.431 | -7.323 | -0.533 | 7.343 |
| MS-HW BUS A | 0.48 | 5.928 | -33.208 | 33.733 | 5.947 | -33.388 | 33.913 | 28.759 | 5.134 | 29.214 | 25.776 | 21.919 | 33.835 |
| MS-HW BUS A PRI | 0.48 | 5.928 | -33.208 | 33.733 | 5.947 | -33.388 | 33.913 | 28.759 | 5.134 | 29.214 | 25.776 | 21.919 | 33.835 |
| MS-HW BUS B | 0.48 | 5.809 | -32.730 | 33.241 | 5.869 | -33.063 | 33.580 | 28.345 | 5.030 | 28.788 | -31.311 | 11.671 | 33.415 |
| MS-HW BUS B PRI | 0.48 | 5.809 | -32.730 | 33.241 | 5.869 | -33.063 | 33.580 | 28.345 | 5.030 | 28.788 | -31.311 | 11.671 | 33.415 |
| P52100.00 DISC | 0.48 | 3.647 | -1.639 | 3.998 | 2.261 | -0.758 | 2.385 | 1.420 | 3.158 | 3.462 | -2.233 | -2.923 | 3.678 |
| P52100.00 TERM | 0.48 | 3.597 | -1.612 | 3.942 | 2.228 | -0.745 | 2.350 | 1.396 | 3.115 | 3.414 | -2.198 | -2.884 | 3.626 |
| P52110.00 DISC | 0.48 | 2.660 | -0.899 | 2.808 | 1.597 | -0.383 | 1.642 | 0.779 | 2.304 | 2.432 | -1.346 | -2.190 | 2.571 |
| P52110.00 TERM | 0.48 | 2.621 | -0.885 | 2.766 | 1.573 | -0.377 | 1.617 | 0.766 | 2.270 | 2.396 | -1.325 | -2.158 | 2.532 |
| P52120.00 DISC | 0.48 | 3.859 | -1.756 | 4.240 | 2.401 | -0.815 | 2.536 | 1.521 | 3.342 | 3.672 | -2.386 | -3.089 | 3.903 |
| P52120.00 TERM | 0.48 | 3.804 | -1.725 | 4.177 | 2.364 | -0.800 | 2.496 | 1.494 | 3.294 | 3.617 | -2.346 | -3.045 | 3.844 |
| P52130.00 DISC | 0.48 | 2.829 | -0.962 | 2.989 | 1.703 | -0.412 | 1.752 | 0.833 | 2.450 | 2.588 | -1.439 | -2.327 | 2.736 |
| P52130.00 TERM | 0.48 | 2.785 | -0.946 | 2.941 | 1.675 | -0.405 | 1.723 | 0.819 | 2.412 | 2.547 | -1.415 | -2.291 | 2.693 |
| P52140.00 DISC | 0.48 | 4.515 | -2.142 | 4.998 | 2.842 | -1.002 | 3.013 | 1.855 | 3.910 | 4.328 | -2.884 | -3.599 | 4.611 |
| P52140.00 TERM | 0.48 | 4.440 | -2.096 | 4.910 | 2.790 | -0.980 | 2.957 | 1.815 | 3.845 | 4.252 | -2.824 | -3.540 | 4.529 |
| P52150.00 DISC | 0.48 | 3.364 | -1.176 | 3.564 | 2.039 | -0.510 | 2.102 | 1.019 | 2.914 | 3.087 | -1.747 | -2.761 | 3.267 |
| P52150.00 TERM | 0.48 | 3.302 | -1.150 | 3.497 | 2.000 | -0.498 | 2.061 | 0.996 | 2.860 | 3.028 | -1.710 | -2.710 | 3.205 |
| P52160.00 DISC | 0.48 | 3.501 | -1.228 | 3.710 | 2.124 | -0.534 | 2.191 | 1.063 | 3.032 | 3.213 | -1.822 | -2.872 | 3.401 |
| P52160.00 TERM | 0.48 | 3.433 | -1.199 | 3.637 | 2.081 | -0.521 | 2.146 | 1.039 | 2.973 | 3.150 | -1.781 | -2.817 | 3.333 |
| P52170.00 DISC | 0.48 | 3.716 | -1.329 | 3.946 | 2.264 | -0.579 | 2.337 | 1.151 | 3.218 | 3.417 | -1.960 | -3.044 | 3.620 |
| P52170.00 TERM | 0.48 | 3.640 | -1.295 | 3.863 | 2.215 | -0.564 | 2.286 | 1.122 | 3.152 | 3.346 | -1.913 | -2.983 | 3.544 |
| P52220.00 DISC | 0.48 | 0.690 | -0.060 | 0.693 | 0.401 | -0.025 | 0.402 | 0.052 | 0.598 | 0.600 | -0.193 | -0.590 | 0.621 |
| P52220.00 TERM | 0.48 | 0.680 | -0.059 | 0.683 | 0.395 | -0.025 | 0.396 | 0.051 | 0.589 | 0.591 | -0.190 | -0.582 | 0.612 |
| P52230.00 DISC | 0.48 | 0.690 | -0.060 | 0.693 | 0.401 | -0.025 | 0.402 | 0.052 | 0.598 | 0.600 | -0.193 | -0.590 | 0.621 |
| P52230.00 TERM | 0.48 | 0.680 | -0.059 | 0.683 | 0.395 | -0.025 | 0.396 | 0.051 | 0.589 | 0.591 | -0.190 | -0.582 | 0.612 |
| P52240.00 DISC | 0.48 | 0.869 | -0.078 | 0.872 | 0.506 | -0.033 | 0.507 | 0.068 | 0.752 | 0.755 | -0.246 | -0.742 | 0.782 |
| P52240.00 TERM | 0.48 | 0.853 | -0.077 | 0.856 | 0.496 | -0.032 | 0.497 | 0.066 | 0.739 | 0.742 | -0.241 | -0.729 | 0.768 |
| P52250.00 DISC | 0.48 | 0.869 | -0.078 | 0.872 | 0.506 | -0.033 | 0.507 | 0.068 | 0.752 | 0.755 | -0.246 | -0.742 | 0.782 |
| P52250.00 TERM | 0.48 | 0.853 | -0.077 | 0.856 | 0.496 | -0.032 | 0.497 | 0.066 | 0.739 | 0.742 | -0.241 | -0.729 | 0.768 |
| P54080.00 DISC | 0.48 | 1.425 | -0.146 | 1.432 | 0.833 | -0.062 | 0.836 | 0.127 | 1.234 | 1.240 | -0.421 | -1.215 | 1.286 |

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| P54080.00 TERM | 0.48 | 1.382 | -0.140 | 1.389 | 0.808 | -0.059 | 0.810 | 0.122 | 1.197 | 1.203 | -0.407 | -1.180 | 1.248 |
| P54090.00 DISC | 0.48 | 1.425 | -0.146 | 1.432 | 0.833 | -0.062 | 0.836 | 0.127 | 1.234 | 1.240 | -0.421 | -1.215 | 1.286 |
| P54090.00 TERM | 0.48 | 1.382 | -0.140 | 1.389 | 0.808 | -0.059 | 0.810 | 0.122 | 1.197 | 1.203 | -0.407 | -1.180 | 1.248 |
| P55020.00 TERM | 0.48 | 3.261 | -0.955 | 3.398 | 1.929 | -0.360 | 1.963 | 0.827 | 2.824 | 2.942 | -1.508 | -2.725 | 3.114 |
| P55030.00 TERM | 0.48 | 3.261 | -0.955 | 3.398 | 1.929 | -0.360 | 1.963 | 0.827 | 2.824 | 2.942 | -1.508 | -2.725 | 3.114 |
| PNL DP2 | 0.48 | 7.339 | -18.559 | 19.957 | 6.634 | -12.360 | 14.028 | 16.072 | 6.371 | 17.289 | -18.899 | -1.796 | 18.984 |
| PNL DP4 | 0.48 | 7.193 | -52.911 | 53.398 | 9.727 | -53.049 | 53.933 | 45.881 | 6.338 | 46.317 | -51.881 | 20.123 | 55.647 |
| PNL DPLC-1 | 0.21 | 1.065 | -1.649 | 1.963 | 1.071 | -1.681 | 1.993 | 1.428 | 0.922 | 1.700 | 0.889 | 1.779 | 1.989 |
| PNL DPLC-2 | 0.21 | 1.007 | -1.192 | 1.560 | 1.010 | -1.314 | 1.658 | 1.032 | 0.872 | 1.351 | 0.532 | 1.598 | 1.685 |
| PNL DPLC-3 | 0.21 | 1.100 | -1.503 | 1.862 | 1.128 | -1.431 | 1.822 | 1.301 | 0.953 | 1.613 | -1.876 | -0.272 | 1.896 |
| PNL DPLC-4 | 0.21 | 0.612 | -0.633 | 0.881 | 0.615 | -0.623 | 0.876 | 0.548 | 0.530 | 0.763 | -0.858 | -0.224 | 0.886 |
| PNL DPP1 | 0.48 | 11.847 | -10.862 | 16.073 | 9.407 | -6.040 | 11.179 | 9.407 | 10.260 | 13.919 | -13.161 | -8.301 | 15.560 |
| PNL DPP1 PRI | 0.48 | 11.847 | -10.862 | 16.073 | 9.407 | -6.040 | 11.179 | 9.407 | 10.260 | 13.919 | -13.161 | -8.301 | 15.560 |
| SCR BLDG N OH DOOR DISC | 0.48 | 1.233 | -0.126 | 1.240 | 0.723 | -0.057 | 0.725 | 0.109 | 1.068 | 1.074 | -0.365 | -1.050 | 1.112 |
| SCR BLDG N OH DOOR TERM | 0.48 | 1.201 | -0.121 | 1.207 | 0.704 | -0.055 | 0.706 | 0.105 | 1.040 | 1.046 | -0.354 | -1.023 | 1.083 |
| SCR BLDG S OH DOOR DISC | 0.48 | 1.340 | -0.143 | 1.348 | 0.786 | -0.064 | 0.789 | 0.124 | 1.161 | 1.167 | -0.402 | -1.141 | 1.210 |
| SCR BLDG S OH DOOR TERM | 0.48 | 1.303 | -0.137 | 1.310 | 0.764 | -0.061 | 0.766 | 0.119 | 1.128 | 1.134 | -0.389 | -1.109 | 1.175 |
| SEP53000.00 DISC | 0.48 | 0.740 | -0.057 | 0.742 | 0.432 | -0.026 | 0.433 | 0.050 | 0.641 | 0.643 | -0.202 | -0.633 | 0.664 |
| SEP53000.00 TERM | 0.48 | 0.728 | -0.056 | 0.731 | 0.425 | -0.025 | 0.426 | 0.049 | 0.631 | 0.633 | -0.199 | -0.623 | 0.654 |
| SEP53010.00 DISC | 0.48 | 0.740 | -0.058 | 0.742 | 0.432 | -0.026 | 0.432 | 0.050 | 0.641 | 0.643 | -0.202 | -0.633 | 0.664 |
| SEP53010.00 TERM | 0.48 | 0.728 | -0.057 | 0.731 | 0.425 | -0.025 | 0.426 | 0.049 | 0.631 | 0.633 | -0.199 | -0.623 | 0.654 |
| SEP53020.00 DISC | 0.48 | 0.717 | -0.056 | 0.719 | 0.418 | -0.025 | 0.419 | 0.048 | 0.621 | 0.623 | -0.196 | -0.613 | 0.644 |
| SEP53020.00 TERM | 0.48 | 0.706 | -0.054 | 0.708 | 0.412 | -0.025 | 0.413 | 0.047 | 0.612 | 0.613 | -0.193 | -0.604 | 0.634 |
| SR-DAF | 0.48 | 3.311 | -9.373 | 9.941 | 3.644 | -7.788 | 8.598 | 8.117 | 2.867 | 8.609 | -9.960 | 0.414 | 9.969 |
| SR-DAF PRI | 0.48 | 3.311 | -9.373 | 9.941 | 3.644 | -7.788 | 8.598 | 8.117 | 2.867 | 8.609 | -9.960 | 0.414 | 9.969 |
| SWBD GDP | 0.48 | 2.222 | -24.283 | 24.385 | 3.417 | -26.913 | 27.129 | 21.177 | 2.134 | 21.284 | -23.347 | 12.794 | 26.623 |
| SWBD-NB BUS A | 0.48 | 2.706 | -15.164 | 15.403 | 3.108 | -16.255 | 16.550 | 13.132 | 2.343 | 13.340 | -14.937 | 6.411 | 16.254 |
| SWBD-NB BUS A PRI | 0.48 | 2.706 | -15.164 | 15.403 | 3.108 | -16.255 | 16.550 | 13.132 | 2.343 | 13.340 | -14.937 | 6.411 | 16.254 |
| SWBD-NB BUS B | 0.48 | 2.433 | -14.036 | 14.246 | 2.876 | -15.376 | 15.643 | 12.158 | 2.112 | 12.340 | -13.881 | 6.383 | 15.278 |
| SWBD-NB BUS B PRI | 0.48 | 2.433 | -14.036 | 14.246 | 2.876 | -15.376 | 15.643 | 12.158 | 2.112 | 12.340 | -13.881 | 6.383 | 15.278 |
| TRANSF TA PRI | 0.48 | 4.399 | -49.755 | 49.949 | 4.776 | -53.100 | 53.315 | 43.089 | 3.810 | 43.257 | -45.699 | 24.654 | 51.925 |
| TRANSF TB PRI | 0.48 | 4.920 | -57.705 | 57.915 | 5.767 | -61.084 | 61.356 | 50.056 | 4.382 | 50.248 | -53.253 | 27.990 | 60.161 |
| TRANSF TB SEC | 2.40 | 0.678 | -5.653 | 5.694 | 0.796 | -6.326 | 6.376 | 4.899 | 0.592 | 4.934 | -5.369 | 2.996 | 6.148 |
| TRANSF TC PRI | 2.40 | 0.759 | -4.928 | 4.986 | 1.246 | -4.296 | 4.473 | 4.267 | 0.658 | 4.318 | -5.022 | 1.198 | 5.163 |

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| TRANSF TC SEC | 0.48 | 2.664 | -15.330 | 15.560 | 2.928 | -16.874 | 17.126 | 13.277 | 2.307 | 13.476 | 11.652 | 11.689 | 16.505 |
| TRANSF TD PRI | 2.40 | 0.774 | -4.996 | 5.056 | 1.265 | -4.330 | 4.511 | 4.329 | 0.674 | 4.381 | -5.086 | 1.189 | 5.223 |
| TRANSF TD SEC | 0.48 | 2.388 | -14.243 | 14.441 | 2.703 | -15.980 | 16.207 | 12.336 | 2.072 | 12.509 | -13.885 | 7.027 | 15.562 |
| XFMR T-C4 PRI | 0.48 | 7.724 | -3.169 | 8.349 | 4.949 | -1.415 | 5.148 | 2.744 | 6.690 | 7.231 | -4.549 | -6.268 | 7.745 |
| XFMR T-C4 SEC | 0.21 | 0.614 | -0.666 | 0.906 | 0.619 | -0.680 | 0.919 | 0.577 | 0.532 | 0.785 | 0.265 | 0.879 | 0.918 |
| XFMR T-LC1 PRI | 0.48 | 10.244 | -6.231 | 11.990 | 7.148 | -3.025 | 7.762 | 5.396 | 8.872 | 10.384 | -8.089 | -7.946 | 11.339 |
| XFMR T-LC1 SEC | 0.21 | 1.066 | -1.671 | 1.982 | 1.071 | -1.719 | 2.025 | 1.447 | 0.923 | 1.717 | 0.909 | 1.808 | 2.024 |
| XFMR T-LC2 PRI | 0.48 | 2.876 | -0.691 | 2.958 | 1.724 | -0.317 | 1.753 | 0.598 | 2.490 | 2.561 | -1.213 | -2.392 | 2.682 |
| XFMR T-LC2 SEC | 0.21 | 1.008 | -1.197 | 1.565 | 1.010 | -1.324 | 1.665 | 1.037 | 0.873 | 1.355 | 0.538 | 1.607 | 1.694 |

All fault currents are symmetrical momentary (1/2 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

## Short-Circuit Summary Report

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| ATS-L BUS A | 0.480 | 0.00270 | 0.00871 | 0.00912 | 0.00270 | 0.00871 | 0.00912 | 0.00544 | 0.00961 | 0.01104 |
| ATS-L BUS B | 0.480 | 0.00489 | 0.00927 | 0.01048 | 0.00489 | 0.00927 | 0.01048 | 0.01228 | 0.01064 | 0.01625 |
| ATS-L SEC | 0.480 | 0.00270 | 0.00871 | 0.00912 | 0.00270 | 0.00871 | 0.00912 | 0.00544 | 0.00961 | 0.01104 |
| B20100.00 TERMINALS | 2.400 | 0.05306 | 0.28506 | 0.28996 | 0.05306 | 0.28506 | 0.28996 | 0.21464 | 0.39405 | 0.44871 |
| B20200.00 TERMINALS | 2.400 | 0.05651 | 0.28790 | 0.29340 | 0.05651 | 0.28790 | 0.29340 | 0.21673 | 0.39668 | 0.45202 |
| B20400.00 TERMINALS | 2.400 | 0.05437 | 0.28286 | 0.28804 | 0.05475 | 0.28252 | 0.28777 | 0.22195 | 0.40325 | 0.46030 |
| B52180.00 DISC | 0.480 | 0.04347 | 0.02150 | 0.04850 | 0.04347 | 0.02150 | 0.04850 | 0.13796 | 0.03931 | 0.14346 |
| B52180.00 TERM | 0.480 | 0.04495 | 0.02186 | 0.04999 | 0.04495 | 0.02186 | 0.04999 | 0.14285 | 0.04005 | 0.14835 |
| B52190.00 DISC | 0.480 | 0.06175 | 0.02246 | 0.06570 | 0.06175 | 0.02246 | 0.06570 | 0.19782 | 0.03869 | 0.20156 |
| B52190.00 TERM | 0.480 | 0.06321 | 0.02286 | 0.06722 | 0.06321 | 0.02286 | 0.06722 | 0.20270 | 0.03942 | 0.20650 |
| B52210.00 DISC | 0.480 | 0.17180 | 0.03146 | 0.17466 | 0.17180 | 0.03146 | 0.17466 | 0.55534 | 0.04514 | 0.55717 |
| B52210.00 TERM | 0.480 | 0.17548 | 0.03216 | 0.17840 | 0.17548 | 0.03216 | 0.17840 | 0.56763 | 0.04594 | 0.56948 |
| B52220.00 DISC | 0.480 | 0.18279 | 0.03341 | 0.18582 | 0.18279 | 0.03341 | 0.18582 | 0.59219 | 0.04754 | 0.59410 |
| B52220.00 TERM | 0.480 | 0.18645 | 0.03413 | 0.18955 | 0.18645 | 0.03413 | 0.18955 | 0.60448 | 0.04834 | 0.60641 |
| BLWR BLDG TROLLEY | 0.480 | 0.06057 | 0.01621 | 0.06270 | 0.06057 | 0.01621 | 0.06270 | 0.18773 | 0.02806 | 0.18982 |
| BSN51240.00 DISC | 0.480 | 0.36129 | 0.02769 | 0.36235 | 0.36129 | 0.02769 | 0.36235 | 1.13651 | 0.05566 | 1.13788 |
| BSN51240.00 TERM | 0.480 | 0.36728 | 0.02802 | 0.36835 | 0.36728 | 0.02802 | 0.36835 | 1.15541 | 0.05643 | 1.15679 |
| BSN51250.00 DISC | 0.480 | 0.36132 | 0.02783 | 0.36239 | 0.36132 | 0.02783 | 0.36239 | 1.13652 | 0.05566 | 1.13788 |
| BSN51250.00 TERM | 0.480 | 0.36730 | 0.02815 | 0.36838 | 0.36730 | 0.02815 | 0.36838 | 1.15542 | 0.05643 | 1.15679 |
| BSN51260.00 DISC | 0.480 | 0.36129 | 0.02769 | 0.36235 | 0.36129 | 0.02769 | 0.36235 | 1.13651 | 0.05566 | 1.13788 |
| BSN51260.00 TERM | 0.480 | 0.36728 | 0.02802 | 0.36835 | 0.36728 | 0.02802 | 0.36835 | 1.15541 | 0.05643 | 1.15679 |
| BSN51270.00 DISC | 0.480 | 0.36132 | 0.02783 | 0.36239 | 0.36132 | 0.02783 | 0.36239 | 1.13652 | 0.05566 | 1.13788 |
| BSN51270.00 TERM | 0.480 | 0.36730 | 0.02815 | 0.36838 | 0.36730 | 0.02815 | 0.36838 | 1.15542 | 0.05643 | 1.15679 |
| COGEN TIE BUS | 0.480 | 0.00041 | 0.00477 | 0.00479 | 0.00043 | 0.00475 | 0.00477 | 0.00044 | 0.00397 | 0.00400 |
| COM53030.00 DISC | 0.480 | 0.34731 | 0.02849 | 0.34848 | 0.34731 | 0.02849 | 0.34848 | 1.09871 | 0.05411 | 1.10004 |
| COM53030.00 TERM | 0.480 | 0.35323 | 0.02887 | 0.35441 | 0.35323 | 0.02887 | 0.35441 | 1.11761 | 0.05488 | 1.11896 |
| COM53040.00 DISC | 0.480 | 0.31773 | 0.02677 | 0.31885 | 0.31773 | 0.02677 | 0.31885 | 1.00422 | 0.05023 | 1.00547 |
| COM53040.00 TERM | 0.480 | 0.32365 | 0.02714 | 0.32479 | 0.32365 | 0.02714 | 0.32479 | 1.02312 | 0.05101 | 1.02439 |
| CON51300.00 DISC | 0.480 | 0.34582 | 0.03062 | 0.34717 | 0.34582 | 0.03062 | 0.34717 | 1.09871 | 0.05411 | 1.10004 |
| CON51300.00 TERM | 0.480 | 0.35168 | 0.03107 | 0.35305 | 0.35168 | 0.03107 | 0.35305 | 1.11761 | 0.05488 | 1.11896 |
| CON51320.00 DISC | 0.480 | 0.34582 | 0.03062 | 0.34717 | 0.34582 | 0.03062 | 0.34717 | 1.09871 | 0.05411 | 1.10004 |
| CON51320.00 TERM | 0.480 | 0.35168 | 0.03107 | 0.35305 | 0.35168 | 0.03107 | 0.35305 | 1.11761 | 0.05488 | 1.11896 |
| CON53020.00 DISC | 0.480 | 0.36929 | 0.03256 | 0.37072 | 0.36929 | 0.03256 | 0.37072 | 1.17432 | 0.05721 | 1.17571 |
| CON53020.00 TERM | 0.480 | 0.37515 | 0.03302 | 0.37660 | 0.37515 | 0.03302 | 0.37660 | 1.19322 | 0.05798 | 1.19462 |
| CON53030.00 DISC | 0.480 | 0.36929 | 0.03256 | 0.37072 | 0.36929 | 0.03256 | 0.37072 | 1.17432 | 0.05721 | 1.17571 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| CON53030.00 TERM | 0.480 | 0.37515 | 0.03302 | 0.37660 | 0.37515 | 0.03302 | 0.37660 | 1.19322 | 0.05798 | 1.19462 |
| EFF PS SWGR BUS A | 0.480 | 0.00291 | 0.01368 | 0.01399 | 0.00262 | 0.01401 | 0.01425 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS A PRI | 0.480 | 0.00291 | 0.01368 | 0.01399 | 0.00262 | 0.01401 | 0.01425 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B | 0.480 | 0.00290 | 0.01369 | 0.01399 | 0.00260 | 0.01401 | 0.01425 | 0.00196 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B PRI | 0.480 | 0.00290 | 0.01369 | 0.01399 | 0.00260 | 0.01401 | 0.01425 | 0.00196 | 0.01306 | 0.01321 |
| EFF PUMP NO. 2 VFD PRI | 0.480 | 0.00336 | 0.01415 | 0.01454 | 0.00306 | 0.01452 | 0.01484 | 0.00359 | 0.01470 | 0.01513 |
| EFF PUMP NO. 4 VFD PRI | 0.480 | 0.00338 | 0.01414 | 0.01454 | 0.00308 | 0.01451 | 0.01483 | 0.00361 | 0.01470 | 0.01513 |
| F52410.00 DISC | 0.480 | 0.44088 | 0.02721 | 0.44171 | 0.44088 | 0.02721 | 0.44171 | 1.39166 | 0.05284 | 1.39267 |
| F52410.00 STR | 0.480 | 0.41111 | 0.02606 | 0.41194 | 0.41111 | 0.02606 | 0.41194 | 1.29716 | 0.05033 | 1.29814 |
| F52420.00 DISC | 0.480 | 0.54987 | 0.03150 | 0.55077 | 0.54987 | 0.03150 | 0.55077 | 1.73816 | 0.06204 | 1.73927 |
| F52420.00 STR | 0.480 | 0.52016 | 0.03032 | 0.52105 | 0.52016 | 0.03032 | 0.52105 | 1.64366 | 0.05953 | 1.64474 |
| F54330.00 DISC | 0.480 | 0.10911 | 0.01501 | 0.11014 | 0.10911 | 0.01501 | 0.11014 | 0.34272 | 0.02311 | 0.34349 |
| F54330.00 TERM | 0.480 | 0.11504 | 0.01541 | 0.11607 | 0.11504 | 0.01541 | 0.11607 | 0.36162 | 0.02389 | 0.36240 |
| F55010.00 TERM | 0.480 | 0.06265 | 0.02280 | 0.06667 | 0.06265 | 0.02280 | 0.06667 | 0.21073 | 0.03174 | 0.21311 |
| GEN NO. 2 TERM | 0.480 | 0.00156 | 0.01224 | 0.01234 | 0.00176 | 0.01201 | 0.01214 | 0.00241 | 0.00927 | 0.00958 |
| GEN NO. 3 TERM | 0.480 | 0.00147 | 0.01208 | 0.01217 | 0.00166 | 0.01186 | 0.01197 | 0.00228 | 0.00905 | 0.00933 |
| GRIT SCR TROLLEY | 0.480 | 0.37377 | 0.02806 | 0.37482 | 0.37377 | 0.02806 | 0.37482 | 1.17431 | 0.05721 | 1.17571 |
| HVAC56100.00 DISC | 0.480 | 0.04372 | 0.01439 | 0.04603 | 0.04372 | 0.01439 | 0.04603 | 0.13544 | 0.02327 | 0.13743 |
| HVAC56100.00 TERM | 0.480 | 0.04759 | 0.01474 | 0.04982 | 0.04759 | 0.01474 | 0.04982 | 0.14773 | 0.02407 | 0.14968 |
| HVAC56110.00 DISC | 0.480 | 0.10815 | 0.01717 | 0.10951 | 0.10815 | 0.01717 | 0.10951 | 0.33956 | 0.02928 | 0.34082 |
| HVAC56110.00 TERM | 0.480 | 0.11409 | 0.01755 | 0.11544 | 0.11409 | 0.01755 | 0.11544 | 0.35846 | 0.03005 | 0.35972 |
| HW ELEVATOR | 0.480 | 0.02967 | 0.01393 | 0.03278 | 0.02967 | 0.01393 | 0.03278 | 0.09040 | 0.02245 | 0.09314 |
| HW GATES | 0.480 | 0.66271 | 0.03375 | 0.66357 | 0.66271 | 0.03375 | 0.66357 | 2.08466 | 0.07124 | 2.08588 |
| INFL PUMP 1 TERMINALS | 0.480 | 0.00307 | 0.01102 | 0.01144 | 0.00307 | 0.01102 | 0.01144 | 0.00803 | 0.01652 | 0.01837 |
| INFL PUMP 1 VFD PRI | 0.480 | 0.00174 | 0.00860 | 0.00878 | 0.00174 | 0.00860 | 0.00878 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 2 TERMINALS | 0.480 | 0.00484 | 0.01168 | 0.01264 | 0.00484 | 0.01168 | 0.01264 | 0.01515 | 0.01785 | 0.02341 |
| INFL PUMP 2 VFD | 0.480 | 0.00193 | 0.00903 | 0.00923 | 0.00193 | 0.00903 | 0.00923 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 2 VFD PRI | 0.480 | 0.00193 | 0.00903 | 0.00923 | 0.00193 | 0.00903 | 0.00923 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 3 TERMINALS | 0.480 | 0.00469 | 0.01127 | 0.01220 | 0.00469 | 0.01127 | 0.01220 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 3 VFD | 0.480 | 0.00174 | 0.00860 | 0.00878 | 0.00174 | 0.00860 | 0.00878 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 3 VFD PRI | 0.480 | 0.00174 | 0.00860 | 0.00878 | 0.00174 | 0.00860 | 0.00878 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 4 TERMINALS | 0.480 | 0.00479 | 0.01158 | 0.01253 | 0.00479 | 0.01158 | 0.01253 | 0.01492 | 0.01755 | 0.02304 |
| INFL PUMP 4 VFD | 0.480 | 0.00187 | 0.00893 | 0.00912 | 0.00187 | 0.00893 | 0.00912 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 4 VFD PRI | 0.480 | 0.00187 | 0.00893 | 0.00912 | 0.00187 | 0.00893 | 0.00912 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 5 TERMINALS | 0.480 | 0.00469 | 0.01127 | 0.01220 | 0.00469 | 0.01127 | 0.01220 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 5 VFD | 0.480 | 0.00174 | 0.00860 | 0.00878 | 0.00174 | 0.00860 | 0.00878 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 5 VFD PRI | 0.480 | 0.00174 | 0.00860 | 0.00878 | 0.00174 | 0.00860 | 0.00878 | 0.00255 | 0.00944 | 0.00978 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| INFL PUMP 6 TERMINALS | 0.480 | 0.00329 | 0.01152 | 0.01198 | 0.00329 | 0.01152 | 0.01198 | 0.00895 | 0.01770 | 0.01984 |
| INFL PUMP 6 VFD PRI | 0.480 | 0.00199 | 0.00913 | 0.00934 | 0.00199 | 0.00913 | 0.00934 | 0.00347 | 0.01062 | 0.01117 |
| LCP-HWOCS | 0.480 | 0.06056 | 0.02167 | 0.06432 | 0.06056 | 0.02167 | 0.06432 | 0.20317 | 0.02963 | 0.20532 |
| MAIN SWGR "FILTER" | 0.480 | 0.00049 | 0.00553 | 0.00555 | 0.00049 | 0.00553 | 0.00555 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR "SLUDGE" | 0.480 | 0.00041 | 0.00477 | 0.00479 | 0.00043 | 0.00475 | 0.00477 | 0.00044 | 0.00397 | 0.00400 |
| MAIN SWGR BUS A PRI | 0.480 | 0.00049 | 0.00553 | 0.00555 | 0.00049 | 0.00553 | 0.00555 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR BUS B PRI | 0.480 | 0.00041 | 0.00477 | 0.00479 | 0.00043 | 0.00475 | 0.00477 | 0.00044 | 0.00397 | 0.00400 |
| MCC-DP2C | 0.480 | 0.00657 | 0.01571 | 0.01702 | 0.00659 | 0.01569 | 0.01702 | 0.02419 | 0.03467 | 0.04228 |
| MCC-DP4A | 0.480 | 0.15862 | 0.02632 | 0.16079 | 0.15864 | 0.02630 | 0.16081 | 0.50300 | 0.05606 | 0.50611 |
| MCC-DP4B | 0.480 | 0.00097 | 0.00562 | 0.00571 | 0.00099 | 0.00560 | 0.00569 | 0.00221 | 0.00608 | 0.00647 |
| MCC-GE | 0.480 | 0.00204 | 0.01800 | 0.01812 | 0.00205 | 0.01799 | 0.01810 | 0.00518 | 0.02295 | 0.02353 |
| MCC-GE PRI | 0.480 | 0.00155 | 0.00626 | 0.00645 | 0.00157 | 0.00624 | 0.00643 | 0.00443 | 0.00797 | 0.00912 |
| MCC-HW BUS A | 0.480 | 0.00177 | 0.00853 | 0.00871 | 0.00177 | 0.00853 | 0.00871 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS A PRI | 0.480 | 0.00177 | 0.00853 | 0.00871 | 0.00177 | 0.00853 | 0.00871 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS B | 0.480 | 0.00179 | 0.00867 | 0.00885 | 0.00179 | 0.00867 | 0.00885 | 0.00252 | 0.00917 | 0.00950 |
| MCC-HW BUS B PRI | 0.480 | 0.00179 | 0.00867 | 0.00885 | 0.00179 | 0.00867 | 0.00885 | 0.00252 | 0.00917 | 0.00950 |
| MCC-NA BUS A | 2.400 | 0.04118 | 0.27314 | 0.27623 | 0.04118 | 0.27314 | 0.27623 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS A PRI | 2.400 | 0.04118 | 0.27314 | 0.27623 | 0.04118 | 0.27314 | 0.27623 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B | 2.400 | 0.04065 | 0.26910 | 0.27215 | 0.04103 | 0.26874 | 0.27186 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B PRI | 2.400 | 0.04065 | 0.26910 | 0.27215 | 0.04103 | 0.26874 | 0.27186 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NC | 0.480 | 0.00323 | 0.01783 | 0.01812 | 0.00323 | 0.01783 | 0.01812 | 0.00357 | 0.01451 | 0.01494 |
| MCC-ND | 0.480 | 0.00343 | 0.01932 | 0.01962 | 0.00344 | 0.01931 | 0.01961 | 0.00366 | 0.01452 | 0.01498 |
| MCC-NE | 0.480 | 0.00412 | 0.01893 | 0.01937 | 0.00412 | 0.01893 | 0.01937 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NF | 0.480 | 0.00428 | 0.02039 | 0.02083 | 0.00429 | 0.02038 | 0.02082 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NG BUS A | 0.480 | 0.01353 | 0.03101 | 0.03383 | 0.01353 | 0.03101 | 0.03383 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS A PRI | 0.480 | 0.01353 | 0.03101 | 0.03383 | 0.01353 | 0.03101 | 0.03383 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B | 0.480 | 0.01252 | 0.03125 | 0.03366 | 0.01253 | 0.03124 | 0.03366 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B PRI | 0.480 | 0.01252 | 0.03125 | 0.03366 | 0.01253 | 0.03124 | 0.03366 | 0.03690 | 0.04774 | 0.06034 |
| MCC-SH BUS A | 0.480 | 0.01375 | 0.03094 | 0.03386 | 0.01375 | 0.03094 | 0.03386 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS A PRI | 0.480 | 0.01375 | 0.03094 | 0.03386 | 0.01375 | 0.03094 | 0.03386 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS B | 0.480 | 0.01393 | 0.03116 | 0.03414 | 0.01393 | 0.03116 | 0.03414 | 0.04212 | 0.05297 | 0.06767 |
| MCC-SH BUS B PRI | 0.480 | 0.01502 | 0.03417 | 0.03732 | 0.01503 | 0.03416 | 0.03732 | 0.03997 | 0.05082 | 0.06465 |
| MS-HW BUS A | 0.480 | 0.00144 | 0.00809 | 0.00822 | 0.00144 | 0.00809 | 0.00822 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS A PRI | 0.480 | 0.00144 | 0.00809 | 0.00822 | 0.00144 | 0.00809 | 0.00822 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B | 0.480 | 0.00146 | 0.00821 | 0.00834 | 0.00146 | 0.00821 | 0.00834 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B PRI | 0.480 | 0.00146 | 0.00821 | 0.00834 | 0.00146 | 0.00821 | 0.00834 | 0.00141 | 0.00796 | 0.00808 |
| P52100.00 DISC | 0.480 | 0.06322 | 0.02842 | 0.06932 | 0.06322 | 0.02842 | 0.06932 | 0.20411 | 0.05404 | 0.21115 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| P52100.00 TERM | 0.480 | 0.06415 | 0.02876 | 0.07030 | 0.06415 | 0.02876 | 0.07030 | 0.20726 | 0.05474 | 0.21437 |
| P52110.00 DISC | 0.480 | 0.09350 | 0.03159 | 0.09869 | 0.09350 | 0.03159 | 0.09869 | 0.30523 | 0.05492 | 0.31013 |
| P52110.00 TERM | 0.480 | 0.09492 | 0.03204 | 0.10018 | 0.09492 | 0.03204 | 0.10018 | 0.31011 | 0.05566 | 0.31507 |
| P52120.00 DISC | 0.480 | 0.05949 | 0.02707 | 0.06536 | 0.05949 | 0.02707 | 0.06536 | 0.19151 | 0.05123 | 0.19825 |
| P52120.00 TERM | 0.480 | 0.06043 | 0.02741 | 0.06635 | 0.06043 | 0.02741 | 0.06635 | 0.19466 | 0.05193 | 0.20147 |
| P52130.00 DISC | 0.480 | 0.08779 | 0.02986 | 0.09273 | 0.08779 | 0.02986 | 0.09273 | 0.28570 | 0.05197 | 0.29039 |
| P52130.00 TERM | 0.480 | 0.08922 | 0.03029 | 0.09422 | 0.08922 | 0.03029 | 0.09422 | 0.29058 | 0.05271 | 0.29533 |
| P52140.00 DISC | 0.480 | 0.05010 | 0.02377 | 0.05545 | 0.05010 | 0.02377 | 0.05545 | 0.16001 | 0.04422 | 0.16601 |
| P52140.00 TERM | 0.480 | 0.05104 | 0.02409 | 0.05645 | 0.05104 | 0.02409 | 0.05645 | 0.16316 | 0.04492 | 0.16923 |
| P52150.00 DISC | 0.480 | 0.07339 | 0.02566 | 0.07775 | 0.07339 | 0.02566 | 0.07775 | 0.23688 | 0.04459 | 0.24104 |
| P52150.00 TERM | 0.480 | 0.07484 | 0.02608 | 0.07926 | 0.07484 | 0.02608 | 0.07926 | 0.24176 | 0.04533 | 0.24597 |
| P52160.00 DISC | 0.480 | 0.07048 | 0.02472 | 0.07469 | 0.07048 | 0.02472 | 0.07469 | 0.22711 | 0.04311 | 0.23116 |
| P52160.00 TERM | 0.480 | 0.07194 | 0.02513 | 0.07620 | 0.07194 | 0.02513 | 0.07620 | 0.23199 | 0.04385 | 0.23610 |
| P52170.00 DISC | 0.480 | 0.06613 | 0.02365 | 0.07023 | 0.06613 | 0.02365 | 0.07023 | 0.21246 | 0.04090 | 0.21636 |
| P52170.00 TERM | 0.480 | 0.06759 | 0.02405 | 0.07174 | 0.06759 | 0.02405 | 0.07174 | 0.21735 | 0.04164 | 0.22130 |
| P52220.00 DISC | 0.480 | 0.39854 | 0.03473 | 0.40005 | 0.39854 | 0.03473 | 0.40005 | 1.26881 | 0.06108 | 1.27028 |
| P52220.00 TERM | 0.480 | 0.40439 | 0.03520 | 0.40592 | 0.40439 | 0.03520 | 0.40592 | 1.28771 | 0.06186 | 1.28920 |
| P52230.00 DISC | 0.480 | 0.39854 | 0.03473 | 0.40005 | 0.39854 | 0.03473 | 0.40005 | 1.26881 | 0.06108 | 1.27028 |
| P52230.00 TERM | 0.480 | 0.40439 | 0.03520 | 0.40592 | 0.40439 | 0.03520 | 0.40592 | 1.28771 | 0.06186 | 1.28920 |
| P52240.00 DISC | 0.480 | 0.31647 | 0.02854 | 0.31775 | 0.31647 | 0.02854 | 0.31775 | 1.00422 | 0.05023 | 1.00547 |
| P52240.00 TERM | 0.480 | 0.32235 | 0.02898 | 0.32365 | 0.32235 | 0.02898 | 0.32365 | 1.02312 | 0.05101 | 1.02439 |
| P52250.00 DISC | 0.480 | 0.31647 | 0.02854 | 0.31775 | 0.31647 | 0.02854 | 0.31775 | 1.00422 | 0.05023 | 1.00547 |
| P52250.00 TERM | 0.480 | 0.32235 | 0.02898 | 0.32365 | 0.32235 | 0.02898 | 0.32365 | 1.02312 | 0.05101 | 1.02439 |
| P54080.00 DISC | 0.480 | 0.19251 | 0.01975 | 0.19352 | 0.19251 | 0.01975 | 0.19352 | 0.60731 | 0.03396 | 0.60826 |
| P54080.00 TERM | 0.480 | 0.19843 | 0.02014 | 0.19945 | 0.19843 | 0.02014 | 0.19945 | 0.62621 | 0.03474 | 0.62718 |
| P54090.00 DISC | 0.480 | 0.19251 | 0.01975 | 0.19352 | 0.19251 | 0.01975 | 0.19352 | 0.60731 | 0.03396 | 0.60826 |
| P54090.00 TERM | 0.480 | 0.19843 | 0.02014 | 0.19945 | 0.19843 | 0.02014 | 0.19945 | 0.62621 | 0.03474 | 0.62718 |
| P55020.00 TERM | 0.480 | 0.07828 | 0.02292 | 0.08156 | 0.07828 | 0.02292 | 0.08156 | 0.25987 | 0.03196 | 0.26183 |
| P55030.00 TERM | 0.480 | 0.07828 | 0.02292 | 0.08156 | 0.07828 | 0.02292 | 0.08156 | 0.25987 | 0.03196 | 0.26183 |
| PNL DP2 | 0.480 | 0.00511 | 0.01291 | 0.01389 | 0.00513 | 0.01290 | 0.01388 | 0.01780 | 0.02641 | 0.03185 |
| PNL DP4 | 0.480 | 0.00070 | 0.00514 | 0.00519 | 0.00072 | 0.00512 | 0.00517 | 0.00136 | 0.00490 | 0.00508 |
| PNL DPLC-1 | 0.208 | 0.03319 | 0.05140 | 0.06118 | 0.03319 | 0.05140 | 0.06118 | 0.03078 | 0.04961 | 0.05839 |
| PNL DPLC-2 | 0.208 | 0.04967 | 0.05878 | 0.07696 | 0.04967 | 0.05878 | 0.07696 | 0.03310 | 0.05475 | 0.06398 |
| PNL DPLC-3 | 0.208 | 0.03809 | 0.05204 | 0.06449 | 0.03809 | 0.05204 | 0.06449 | 0.04621 | 0.05119 | 0.06896 |
| PNL DPLC-4 | 0.208 | 0.09477 | 0.09804 | 0.13636 | 0.09477 | 0.09804 | 0.13636 | 0.09954 | 0.09661 | 0.13871 |
| PNL DPP1 | 0.480 | 0.01271 | 0.01165 | 0.01724 | 0.01271 | 0.01165 | 0.01724 | 0.03716 | 0.01688 | 0.04082 |
| PNL DPP1 PRI | 0.480 | 0.01271 | 0.01165 | 0.01724 | 0.01271 | 0.01165 | 0.01724 | 0.03716 | 0.01688 | 0.04082 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| SCR BLDG N OH DOOR DISC | 0.480 | 0.22240 | 0.02278 | 0.22356 | 0.22240 | 0.02278 | 0.22356 | 0.69866 | 0.04400 | 0.70005 |
| SCR BLDG N OH DOOR TERM | 0.480 | 0.22838 | 0.02310 | 0.22955 | 0.22838 | 0.02310 | 0.22955 | 0.71756 | 0.04477 | 0.71896 |
| SCR BLDG S OH DOOR DISC | 0.480 | 0.20445 | 0.02181 | 0.20561 | 0.20445 | 0.02181 | 0.20561 | 0.64196 | 0.04167 | 0.64332 |
| SCR BLDG S OH DOOR TERM | 0.480 | 0.21043 | 0.02213 | 0.21159 | 0.21043 | 0.02213 | 0.21159 | 0.66086 | 0.04245 | 0.66223 |
| SEP53000.00 DISC | 0.480 | 0.37224 | 0.02891 | 0.37336 | 0.37224 | 0.02891 | 0.37336 | 1.17431 | 0.05721 | 1.17571 |
| SEP53000.00 TERM | 0.480 | 0.37819 | 0.02926 | 0.37932 | 0.37819 | 0.02926 | 0.37932 | 1.19321 | 0.05798 | 1.19462 |
| SEP53010.00 DISC | 0.480 | 0.37226 | 0.02905 | 0.37339 | 0.37226 | 0.02905 | 0.37339 | 1.17432 | 0.05721 | 1.17571 |
| SEP53010.00 TERM | 0.480 | 0.37821 | 0.02939 | 0.37935 | 0.37821 | 0.02939 | 0.37935 | 1.19322 | 0.05798 | 1.19462 |
| SEP53020.00 DISC | 0.480 | 0.38416 | 0.02973 | 0.38531 | 0.38416 | 0.02973 | 0.38531 | 1.21212 | 0.05876 | 1.21354 |
| SEP53020.00 TERM | 0.480 | 0.39011 | 0.03008 | 0.39127 | 0.39011 | 0.03008 | 0.39127 | 1.23102 | 0.05953 | 1.23246 |
| SR-DAF | 0.480 | 0.00929 | 0.02629 | 0.02788 | 0.00929 | 0.02629 | 0.02788 | 0.02241 | 0.03501 | 0.04157 |
| SR-DAF PRI | 0.480 | 0.00929 | 0.02629 | 0.02788 | 0.00929 | 0.02629 | 0.02788 | 0.02241 | 0.03501 | 0.04157 |
| SWBD GDP | 0.480 | 0.00104 | 0.01132 | 0.01136 | 0.00122 | 0.01112 | 0.01119 | 0.00160 | 0.00796 | 0.00812 |
| SWBD-NB BUS A | 0.480 | 0.00316 | 0.01771 | 0.01799 | 0.00316 | 0.01771 | 0.01799 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS A PRI | 0.480 | 0.00316 | 0.01771 | 0.01799 | 0.00316 | 0.01771 | 0.01799 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B | 0.480 | 0.00332 | 0.01917 | 0.01945 | 0.00333 | 0.01916 | 0.01945 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B PRI | 0.480 | 0.00332 | 0.01917 | 0.01945 | 0.00333 | 0.01916 | 0.01945 | 0.00311 | 0.01392 | 0.01426 |
| TRANSF TA PRI | 0.480 | 0.00049 | 0.00553 | 0.00555 | 0.00049 | 0.00553 | 0.00555 | 0.00042 | 0.00448 | 0.00450 |
| TRANSF TB PRI | 0.480 | 0.00041 | 0.00477 | 0.00479 | 0.00043 | 0.00475 | 0.00477 | 0.00044 | 0.00397 | 0.00400 |
| TRANSF TB SEC | 2.400 | 0.02896 | 0.24164 | 0.24337 | 0.02936 | 0.24125 | 0.24303 | 0.02310 | 0.16398 | 0.16560 |
| TRANSF TC PRI | 2.400 | 0.04233 | 0.27468 | 0.27792 | 0.04233 | 0.27468 | 0.27792 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TC SEC | 0.480 | 0.00305 | 0.01755 | 0.01781 | 0.00305 | 0.01755 | 0.01781 | 0.00220 | 0.01274 | 0.01293 |
| TRANSF TD PRI | 2.400 | 0.04193 | 0.27084 | 0.27406 | 0.04231 | 0.27048 | 0.27377 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TD SEC | 0.480 | 0.00317 | 0.01893 | 0.01919 | 0.00318 | 0.01892 | 0.01918 | 0.00220 | 0.01274 | 0.01293 |
| XFMR T-C4 PRI | 0.480 | 0.03071 | 0.01260 | 0.03319 | 0.03071 | 0.01260 | 0.03319 | 0.09386 | 0.01920 | 0.09581 |
| XFMR T-C4 SEC | 0.208 | 0.08987 | 0.09740 | 0.13253 | 0.08987 | 0.09740 | 0.13253 | 0.08410 | 0.09504 | 0.12691 |
| XFMR T-LC1 PRI | 0.480 | 0.01975 | 0.01201 | 0.02311 | 0.01975 | 0.01201 | 0.02311 | 0.05915 | 0.01773 | 0.06175 |
| XFMR T-LC1 SEC | 0.208 | 0.03259 | 0.05107 | 0.06059 | 0.03259 | 0.05107 | 0.06059 | 0.02889 | 0.04882 | 0.05672 |
| XFMR T-LC2 PRI | 0.480 | 0.09111 | 0.02189 | 0.09370 | 0.09111 | 0.02189 | 0.09370 | 0.28412 | 0.04207 | 0.28722 |
| XFMR T-LC2 SEC | 0.208 | 0.04942 | 0.05872 | 0.07675 | 0.04942 | 0.05872 | 0.07675 | 0.03231 | 0.05461 | 0.06345 |

# APPENDIX B4 – SHORT CIRCUIT STUDY (1/2-4 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

## Short-Circuit Summary Report

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| ATS-L BUS A | 0.48 | 7.253 | -24.550 | 25.599 | 9.774 | -24.809 | 26.665 | 22.591 | 6.969 | 23.642 | -27.309 | 4.297 | 27.645 |
| ATS-L BUS B | 0.48 | 10.014 | -20.680 | 22.977 | 12.754 | -17.488 | 21.645 | 18.716 | 9.500 | 20.989 | -24.675 | -2.505 | 24.802 |
| ATS-L SEC | 0.48 | 7.253 | -24.550 | 25.599 | 9.774 | -24.809 | 26.665 | 22.591 | 6.969 | 23.642 | -27.309 | 4.297 | 27.645 |
| B20100.00 TERMINALS | 2.40 | 0.675 | -3.924 | 3.982 | 1.179 | -3.642 | 3.828 | 3.627 | 0.681 | 3.691 | -4.195 | 0.830 | 4.276 |
| B20200.00 TERMINALS | 2.40 | 0.690 | -3.898 | 3.959 | 1.185 | -3.605 | 3.795 | 3.591 | 0.699 | 3.658 | -4.160 | 0.806 | 4.237 |
| B20400.00 TERMINALS | 2.40 | 0.740 | -4.034 | 4.102 | 1.229 | -3.644 | 3.846 | 3.718 | 0.738 | 3.791 | -4.297 | 0.752 | 4.362 |
| B52180.00 DISC | 0.48 | 4.922 | -2.449 | 5.497 | 3.220 | -1.170 | 3.426 | 2.087 | 4.319 | 4.796 | -3.260 | -3.931 | 5.107 |
| B52180.00 TERM | 0.48 | 4.796 | -2.338 | 5.336 | 3.125 | -1.114 | 3.317 | 1.992 | 4.207 | 4.654 | -3.129 | -3.838 | 4.951 |
| B52190.00 DISC | 0.48 | 3.856 | -1.338 | 4.081 | 2.399 | -0.603 | 2.474 | 1.134 | 3.365 | 3.550 | -1.997 | -3.168 | 3.745 |
| B52190.00 TERM | 0.48 | 3.773 | -1.296 | 3.989 | 2.344 | -0.584 | 2.416 | 1.098 | 3.292 | 3.470 | -1.941 | -3.102 | 3.659 |
| B52210.00 DISC | 0.48 | 1.530 | -0.214 | 1.545 | 0.904 | -0.093 | 0.908 | 0.181 | 1.327 | 1.340 | -0.501 | -1.297 | 1.391 |
| B52210.00 TERM | 0.48 | 1.498 | -0.208 | 1.512 | 0.884 | -0.090 | 0.889 | 0.176 | 1.299 | 1.311 | -0.489 | -1.270 | 1.361 |
| B52220.00 DISC | 0.48 | 1.437 | -0.196 | 1.450 | 0.848 | -0.085 | 0.852 | 0.166 | 1.247 | 1.257 | -0.466 | -1.219 | 1.305 |
| B52220.00 TERM | 0.48 | 1.408 | -0.191 | 1.421 | 0.831 | -0.083 | 0.835 | 0.161 | 1.222 | 1.232 | -0.455 | -1.195 | 1.279 |
| BLWR BLDG TROLLEY | 0.48 | 4.187 | -1.229 | 4.364 | 2.581 | -0.521 | 2.633 | 1.032 | 3.652 | 3.795 | -1.958 | -3.484 | 3.997 |
| BSN51240.00 DISC | 0.48 | 0.760 | -0.061 | 0.763 | 0.445 | -0.027 | 0.446 | 0.052 | 0.659 | 0.661 | -0.209 | -0.650 | 0.683 |
| BSN51240.00 TERM | 0.48 | 0.748 | -0.060 | 0.750 | 0.438 | -0.026 | 0.439 | 0.051 | 0.648 | 0.650 | -0.205 | -0.640 | 0.672 |
| BSN51250.00 DISC | 0.48 | 0.760 | -0.061 | 0.763 | 0.445 | -0.027 | 0.446 | 0.052 | 0.659 | 0.661 | -0.209 | -0.650 | 0.683 |
| BSN51250.00 TERM | 0.48 | 0.748 | -0.060 | 0.750 | 0.438 | -0.026 | 0.439 | 0.051 | 0.648 | 0.650 | -0.206 | -0.640 | 0.672 |
| BSN51260.00 DISC | 0.48 | 0.760 | -0.061 | 0.763 | 0.445 | -0.027 | 0.446 | 0.052 | 0.659 | 0.661 | -0.209 | -0.650 | 0.683 |
| BSN51260.00 TERM | 0.48 | 0.748 | -0.060 | 0.750 | 0.438 | -0.026 | 0.439 | 0.051 | 0.648 | 0.650 | -0.205 | -0.640 | 0.672 |
| BSN51270.00 DISC | 0.48 | 0.760 | -0.061 | 0.763 | 0.445 | -0.027 | 0.446 | 0.052 | 0.659 | 0.661 | -0.209 | -0.650 | 0.683 |
| BSN51270.00 TERM | 0.48 | 0.748 | -0.060 | 0.750 | 0.438 | -0.026 | 0.439 | 0.051 | 0.648 | 0.650 | -0.206 | -0.640 | 0.672 |
| COGEN TIE BUS | 0.48 | 3.546 | -50.637 | 50.761 | 5.334 | -57.668 | 57.914 | 46.172 | 3.945 | 46.340 | -47.778 | 26.189 | 54.485 |
| COM53030.00 DISC | 0.48 | 0.786 | -0.064 | 0.789 | 0.460 | -0.028 | 0.461 | 0.054 | 0.681 | 0.683 | -0.217 | -0.672 | 0.706 |
| COM53030.00 TERM | 0.48 | 0.773 | -0.063 | 0.776 | 0.453 | -0.027 | 0.454 | 0.053 | 0.670 | 0.672 | -0.213 | -0.661 | 0.694 |
| COM53040.00 DISC | 0.48 | 0.860 | -0.072 | 0.863 | 0.504 | -0.031 | 0.505 | 0.061 | 0.745 | 0.747 | -0.239 | -0.735 | 0.773 |
| COM53040.00 TERM | 0.48 | 0.844 | -0.071 | 0.847 | 0.494 | -0.031 | 0.495 | 0.060 | 0.731 | 0.734 | -0.234 | -0.721 | 0.758 |
| CON51300.00 DISC | 0.48 | 0.786 | -0.064 | 0.789 | 0.460 | -0.028 | 0.461 | 0.054 | 0.681 | 0.683 | -0.217 | -0.672 | 0.706 |
| CON51300.00 TERM | 0.48 | 0.773 | -0.063 | 0.776 | 0.453 | -0.027 | 0.454 | 0.053 | 0.670 | 0.672 | -0.213 | -0.661 | 0.694 |
| CON51320.00 DISC | 0.48 | 0.786 | -0.064 | 0.789 | 0.460 | -0.028 | 0.461 | 0.054 | 0.681 | 0.683 | -0.217 | -0.672 | 0.706 |

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| CON51320.00 TERM | 0.48 | 0.773 | -0.063 | 0.776 | 0.453 | -0.027 | 0.454 | 0.053 | 0.670 | 0.672 | -0.213 | -0.661 | 0.694 |
| CON53020.00 DISC | 0.48 | 0.736 | -0.059 | 0.738 | 0.431 | -0.026 | 0.432 | 0.050 | 0.638 | 0.640 | -0.202 | -0.629 | 0.661 |
| CON53020.00 TERM | 0.48 | 0.724 | -0.057 | 0.727 | 0.424 | -0.025 | 0.425 | 0.049 | 0.628 | 0.630 | -0.199 | -0.620 | 0.651 |
| CON53030.00 DISC | 0.48 | 0.736 | -0.059 | 0.738 | 0.431 | -0.026 | 0.432 | 0.050 | 0.638 | 0.640 | -0.202 | -0.629 | 0.661 |
| CON53030.00 TERM | 0.48 | 0.724 | -0.057 | 0.727 | 0.424 | -0.025 | 0.425 | 0.049 | 0.628 | 0.630 | -0.199 | -0.620 | 0.651 |
| EFF PS SWGR BUS A | 0.48 | 3.250 | -18.193 | 18.481 | 3.397 | -18.982 | 19.283 | 15.759 | 3.018 | 16.046 | 14.243 | 12.855 | 19.186 |
| EFF PS SWGR BUS A PRI | 0.48 | 3.250 | -18.193 | 18.481 | 3.397 | -18.982 | 19.283 | 15.759 | 3.018 | 16.046 | 14.243 | 12.855 | 19.186 |
| EFF PS SWGR BUS B | 0.48 | 3.222 | -18.197 | 18.480 | 3.371 | -18.986 | 19.283 | 15.763 | 2.994 | 16.045 | 14.259 | 12.833 | 19.183 |
| EFF PS SWGR BUS B PRI | 0.48 | 3.222 | -18.197 | 18.480 | 3.371 | -18.986 | 19.283 | 15.763 | 2.994 | 16.045 | 14.259 | 12.833 | 19.183 |
| EFF PUMP NO. 2 VFD PRI | 0.48 | 3.522 | -17.348 | 17.701 | 3.949 | -17.498 | 17.938 | 15.027 | 3.255 | 15.376 | -16.979 | 5.637 | 17.890 |
| EFF PUMP NO. 4 VFD PRI | 0.48 | 3.547 | -17.342 | 17.701 | 3.971 | -17.493 | 17.938 | 15.023 | 3.277 | 15.376 | -16.984 | 5.613 | 17.887 |
| F52410.00 DISC | 0.48 | 0.623 | -0.039 | 0.624 | 0.364 | -0.017 | 0.365 | 0.033 | 0.540 | 0.541 | -0.162 | -0.534 | 0.558 |
| F52410.00 STR | 0.48 | 0.668 | -0.044 | 0.669 | 0.391 | -0.019 | 0.391 | 0.037 | 0.579 | 0.580 | -0.175 | -0.573 | 0.599 |
| F52420.00 DISC | 0.48 | 0.499 | -0.029 | 0.500 | 0.292 | -0.013 | 0.292 | 0.024 | 0.433 | 0.433 | -0.127 | -0.428 | 0.447 |
| F52420.00 STR | 0.48 | 0.528 | -0.031 | 0.529 | 0.308 | -0.014 | 0.309 | 0.026 | 0.457 | 0.458 | -0.135 | -0.453 | 0.473 |
| F54330.00 DISC | 0.48 | 2.464 | -0.356 | 2.490 | 1.464 | -0.140 | 1.470 | 0.297 | 2.139 | 2.160 | -0.817 | -2.096 | 2.249 |
| F54330.00 TERM | 0.48 | 2.340 | -0.327 | 2.363 | 1.388 | -0.129 | 1.394 | 0.273 | 2.031 | 2.049 | -0.766 | -1.991 | 2.133 |
| F55010.00 TERM | 0.48 | 3.779 | -1.207 | 3.967 | 2.329 | -0.507 | 2.384 | 1.089 | 3.335 | 3.509 | -1.897 | -3.190 | 3.711 |
| GEN NO. 2 TERM | 0.48 | 2.624 | -21.655 | 21.814 | 4.018 | -23.797 | 24.134 | 19.091 | 2.569 | 19.263 | -21.449 | 10.230 | 23.763 |
| GEN NO. 3 TERM | 0.48 | 2.537 | -21.959 | 22.105 | 3.929 | -24.233 | 24.550 | 19.365 | 2.496 | 19.526 | -21.676 | 10.592 | 24.125 |
| GRIT SCR TROLLEY | 0.48 | 0.736 | -0.058 | 0.738 | 0.431 | -0.026 | 0.432 | 0.050 | 0.638 | 0.640 | -0.202 | -0.629 | 0.661 |
| HVAC56100.00 DISC | 0.48 | 5.535 | -1.990 | 5.882 | 3.510 | -0.843 | 3.609 | 1.670 | 4.847 | 5.126 | -2.938 | -4.576 | 5.438 |
| HVAC56100.00 TERM | 0.48 | 5.159 | -1.739 | 5.444 | 3.241 | -0.733 | 3.323 | 1.459 | 4.511 | 4.741 | -2.627 | -4.276 | 5.018 |
| HVAC56110.00 DISC | 0.48 | 2.469 | -0.416 | 2.504 | 1.471 | -0.171 | 1.481 | 0.348 | 2.144 | 2.172 | -0.871 | -2.090 | 2.264 |
| HVAC56110.00 TERM | 0.48 | 2.345 | -0.381 | 2.376 | 1.395 | -0.157 | 1.404 | 0.319 | 2.036 | 2.061 | -0.815 | -1.986 | 2.147 |
| HW ELEVATOR | 0.48 | 7.266 | -3.774 | 8.188 | 4.934 | -1.716 | 5.224 | 3.196 | 6.418 | 7.170 | -5.007 | -5.858 | 7.706 |
| HW GATES | 0.48 | 0.417 | -0.022 | 0.417 | 0.243 | -0.010 | 0.244 | 0.019 | 0.361 | 0.361 | -0.105 | -0.358 | 0.373 |
| INFL PUMP 1 TERMINALS | 0.48 | 5.619 | -19.832 | 20.613 | 6.629 | -17.983 | 19.166 | 18.329 | 5.283 | 19.075 | -21.149 | 2.107 | 21.253 |
| INFL PUMP 1 VFD PRI | 0.48 | 5.338 | -25.865 | 26.411 | 6.392 | -27.608 | 28.338 | 23.990 | 5.093 | 24.525 | -26.595 | 7.879 | 27.737 |
| INFL PUMP 2 TERMINALS | 0.48 | 7.327 | -17.395 | 18.875 | 8.483 | -14.152 | 16.500 | 16.037 | 6.800 | 17.420 | -19.671 | -1.433 | 19.723 |
| INFL PUMP 2 VFD | 0.48 | 5.432 | -24.811 | 25.398 | 6.577 | -25.820 | 26.644 | 22.950 | 5.141 | 23.518 | -25.764 | 6.756 | 26.635 |
| INFL PUMP 2 VFD PRI | 0.48 | 5.432 | -24.811 | 25.398 | 6.577 | -25.820 | 26.644 | 22.950 | 5.141 | 23.518 | -25.764 | 6.756 | 26.635 |
| INFL PUMP 3 TERMINALS | 0.48 | 7.501 | -17.933 | 19.438 | 8.808 | -14.726 | 17.159 | 16.541 | 6.995 | 17.959 | -20.330 | -1.375 | 20.377 |
| INFL PUMP 3 VFD | 0.48 | 5.339 | -25.866 | 26.411 | 6.395 | -27.608 | 28.338 | 23.990 | 5.096 | 24.525 | -26.594 | 7.877 | 27.736 |

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| INFL PUMP 3 VFD PRI | 0.48 | 5.339 | -25.866 | 26.411 | 6.395 | -27.608 | 28.338 | 23.990 | 5.096 | 24.525 | -26.594 | 7.877 | 27.736 |
| INFL PUMP 4 TERMINALS | 0.48 | 7.374 | -17.552 | 19.038 | 8.577 | -14.330 | 16.701 | 16.181 | 6.846 | 17.569 | -19.867 | -1.399 | 19.916 |
| INFL PUMP 4 VFD | 0.48 | 5.401 | -25.113 | 25.687 | 6.514 | -26.354 | 27.147 | 23.235 | 5.113 | 23.791 | -26.000 | 7.120 | 26.957 |
| INFL PUMP 4 VFD PRI | 0.48 | 5.401 | -25.113 | 25.687 | 6.514 | -26.354 | 27.147 | 23.235 | 5.113 | 23.791 | -26.000 | 7.120 | 26.957 |
| INFL PUMP 5 TERMINALS | 0.48 | 7.501 | -17.933 | 19.438 | 8.808 | -14.726 | 17.159 | 16.541 | 6.995 | 17.959 | -20.330 | -1.375 | 20.377 |
| INFL PUMP 5 VFD | 0.48 | 5.339 | -25.866 | 26.411 | 6.395 | -27.608 | 28.338 | 23.990 | 5.096 | 24.525 | -26.594 | 7.877 | 27.736 |
| INFL PUMP 5 VFD PRI | 0.48 | 5.339 | -25.866 | 26.411 | 6.395 | -27.608 | 28.338 | 23.990 | 5.096 | 24.525 | -26.594 | 7.877 | 27.736 |
| INFL PUMP 6 TERMINALS | 0.48 | 5.570 | -19.017 | 19.816 | 6.481 | -16.927 | 18.126 | 17.555 | 5.205 | 18.310 | -20.310 | 1.663 | 20.378 |
| INFL PUMP 6 VFD PRI | 0.48 | 5.459 | -24.515 | 25.115 | 6.627 | -25.305 | 26.158 | 22.671 | 5.161 | 23.251 | -25.528 | 6.414 | 26.322 |
| LCP-HWOCS | 0.48 | 3.921 | -1.237 | 4.112 | 2.418 | -0.515 | 2.472 | 1.113 | 3.460 | 3.635 | -1.953 | -3.313 | 3.845 |
| MAIN SWGR "FILTER" | 0.48 | 3.075 | -44.503 | 44.609 | 4.333 | -50.408 | 50.594 | 40.079 | 3.328 | 40.217 | 37.479 | 29.650 | 47.789 |
| MAIN SWGR "SLUDGE" | 0.48 | 3.546 | -50.637 | 50.761 | 5.334 | -57.668 | 57.914 | 46.172 | 3.945 | 46.340 | -47.778 | 26.189 | 54.485 |
| MAIN SWGR BUS A PRI | 0.48 | 3.075 | -44.503 | 44.609 | 4.333 | -50.408 | 50.594 | 40.079 | 3.328 | 40.217 | 37.479 | 29.650 | 47.789 |
| MAIN SWGR BUS B PRI | 0.48 | 3.546 | -50.637 | 50.761 | 5.334 | -57.668 | 57.914 | 46.172 | 3.945 | 46.340 | -47.778 | 26.189 | 54.485 |
| MCC-DP2C | 0.48 | 5.761 | -13.634 | 14.801 | 5.278 | -9.300 | 10.693 | 12.291 | 5.293 | 13.382 | -14.305 | -1.944 | 14.436 |
| MCC-DP4A | 0.48 | 1.686 | -0.281 | 1.709 | 0.993 | -0.131 | 1.002 | 0.240 | 1.461 | 1.480 | -0.592 | -1.418 | 1.537 |
| MCC-DP4B | 0.48 | 6.443 | -43.016 | 43.496 | 10.147 | -43.549 | 44.715 | 38.818 | 6.475 | 39.355 | -43.999 | 14.054 | 46.189 |
| MCC-GE | 0.48 | 1.434 | -13.351 | 13.428 | 2.097 | -13.148 | 13.314 | 12.223 | 1.469 | 12.311 | -13.081 | 4.410 | 13.804 |
| MCC-GE PRI | 0.48 | 8.541 | -37.621 | 38.578 | 12.426 | -34.498 | 36.668 | 33.920 | 8.253 | 34.909 | -40.069 | 6.611 | 40.611 |
| MCC-HW BUS A | 0.48 | 5.451 | -26.022 | 26.586 | 6.573 | -27.928 | 28.691 | 24.079 | 5.216 | 24.637 | -26.790 | 8.051 | 27.973 |
| MCC-HW BUS A PRI | 0.48 | 5.451 | -26.022 | 26.586 | 6.573 | -27.928 | 28.691 | 24.079 | 5.216 | 24.637 | -26.790 | 8.051 | 27.973 |
| MCC-HW BUS B | 0.48 | 5.442 | -25.878 | 26.444 | 6.532 | -27.782 | 28.539 | 23.892 | 5.168 | 24.444 | -26.637 | 8.083 | 27.836 |
| MCC-HW BUS B PRI | 0.48 | 5.442 | -25.878 | 26.444 | 6.532 | -27.782 | 28.539 | 23.892 | 5.168 | 24.444 | -26.637 | 8.083 | 27.836 |
| MCC-NA BUS A | 2.40 | 0.570 | -4.121 | 4.160 | 1.123 | -4.075 | 4.227 | 3.815 | 0.588 | 3.860 | -4.394 | 1.188 | 4.551 |
| MCC-NA BUS A PRI | 2.40 | 0.570 | -4.121 | 4.160 | 1.123 | -4.075 | 4.227 | 3.815 | 0.588 | 3.860 | -4.394 | 1.188 | 4.551 |
| MCC-NA BUS B | 2.40 | 0.615 | -4.280 | 4.324 | 1.171 | -4.160 | 4.321 | 3.952 | 0.627 | 4.001 | -4.548 | 1.167 | 4.695 |
| MCC-NA BUS B PRI | 2.40 | 0.615 | -4.280 | 4.324 | 1.171 | -4.160 | 4.321 | 3.952 | 0.627 | 4.001 | -4.548 | 1.167 | 4.695 |
| MCC-NC | 0.48 | 1.837 | -11.269 | 11.418 | 2.778 | -13.799 | 14.076 | 10.690 | 1.993 | 10.874 | -11.681 | 5.296 | 12.826 |
| MCC-ND | 0.48 | 1.893 | -11.193 | 11.352 | 2.789 | -13.571 | 13.855 | 10.467 | 1.990 | 10.655 | -11.584 | 5.311 | 12.743 |
| MCC-NE | 0.48 | 2.039 | -10.683 | 10.876 | 3.193 | -12.462 | 12.864 | 10.054 | 2.172 | 10.286 | -11.448 | 4.163 | 12.182 |
| MCC-NF | 0.48 | 2.075 | -10.628 | 10.828 | 3.160 | -12.302 | 12.701 | 9.876 | 2.150 | 10.107 | -11.350 | 4.204 | 12.103 |
| MCC-NG BUS A | 0.48 | 2.486 | -6.422 | 6.887 | 2.994 | -5.349 | 6.130 | 5.796 | 2.410 | 6.277 | -7.096 | -0.233 | 7.100 |
| MCC-NG BUS A PRI | 0.48 | 2.486 | -6.422 | 6.887 | 2.994 | -5.349 | 6.130 | 5.796 | 2.410 | 6.277 | -7.096 | -0.233 | 7.100 |
| MCC-NG BUS B | 0.48 | 2.483 | -6.533 | 6.989 | 3.005 | -5.423 | 6.200 | 5.934 | 2.397 | 6.400 | -7.231 | -0.226 | 7.234 |

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| MCC-NG BUS B PRI | 0.48 | 2.483 | -6.533 | 6.989 | 3.005 | -5.423 | 6.200 | 5.934 | 2.397 | 6.400 | -7.231 | -0.226 | 7.234 |
| MCC-SH BUS A | 0.48 | 2.451 | -6.040 | 6.519 | 2.854 | -4.900 | 5.671 | 5.433 | 2.360 | 5.923 | -6.657 | -0.389 | 6.669 |
| MCC-SH BUS A PRI | 0.48 | 2.451 | -6.040 | 6.519 | 2.854 | -4.900 | 5.671 | 5.433 | 2.360 | 5.923 | -6.657 | -0.389 | 6.669 |
| MCC-SH BUS B | 0.48 | 2.445 | -5.992 | 6.472 | 2.836 | -4.846 | 5.614 | 5.387 | 2.352 | 5.878 | -6.602 | -0.406 | 6.615 |
| MCC-SH BUS B PRI | 0.48 | 2.468 | -6.138 | 6.615 | 2.877 | -5.016 | 5.783 | 5.494 | 2.345 | 5.973 | -6.761 | -0.313 | 6.768 |
| MS-HW BUS A | 0.48 | 5.083 | -27.582 | 28.047 | 5.741 | -30.862 | 31.391 | 25.628 | 4.866 | 26.086 | 22.367 | 19.679 | 29.791 |
| MS-HW BUS A PRI | 0.48 | 5.083 | -27.582 | 28.047 | 5.741 | -30.862 | 31.391 | 25.628 | 4.866 | 26.086 | 22.367 | 19.679 | 29.791 |
| MS-HW BUS B | 0.48 | 5.076 | -27.439 | 27.905 | 5.707 | -30.704 | 31.230 | 25.441 | 4.821 | 25.894 | 22.181 | 19.641 | 29.627 |
| MS-HW BUS B PRI | 0.48 | 5.076 | -27.439 | 27.905 | 5.707 | -30.704 | 31.230 | 25.441 | 4.821 | 25.894 | 22.181 | 19.641 | 29.627 |
| P52100.00 DISC | 0.48 | 3.536 | -1.521 | 3.850 | 2.236 | -0.728 | 2.351 | 1.298 | 3.089 | 3.350 | -2.105 | -2.848 | 3.541 |
| P52100.00 TERM | 0.48 | 3.489 | -1.493 | 3.795 | 2.203 | -0.715 | 2.317 | 1.274 | 3.047 | 3.303 | -2.070 | -2.810 | 3.490 |
| P52110.00 DISC | 0.48 | 2.597 | -0.763 | 2.706 | 1.580 | -0.351 | 1.618 | 0.649 | 2.259 | 2.351 | -1.214 | -2.145 | 2.464 |
| P52110.00 TERM | 0.48 | 2.558 | -0.748 | 2.665 | 1.556 | -0.344 | 1.593 | 0.636 | 2.226 | 2.315 | -1.192 | -2.114 | 2.426 |
| P52120.00 DISC | 0.48 | 3.738 | -1.643 | 4.083 | 2.374 | -0.786 | 2.501 | 1.401 | 3.267 | 3.555 | -2.260 | -3.007 | 3.761 |
| P52120.00 TERM | 0.48 | 3.686 | -1.611 | 4.022 | 2.338 | -0.771 | 2.462 | 1.374 | 3.221 | 3.502 | -2.219 | -2.966 | 3.704 |
| P52130.00 DISC | 0.48 | 2.761 | -0.830 | 2.883 | 1.685 | -0.380 | 1.727 | 0.705 | 2.403 | 2.505 | -1.308 | -2.279 | 2.628 |
| P52130.00 TERM | 0.48 | 2.718 | -0.812 | 2.837 | 1.657 | -0.372 | 1.699 | 0.690 | 2.366 | 2.464 | -1.283 | -2.244 | 2.585 |
| P52140.00 DISC | 0.48 | 4.357 | -2.044 | 4.813 | 2.809 | -0.976 | 2.974 | 1.742 | 3.816 | 4.195 | -2.761 | -3.493 | 4.452 |
| P52140.00 TERM | 0.48 | 4.286 | -1.996 | 4.728 | 2.758 | -0.953 | 2.918 | 1.701 | 3.753 | 4.121 | -2.702 | -3.437 | 4.372 |
| P52150.00 DISC | 0.48 | 3.280 | -1.057 | 3.446 | 2.019 | -0.479 | 2.075 | 0.897 | 2.858 | 2.995 | -1.621 | -2.702 | 3.150 |
| P52150.00 TERM | 0.48 | 3.220 | -1.029 | 3.380 | 1.980 | -0.467 | 2.034 | 0.873 | 2.805 | 2.938 | -1.583 | -2.653 | 3.089 |
| P52160.00 DISC | 0.48 | 3.410 | -1.115 | 3.587 | 2.103 | -0.505 | 2.163 | 0.945 | 2.972 | 3.119 | -1.699 | -2.807 | 3.281 |
| P52160.00 TERM | 0.48 | 3.344 | -1.084 | 3.516 | 2.060 | -0.492 | 2.118 | 0.919 | 2.915 | 3.057 | -1.658 | -2.754 | 3.215 |
| P52170.00 DISC | 0.48 | 3.618 | -1.218 | 3.818 | 2.241 | -0.550 | 2.308 | 1.033 | 3.155 | 3.320 | -1.838 | -2.976 | 3.498 |
| P52170.00 TERM | 0.48 | 3.545 | -1.182 | 3.737 | 2.193 | -0.534 | 2.257 | 1.003 | 3.091 | 3.250 | -1.790 | -2.917 | 3.422 |
| P52220.00 DISC | 0.48 | 0.682 | -0.053 | 0.684 | 0.399 | -0.023 | 0.400 | 0.045 | 0.591 | 0.592 | -0.186 | -0.583 | 0.612 |
| P52220.00 TERM | 0.48 | 0.672 | -0.052 | 0.674 | 0.393 | -0.023 | 0.394 | 0.044 | 0.582 | 0.584 | -0.183 | -0.575 | 0.603 |
| P52230.00 DISC | 0.48 | 0.682 | -0.053 | 0.684 | 0.399 | -0.023 | 0.400 | 0.045 | 0.591 | 0.592 | -0.186 | -0.583 | 0.612 |
| P52230.00 TERM | 0.48 | 0.672 | -0.052 | 0.674 | 0.393 | -0.023 | 0.394 | 0.044 | 0.582 | 0.584 | -0.183 | -0.575 | 0.603 |
| P52240.00 DISC | 0.48 | 0.860 | -0.072 | 0.863 | 0.504 | -0.031 | 0.505 | 0.061 | 0.745 | 0.747 | -0.239 | -0.735 | 0.773 |
| P52240.00 TERM | 0.48 | 0.844 | -0.071 | 0.847 | 0.494 | -0.031 | 0.495 | 0.060 | 0.731 | 0.734 | -0.234 | -0.721 | 0.758 |
| P52250.00 DISC | 0.48 | 0.860 | -0.072 | 0.863 | 0.504 | -0.031 | 0.505 | 0.061 | 0.745 | 0.747 | -0.239 | -0.735 | 0.773 |
| P52250.00 TERM | 0.48 | 0.844 | -0.071 | 0.847 | 0.494 | -0.031 | 0.495 | 0.060 | 0.731 | 0.734 | -0.234 | -0.721 | 0.758 |
| P54080.00 DISC | 0.48 | 1.412 | -0.148 | 1.420 | 0.831 | -0.061 | 0.833 | 0.124 | 1.224 | 1.230 | -0.418 | -1.205 | 1.275 |

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| P54080.00 TERM | 0.48 | 1.370 | -0.141 | 1.377 | 0.806 | -0.059 | 0.808 | 0.118 | 1.188 | 1.194 | -0.404 | -1.169 | 1.237 |
| P54090.00 DISC | 0.48 | 1.412 | -0.148 | 1.420 | 0.831 | -0.061 | 0.833 | 0.124 | 1.224 | 1.230 | -0.418 | -1.205 | 1.275 |
| P54090.00 TERM | 0.48 | 1.370 | -0.141 | 1.377 | 0.806 | -0.059 | 0.808 | 0.118 | 1.188 | 1.194 | -0.404 | -1.169 | 1.237 |
| P55020.00 TERM | 0.48 | 3.158 | -0.814 | 3.261 | 1.913 | -0.337 | 1.942 | 0.727 | 2.778 | 2.871 | -1.392 | -2.680 | 3.020 |
| P55030.00 TERM | 0.48 | 3.158 | -0.814 | 3.261 | 1.913 | -0.337 | 1.942 | 0.727 | 2.778 | 2.871 | -1.392 | -2.680 | 3.020 |
| PNL DP2 | 0.48 | 6.642 | -17.018 | 18.269 | 6.469 | -12.076 | 13.700 | 15.268 | 6.122 | 16.449 | -17.831 | -1.657 | 17.907 |
| PNL DP4 | 0.48 | 5.438 | -46.978 | 47.292 | 8.944 | -50.484 | 51.271 | 42.610 | 5.645 | 42.983 | -47.066 | 19.394 | 50.905 |
| PNL DPLC-1 | 0.21 | 1.057 | -1.643 | 1.953 | 1.068 | -1.678 | 1.989 | 1.424 | 0.918 | 1.695 | 0.887 | 1.772 | 1.982 |
| PNL DPLC-2 | 0.21 | 1.001 | -1.189 | 1.555 | 1.008 | -1.313 | 1.655 | 1.031 | 0.869 | 1.348 | 0.532 | 1.593 | 1.680 |
| PNL DPLC-3 | 0.21 | 1.092 | -1.498 | 1.854 | 1.125 | -1.429 | 1.819 | 1.299 | 0.949 | 1.608 | -1.871 | -0.268 | 1.890 |
| PNL DPLC-4 | 0.21 | 0.610 | -0.633 | 0.879 | 0.615 | -0.623 | 0.875 | 0.548 | 0.529 | 0.762 | -0.857 | -0.222 | 0.885 |
| PNL DPP1 | 0.48 | 10.388 | -10.546 | 14.803 | 9.095 | -6.063 | 10.930 | 9.182 | 9.477 | 13.196 | -12.754 | -7.388 | 14.739 |
| PNL DPP1 PRI | 0.48 | 10.388 | -10.546 | 14.803 | 9.095 | -6.063 | 10.930 | 9.182 | 9.477 | 13.196 | -12.754 | -7.388 | 14.739 |
| SCR BLDG N OH DOOR DISC | 0.48 | 1.227 | -0.134 | 1.235 | 0.722 | -0.058 | 0.724 | 0.113 | 1.064 | 1.070 | -0.368 | -1.045 | 1.109 |
| SCR BLDG N OH DOOR TERM | 0.48 | 1.196 | -0.129 | 1.202 | 0.703 | -0.055 | 0.705 | 0.109 | 1.036 | 1.042 | -0.357 | -1.019 | 1.079 |
| SCR BLDG S OH DOOR DISC | 0.48 | 1.334 | -0.152 | 1.342 | 0.785 | -0.065 | 0.788 | 0.128 | 1.156 | 1.163 | -0.406 | -1.135 | 1.206 |
| SCR BLDG S OH DOOR TERM | 0.48 | 1.296 | -0.146 | 1.304 | 0.763 | -0.062 | 0.765 | 0.123 | 1.124 | 1.130 | -0.393 | -1.104 | 1.172 |
| SEP53000.00 DISC | 0.48 | 0.736 | -0.059 | 0.738 | 0.431 | -0.026 | 0.432 | 0.050 | 0.638 | 0.640 | -0.202 | -0.629 | 0.661 |
| SEP53000.00 TERM | 0.48 | 0.725 | -0.057 | 0.727 | 0.424 | -0.025 | 0.425 | 0.049 | 0.628 | 0.630 | -0.198 | -0.620 | 0.651 |
| SEP53010.00 DISC | 0.48 | 0.736 | -0.059 | 0.738 | 0.431 | -0.026 | 0.432 | 0.050 | 0.638 | 0.640 | -0.202 | -0.629 | 0.661 |
| SEP53010.00 TERM | 0.48 | 0.724 | -0.057 | 0.727 | 0.424 | -0.025 | 0.425 | 0.049 | 0.628 | 0.630 | -0.199 | -0.620 | 0.651 |
| SEP53020.00 DISC | 0.48 | 0.713 | -0.056 | 0.715 | 0.418 | -0.025 | 0.418 | 0.048 | 0.618 | 0.620 | -0.195 | -0.610 | 0.640 |
| SEP53020.00 TERM | 0.48 | 0.702 | -0.055 | 0.705 | 0.411 | -0.024 | 0.412 | 0.047 | 0.609 | 0.610 | -0.192 | -0.601 | 0.631 |
| SR-DAF | 0.48 | 2.402 | -7.829 | 8.189 | 3.250 | -7.275 | 7.967 | 7.164 | 2.396 | 7.554 | -8.630 | 0.741 | 8.662 |
| SR-DAF PRI | 0.48 | 2.402 | -7.829 | 8.189 | 3.250 | -7.275 | 7.967 | 7.164 | 2.396 | 7.554 | -8.630 | 0.741 | 8.662 |
| SWBD GDP | 0.48 | 2.030 | -23.494 | 23.582 | 3.332 | -26.519 | 26.728 | 20.755 | 2.065 | 20.858 | -22.698 | 12.603 | 25.962 |
| SWBD-NB BUS A | 0.48 | 1.817 | -11.364 | 11.508 | 2.715 | -14.054 | 14.313 | 10.772 | 1.975 | 10.951 | -11.692 | 5.552 | 12.944 |
| SWBD-NB BUS A PRI | 0.48 | 1.817 | -11.364 | 11.508 | 2.715 | -14.054 | 14.313 | 10.772 | 1.975 | 10.951 | -11.692 | 5.552 | 12.944 |
| SWBD-NB BUS B | 0.48 | 1.860 | -11.304 | 11.456 | 2.699 | -13.852 | 14.113 | 10.568 | 1.962 | 10.749 | -11.588 | 5.593 | 12.867 |
| SWBD-NB BUS B PRI | 0.48 | 1.860 | -11.304 | 11.456 | 2.699 | -13.852 | 14.113 | 10.568 | 1.962 | 10.749 | -11.588 | 5.593 | 12.867 |
| TRANSF TA PRI | 0.48 | 3.075 | -44.503 | 44.609 | 4.333 | -50.408 | 50.594 | 40.079 | 3.328 | 40.217 | 37.479 | 29.650 | 47.789 |
| TRANSF TB PRI | 0.48 | 3.546 | -50.637 | 50.761 | 5.334 | -57.668 | 57.914 | 46.172 | 3.945 | 46.340 | -47.778 | 26.189 | 54.485 |
| TRANSF TB SEC | 2.40 | 0.526 | -4.880 | 4.909 | 0.755 | -5.914 | 5.962 | 4.480 | 0.553 | 4.514 | 3.990 | 3.759 | 5.482 |
| TRANSF TC PRI | 2.40 | 0.580 | -4.093 | 4.133 | 1.131 | -4.005 | 4.162 | 3.789 | 0.597 | 3.836 | -4.365 | 1.132 | 4.510 |

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| TRANSF TC SEC | 0.48 | 1.773 | -11.558 | 11.693 | 2.567 | -14.587 | 14.811 | 10.939 | 1.936 | 11.109 | 9.351 | 9.617 | 13.414 |
| TRANSF TD PRI | 2.40 | 0.626 | -4.248 | 4.294 | 1.178 | -4.085 | 4.251 | 3.921 | 0.637 | 3.973 | -4.516 | 1.109 | 4.650 |
| TRANSF TD SEC | 0.48 | 1.814 | -11.512 | 11.654 | 2.553 | -14.393 | 14.618 | 10.752 | 1.922 | 10.922 | 9.187 | 9.677 | 13.344 |
| XFMR T-C4 PRI | 0.48 | 7.353 | -3.373 | 8.090 | 4.896 | -1.457 | 5.109 | 2.839 | 6.484 | 7.078 | -4.627 | -6.014 | 7.588 |
| XFMR T-C4 SEC | 0.21 | 0.612 | -0.665 | 0.904 | 0.618 | -0.679 | 0.918 | 0.576 | 0.531 | 0.784 | 0.265 | 0.878 | 0.917 |
| XFMR T-LC1 PRI | 0.48 | 9.419 | -6.406 | 11.391 | 7.016 | -3.091 | 7.667 | 5.467 | 8.428 | 10.046 | -8.097 | -7.409 | 10.975 |
| XFMR T-LC1 SEC | 0.21 | 1.058 | -1.664 | 1.972 | 1.068 | -1.716 | 2.021 | 1.443 | 0.919 | 1.711 | 0.908 | 1.801 | 2.017 |
| XFMR T-LC2 PRI | 0.48 | 2.839 | -0.731 | 2.932 | 1.719 | -0.323 | 1.749 | 0.618 | 2.469 | 2.545 | -1.232 | -2.364 | 2.666 |
| XFMR T-LC2 SEC | 0.21 | 1.001 | -1.194 | 1.559 | 1.007 | -1.323 | 1.662 | 1.035 | 0.869 | 1.352 | 0.538 | 1.602 | 1.690 |

All fault currents are symmetrical momentary (1.5-4 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

## Short-Circuit Summary Report

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| ATS-L BUS A | 0.480 | 0.00307 | 0.01038 | 0.01083 | 0.00292 | 0.00902 | 0.00948 | 0.00544 | 0.00961 | 0.01104 |
| ATS-L BUS B | 0.480 | 0.00526 | 0.01086 | 0.01206 | 0.00509 | 0.00954 | 0.01081 | 0.01228 | 0.01064 | 0.01625 |
| ATS-L SEC | 0.480 | 0.00307 | 0.01038 | 0.01083 | 0.00292 | 0.00902 | 0.00948 | 0.00544 | 0.00961 | 0.01104 |
| B20100.00 TERMINALS | 2.400 | 0.05900 | 0.34298 | 0.34802 | 0.06096 | 0.29615 | 0.30236 | 0.21464 | 0.39405 | 0.44871 |
| B20200.00 TERMINALS | 2.400 | 0.06098 | 0.34468 | 0.35004 | 0.06431 | 0.29929 | 0.30612 | 0.21673 | 0.39668 | 0.45202 |
| B20400.00 TERMINALS | 2.400 | 0.06098 | 0.33229 | 0.33784 | 0.06237 | 0.28874 | 0.29539 | 0.22195 | 0.40325 | 0.46030 |
| B52180.00 DISC | 0.480 | 0.04513 | 0.02246 | 0.05041 | 0.04497 | 0.02108 | 0.04967 | 0.13796 | 0.03931 | 0.14346 |
| B52180.00 TERM | 0.480 | 0.04668 | 0.02276 | 0.05194 | 0.04652 | 0.02138 | 0.05120 | 0.14285 | 0.04005 | 0.14835 |
| B52190.00 DISC | 0.480 | 0.06415 | 0.02226 | 0.06790 | 0.06396 | 0.02091 | 0.06730 | 0.19782 | 0.03869 | 0.20156 |
| B52190.00 TERM | 0.480 | 0.06570 | 0.02256 | 0.06947 | 0.06551 | 0.02121 | 0.06886 | 0.20270 | 0.03942 | 0.20650 |
| B52210.00 DISC | 0.480 | 0.17764 | 0.02490 | 0.17938 | 0.17740 | 0.02354 | 0.17895 | 0.55534 | 0.04514 | 0.55717 |
| B52210.00 TERM | 0.480 | 0.18154 | 0.02523 | 0.18329 | 0.18129 | 0.02386 | 0.18286 | 0.56763 | 0.04594 | 0.56948 |
| B52220.00 DISC | 0.480 | 0.18932 | 0.02583 | 0.19107 | 0.18908 | 0.02441 | 0.19064 | 0.59219 | 0.04754 | 0.59410 |
| B52220.00 TERM | 0.480 | 0.19322 | 0.02616 | 0.19498 | 0.19297 | 0.02473 | 0.19455 | 0.60448 | 0.04834 | 0.60641 |
| BLWR BLDG TROLLEY | 0.480 | 0.06094 | 0.01788 | 0.06351 | 0.06079 | 0.01652 | 0.06299 | 0.18773 | 0.02806 | 0.18982 |
| BSN51240.00 DISC | 0.480 | 0.36214 | 0.02910 | 0.36330 | 0.36199 | 0.02774 | 0.36305 | 1.13651 | 0.05566 | 1.13788 |
| BSN51240.00 TERM | 0.480 | 0.36814 | 0.02942 | 0.36931 | 0.36799 | 0.02805 | 0.36905 | 1.15541 | 0.05643 | 1.15679 |
| BSN51250.00 DISC | 0.480 | 0.36216 | 0.02916 | 0.36333 | 0.36199 | 0.02784 | 0.36306 | 1.13652 | 0.05566 | 1.13788 |
| BSN51250.00 TERM | 0.480 | 0.36816 | 0.02947 | 0.36933 | 0.36799 | 0.02815 | 0.36907 | 1.15542 | 0.05643 | 1.15679 |
| BSN51260.00 DISC | 0.480 | 0.36214 | 0.02910 | 0.36330 | 0.36199 | 0.02774 | 0.36305 | 1.13651 | 0.05566 | 1.13788 |
| BSN51260.00 TERM | 0.480 | 0.36814 | 0.02942 | 0.36931 | 0.36799 | 0.02805 | 0.36905 | 1.15541 | 0.05643 | 1.15679 |
| BSN51270.00 DISC | 0.480 | 0.36216 | 0.02916 | 0.36333 | 0.36199 | 0.02784 | 0.36306 | 1.13652 | 0.05566 | 1.13788 |
| BSN51270.00 TERM | 0.480 | 0.36816 | 0.02947 | 0.36933 | 0.36799 | 0.02815 | 0.36907 | 1.15542 | 0.05643 | 1.15679 |
| COGEN TIE BUS | 0.480 | 0.00038 | 0.00545 | 0.00546 | 0.00050 | 0.00487 | 0.00490 | 0.00044 | 0.00397 | 0.00400 |
| COM53030.00 DISC | 0.480 | 0.35013 | 0.02848 | 0.35129 | 0.34998 | 0.02711 | 0.35102 | 1.09871 | 0.05411 | 1.10004 |
| COM53030.00 TERM | 0.480 | 0.35613 | 0.02879 | 0.35729 | 0.35598 | 0.02742 | 0.35703 | 1.11761 | 0.05488 | 1.11896 |
| COM53040.00 DISC | 0.480 | 0.32015 | 0.02695 | 0.32128 | 0.31999 | 0.02563 | 0.32101 | 1.00422 | 0.05023 | 1.00547 |
| COM53040.00 TERM | 0.480 | 0.32615 | 0.02727 | 0.32729 | 0.32598 | 0.02595 | 0.32702 | 1.02312 | 0.05101 | 1.02439 |
| CON51300.00 DISC | 0.480 | 0.35013 | 0.02848 | 0.35128 | 0.34996 | 0.02710 | 0.35101 | 1.09871 | 0.05411 | 1.10004 |
| CON51300.00 TERM | 0.480 | 0.35613 | 0.02880 | 0.35729 | 0.35596 | 0.02742 | 0.35702 | 1.11761 | 0.05488 | 1.11896 |
| CON51320.00 DISC | 0.480 | 0.35013 | 0.02848 | 0.35128 | 0.34996 | 0.02710 | 0.35101 | 1.09871 | 0.05411 | 1.10004 |
| CON51320.00 TERM | 0.480 | 0.35613 | 0.02880 | 0.35729 | 0.35596 | 0.02742 | 0.35702 | 1.11761 | 0.05488 | 1.11896 |
| CON53020.00 DISC | 0.480 | 0.37414 | 0.02980 | 0.37533 | 0.37397 | 0.02846 | 0.37505 | 1.17432 | 0.05721 | 1.17571 |
| CON53020.00 TERM | 0.480 | 0.38014 | 0.03011 | 0.38133 | 0.37996 | 0.02878 | 0.38105 | 1.19322 | 0.05798 | 1.19462 |
| CON53030.00 DISC | 0.480 | 0.37414 | 0.02980 | 0.37533 | 0.37397 | 0.02846 | 0.37505 | 1.17432 | 0.05721 | 1.17571 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| CON53030.00 TERM | 0.480 | 0.38014 | 0.03011 | 0.38133 | 0.37996 | 0.02878 | 0.38105 | 1.19322 | 0.05798 | 1.19462 |
| EFF PS SWGR BUS A | 0.480 | 0.00264 | 0.01476 | 0.01500 | 0.00299 | 0.01462 | 0.01492 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS A PRI | 0.480 | 0.00264 | 0.01476 | 0.01500 | 0.00299 | 0.01462 | 0.01492 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B | 0.480 | 0.00261 | 0.01477 | 0.01500 | 0.00297 | 0.01462 | 0.01492 | 0.00196 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B PRI | 0.480 | 0.00261 | 0.01477 | 0.01500 | 0.00297 | 0.01462 | 0.01492 | 0.00196 | 0.01306 | 0.01321 |
| EFF PUMP NO. 2 VFD PRI | 0.480 | 0.00312 | 0.01534 | 0.01566 | 0.00349 | 0.01517 | 0.01556 | 0.00359 | 0.01470 | 0.01513 |
| EFF PUMP NO. 4 VFD PRI | 0.480 | 0.00314 | 0.01534 | 0.01566 | 0.00352 | 0.01516 | 0.01556 | 0.00361 | 0.01470 | 0.01513 |
| F52410.00 DISC | 0.480 | 0.44313 | 0.02796 | 0.44401 | 0.44298 | 0.02659 | 0.44378 | 1.39166 | 0.05284 | 1.39267 |
| F52410.00 STR | 0.480 | 0.41313 | 0.02694 | 0.41401 | 0.41298 | 0.02557 | 0.41377 | 1.29716 | 0.05033 | 1.29814 |
| F52420.00 DISC | 0.480 | 0.55313 | 0.03170 | 0.55404 | 0.55298 | 0.03033 | 0.55381 | 1.73816 | 0.06204 | 1.73927 |
| F52420.00 STR | 0.480 | 0.52313 | 0.03068 | 0.52403 | 0.52298 | 0.02931 | 0.52380 | 1.64366 | 0.05953 | 1.64474 |
| F54330.00 DISC | 0.480 | 0.11015 | 0.01593 | 0.11130 | 0.10999 | 0.01461 | 0.11096 | 0.34272 | 0.02311 | 0.34349 |
| F54330.00 TERM | 0.480 | 0.11615 | 0.01624 | 0.11728 | 0.11599 | 0.01492 | 0.11694 | 0.36162 | 0.02389 | 0.36240 |
| F55010.00 TERM | 0.480 | 0.06655 | 0.02125 | 0.06986 | 0.06350 | 0.02121 | 0.06694 | 0.21073 | 0.03174 | 0.21311 |
| GEN NO. 2 TERM | 0.480 | 0.00153 | 0.01261 | 0.01270 | 0.00179 | 0.01208 | 0.01222 | 0.00241 | 0.00927 | 0.00958 |
| GEN NO. 3 TERM | 0.480 | 0.00144 | 0.01245 | 0.01254 | 0.00170 | 0.01193 | 0.01205 | 0.00228 | 0.00905 | 0.00933 |
| GRIT SCR TROLLEY | 0.480 | 0.37414 | 0.02973 | 0.37532 | 0.37399 | 0.02837 | 0.37506 | 1.17431 | 0.05721 | 1.17571 |
| HVAC56100.00 DISC | 0.480 | 0.04434 | 0.01594 | 0.04711 | 0.04419 | 0.01457 | 0.04653 | 0.13544 | 0.02327 | 0.13743 |
| HVAC56100.00 TERM | 0.480 | 0.04824 | 0.01626 | 0.05090 | 0.04809 | 0.01490 | 0.05034 | 0.14773 | 0.02407 | 0.14968 |
| HVAC56110.00 DISC | 0.480 | 0.10914 | 0.01838 | 0.11067 | 0.10898 | 0.01701 | 0.11030 | 0.33956 | 0.02928 | 0.34082 |
| HVAC56110.00 TERM | 0.480 | 0.11514 | 0.01869 | 0.11664 | 0.11498 | 0.01733 | 0.11628 | 0.35846 | 0.03005 | 0.35972 |
| HW ELEVATOR | 0.480 | 0.03004 | 0.01560 | 0.03385 | 0.02989 | 0.01424 | 0.03311 | 0.09040 | 0.02245 | 0.09314 |
| HW GATES | 0.480 | 0.66314 | 0.03544 | 0.66408 | 0.66299 | 0.03407 | 0.66386 | 2.08466 | 0.07124 | 2.08588 |
| INFL PUMP 1 TERMINALS | 0.480 | 0.00366 | 0.01294 | 0.01344 | 0.00330 | 0.01124 | 0.01172 | 0.00803 | 0.01652 | 0.01837 |
| INFL PUMP 1 VFD PRI | 0.480 | 0.00212 | 0.01028 | 0.01049 | 0.00194 | 0.00887 | 0.00908 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 2 TERMINALS | 0.480 | 0.00570 | 0.01353 | 0.01468 | 0.00506 | 0.01184 | 0.01287 | 0.01515 | 0.01785 | 0.02341 |
| INFL PUMP 2 VFD | 0.480 | 0.00233 | 0.01066 | 0.01091 | 0.00213 | 0.00926 | 0.00950 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 2 VFD PRI | 0.480 | 0.00233 | 0.01066 | 0.01091 | 0.00213 | 0.00926 | 0.00950 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 3 TERMINALS | 0.480 | 0.00550 | 0.01315 | 0.01426 | 0.00491 | 0.01146 | 0.01247 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 3 VFD | 0.480 | 0.00212 | 0.01028 | 0.01049 | 0.00195 | 0.00887 | 0.00908 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 3 VFD PRI | 0.480 | 0.00212 | 0.01028 | 0.01049 | 0.00195 | 0.00887 | 0.00908 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 4 TERMINALS | 0.480 | 0.00564 | 0.01342 | 0.01456 | 0.00501 | 0.01174 | 0.01276 | 0.01492 | 0.01755 | 0.02304 |
| INFL PUMP 4 VFD | 0.480 | 0.00227 | 0.01055 | 0.01079 | 0.00207 | 0.00916 | 0.00939 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 4 VFD PRI | 0.480 | 0.00227 | 0.01055 | 0.01079 | 0.00207 | 0.00916 | 0.00939 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 5 TERMINALS | 0.480 | 0.00550 | 0.01315 | 0.01426 | 0.00491 | 0.01146 | 0.01247 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 5 VFD | 0.480 | 0.00212 | 0.01028 | 0.01049 | 0.00195 | 0.00887 | 0.00908 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 5 VFD PRI | 0.480 | 0.00212 | 0.01028 | 0.01049 | 0.00195 | 0.00887 | 0.00908 | 0.00255 | 0.00944 | 0.00978 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| INFL PUMP 6 TERMINALS | 0.480 | 0.00393 | 0.01342 | 0.01399 | 0.00352 | 0.01171 | 0.01223 | 0.00895 | 0.01770 | 0.01984 |
| INFL PUMP 6 VFD PRI | 0.480 | 0.00240 | 0.01077 | 0.01103 | 0.00218 | 0.00936 | 0.00961 | 0.00347 | 0.01062 | 0.01117 |
| LCP-HWOCS | 0.480 | 0.06428 | 0.02027 | 0.06740 | 0.06144 | 0.02016 | 0.06466 | 0.20317 | 0.02963 | 0.20532 |
| MAIN SWGR "FILTER" | 0.480 | 0.00043 | 0.00620 | 0.00621 | 0.00056 | 0.00570 | 0.00572 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR "SLUDGE" | 0.480 | 0.00038 | 0.00545 | 0.00546 | 0.00050 | 0.00487 | 0.00490 | 0.00044 | 0.00397 | 0.00400 |
| MAIN SWGR BUS A PRI | 0.480 | 0.00043 | 0.00620 | 0.00621 | 0.00056 | 0.00570 | 0.00572 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR BUS B PRI | 0.480 | 0.00038 | 0.00545 | 0.00546 | 0.00050 | 0.00487 | 0.00490 | 0.00044 | 0.00397 | 0.00400 |
| MCC-DP2C | 0.480 | 0.00729 | 0.01725 | 0.01872 | 0.00690 | 0.01570 | 0.01715 | 0.02419 | 0.03467 | 0.04228 |
| MCC-DP4A | 0.480 | 0.15992 | 0.02662 | 0.16212 | 0.16004 | 0.02605 | 0.16214 | 0.50300 | 0.05606 | 0.50611 |
| MCC-DP4B | 0.480 | 0.00094 | 0.00630 | 0.00637 | 0.00106 | 0.00573 | 0.00583 | 0.00221 | 0.00608 | 0.00647 |
| MCC-GE | 0.480 | 0.00220 | 0.02052 | 0.02064 | 0.00245 | 0.01819 | 0.01836 | 0.00518 | 0.02295 | 0.02353 |
| MCC-GE PRI | 0.480 | 0.00159 | 0.00701 | 0.00718 | 0.00166 | 0.00635 | 0.00657 | 0.00443 | 0.00797 | 0.00912 |
| MCC-HW BUS A | 0.480 | 0.00214 | 0.01020 | 0.01042 | 0.00199 | 0.00884 | 0.00906 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS A PRI | 0.480 | 0.00214 | 0.01020 | 0.01042 | 0.00199 | 0.00884 | 0.00906 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS B | 0.480 | 0.00216 | 0.01026 | 0.01048 | 0.00199 | 0.00894 | 0.00916 | 0.00252 | 0.00917 | 0.00950 |
| MCC-HW BUS B PRI | 0.480 | 0.00216 | 0.01026 | 0.01048 | 0.00199 | 0.00894 | 0.00916 | 0.00252 | 0.00917 | 0.00950 |
| MCC-NA BUS A | 2.400 | 0.04565 | 0.32992 | 0.33307 | 0.04897 | 0.28453 | 0.28872 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS A PRI | 2.400 | 0.04565 | 0.32992 | 0.33307 | 0.04897 | 0.28453 | 0.28872 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B | 2.400 | 0.04555 | 0.31719 | 0.32044 | 0.04849 | 0.27525 | 0.27948 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B PRI | 2.400 | 0.04555 | 0.31719 | 0.32044 | 0.04849 | 0.27525 | 0.27948 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NC | 0.480 | 0.00391 | 0.02395 | 0.02427 | 0.00418 | 0.01944 | 0.01988 | 0.00357 | 0.01451 | 0.01494 |
| MCC-ND | 0.480 | 0.00407 | 0.02407 | 0.02441 | 0.00435 | 0.02019 | 0.02065 | 0.00366 | 0.01452 | 0.01498 |
| MCC-NE | 0.480 | 0.00478 | 0.02503 | 0.02548 | 0.00508 | 0.02058 | 0.02120 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NF | 0.480 | 0.00490 | 0.02512 | 0.02559 | 0.00520 | 0.02129 | 0.02191 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NG BUS A | 0.480 | 0.01453 | 0.03753 | 0.04024 | 0.01483 | 0.03308 | 0.03625 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS A PRI | 0.480 | 0.01453 | 0.03753 | 0.04024 | 0.01483 | 0.03308 | 0.03625 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B | 0.480 | 0.01409 | 0.03707 | 0.03965 | 0.01400 | 0.03247 | 0.03537 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B PRI | 0.480 | 0.01409 | 0.03707 | 0.03965 | 0.01400 | 0.03247 | 0.03537 | 0.03690 | 0.04774 | 0.06034 |
| MCC-SH BUS A | 0.480 | 0.01598 | 0.03939 | 0.04251 | 0.01630 | 0.03494 | 0.03855 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS A PRI | 0.480 | 0.01598 | 0.03939 | 0.04251 | 0.01630 | 0.03494 | 0.03855 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS B | 0.480 | 0.01618 | 0.03964 | 0.04282 | 0.01650 | 0.03519 | 0.03886 | 0.04212 | 0.05297 | 0.06767 |
| MCC-SH BUS B PRI | 0.480 | 0.01563 | 0.03887 | 0.04189 | 0.01592 | 0.03504 | 0.03849 | 0.03997 | 0.05082 | 0.06465 |
| MS-HW BUS A | 0.480 | 0.00179 | 0.00972 | 0.00988 | 0.00164 | 0.00836 | 0.00852 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS A PRI | 0.480 | 0.00179 | 0.00972 | 0.00988 | 0.00164 | 0.00836 | 0.00852 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B | 0.480 | 0.00181 | 0.00977 | 0.00993 | 0.00164 | 0.00845 | 0.00861 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B PRI | 0.480 | 0.00181 | 0.00977 | 0.00993 | 0.00164 | 0.00845 | 0.00861 | 0.00141 | 0.00796 | 0.00808 |
| P52100.00 DISC | 0.480 | 0.06613 | 0.02845 | 0.07199 | 0.06596 | 0.02705 | 0.07129 | 0.20411 | 0.05404 | 0.21115 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| P52100.00 TERM | 0.480 | 0.06713 | 0.02873 | 0.07302 | 0.06695 | 0.02733 | 0.07232 | 0.20726 | 0.05474 | 0.21437 |
| P52110.00 DISC | 0.480 | 0.09824 | 0.02887 | 0.10240 | 0.09802 | 0.02749 | 0.10180 | 0.30523 | 0.05492 | 0.31013 |
| P52110.00 TERM | 0.480 | 0.09979 | 0.02917 | 0.10397 | 0.09957 | 0.02779 | 0.10337 | 0.31011 | 0.05566 | 0.31507 |
| P52120.00 DISC | 0.480 | 0.06213 | 0.02731 | 0.06787 | 0.06196 | 0.02591 | 0.06716 | 0.19151 | 0.05123 | 0.19825 |
| P52120.00 TERM | 0.480 | 0.06313 | 0.02759 | 0.06890 | 0.06296 | 0.02620 | 0.06819 | 0.19466 | 0.05193 | 0.20147 |
| P52130.00 DISC | 0.480 | 0.09205 | 0.02767 | 0.09611 | 0.09183 | 0.02630 | 0.09552 | 0.28570 | 0.05197 | 0.29039 |
| P52130.00 TERM | 0.480 | 0.09360 | 0.02797 | 0.09768 | 0.09337 | 0.02660 | 0.09709 | 0.29058 | 0.05271 | 0.29533 |
| P52140.00 DISC | 0.480 | 0.05213 | 0.02446 | 0.05758 | 0.05197 | 0.02307 | 0.05686 | 0.16001 | 0.04422 | 0.16601 |
| P52140.00 TERM | 0.480 | 0.05313 | 0.02474 | 0.05861 | 0.05297 | 0.02335 | 0.05789 | 0.16316 | 0.04492 | 0.16923 |
| P52150.00 DISC | 0.480 | 0.07655 | 0.02466 | 0.08042 | 0.07635 | 0.02331 | 0.07983 | 0.23688 | 0.04459 | 0.24104 |
| P52150.00 TERM | 0.480 | 0.07810 | 0.02496 | 0.08199 | 0.07790 | 0.02361 | 0.08139 | 0.24176 | 0.04533 | 0.24597 |
| P52160.00 DISC | 0.480 | 0.07343 | 0.02401 | 0.07726 | 0.07325 | 0.02261 | 0.07666 | 0.22711 | 0.04311 | 0.23116 |
| P52160.00 TERM | 0.480 | 0.07498 | 0.02431 | 0.07882 | 0.07479 | 0.02291 | 0.07822 | 0.23199 | 0.04385 | 0.23610 |
| P52170.00 DISC | 0.480 | 0.06880 | 0.02316 | 0.07259 | 0.06861 | 0.02181 | 0.07199 | 0.21246 | 0.04090 | 0.21636 |
| P52170.00 TERM | 0.480 | 0.07035 | 0.02346 | 0.07416 | 0.07016 | 0.02211 | 0.07356 | 0.21735 | 0.04164 | 0.22130 |
| P52220.00 DISC | 0.480 | 0.40412 | 0.03132 | 0.40533 | 0.40395 | 0.02994 | 0.40506 | 1.26881 | 0.06108 | 1.27028 |
| P52220.00 TERM | 0.480 | 0.41012 | 0.03164 | 0.41134 | 0.40995 | 0.03025 | 0.41107 | 1.28771 | 0.06186 | 1.28920 |
| P52230.00 DISC | 0.480 | 0.40412 | 0.03132 | 0.40533 | 0.40395 | 0.02994 | 0.40506 | 1.26881 | 0.06108 | 1.27028 |
| P52230.00 TERM | 0.480 | 0.41012 | 0.03164 | 0.41134 | 0.40995 | 0.03025 | 0.41107 | 1.28771 | 0.06186 | 1.28920 |
| P52240.00 DISC | 0.480 | 0.32015 | 0.02696 | 0.32128 | 0.31997 | 0.02563 | 0.32100 | 1.00422 | 0.05023 | 1.00547 |
| P52240.00 TERM | 0.480 | 0.32615 | 0.02727 | 0.32729 | 0.32597 | 0.02594 | 0.32700 | 1.02312 | 0.05101 | 1.02439 |
| P52250.00 DISC | 0.480 | 0.32015 | 0.02696 | 0.32128 | 0.31997 | 0.02563 | 0.32100 | 1.00422 | 0.05023 | 1.00547 |
| P52250.00 TERM | 0.480 | 0.32615 | 0.02727 | 0.32729 | 0.32597 | 0.02594 | 0.32700 | 1.02312 | 0.05101 | 1.02439 |
| P54080.00 DISC | 0.480 | 0.19413 | 0.02029 | 0.19519 | 0.19398 | 0.01892 | 0.19490 | 0.60731 | 0.03396 | 0.60826 |
| P54080.00 TERM | 0.480 | 0.20013 | 0.02060 | 0.20119 | 0.19998 | 0.01923 | 0.20090 | 0.62621 | 0.03474 | 0.62718 |
| P54090.00 DISC | 0.480 | 0.19413 | 0.02029 | 0.19519 | 0.19398 | 0.01892 | 0.19490 | 0.60731 | 0.03396 | 0.60826 |
| P54090.00 TERM | 0.480 | 0.20013 | 0.02060 | 0.20119 | 0.19998 | 0.01923 | 0.20090 | 0.62621 | 0.03474 | 0.62718 |
| P55020.00 TERM | 0.480 | 0.08228 | 0.02122 | 0.08497 | 0.07944 | 0.02110 | 0.08219 | 0.25987 | 0.03196 | 0.26183 |
| P55030.00 TERM | 0.480 | 0.08228 | 0.02122 | 0.08497 | 0.07944 | 0.02110 | 0.08219 | 0.25987 | 0.03196 | 0.26183 |
| PNL DP2 | 0.480 | 0.00552 | 0.01413 | 0.01517 | 0.00534 | 0.01295 | 0.01401 | 0.01780 | 0.02641 | 0.03185 |
| PNL DP4 | 0.480 | 0.00067 | 0.00582 | 0.00586 | 0.00079 | 0.00525 | 0.00531 | 0.00136 | 0.00490 | 0.00508 |
| PNL DPLC-1 | 0.208 | 0.03326 | 0.05171 | 0.06149 | 0.03324 | 0.05146 | 0.06126 | 0.03078 | 0.04961 | 0.05839 |
| PNL DPLC-2 | 0.208 | 0.04975 | 0.05910 | 0.07725 | 0.04972 | 0.05884 | 0.07704 | 0.03310 | 0.05475 | 0.06398 |
| PNL DPLC-3 | 0.208 | 0.03816 | 0.05235 | 0.06479 | 0.03814 | 0.05210 | 0.06456 | 0.04621 | 0.05119 | 0.06896 |
| PNL DPLC-4 | 0.208 | 0.09485 | 0.09836 | 0.13664 | 0.09482 | 0.09810 | 0.13644 | 0.09954 | 0.09661 | 0.13871 |
| PNL DPP1 | 0.480 | 0.01314 | 0.01334 | 0.01872 | 0.01299 | 0.01197 | 0.01766 | 0.03716 | 0.01688 | 0.04082 |
| PNL DPP1 PRI | 0.480 | 0.01314 | 0.01334 | 0.01872 | 0.01299 | 0.01197 | 0.01766 | 0.03716 | 0.01688 | 0.04082 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| SCR BLDG N OH DOOR DISC | 0.480 | 0.22314 | 0.02436 | 0.22446 | 0.22299 | 0.02300 | 0.22417 | 0.69866 | 0.04400 | 0.70005 |
| SCR BLDG N OH DOOR TERM | 0.480 | 0.22914 | 0.02468 | 0.23046 | 0.22899 | 0.02331 | 0.23017 | 0.71756 | 0.04477 | 0.71896 |
| SCR BLDG S OH DOOR DISC | 0.480 | 0.20514 | 0.02342 | 0.20647 | 0.20499 | 0.02205 | 0.20617 | 0.64196 | 0.04167 | 0.64332 |
| SCR BLDG S OH DOOR TERM | 0.480 | 0.21114 | 0.02373 | 0.21247 | 0.21099 | 0.02237 | 0.21217 | 0.66086 | 0.04245 | 0.66223 |
| SEP53000.00 DISC | 0.480 | 0.37413 | 0.02973 | 0.37531 | 0.37398 | 0.02837 | 0.37506 | 1.17431 | 0.05721 | 1.17571 |
| SEP53000.00 TERM | 0.480 | 0.38013 | 0.03005 | 0.38132 | 0.37998 | 0.02868 | 0.38106 | 1.19321 | 0.05798 | 1.19462 |
| SEP53010.00 DISC | 0.480 | 0.37415 | 0.02979 | 0.37534 | 0.37399 | 0.02847 | 0.37507 | 1.17432 | 0.05721 | 1.17571 |
| SEP53010.00 TERM | 0.480 | 0.38015 | 0.03010 | 0.38134 | 0.37999 | 0.02878 | 0.38108 | 1.19322 | 0.05798 | 1.19462 |
| SEP53020.00 DISC | 0.480 | 0.38615 | 0.03042 | 0.38735 | 0.38599 | 0.02910 | 0.38708 | 1.21212 | 0.05876 | 1.21354 |
| SEP53020.00 TERM | 0.480 | 0.39215 | 0.03073 | 0.39335 | 0.39199 | 0.02941 | 0.39309 | 1.23102 | 0.05953 | 1.23246 |
| SR-DAF | 0.480 | 0.00993 | 0.03235 | 0.03384 | 0.01023 | 0.02791 | 0.02972 | 0.02241 | 0.03501 | 0.04157 |
| SR-DAF PRI | 0.480 | 0.00993 | 0.03235 | 0.03384 | 0.01023 | 0.02791 | 0.02972 | 0.02241 | 0.03501 | 0.04157 |
| SWBD GDP | 0.480 | 0.00101 | 0.01171 | 0.01175 | 0.00127 | 0.01119 | 0.01126 | 0.00160 | 0.00796 | 0.00812 |
| SWBD-NB BUS A | 0.480 | 0.00380 | 0.02378 | 0.02408 | 0.00410 | 0.01933 | 0.01976 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS A PRI | 0.480 | 0.00380 | 0.02378 | 0.02408 | 0.00410 | 0.01933 | 0.01976 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B | 0.480 | 0.00393 | 0.02387 | 0.02419 | 0.00422 | 0.02004 | 0.02048 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B PRI | 0.480 | 0.00393 | 0.02387 | 0.02419 | 0.00422 | 0.02004 | 0.02048 | 0.00311 | 0.01392 | 0.01426 |
| TRANSF TA PRI | 0.480 | 0.00043 | 0.00620 | 0.00621 | 0.00056 | 0.00570 | 0.00572 | 0.00042 | 0.00448 | 0.00450 |
| TRANSF TB PRI | 0.480 | 0.00038 | 0.00545 | 0.00546 | 0.00050 | 0.00487 | 0.00490 | 0.00044 | 0.00397 | 0.00400 |
| TRANSF TB SEC | 2.400 | 0.03027 | 0.28065 | 0.28228 | 0.03490 | 0.24705 | 0.24950 | 0.02310 | 0.16398 | 0.16560 |
| TRANSF TC PRI | 2.400 | 0.04707 | 0.33190 | 0.33522 | 0.05027 | 0.28618 | 0.29056 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TC SEC | 0.480 | 0.00359 | 0.02343 | 0.02370 | 0.00393 | 0.01912 | 0.01952 | 0.00220 | 0.01274 | 0.01293 |
| TRANSF TD PRI | 2.400 | 0.04703 | 0.31924 | 0.32269 | 0.04987 | 0.27703 | 0.28148 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TD SEC | 0.480 | 0.00370 | 0.02349 | 0.02378 | 0.00403 | 0.01977 | 0.02018 | 0.00220 | 0.01274 | 0.01293 |
| XFMR T-C4 PRI | 0.480 | 0.03114 | 0.01428 | 0.03426 | 0.03099 | 0.01292 | 0.03357 | 0.09386 | 0.01920 | 0.09581 |
| XFMR T-C4 SEC | 0.208 | 0.08995 | 0.09772 | 0.13282 | 0.08992 | 0.09746 | 0.13261 | 0.08410 | 0.09504 | 0.12691 |
| XFMR T-LC1 PRI | 0.480 | 0.02012 | 0.01368 | 0.02433 | 0.01997 | 0.01232 | 0.02346 | 0.05915 | 0.01773 | 0.06175 |
| XFMR T-LC1 SEC | 0.208 | 0.03266 | 0.05139 | 0.06089 | 0.03264 | 0.05113 | 0.06066 | 0.02889 | 0.04882 | 0.05672 |
| XFMR T-LC2 PRI | 0.480 | 0.09154 | 0.02358 | 0.09452 | 0.09139 | 0.02221 | 0.09405 | 0.28412 | 0.04207 | 0.28722 |
| XFMR T-LC2 SEC | 0.208 | 0.04950 | 0.05904 | 0.07704 | 0.04947 | 0.05878 | 0.07683 | 0.03231 | 0.05461 | 0.06345 |

# APPENDIX B5 – SHORT CIRCUIT STUDY (30 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

## Short-Circuit Summary Report

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| ATS-L BUS A | 0.48 | 6.528 | -21.977 | 22.926 | 8.354 | -22.218 | 23.737 | 19.033 | 5.653 | 19.854 | -24.193 | 5.441 | 24.797 |
| ATS-L BUS B | 0.48 | 8.863 | -18.934 | 20.905 | 11.148 | -16.424 | 19.851 | 16.397 | 7.676 | 18.105 | -22.611 | -0.822 | 22.626 |
| ATS-L SEC | 0.48 | 6.528 | -21.977 | 22.926 | 8.354 | -22.218 | 23.737 | 19.033 | 5.653 | 19.854 | -24.193 | 5.441 | 24.797 |
| B20100.00 TERMINALS | 2.40 | 0.592 | -3.447 | 3.498 | 0.965 | -3.251 | 3.392 | 2.985 | 0.513 | 3.029 | -3.616 | 0.985 | 3.748 |
| B20200.00 TERMINALS | 2.40 | 0.596 | -3.440 | 3.491 | 0.967 | -3.237 | 3.379 | 2.979 | 0.516 | 3.024 | -3.609 | 0.972 | 3.738 |
| B20400.00 TERMINALS | 2.40 | 0.639 | -3.534 | 3.591 | 1.020 | -3.276 | 3.431 | 3.082 | 0.565 | 3.133 | -3.709 | 0.909 | 3.819 |
| B52180.00 DISC | 0.48 | 4.793 | -2.492 | 5.403 | 3.176 | -1.202 | 3.396 | 2.158 | 4.151 | 4.679 | -3.333 | -3.778 | 5.037 |
| B52180.00 TERM | 0.48 | 4.676 | -2.381 | 5.248 | 3.083 | -1.145 | 3.289 | 2.062 | 4.050 | 4.544 | -3.200 | -3.694 | 4.887 |
| B52190.00 DISC | 0.48 | 3.796 | -1.377 | 4.038 | 2.381 | -0.623 | 2.461 | 1.192 | 3.287 | 3.497 | -2.055 | -3.098 | 3.718 |
| B52190.00 TERM | 0.48 | 3.716 | -1.333 | 3.948 | 2.326 | -0.603 | 2.403 | 1.155 | 3.218 | 3.419 | -1.997 | -3.035 | 3.633 |
| B52210.00 DISC | 0.48 | 1.524 | -0.223 | 1.540 | 0.902 | -0.096 | 0.907 | 0.193 | 1.320 | 1.334 | -0.513 | -1.291 | 1.389 |
| B52210.00 TERM | 0.48 | 1.492 | -0.216 | 1.508 | 0.883 | -0.093 | 0.888 | 0.187 | 1.292 | 1.306 | -0.500 | -1.264 | 1.359 |
| B52220.00 DISC | 0.48 | 1.432 | -0.204 | 1.446 | 0.846 | -0.088 | 0.851 | 0.177 | 1.240 | 1.252 | -0.477 | -1.213 | 1.304 |
| B52220.00 TERM | 0.48 | 1.403 | -0.198 | 1.417 | 0.829 | -0.086 | 0.834 | 0.172 | 1.215 | 1.227 | -0.466 | -1.189 | 1.277 |
| BLWR BLDG TROLLEY | 0.48 | 4.121 | -1.283 | 4.316 | 2.562 | -0.547 | 2.620 | 1.111 | 3.569 | 3.737 | -2.035 | -3.409 | 3.971 |
| BSN51240.00 DISC | 0.48 | 0.759 | -0.063 | 0.762 | 0.445 | -0.028 | 0.446 | 0.055 | 0.657 | 0.660 | -0.212 | -0.649 | 0.683 |
| BSN51240.00 TERM | 0.48 | 0.747 | -0.062 | 0.749 | 0.438 | -0.027 | 0.438 | 0.054 | 0.647 | 0.649 | -0.208 | -0.639 | 0.672 |
| BSN51250.00 DISC | 0.48 | 0.759 | -0.063 | 0.762 | 0.445 | -0.028 | 0.446 | 0.055 | 0.657 | 0.660 | -0.212 | -0.649 | 0.683 |
| BSN51250.00 TERM | 0.48 | 0.747 | -0.062 | 0.749 | 0.438 | -0.027 | 0.438 | 0.054 | 0.647 | 0.649 | -0.208 | -0.639 | 0.672 |
| BSN51260.00 DISC | 0.48 | 0.759 | -0.063 | 0.762 | 0.445 | -0.028 | 0.446 | 0.055 | 0.657 | 0.660 | -0.212 | -0.649 | 0.683 |
| BSN51260.00 TERM | 0.48 | 0.747 | -0.062 | 0.749 | 0.438 | -0.027 | 0.438 | 0.054 | 0.647 | 0.649 | -0.208 | -0.639 | 0.672 |
| BSN51270.00 DISC | 0.48 | 0.759 | -0.063 | 0.762 | 0.445 | -0.028 | 0.446 | 0.055 | 0.657 | 0.660 | -0.212 | -0.649 | 0.683 |
| BSN51270.00 TERM | 0.48 | 0.747 | -0.062 | 0.749 | 0.438 | -0.027 | 0.438 | 0.054 | 0.647 | 0.649 | -0.208 | -0.639 | 0.672 |
| COGEN TIE BUS | 0.48 | 2.843 | -44.458 | 44.549 | 4.013 | -51.154 | 51.311 | 39.230 | 2.663 | 39.321 | -41.458 | 26.247 | 49.068 |
| COM53030.00 DISC | 0.48 | 0.785 | -0.066 | 0.788 | 0.460 | -0.029 | 0.461 | 0.058 | 0.680 | 0.682 | -0.220 | -0.671 | 0.706 |
| COM53030.00 TERM | 0.48 | 0.772 | -0.065 | 0.775 | 0.452 | -0.028 | 0.453 | 0.056 | 0.668 | 0.671 | -0.216 | -0.660 | 0.694 |
| COM53040.00 DISC | 0.48 | 0.858 | -0.075 | 0.861 | 0.503 | -0.033 | 0.504 | 0.065 | 0.743 | 0.746 | -0.243 | -0.733 | 0.772 |
| COM53040.00 TERM | 0.48 | 0.842 | -0.073 | 0.846 | 0.494 | -0.032 | 0.495 | 0.063 | 0.729 | 0.732 | -0.238 | -0.720 | 0.758 |
| CON51300.00 DISC | 0.48 | 0.785 | -0.066 | 0.788 | 0.460 | -0.029 | 0.461 | 0.058 | 0.680 | 0.682 | -0.220 | -0.671 | 0.706 |
| CON51300.00 TERM | 0.48 | 0.772 | -0.065 | 0.775 | 0.452 | -0.028 | 0.453 | 0.056 | 0.668 | 0.671 | -0.216 | -0.660 | 0.694 |
| CON51320.00 DISC | 0.48 | 0.785 | -0.066 | 0.788 | 0.460 | -0.029 | 0.461 | 0.058 | 0.680 | 0.682 | -0.220 | -0.671 | 0.706 |

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| CON51320.00 TERM | 0.48 | 0.772 | -0.065 | 0.775 | 0.452 | -0.028 | 0.453 | 0.056 | 0.668 | 0.671 | -0.216 | -0.660 | 0.694 |
| CON53020.00 DISC | 0.48 | 0.735 | -0.061 | 0.737 | 0.431 | -0.027 | 0.431 | 0.053 | 0.636 | 0.639 | -0.205 | -0.628 | 0.661 |
| CON53020.00 TERM | 0.48 | 0.723 | -0.059 | 0.726 | 0.424 | -0.026 | 0.425 | 0.051 | 0.626 | 0.629 | -0.201 | -0.619 | 0.650 |
| CON53030.00 DISC | 0.48 | 0.735 | -0.061 | 0.737 | 0.431 | -0.027 | 0.431 | 0.053 | 0.636 | 0.639 | -0.205 | -0.628 | 0.661 |
| CON53030.00 TERM | 0.48 | 0.723 | -0.059 | 0.726 | 0.424 | -0.026 | 0.425 | 0.051 | 0.626 | 0.629 | -0.201 | -0.619 | 0.650 |
| EFF PS SWGR BUS A | 0.48 | 2.660 | -17.398 | 17.600 | 2.800 | -18.388 | 18.600 | 15.067 | 2.304 | 15.242 | 13.589 | 12.053 | 18.164 |
| EFF PS SWGR BUS A PRI | 0.48 | 2.660 | -17.398 | 17.600 | 2.800 | -18.388 | 18.600 | 15.067 | 2.304 | 15.242 | 13.589 | 12.053 | 18.164 |
| EFF PS SWGR BUS B | 0.48 | 2.633 | -17.402 | 17.600 | 2.774 | -18.392 | 18.600 | 15.071 | 2.280 | 15.242 | 13.605 | 12.031 | 18.161 |
| EFF PS SWGR BUS B PRI | 0.48 | 2.633 | -17.402 | 17.600 | 2.774 | -18.392 | 18.600 | 15.071 | 2.280 | 15.242 | 13.605 | 12.031 | 18.161 |
| EFF PUMP NO. 2 VFD PRI | 0.48 | 2.931 | -16.550 | 16.808 | 3.359 | -16.959 | 17.289 | 14.333 | 2.538 | 14.556 | -16.248 | 6.148 | 17.372 |
| EFF PUMP NO. 4 VFD PRI | 0.48 | 2.956 | -16.545 | 16.807 | 3.382 | -16.954 | 17.288 | 14.329 | 2.560 | 14.555 | -16.254 | 6.124 | 17.369 |
| F52410.00 DISC | 0.48 | 0.622 | -0.041 | 0.624 | 0.364 | -0.018 | 0.364 | 0.035 | 0.539 | 0.540 | -0.164 | -0.533 | 0.558 |
| F52410.00 STR | 0.48 | 0.667 | -0.045 | 0.669 | 0.390 | -0.020 | 0.391 | 0.039 | 0.578 | 0.579 | -0.177 | -0.572 | 0.599 |
| F52420.00 DISC | 0.48 | 0.499 | -0.030 | 0.500 | 0.292 | -0.013 | 0.292 | 0.026 | 0.432 | 0.433 | -0.129 | -0.428 | 0.447 |
| F52420.00 STR | 0.48 | 0.527 | -0.032 | 0.528 | 0.308 | -0.014 | 0.309 | 0.028 | 0.457 | 0.458 | -0.137 | -0.452 | 0.473 |
| F54330.00 DISC | 0.48 | 2.449 | -0.378 | 2.478 | 1.460 | -0.148 | 1.467 | 0.328 | 2.121 | 2.146 | -0.847 | -2.080 | 2.245 |
| F54330.00 TERM | 0.48 | 2.327 | -0.347 | 2.352 | 1.385 | -0.137 | 1.391 | 0.301 | 2.015 | 2.037 | -0.793 | -1.977 | 2.130 |
| F55010.00 TERM | 0.48 | 3.706 | -1.112 | 3.869 | 2.289 | -0.480 | 2.339 | 0.963 | 3.209 | 3.350 | -1.787 | -3.068 | 3.550 |
| GEN NO. 2 TERM | 0.48 | 2.189 | -18.883 | 19.009 | 3.566 | -22.251 | 22.535 | 17.399 | 2.195 | 17.537 | -19.216 | 9.622 | 21.491 |
| GEN NO. 3 TERM | 0.48 | 2.112 | -19.139 | 19.256 | 3.479 | -22.639 | 22.905 | 17.635 | 2.128 | 17.763 | -19.402 | 9.953 | 21.806 |
| GRIT SCR TROLLEY | 0.48 | 0.735 | -0.061 | 0.737 | 0.431 | -0.027 | 0.431 | 0.053 | 0.636 | 0.639 | -0.205 | -0.628 | 0.661 |
| HVAC56100.00 DISC | 0.48 | 5.404 | -2.072 | 5.787 | 3.470 | -0.888 | 3.582 | 1.794 | 4.680 | 5.012 | -3.060 | -4.424 | 5.379 |
| HVAC56100.00 TERM | 0.48 | 5.049 | -1.814 | 5.365 | 3.208 | -0.773 | 3.300 | 1.571 | 4.372 | 4.646 | -2.737 | -4.150 | 4.971 |
| HVAC56110.00 DISC | 0.48 | 2.452 | -0.438 | 2.491 | 1.466 | -0.180 | 1.477 | 0.380 | 2.124 | 2.157 | -0.902 | -2.072 | 2.260 |
| HVAC56110.00 TERM | 0.48 | 2.330 | -0.401 | 2.364 | 1.391 | -0.165 | 1.401 | 0.348 | 2.018 | 2.048 | -0.842 | -1.970 | 2.143 |
| HW ELEVATOR | 0.48 | 6.980 | -3.858 | 7.976 | 4.833 | -1.792 | 5.155 | 3.341 | 6.045 | 6.907 | -5.154 | -5.515 | 7.549 |
| HW GATES | 0.48 | 0.416 | -0.023 | 0.417 | 0.243 | -0.010 | 0.243 | 0.020 | 0.361 | 0.361 | -0.106 | -0.357 | 0.373 |
| INFL PUMP 1 TERMINALS | 0.48 | 5.241 | -17.696 | 18.456 | 5.915 | -16.184 | 17.231 | 15.325 | 4.539 | 15.983 | -18.498 | 2.864 | 18.718 |
| INFL PUMP 1 VFD PRI | 0.48 | 5.032 | -22.958 | 23.503 | 5.683 | -24.273 | 24.929 | 19.882 | 4.358 | 20.354 | -23.113 | 8.509 | 24.630 |
| INFL PUMP 2 TERMINALS | 0.48 | 6.810 | -15.577 | 17.001 | 7.632 | -12.911 | 14.998 | 13.490 | 5.898 | 14.723 | -17.395 | -0.528 | 17.403 |
| INFL PUMP 2 VFD | 0.48 | 5.129 | -22.147 | 22.734 | 5.873 | -22.893 | 23.634 | 19.180 | 4.442 | 19.688 | -22.539 | 7.388 | 23.719 |
| INFL PUMP 2 VFD PRI | 0.48 | 5.129 | -22.147 | 22.734 | 5.873 | -22.893 | 23.634 | 19.180 | 4.442 | 19.688 | -22.539 | 7.388 | 23.719 |
| INFL PUMP 3 TERMINALS | 0.48 | 6.926 | -16.015 | 17.449 | 7.870 | -13.408 | 15.547 | 13.870 | 5.998 | 15.111 | -17.944 | -0.387 | 17.948 |
| INFL PUMP 3 VFD | 0.48 | 5.032 | -22.958 | 23.503 | 5.683 | -24.273 | 24.929 | 19.882 | 4.358 | 20.354 | -23.113 | 8.509 | 24.630 |

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| INFL PUMP 3 VFD PRI | 0.48 | 5.032 | -22.958 | 23.503 | 5.683 | -24.273 | 24.929 | 19.882 | 4.358 | 20.354 | -23.113 | 8.509 | 24.630 |
| INFL PUMP 4 TERMINALS | 0.48 | 6.851 | -15.719 | 17.147 | 7.711 | -13.071 | 15.176 | 13.613 | 5.933 | 14.849 | -17.573 | -0.486 | 17.580 |
| INFL PUMP 4 VFD | 0.48 | 5.105 | -22.411 | 22.985 | 5.822 | -23.336 | 24.052 | 19.408 | 4.421 | 19.905 | -22.735 | 7.738 | 24.015 |
| INFL PUMP 4 VFD PRI | 0.48 | 5.105 | -22.411 | 22.985 | 5.822 | -23.336 | 24.052 | 19.408 | 4.421 | 19.905 | -22.735 | 7.738 | 24.015 |
| INFL PUMP 5 TERMINALS | 0.48 | 6.926 | -16.015 | 17.449 | 7.870 | -13.408 | 15.547 | 13.870 | 5.998 | 15.111 | -17.944 | -0.387 | 17.948 |
| INFL PUMP 5 VFD | 0.48 | 5.032 | -22.958 | 23.503 | 5.683 | -24.273 | 24.929 | 19.882 | 4.358 | 20.354 | -23.113 | 8.509 | 24.630 |
| INFL PUMP 5 VFD PRI | 0.48 | 5.032 | -22.958 | 23.503 | 5.683 | -24.273 | 24.929 | 19.882 | 4.358 | 20.354 | -23.113 | 8.509 | 24.630 |
| INFL PUMP 6 TERMINALS | 0.48 | 5.223 | -17.027 | 17.810 | 5.828 | -15.300 | 16.372 | 14.746 | 4.523 | 15.424 | -17.825 | 2.369 | 17.982 |
| INFL PUMP 6 VFD PRI | 0.48 | 5.151 | -21.890 | 22.488 | 5.916 | -22.464 | 23.230 | 18.957 | 4.461 | 19.475 | -22.340 | 7.055 | 23.428 |
| LCP-HWOCS | 0.48 | 3.844 | -1.145 | 4.011 | 2.377 | -0.489 | 2.426 | 0.992 | 3.329 | 3.474 | -1.848 | -3.186 | 3.683 |
| MAIN SWGR "FILTER" | 0.48 | 2.602 | -41.045 | 41.128 | 3.275 | -46.143 | 46.259 | 35.546 | 2.254 | 35.617 | -37.672 | 24.085 | 44.713 |
| MAIN SWGR "SLUDGE" | 0.48 | 2.843 | -44.458 | 44.549 | 4.013 | -51.154 | 51.311 | 39.230 | 2.663 | 39.321 | -41.458 | 26.247 | 49.068 |
| MAIN SWGR BUS A PRI | 0.48 | 2.602 | -41.045 | 41.128 | 3.275 | -46.143 | 46.259 | 35.546 | 2.254 | 35.617 | -37.672 | 24.085 | 44.713 |
| MAIN SWGR BUS B PRI | 0.48 | 2.843 | -44.458 | 44.549 | 4.013 | -51.154 | 51.311 | 39.230 | 2.663 | 39.321 | -41.458 | 26.247 | 49.068 |
| MCC-DP2C | 0.48 | 5.336 | -12.563 | 13.649 | 4.928 | -8.825 | 10.108 | 10.921 | 4.677 | 11.880 | -13.042 | -1.324 | 13.109 |
| MCC-DP4A | 0.48 | 1.683 | -0.288 | 1.708 | 0.992 | -0.133 | 1.001 | 0.249 | 1.458 | 1.479 | -0.600 | -1.416 | 1.538 |
| MCC-DP4B | 0.48 | 5.234 | -38.525 | 38.879 | 8.322 | -39.903 | 40.762 | 33.890 | 4.762 | 34.223 | -39.230 | 15.194 | 42.070 |
| MCC-GE | 0.48 | 1.271 | -12.013 | 12.080 | 1.750 | -11.908 | 12.035 | 10.455 | 1.119 | 10.514 | -11.518 | 4.716 | 12.446 |
| MCC-GE PRI | 0.48 | 7.193 | -33.851 | 34.607 | 10.653 | -31.980 | 33.707 | 29.700 | 6.471 | 30.397 | -35.967 | 8.109 | 36.869 |
| MCC-HW BUS A | 0.48 | 5.102 | -23.170 | 23.725 | 5.805 | -24.628 | 25.303 | 20.066 | 4.418 | 20.546 | -23.395 | 8.715 | 24.966 |
| MCC-HW BUS A PRI | 0.48 | 5.102 | -23.170 | 23.725 | 5.805 | -24.628 | 25.303 | 20.066 | 4.418 | 20.546 | -23.395 | 8.715 | 24.966 |
| MCC-HW BUS B | 0.48 | 5.119 | -23.166 | 23.724 | 5.819 | -24.624 | 25.302 | 20.062 | 4.433 | 20.546 | -23.398 | 8.699 | 24.962 |
| MCC-HW BUS B PRI | 0.48 | 5.119 | -23.166 | 23.724 | 5.819 | -24.624 | 25.302 | 20.062 | 4.433 | 20.546 | -23.398 | 8.699 | 24.962 |
| MCC-NA BUS A | 2.40 | 0.503 | -3.612 | 3.647 | 0.900 | -3.602 | 3.713 | 3.128 | 0.436 | 3.158 | -3.776 | 1.317 | 3.999 |
| MCC-NA BUS A PRI | 2.40 | 0.503 | -3.612 | 3.647 | 0.900 | -3.602 | 3.713 | 3.128 | 0.436 | 3.158 | -3.776 | 1.317 | 3.999 |
| MCC-NA BUS B | 2.40 | 0.532 | -3.738 | 3.775 | 0.950 | -3.699 | 3.819 | 3.261 | 0.471 | 3.295 | -3.910 | 1.295 | 4.119 |
| MCC-NA BUS B PRI | 2.40 | 0.532 | -3.738 | 3.775 | 0.950 | -3.699 | 3.819 | 3.261 | 0.471 | 3.295 | -3.910 | 1.295 | 4.119 |
| MCC-NC | 0.48 | 1.581 | -9.424 | 9.556 | 2.059 | -11.216 | 11.403 | 8.162 | 1.369 | 8.276 | -9.595 | 5.549 | 11.084 |
| MCC-ND | 0.48 | 1.638 | -9.586 | 9.725 | 2.150 | -11.394 | 11.595 | 8.333 | 1.434 | 8.456 | -9.789 | 5.523 | 11.240 |
| MCC-NE | 0.48 | 1.717 | -9.033 | 9.194 | 2.372 | -10.366 | 10.634 | 7.823 | 1.487 | 7.963 | -9.535 | 4.565 | 10.572 |
| MCC-NF | 0.48 | 1.767 | -9.185 | 9.354 | 2.446 | -10.525 | 10.806 | 7.983 | 1.547 | 8.132 | -9.700 | 4.545 | 10.712 |
| MCC-NG BUS A | 0.48 | 2.120 | -5.807 | 6.182 | 2.558 | -4.989 | 5.606 | 5.029 | 1.836 | 5.353 | -6.407 | 0.291 | 6.414 |
| MCC-NG BUS A PRI | 0.48 | 2.120 | -5.807 | 6.182 | 2.558 | -4.989 | 5.606 | 5.029 | 1.836 | 5.353 | -6.407 | 0.291 | 6.414 |
| MCC-NG BUS B | 0.48 | 2.164 | -5.864 | 6.251 | 2.596 | -5.018 | 5.650 | 5.088 | 1.885 | 5.426 | -6.468 | 0.247 | 6.473 |

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| MCC-NG BUS B PRI | 0.48 | 2.164 | -5.864 | 6.251 | 2.596 | -5.018 | 5.650 | 5.088 | 1.885 | 5.426 | -6.468 | 0.247 | 6.473 |
| MCC-SH BUS A | 0.48 | 2.104 | -5.495 | 5.884 | 2.466 | -4.603 | 5.222 | 4.759 | 1.822 | 5.096 | -6.053 | 0.105 | 6.054 |
| MCC-SH BUS A PRI | 0.48 | 2.104 | -5.495 | 5.884 | 2.466 | -4.603 | 5.222 | 4.759 | 1.822 | 5.096 | -6.053 | 0.105 | 6.054 |
| MCC-SH BUS B | 0.48 | 2.101 | -5.456 | 5.846 | 2.454 | -4.556 | 5.175 | 4.725 | 1.819 | 5.063 | -6.008 | 0.083 | 6.008 |
| MCC-SH BUS B PRI | 0.48 | 2.152 | -5.648 | 6.044 | 2.533 | -4.751 | 5.384 | 4.901 | 1.874 | 5.247 | -6.223 | 0.119 | 6.224 |
| MS-HW BUS A | 0.48 | 4.837 | -24.426 | 24.900 | 5.179 | -26.906 | 27.400 | 21.153 | 4.189 | 21.564 | 18.372 | 19.161 | 26.546 |
| MS-HW BUS A PRI | 0.48 | 4.837 | -24.426 | 24.900 | 5.179 | -26.906 | 27.400 | 21.153 | 4.189 | 21.564 | 18.372 | 19.161 | 26.546 |
| MS-HW BUS B | 0.48 | 4.855 | -24.422 | 24.900 | 5.196 | -26.903 | 27.400 | 21.150 | 4.205 | 21.564 | 18.362 | 19.176 | 26.549 |
| MS-HW BUS B PRI | 0.48 | 4.855 | -24.422 | 24.900 | 5.196 | -26.903 | 27.400 | 21.150 | 4.205 | 21.564 | 18.362 | 19.176 | 26.549 |
| P52100.00 DISC | 0.48 | 3.476 | -1.549 | 3.806 | 2.216 | -0.745 | 2.337 | 1.342 | 3.010 | 3.296 | -2.149 | -2.776 | 3.511 |
| P52100.00 TERM | 0.48 | 3.431 | -1.521 | 3.753 | 2.184 | -0.731 | 2.303 | 1.317 | 2.971 | 3.250 | -2.113 | -2.741 | 3.461 |
| P52110.00 DISC | 0.48 | 2.572 | -0.783 | 2.688 | 1.572 | -0.360 | 1.613 | 0.678 | 2.227 | 2.328 | -1.242 | -2.116 | 2.454 |
| P52110.00 TERM | 0.48 | 2.535 | -0.767 | 2.648 | 1.548 | -0.353 | 1.588 | 0.664 | 2.195 | 2.293 | -1.220 | -2.086 | 2.416 |
| P52120.00 DISC | 0.48 | 3.670 | -1.674 | 4.034 | 2.351 | -0.804 | 2.485 | 1.449 | 3.178 | 3.493 | -2.308 | -2.926 | 3.727 |
| P52120.00 TERM | 0.48 | 3.620 | -1.641 | 3.974 | 2.316 | -0.788 | 2.447 | 1.421 | 3.135 | 3.442 | -2.266 | -2.887 | 3.670 |
| P52130.00 DISC | 0.48 | 2.733 | -0.852 | 2.863 | 1.676 | -0.390 | 1.721 | 0.738 | 2.367 | 2.479 | -1.340 | -2.246 | 2.616 |
| P52130.00 TERM | 0.48 | 2.691 | -0.833 | 2.817 | 1.649 | -0.382 | 1.693 | 0.722 | 2.330 | 2.440 | -1.314 | -2.212 | 2.573 |
| P52140.00 DISC | 0.48 | 4.260 | -2.082 | 4.742 | 2.776 | -1.001 | 2.951 | 1.803 | 3.690 | 4.106 | -2.823 | -3.377 | 4.402 |
| P52140.00 TERM | 0.48 | 4.193 | -2.033 | 4.660 | 2.727 | -0.977 | 2.897 | 1.761 | 3.631 | 4.036 | -2.762 | -3.326 | 4.323 |
| P52150.00 DISC | 0.48 | 3.238 | -1.086 | 3.416 | 2.006 | -0.494 | 2.066 | 0.941 | 2.804 | 2.958 | -1.664 | -2.653 | 3.132 |
| P52150.00 TERM | 0.48 | 3.180 | -1.058 | 3.351 | 1.967 | -0.481 | 2.026 | 0.916 | 2.754 | 2.902 | -1.625 | -2.606 | 3.072 |
| P52160.00 DISC | 0.48 | 3.362 | -1.148 | 3.553 | 2.089 | -0.521 | 2.153 | 0.994 | 2.912 | 3.077 | -1.748 | -2.753 | 3.261 |
| P52160.00 TERM | 0.48 | 3.299 | -1.117 | 3.483 | 2.047 | -0.507 | 2.109 | 0.967 | 2.857 | 3.017 | -1.705 | -2.702 | 3.195 |
| P52170.00 DISC | 0.48 | 3.566 | -1.253 | 3.780 | 2.225 | -0.568 | 2.296 | 1.085 | 3.088 | 3.273 | -1.889 | -2.916 | 3.474 |
| P52170.00 TERM | 0.48 | 3.495 | -1.216 | 3.701 | 2.178 | -0.551 | 2.246 | 1.053 | 3.027 | 3.205 | -1.840 | -2.859 | 3.400 |
| P52220.00 DISC | 0.48 | 0.681 | -0.055 | 0.683 | 0.399 | -0.024 | 0.399 | 0.047 | 0.589 | 0.591 | -0.188 | -0.582 | 0.612 |
| P52220.00 TERM | 0.48 | 0.671 | -0.054 | 0.673 | 0.393 | -0.024 | 0.394 | 0.046 | 0.581 | 0.583 | -0.185 | -0.574 | 0.603 |
| P52230.00 DISC | 0.48 | 0.681 | -0.055 | 0.683 | 0.399 | -0.024 | 0.399 | 0.047 | 0.589 | 0.591 | -0.188 | -0.582 | 0.612 |
| P52230.00 TERM | 0.48 | 0.671 | -0.054 | 0.673 | 0.393 | -0.024 | 0.394 | 0.046 | 0.581 | 0.583 | -0.185 | -0.574 | 0.603 |
| P52240.00 DISC | 0.48 | 0.858 | -0.075 | 0.861 | 0.503 | -0.033 | 0.504 | 0.065 | 0.743 | 0.746 | -0.243 | -0.733 | 0.772 |
| P52240.00 TERM | 0.48 | 0.842 | -0.073 | 0.846 | 0.494 | -0.032 | 0.495 | 0.063 | 0.729 | 0.732 | -0.238 | -0.720 | 0.758 |
| P52250.00 DISC | 0.48 | 0.858 | -0.075 | 0.861 | 0.503 | -0.033 | 0.504 | 0.065 | 0.743 | 0.746 | -0.243 | -0.733 | 0.772 |
| P52250.00 TERM | 0.48 | 0.842 | -0.073 | 0.846 | 0.494 | -0.032 | 0.495 | 0.063 | 0.729 | 0.732 | -0.238 | -0.720 | 0.758 |
| P54080.00 DISC | 0.48 | 1.408 | -0.155 | 1.416 | 0.829 | -0.064 | 0.832 | 0.135 | 1.219 | 1.226 | -0.428 | -1.200 | 1.275 |

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| P54080.00 TERM | 0.48 | 1.366 | -0.149 | 1.374 | 0.805 | -0.061 | 0.807 | 0.129 | 1.183 | 1.190 | -0.414 | -1.165 | 1.236 |
| P54090.00 DISC | 0.48 | 1.408 | -0.155 | 1.416 | 0.829 | -0.064 | 0.832 | 0.135 | 1.219 | 1.226 | -0.428 | -1.200 | 1.275 |
| P54090.00 TERM | 0.48 | 1.366 | -0.149 | 1.374 | 0.805 | -0.061 | 0.807 | 0.129 | 1.183 | 1.190 | -0.414 | -1.165 | 1.236 |
| P55020.00 TERM | 0.48 | 3.104 | -0.762 | 3.196 | 1.886 | -0.323 | 1.913 | 0.660 | 2.688 | 2.768 | -1.335 | -2.593 | 2.917 |
| P55030.00 TERM | 0.48 | 3.104 | -0.762 | 3.196 | 1.886 | -0.323 | 1.913 | 0.660 | 2.688 | 2.768 | -1.335 | -2.593 | 2.917 |
| PNL DP2 | 0.48 | 6.067 | -15.742 | 16.870 | 5.999 | -11.500 | 12.971 | 13.701 | 5.336 | 14.704 | -16.375 | -0.883 | 16.398 |
| PNL DP4 | 0.48 | 4.362 | -41.640 | 41.868 | 7.085 | -45.537 | 46.085 | 36.688 | 4.006 | 36.906 | -41.418 | 20.176 | 46.070 |
| PNL DPLC-1 | 0.21 | 1.051 | -1.638 | 1.946 | 1.062 | -1.673 | 1.982 | 1.418 | 0.910 | 1.685 | 0.882 | 1.765 | 1.973 |
| PNL DPLC-2 | 0.21 | 0.997 | -1.187 | 1.550 | 1.003 | -1.310 | 1.650 | 1.028 | 0.863 | 1.342 | 0.530 | 1.588 | 1.674 |
| PNL DPLC-3 | 0.21 | 1.086 | -1.494 | 1.847 | 1.119 | -1.426 | 1.813 | 1.294 | 0.941 | 1.600 | -1.867 | -0.261 | 1.885 |
| PNL DPLC-4 | 0.21 | 0.609 | -0.632 | 0.877 | 0.613 | -0.622 | 0.874 | 0.547 | 0.527 | 0.760 | -0.856 | -0.221 | 0.884 |
| PNL DPP1 | 0.48 | 9.502 | -10.227 | 13.960 | 8.562 | -6.131 | 10.531 | 8.857 | 8.229 | 12.090 | -12.491 | -6.231 | 13.959 |
| PNL DPP1 PRI | 0.48 | 9.502 | -10.227 | 13.960 | 8.562 | -6.131 | 10.531 | 8.857 | 8.229 | 12.090 | -12.491 | -6.231 | 13.959 |
| SCR BLDG N OH DOOR DISC | 0.48 | 1.224 | -0.140 | 1.232 | 0.721 | -0.060 | 0.723 | 0.121 | 1.060 | 1.067 | -0.376 | -1.042 | 1.108 |
| SCR BLDG N OH DOOR TERM | 0.48 | 1.192 | -0.134 | 1.200 | 0.702 | -0.058 | 0.704 | 0.116 | 1.033 | 1.039 | -0.365 | -1.015 | 1.079 |
| SCR BLDG S OH DOOR DISC | 0.48 | 1.329 | -0.159 | 1.339 | 0.784 | -0.068 | 0.787 | 0.138 | 1.151 | 1.160 | -0.416 | -1.131 | 1.205 |
| SCR BLDG S OH DOOR TERM | 0.48 | 1.292 | -0.152 | 1.301 | 0.762 | -0.065 | 0.764 | 0.132 | 1.119 | 1.127 | -0.402 | -1.100 | 1.171 |
| SEP53000.00 DISC | 0.48 | 0.735 | -0.061 | 0.737 | 0.431 | -0.027 | 0.431 | 0.053 | 0.636 | 0.639 | -0.205 | -0.628 | 0.661 |
| SEP53000.00 TERM | 0.48 | 0.723 | -0.059 | 0.726 | 0.424 | -0.026 | 0.425 | 0.051 | 0.627 | 0.629 | -0.201 | -0.619 | 0.650 |
| SEP53010.00 DISC | 0.48 | 0.735 | -0.061 | 0.737 | 0.431 | -0.027 | 0.431 | 0.053 | 0.636 | 0.639 | -0.205 | -0.628 | 0.661 |
| SEP53010.00 TERM | 0.48 | 0.723 | -0.059 | 0.726 | 0.424 | -0.026 | 0.425 | 0.051 | 0.626 | 0.629 | -0.201 | -0.619 | 0.650 |
| SEP53020.00 DISC | 0.48 | 0.712 | -0.058 | 0.715 | 0.417 | -0.026 | 0.418 | 0.050 | 0.617 | 0.619 | -0.198 | -0.609 | 0.640 |
| SEP53020.00 TERM | 0.48 | 0.701 | -0.057 | 0.704 | 0.411 | -0.025 | 0.412 | 0.049 | 0.607 | 0.609 | -0.195 | -0.600 | 0.631 |
| SR-DAF | 0.48 | 2.018 | -6.914 | 7.203 | 2.651 | -6.565 | 7.080 | 5.988 | 1.747 | 6.238 | -7.578 | 1.313 | 7.691 |
| SR-DAF PRI | 0.48 | 2.018 | -6.914 | 7.203 | 2.651 | -6.565 | 7.080 | 5.988 | 1.747 | 6.238 | -7.578 | 1.313 | 7.691 |
| SWBD GDP | 0.48 | 1.669 | -20.429 | 20.497 | 2.914 | -24.662 | 24.833 | 18.824 | 1.734 | 18.904 | -20.224 | 11.764 | 23.396 |
| SWBD-NB BUS A | 0.48 | 1.561 | -9.515 | 9.643 | 2.007 | -11.417 | 11.592 | 8.241 | 1.352 | 8.351 | -9.621 | 5.778 | 11.223 |
| SWBD-NB BUS A PRI | 0.48 | 1.561 | -9.515 | 9.643 | 2.007 | -11.417 | 11.592 | 8.241 | 1.352 | 8.351 | -9.621 | 5.778 | 11.223 |
| SWBD-NB BUS B | 0.48 | 1.608 | -9.686 | 9.818 | 2.075 | -11.614 | 11.798 | 8.420 | 1.409 | 8.538 | -9.799 | 5.778 | 11.376 |
| SWBD-NB BUS B PRI | 0.48 | 1.608 | -9.686 | 9.818 | 2.075 | -11.614 | 11.798 | 8.420 | 1.409 | 8.538 | -9.799 | 5.778 | 11.376 |
| TRANSF TA PRI | 0.48 | 2.602 | -41.045 | 41.128 | 3.275 | -46.143 | 46.259 | 35.546 | 2.254 | 35.617 | -37.672 | 24.085 | 44.713 |
| TRANSF TB PRI | 0.48 | 2.843 | -44.458 | 44.549 | 4.013 | -51.154 | 51.311 | 39.230 | 2.663 | 39.321 | -41.458 | 26.247 | 49.068 |
| TRANSF TB SEC | 2.40 | 0.444 | -4.295 | 4.318 | 0.582 | -5.154 | 5.186 | 3.753 | 0.397 | 3.774 | -4.119 | 2.759 | 4.958 |
| TRANSF TC PRI | 2.40 | 0.512 | -3.587 | 3.623 | 0.909 | -3.544 | 3.659 | 3.106 | 0.444 | 3.138 | -3.751 | 1.264 | 3.959 |

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

| Bus | | 3-Phase Fault | | | Line-to-Ground Fault | | | Line-to-Line Fault | | | *Line-to-Line-to-Ground | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. | Real | Imag. | Mag. |
| TRANSF TC SEC | 0.48 | 1.518 | -9.702 | 9.820 | 1.888 | -11.836 | 11.986 | 8.402 | 1.315 | 8.505 | -9.648 | 6.272 | 11.508 |
| TRANSF TD PRI | 2.40 | 0.541 | -3.710 | 3.750 | 0.959 | -3.637 | 3.761 | 3.237 | 0.480 | 3.273 | -3.883 | 1.241 | 4.077 |
| TRANSF TD SEC | 0.48 | 1.564 | -9.880 | 10.003 | 1.953 | -12.050 | 12.207 | 8.590 | 1.371 | 8.699 | -9.831 | 6.281 | 11.666 |
| XFMR T-C4 PRI | 0.48 | 7.083 | -3.481 | 7.893 | 4.807 | -1.538 | 5.047 | 3.015 | 6.134 | 6.835 | -4.803 | -5.695 | 7.450 |
| XFMR T-C4 SEC | 0.21 | 0.611 | -0.665 | 0.903 | 0.616 | -0.679 | 0.917 | 0.576 | 0.529 | 0.782 | 0.265 | 0.876 | 0.915 |
| XFMR T-LC1 PRI | 0.48 | 8.852 | -6.431 | 10.941 | 6.777 | -3.215 | 7.501 | 5.569 | 7.666 | 9.475 | -8.216 | -6.706 | 10.605 |
| XFMR T-LC1 SEC | 0.21 | 1.052 | -1.659 | 1.965 | 1.062 | -1.711 | 2.013 | 1.437 | 0.911 | 1.702 | 0.902 | 1.794 | 2.008 |
| XFMR T-LC2 PRI | 0.48 | 2.811 | -0.758 | 2.911 | 1.711 | -0.335 | 1.744 | 0.656 | 2.434 | 2.521 | -1.269 | -2.333 | 2.656 |
| XFMR T-LC2 SEC | 0.21 | 0.997 | -1.192 | 1.554 | 1.002 | -1.320 | 1.657 | 1.032 | 0.864 | 1.346 | 0.536 | 1.596 | 1.684 |

All fault currents are symmetrical momentary (30 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

## Short-Circuit Summary Report

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| ATS-L BUS A | 0.480 | 0.00344 | 0.01159 | 0.01209 | 0.00344 | 0.01159 | 0.01209 | 0.00544 | 0.00961 | 0.01104 |
| ATS-L BUS B | 0.480 | 0.00562 | 0.01201 | 0.01326 | 0.00562 | 0.01201 | 0.01326 | 0.01228 | 0.01064 | 0.01625 |
| ATS-L SEC | 0.480 | 0.00344 | 0.01159 | 0.01209 | 0.00344 | 0.01159 | 0.01209 | 0.00544 | 0.00961 | 0.01104 |
| B20100.00 TERMINALS | 2.400 | 0.06711 | 0.39044 | 0.39617 | 0.06711 | 0.39044 | 0.39617 | 0.21464 | 0.39405 | 0.44871 |
| B20200.00 TERMINALS | 2.400 | 0.06774 | 0.39106 | 0.39688 | 0.06774 | 0.39106 | 0.39688 | 0.21673 | 0.39668 | 0.45202 |
| B20400.00 TERMINALS | 2.400 | 0.06861 | 0.37968 | 0.38583 | 0.06943 | 0.37376 | 0.38015 | 0.22195 | 0.40325 | 0.46030 |
| B52180.00 DISC | 0.480 | 0.04551 | 0.02366 | 0.05130 | 0.04551 | 0.02366 | 0.05130 | 0.13796 | 0.03931 | 0.14346 |
| B52180.00 TERM | 0.480 | 0.04706 | 0.02396 | 0.05281 | 0.04706 | 0.02396 | 0.05281 | 0.14285 | 0.04005 | 0.14835 |
| B52190.00 DISC | 0.480 | 0.06452 | 0.02341 | 0.06863 | 0.06452 | 0.02341 | 0.06863 | 0.19782 | 0.03869 | 0.20156 |
| B52190.00 TERM | 0.480 | 0.06607 | 0.02371 | 0.07019 | 0.06607 | 0.02371 | 0.07019 | 0.20270 | 0.03942 | 0.20650 |
| B52210.00 DISC | 0.480 | 0.17802 | 0.02603 | 0.17991 | 0.17802 | 0.02603 | 0.17991 | 0.55534 | 0.04514 | 0.55717 |
| B52210.00 TERM | 0.480 | 0.18192 | 0.02636 | 0.18382 | 0.18192 | 0.02636 | 0.18382 | 0.56763 | 0.04594 | 0.56948 |
| B52220.00 DISC | 0.480 | 0.18971 | 0.02701 | 0.19162 | 0.18971 | 0.02701 | 0.19162 | 0.59219 | 0.04754 | 0.59410 |
| B52220.00 TERM | 0.480 | 0.19361 | 0.02733 | 0.19553 | 0.19361 | 0.02733 | 0.19553 | 0.60448 | 0.04834 | 0.60641 |
| BLWR BLDG TROLLEY | 0.480 | 0.06131 | 0.01909 | 0.06421 | 0.06131 | 0.01909 | 0.06421 | 0.18773 | 0.02806 | 0.18982 |
| BSN51240.00 DISC | 0.480 | 0.36251 | 0.03031 | 0.36378 | 0.36251 | 0.03031 | 0.36378 | 1.13651 | 0.05566 | 1.13788 |
| BSN51240.00 TERM | 0.480 | 0.36851 | 0.03062 | 0.36978 | 0.36851 | 0.03062 | 0.36978 | 1.15541 | 0.05643 | 1.15679 |
| BSN51250.00 DISC | 0.480 | 0.36252 | 0.03031 | 0.36378 | 0.36252 | 0.03031 | 0.36378 | 1.13652 | 0.05566 | 1.13788 |
| BSN51250.00 TERM | 0.480 | 0.36852 | 0.03062 | 0.36979 | 0.36852 | 0.03062 | 0.36979 | 1.15542 | 0.05643 | 1.15679 |
| BSN51260.00 DISC | 0.480 | 0.36251 | 0.03031 | 0.36378 | 0.36251 | 0.03031 | 0.36378 | 1.13651 | 0.05566 | 1.13788 |
| BSN51260.00 TERM | 0.480 | 0.36851 | 0.03062 | 0.36978 | 0.36851 | 0.03062 | 0.36978 | 1.15541 | 0.05643 | 1.15679 |
| BSN51270.00 DISC | 0.480 | 0.36252 | 0.03031 | 0.36378 | 0.36252 | 0.03031 | 0.36378 | 1.13652 | 0.05566 | 1.13788 |
| BSN51270.00 TERM | 0.480 | 0.36852 | 0.03062 | 0.36979 | 0.36852 | 0.03062 | 0.36979 | 1.15542 | 0.05643 | 1.15679 |
| COGEN TIE BUS | 0.480 | 0.00040 | 0.00621 | 0.00622 | 0.00043 | 0.00597 | 0.00599 | 0.00044 | 0.00397 | 0.00400 |
| COM53030.00 DISC | 0.480 | 0.35051 | 0.02968 | 0.35177 | 0.35051 | 0.02968 | 0.35177 | 1.09871 | 0.05411 | 1.10004 |
| COM53030.00 TERM | 0.480 | 0.35651 | 0.02999 | 0.35777 | 0.35651 | 0.02999 | 0.35777 | 1.11761 | 0.05488 | 1.11896 |
| COM53040.00 DISC | 0.480 | 0.32052 | 0.02810 | 0.32175 | 0.32052 | 0.02810 | 0.32175 | 1.00422 | 0.05023 | 1.00547 |
| COM53040.00 TERM | 0.480 | 0.32652 | 0.02842 | 0.32775 | 0.32652 | 0.02842 | 0.32775 | 1.02312 | 0.05101 | 1.02439 |
| CON51300.00 DISC | 0.480 | 0.35051 | 0.02968 | 0.35177 | 0.35051 | 0.02968 | 0.35177 | 1.09871 | 0.05411 | 1.10004 |
| CON51300.00 TERM | 0.480 | 0.35651 | 0.02999 | 0.35777 | 0.35651 | 0.02999 | 0.35777 | 1.11761 | 0.05488 | 1.11896 |
| CON51320.00 DISC | 0.480 | 0.35051 | 0.02968 | 0.35177 | 0.35051 | 0.02968 | 0.35177 | 1.09871 | 0.05411 | 1.10004 |
| CON51320.00 TERM | 0.480 | 0.35651 | 0.02999 | 0.35777 | 0.35651 | 0.02999 | 0.35777 | 1.11761 | 0.05488 | 1.11896 |
| CON53020.00 DISC | 0.480 | 0.37452 | 0.03094 | 0.37580 | 0.37452 | 0.03094 | 0.37580 | 1.17432 | 0.05721 | 1.17571 |
| CON53020.00 TERM | 0.480 | 0.38052 | 0.03125 | 0.38180 | 0.38052 | 0.03125 | 0.38180 | 1.19322 | 0.05798 | 1.19462 |
| CON53030.00 DISC | 0.480 | 0.37452 | 0.03094 | 0.37580 | 0.37452 | 0.03094 | 0.37580 | 1.17432 | 0.05721 | 1.17571 |

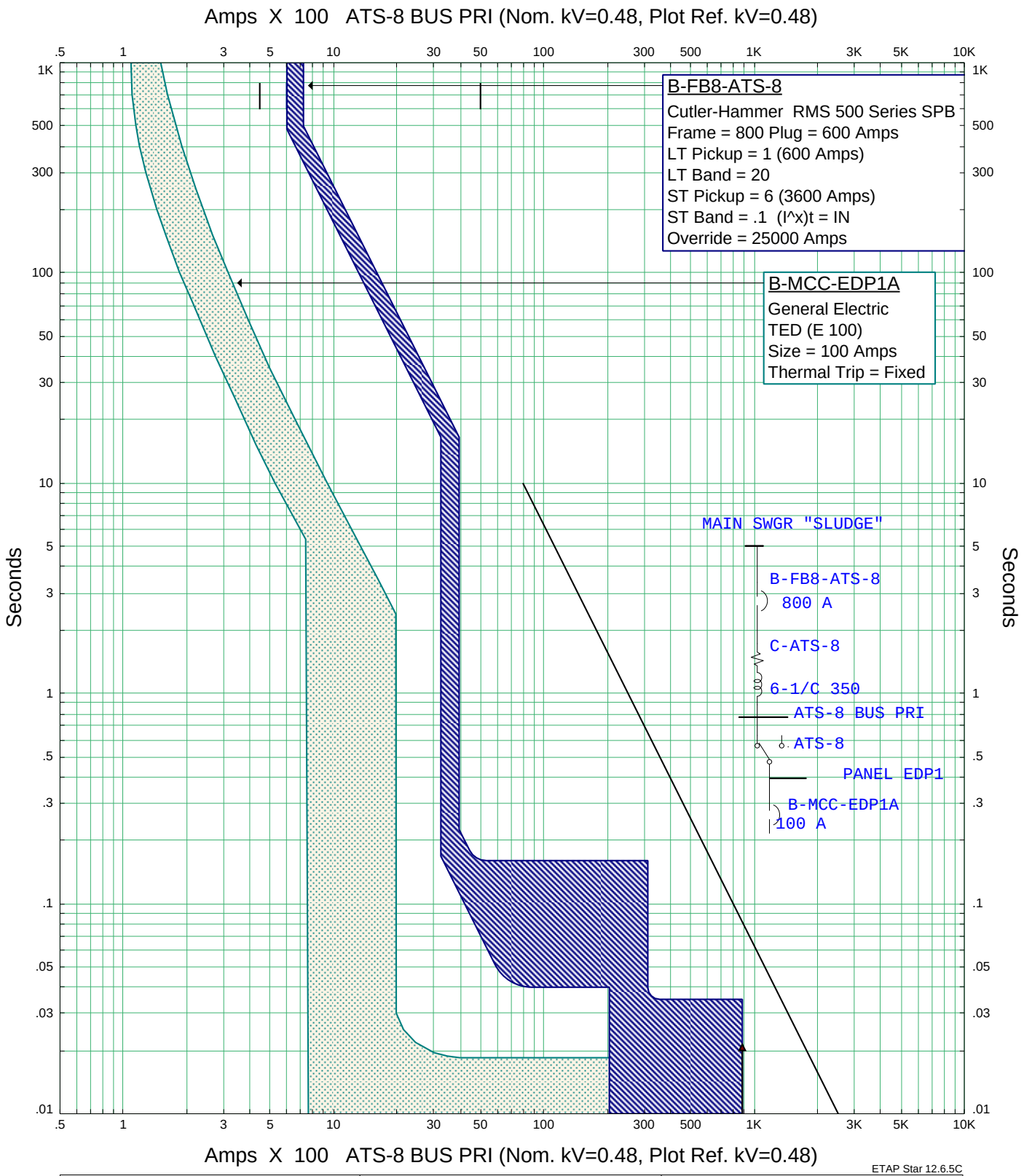
| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| CON53030.00 TERM | 0.480 | 0.38052 | 0.03125 | 0.38180 | 0.38052 | 0.03125 | 0.38180 | 1.19322 | 0.05798 | 1.19462 |
| EFF PS SWGR BUS A | 0.480 | 0.00238 | 0.01557 | 0.01575 | 0.00238 | 0.01557 | 0.01575 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS A PRI | 0.480 | 0.00238 | 0.01557 | 0.01575 | 0.00238 | 0.01557 | 0.01575 | 0.00197 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B | 0.480 | 0.00236 | 0.01557 | 0.01575 | 0.00236 | 0.01557 | 0.01575 | 0.00196 | 0.01306 | 0.01321 |
| EFF PS SWGR BUS B PRI | 0.480 | 0.00236 | 0.01557 | 0.01575 | 0.00236 | 0.01557 | 0.01575 | 0.00196 | 0.01306 | 0.01321 |
| EFF PUMP NO. 2 VFD PRI | 0.480 | 0.00288 | 0.01624 | 0.01649 | 0.00288 | 0.01624 | 0.01649 | 0.00359 | 0.01470 | 0.01513 |
| EFF PUMP NO. 4 VFD PRI | 0.480 | 0.00290 | 0.01623 | 0.01649 | 0.00290 | 0.01623 | 0.01649 | 0.00361 | 0.01470 | 0.01513 |
| F52410.00 DISC | 0.480 | 0.44351 | 0.02916 | 0.44447 | 0.44351 | 0.02916 | 0.44447 | 1.39166 | 0.05284 | 1.39267 |
| F52410.00 STR | 0.480 | 0.41351 | 0.02814 | 0.41447 | 0.41351 | 0.02814 | 0.41447 | 1.29716 | 0.05033 | 1.29814 |
| F52420.00 DISC | 0.480 | 0.55351 | 0.03290 | 0.55449 | 0.55351 | 0.03290 | 0.55449 | 1.73816 | 0.06204 | 1.73927 |
| F52420.00 STR | 0.480 | 0.52351 | 0.03188 | 0.52448 | 0.52351 | 0.03188 | 0.52448 | 1.64366 | 0.05953 | 1.64474 |
| F54330.00 DISC | 0.480 | 0.11052 | 0.01708 | 0.11183 | 0.11052 | 0.01708 | 0.11183 | 0.34272 | 0.02311 | 0.34349 |
| F54330.00 TERM | 0.480 | 0.11652 | 0.01739 | 0.11781 | 0.11652 | 0.01739 | 0.11781 | 0.36162 | 0.02389 | 0.36240 |
| F55010.00 TERM | 0.480 | 0.06861 | 0.02058 | 0.07163 | 0.06861 | 0.02058 | 0.07163 | 0.21073 | 0.03174 | 0.21311 |
| GEN NO. 2 TERM | 0.480 | 0.00168 | 0.01448 | 0.01458 | 0.00175 | 0.01267 | 0.01279 | 0.00241 | 0.00927 | 0.00958 |
| GEN NO. 3 TERM | 0.480 | 0.00158 | 0.01431 | 0.01439 | 0.00166 | 0.01252 | 0.01263 | 0.00228 | 0.00905 | 0.00933 |
| GRIT SCR TROLLEY | 0.480 | 0.37451 | 0.03094 | 0.37579 | 0.37451 | 0.03094 | 0.37579 | 1.17431 | 0.05721 | 1.17571 |
| HVAC56100.00 DISC | 0.480 | 0.04471 | 0.01714 | 0.04789 | 0.04471 | 0.01714 | 0.04789 | 0.13544 | 0.02327 | 0.13743 |
| HVAC56100.00 TERM | 0.480 | 0.04861 | 0.01747 | 0.05165 | 0.04861 | 0.01747 | 0.05165 | 0.14773 | 0.02407 | 0.14968 |
| HVAC56110.00 DISC | 0.480 | 0.10951 | 0.01958 | 0.11125 | 0.10951 | 0.01958 | 0.11125 | 0.33956 | 0.02928 | 0.34082 |
| HVAC56110.00 TERM | 0.480 | 0.11551 | 0.01990 | 0.11721 | 0.11551 | 0.01990 | 0.11721 | 0.35846 | 0.03005 | 0.35972 |
| HW ELEVATOR | 0.480 | 0.03041 | 0.01681 | 0.03475 | 0.03041 | 0.01681 | 0.03475 | 0.09040 | 0.02245 | 0.09314 |
| HW GATES | 0.480 | 0.66351 | 0.03664 | 0.66452 | 0.66351 | 0.03664 | 0.66452 | 2.08466 | 0.07124 | 2.08588 |
| INFL PUMP 1 TERMINALS | 0.480 | 0.00426 | 0.01440 | 0.01502 | 0.00426 | 0.01440 | 0.01502 | 0.00803 | 0.01652 | 0.01837 |
| INFL PUMP 1 VFD PRI | 0.480 | 0.00252 | 0.01152 | 0.01179 | 0.00252 | 0.01152 | 0.01179 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 2 TERMINALS | 0.480 | 0.00653 | 0.01494 | 0.01630 | 0.00653 | 0.01494 | 0.01630 | 0.01515 | 0.01785 | 0.02341 |
| INFL PUMP 2 VFD | 0.480 | 0.00275 | 0.01188 | 0.01219 | 0.00275 | 0.01188 | 0.01219 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 2 VFD PRI | 0.480 | 0.00275 | 0.01188 | 0.01219 | 0.00275 | 0.01188 | 0.01219 | 0.00324 | 0.01032 | 0.01082 |
| INFL PUMP 3 TERMINALS | 0.480 | 0.00630 | 0.01458 | 0.01588 | 0.00630 | 0.01458 | 0.01588 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 3 VFD | 0.480 | 0.00252 | 0.01152 | 0.01179 | 0.00252 | 0.01152 | 0.01179 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 3 VFD PRI | 0.480 | 0.00252 | 0.01152 | 0.01179 | 0.00252 | 0.01152 | 0.01179 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 4 TERMINALS | 0.480 | 0.00646 | 0.01482 | 0.01616 | 0.00646 | 0.01482 | 0.01616 | 0.01492 | 0.01755 | 0.02304 |
| INFL PUMP 4 VFD | 0.480 | 0.00268 | 0.01176 | 0.01206 | 0.00268 | 0.01176 | 0.01206 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 4 VFD PRI | 0.480 | 0.00268 | 0.01176 | 0.01206 | 0.00268 | 0.01176 | 0.01206 | 0.00301 | 0.01003 | 0.01047 |
| INFL PUMP 5 TERMINALS | 0.480 | 0.00630 | 0.01458 | 0.01588 | 0.00630 | 0.01458 | 0.01588 | 0.01446 | 0.01696 | 0.02229 |
| INFL PUMP 5 VFD | 0.480 | 0.00252 | 0.01152 | 0.01179 | 0.00252 | 0.01152 | 0.01179 | 0.00255 | 0.00944 | 0.00978 |
| INFL PUMP 5 VFD PRI | 0.480 | 0.00252 | 0.01152 | 0.01179 | 0.00252 | 0.01152 | 0.01179 | 0.00255 | 0.00944 | 0.00978 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| INFL PUMP 6 TERMINALS | 0.480 | 0.00456 | 0.01488 | 0.01556 | 0.00456 | 0.01488 | 0.01556 | 0.00895 | 0.01770 | 0.01984 |
| INFL PUMP 6 VFD PRI | 0.480 | 0.00282 | 0.01200 | 0.01232 | 0.00282 | 0.01200 | 0.01232 | 0.00347 | 0.01062 | 0.01117 |
| LCP-HWOCS | 0.480 | 0.06621 | 0.01973 | 0.06909 | 0.06621 | 0.01973 | 0.06909 | 0.20317 | 0.02963 | 0.20532 |
| MAIN SWGR "FILTER" | 0.480 | 0.00043 | 0.00672 | 0.00674 | 0.00043 | 0.00672 | 0.00674 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR "SLUDGE" | 0.480 | 0.00040 | 0.00621 | 0.00622 | 0.00043 | 0.00597 | 0.00599 | 0.00044 | 0.00397 | 0.00400 |
| MAIN SWGR BUS A PRI | 0.480 | 0.00043 | 0.00672 | 0.00674 | 0.00043 | 0.00672 | 0.00674 | 0.00042 | 0.00448 | 0.00450 |
| MAIN SWGR BUS B PRI | 0.480 | 0.00040 | 0.00621 | 0.00622 | 0.00043 | 0.00597 | 0.00599 | 0.00044 | 0.00397 | 0.00400 |
| MCC-DP2C | 0.480 | 0.00794 | 0.01869 | 0.02030 | 0.00797 | 0.01845 | 0.02010 | 0.02419 | 0.03467 | 0.04228 |
| MCC-DP4A | 0.480 | 0.15994 | 0.02738 | 0.16227 | 0.15997 | 0.02715 | 0.16226 | 0.50300 | 0.05606 | 0.50611 |
| MCC-DP4B | 0.480 | 0.00096 | 0.00706 | 0.00713 | 0.00099 | 0.00683 | 0.00690 | 0.00221 | 0.00608 | 0.00647 |
| MCC-GE | 0.480 | 0.00241 | 0.02281 | 0.02294 | 0.00245 | 0.02258 | 0.02271 | 0.00518 | 0.02295 | 0.02353 |
| MCC-GE PRI | 0.480 | 0.00166 | 0.00783 | 0.00801 | 0.00170 | 0.00760 | 0.00778 | 0.00443 | 0.00797 | 0.00912 |
| MCC-HW BUS A | 0.480 | 0.00251 | 0.01141 | 0.01168 | 0.00251 | 0.01141 | 0.01168 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS A PRI | 0.480 | 0.00251 | 0.01141 | 0.01168 | 0.00251 | 0.01141 | 0.01168 | 0.00251 | 0.00917 | 0.00950 |
| MCC-HW BUS B | 0.480 | 0.00252 | 0.01141 | 0.01168 | 0.00252 | 0.01141 | 0.01168 | 0.00252 | 0.00917 | 0.00950 |
| MCC-HW BUS B PRI | 0.480 | 0.00252 | 0.01141 | 0.01168 | 0.00252 | 0.01141 | 0.01168 | 0.00252 | 0.00917 | 0.00950 |
| MCC-NA BUS A | 2.400 | 0.05241 | 0.37630 | 0.37993 | 0.05241 | 0.37630 | 0.37993 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS A PRI | 2.400 | 0.05241 | 0.37630 | 0.37993 | 0.05241 | 0.37630 | 0.37993 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B | 2.400 | 0.05167 | 0.36338 | 0.36704 | 0.05249 | 0.35746 | 0.36130 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NA BUS B PRI | 2.400 | 0.05167 | 0.36338 | 0.36704 | 0.05249 | 0.35746 | 0.36130 | 0.16660 | 0.33356 | 0.37285 |
| MCC-NC | 0.480 | 0.00480 | 0.02860 | 0.02900 | 0.00480 | 0.02860 | 0.02900 | 0.00357 | 0.01451 | 0.01494 |
| MCC-ND | 0.480 | 0.00480 | 0.02809 | 0.02850 | 0.00483 | 0.02785 | 0.02827 | 0.00366 | 0.01452 | 0.01498 |
| MCC-NE | 0.480 | 0.00563 | 0.02961 | 0.03014 | 0.00563 | 0.02961 | 0.03014 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NF | 0.480 | 0.00560 | 0.02909 | 0.02963 | 0.00563 | 0.02886 | 0.02940 | 0.00618 | 0.01699 | 0.01808 |
| MCC-NG BUS A | 0.480 | 0.01538 | 0.04211 | 0.04483 | 0.01538 | 0.04211 | 0.04483 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS A PRI | 0.480 | 0.01538 | 0.04211 | 0.04483 | 0.01538 | 0.04211 | 0.04483 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B | 0.480 | 0.01535 | 0.04159 | 0.04434 | 0.01538 | 0.04136 | 0.04412 | 0.03690 | 0.04774 | 0.06034 |
| MCC-NG BUS B PRI | 0.480 | 0.01535 | 0.04159 | 0.04434 | 0.01538 | 0.04136 | 0.04412 | 0.03690 | 0.04774 | 0.06034 |
| MCC-SH BUS A | 0.480 | 0.01684 | 0.04399 | 0.04710 | 0.01684 | 0.04399 | 0.04710 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS A PRI | 0.480 | 0.01684 | 0.04399 | 0.04710 | 0.01684 | 0.04399 | 0.04710 | 0.04150 | 0.05236 | 0.06681 |
| MCC-SH BUS B | 0.480 | 0.01704 | 0.04424 | 0.04740 | 0.01704 | 0.04424 | 0.04740 | 0.04212 | 0.05297 | 0.06767 |
| MCC-SH BUS B PRI | 0.480 | 0.01632 | 0.04284 | 0.04585 | 0.01636 | 0.04261 | 0.04564 | 0.03997 | 0.05082 | 0.06465 |
| MS-HW BUS A | 0.480 | 0.00216 | 0.01092 | 0.01113 | 0.00216 | 0.01092 | 0.01113 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS A PRI | 0.480 | 0.00216 | 0.01092 | 0.01113 | 0.00216 | 0.01092 | 0.01113 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B | 0.480 | 0.00217 | 0.01092 | 0.01113 | 0.00217 | 0.01092 | 0.01113 | 0.00141 | 0.00796 | 0.00808 |
| MS-HW BUS B PRI | 0.480 | 0.00217 | 0.01092 | 0.01113 | 0.00217 | 0.01092 | 0.01113 | 0.00141 | 0.00796 | 0.00808 |
| P52100.00 DISC | 0.480 | 0.06651 | 0.02965 | 0.07282 | 0.06651 | 0.02965 | 0.07282 | 0.20411 | 0.05404 | 0.21115 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| P52100.00 TERM | 0.480 | 0.06751 | 0.02993 | 0.07385 | 0.06751 | 0.02993 | 0.07385 | 0.20726 | 0.05474 | 0.21437 |
| P52110.00 DISC | 0.480 | 0.09862 | 0.03001 | 0.10308 | 0.09862 | 0.03001 | 0.10308 | 0.30523 | 0.05492 | 0.31013 |
| P52110.00 TERM | 0.480 | 0.10017 | 0.03031 | 0.10465 | 0.10017 | 0.03031 | 0.10465 | 0.31011 | 0.05566 | 0.31507 |
| P52120.00 DISC | 0.480 | 0.06251 | 0.02851 | 0.06871 | 0.06251 | 0.02851 | 0.06871 | 0.19151 | 0.05123 | 0.19825 |
| P52120.00 TERM | 0.480 | 0.06351 | 0.02879 | 0.06973 | 0.06351 | 0.02879 | 0.06973 | 0.19466 | 0.05193 | 0.20147 |
| P52130.00 DISC | 0.480 | 0.09242 | 0.02881 | 0.09681 | 0.09242 | 0.02881 | 0.09681 | 0.28570 | 0.05197 | 0.29039 |
| P52130.00 TERM | 0.480 | 0.09397 | 0.02911 | 0.09837 | 0.09397 | 0.02911 | 0.09837 | 0.29058 | 0.05271 | 0.29533 |
| P52140.00 DISC | 0.480 | 0.05251 | 0.02566 | 0.05844 | 0.05251 | 0.02566 | 0.05844 | 0.16001 | 0.04422 | 0.16601 |
| P52140.00 TERM | 0.480 | 0.05351 | 0.02594 | 0.05947 | 0.05351 | 0.02594 | 0.05947 | 0.16316 | 0.04492 | 0.16923 |
| P52150.00 DISC | 0.480 | 0.07692 | 0.02581 | 0.08113 | 0.07692 | 0.02581 | 0.08113 | 0.23688 | 0.04459 | 0.24104 |
| P52150.00 TERM | 0.480 | 0.07847 | 0.02611 | 0.08270 | 0.07847 | 0.02611 | 0.08270 | 0.24176 | 0.04533 | 0.24597 |
| P52160.00 DISC | 0.480 | 0.07381 | 0.02521 | 0.07800 | 0.07381 | 0.02521 | 0.07800 | 0.22711 | 0.04311 | 0.23116 |
| P52160.00 TERM | 0.480 | 0.07536 | 0.02551 | 0.07956 | 0.07536 | 0.02551 | 0.07956 | 0.23199 | 0.04385 | 0.23610 |
| P52170.00 DISC | 0.480 | 0.06917 | 0.02431 | 0.07332 | 0.06917 | 0.02431 | 0.07332 | 0.21246 | 0.04090 | 0.21636 |
| P52170.00 TERM | 0.480 | 0.07072 | 0.02461 | 0.07488 | 0.07072 | 0.02461 | 0.07488 | 0.21735 | 0.04164 | 0.22130 |
| P52220.00 DISC | 0.480 | 0.40451 | 0.03251 | 0.40582 | 0.40451 | 0.03251 | 0.40582 | 1.26881 | 0.06108 | 1.27028 |
| P52220.00 TERM | 0.480 | 0.41051 | 0.03283 | 0.41182 | 0.41051 | 0.03283 | 0.41182 | 1.28771 | 0.06186 | 1.28920 |
| P52230.00 DISC | 0.480 | 0.40451 | 0.03251 | 0.40582 | 0.40451 | 0.03251 | 0.40582 | 1.26881 | 0.06108 | 1.27028 |
| P52230.00 TERM | 0.480 | 0.41051 | 0.03283 | 0.41182 | 0.41051 | 0.03283 | 0.41182 | 1.28771 | 0.06186 | 1.28920 |
| P52240.00 DISC | 0.480 | 0.32052 | 0.02810 | 0.32175 | 0.32052 | 0.02810 | 0.32175 | 1.00422 | 0.05023 | 1.00547 |
| P52240.00 TERM | 0.480 | 0.32652 | 0.02842 | 0.32775 | 0.32652 | 0.02842 | 0.32775 | 1.02312 | 0.05101 | 1.02439 |
| P52250.00 DISC | 0.480 | 0.32052 | 0.02810 | 0.32175 | 0.32052 | 0.02810 | 0.32175 | 1.00422 | 0.05023 | 1.00547 |
| P52250.00 TERM | 0.480 | 0.32652 | 0.02842 | 0.32775 | 0.32652 | 0.02842 | 0.32775 | 1.02312 | 0.05101 | 1.02439 |
| P54080.00 DISC | 0.480 | 0.19451 | 0.02149 | 0.19570 | 0.19451 | 0.02149 | 0.19570 | 0.60731 | 0.03396 | 0.60826 |
| P54080.00 TERM | 0.480 | 0.20051 | 0.02180 | 0.20169 | 0.20051 | 0.02180 | 0.20169 | 0.62621 | 0.03474 | 0.62718 |
| P54090.00 DISC | 0.480 | 0.19451 | 0.02149 | 0.19570 | 0.19451 | 0.02149 | 0.19570 | 0.60731 | 0.03396 | 0.60826 |
| P54090.00 TERM | 0.480 | 0.20051 | 0.02180 | 0.20169 | 0.20051 | 0.02180 | 0.20169 | 0.62621 | 0.03474 | 0.62718 |
| P55020.00 TERM | 0.480 | 0.08421 | 0.02067 | 0.08671 | 0.08421 | 0.02067 | 0.08671 | 0.25987 | 0.03196 | 0.26183 |
| P55030.00 TERM | 0.480 | 0.08421 | 0.02067 | 0.08671 | 0.08421 | 0.02067 | 0.08671 | 0.25987 | 0.03196 | 0.26183 |
| PNL DP2 | 0.480 | 0.00591 | 0.01533 | 0.01643 | 0.00594 | 0.01509 | 0.01622 | 0.01780 | 0.02641 | 0.03185 |
| PNL DP4 | 0.480 | 0.00069 | 0.00658 | 0.00662 | 0.00072 | 0.00635 | 0.00639 | 0.00136 | 0.00490 | 0.00508 |
| PNL DPLC-1 | 0.208 | 0.03333 | 0.05194 | 0.06171 | 0.03333 | 0.05194 | 0.06171 | 0.03078 | 0.04961 | 0.05839 |
| PNL DPLC-2 | 0.208 | 0.04982 | 0.05932 | 0.07747 | 0.04982 | 0.05932 | 0.07747 | 0.03310 | 0.05475 | 0.06398 |
| PNL DPLC-3 | 0.208 | 0.03823 | 0.05258 | 0.06501 | 0.03823 | 0.05258 | 0.06501 | 0.04621 | 0.05119 | 0.06896 |
| PNL DPLC-4 | 0.208 | 0.09492 | 0.09859 | 0.13685 | 0.09492 | 0.09859 | 0.13685 | 0.09954 | 0.09661 | 0.13871 |
| PNL DPP1 | 0.480 | 0.01351 | 0.01454 | 0.01985 | 0.01351 | 0.01454 | 0.01985 | 0.03716 | 0.01688 | 0.04082 |
| PNL DPP1 PRI | 0.480 | 0.01351 | 0.01454 | 0.01985 | 0.01351 | 0.01454 | 0.01985 | 0.03716 | 0.01688 | 0.04082 |

| Bus | | Positive Sequence Imp. (ohm) | | | Negative Sequence Imp. (ohm) | | | Zero Sequence Imp. (ohm) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ID | kV | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance | Resistance | Reactance | Impedance |
| SCR BLDG N OH DOOR DISC | 0.480 | 0.22351 | 0.02557 | 0.22497 | 0.22351 | 0.02557 | 0.22497 | 0.69866 | 0.04400 | 0.70005 |
| SCR BLDG N OH DOOR TERM | 0.480 | 0.22951 | 0.02588 | 0.23097 | 0.22951 | 0.02588 | 0.23097 | 0.71756 | 0.04477 | 0.71896 |
| SCR BLDG S OH DOOR DISC | 0.480 | 0.20551 | 0.02462 | 0.20698 | 0.20551 | 0.02462 | 0.20698 | 0.64196 | 0.04167 | 0.64332 |
| SCR BLDG S OH DOOR TERM | 0.480 | 0.21151 | 0.02494 | 0.21298 | 0.21151 | 0.02494 | 0.21298 | 0.66086 | 0.04245 | 0.66223 |
| SEP53000.00 DISC | 0.480 | 0.37451 | 0.03094 | 0.37579 | 0.37451 | 0.03094 | 0.37579 | 1.17431 | 0.05721 | 1.17571 |
| SEP53000.00 TERM | 0.480 | 0.38051 | 0.03125 | 0.38179 | 0.38051 | 0.03125 | 0.38179 | 1.19321 | 0.05798 | 1.19462 |
| SEP53010.00 DISC | 0.480 | 0.37452 | 0.03094 | 0.37580 | 0.37452 | 0.03094 | 0.37580 | 1.17432 | 0.05721 | 1.17571 |
| SEP53010.00 TERM | 0.480 | 0.38052 | 0.03125 | 0.38180 | 0.38052 | 0.03125 | 0.38180 | 1.19322 | 0.05798 | 1.19462 |
| SEP53020.00 DISC | 0.480 | 0.38652 | 0.03157 | 0.38781 | 0.38652 | 0.03157 | 0.38781 | 1.21212 | 0.05876 | 1.21354 |
| SEP53020.00 TERM | 0.480 | 0.39252 | 0.03188 | 0.39381 | 0.39252 | 0.03188 | 0.39381 | 1.23102 | 0.05953 | 1.23246 |
| SR-DAF | 0.480 | 0.01078 | 0.03694 | 0.03848 | 0.01078 | 0.03694 | 0.03848 | 0.02241 | 0.03501 | 0.04157 |
| SR-DAF PRI | 0.480 | 0.01078 | 0.03694 | 0.03848 | 0.01078 | 0.03694 | 0.03848 | 0.02241 | 0.03501 | 0.04157 |
| SWBD GDP | 0.480 | 0.00110 | 0.01348 | 0.01352 | 0.00123 | 0.01181 | 0.01187 | 0.00160 | 0.00796 | 0.00812 |
| SWBD-NB BUS A | 0.480 | 0.00465 | 0.02836 | 0.02874 | 0.00465 | 0.02836 | 0.02874 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS A PRI | 0.480 | 0.00465 | 0.02836 | 0.02874 | 0.00465 | 0.02836 | 0.02874 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B | 0.480 | 0.00462 | 0.02784 | 0.02823 | 0.00466 | 0.02761 | 0.02800 | 0.00311 | 0.01392 | 0.01426 |
| SWBD-NB BUS B PRI | 0.480 | 0.00462 | 0.02784 | 0.02823 | 0.00466 | 0.02761 | 0.02800 | 0.00311 | 0.01392 | 0.01426 |
| TRANSF TA PRI | 0.480 | 0.00043 | 0.00672 | 0.00674 | 0.00043 | 0.00672 | 0.00674 | 0.00042 | 0.00448 | 0.00450 |
| TRANSF TB PRI | 0.480 | 0.00040 | 0.00621 | 0.00622 | 0.00043 | 0.00597 | 0.00599 | 0.00044 | 0.00397 | 0.00400 |
| TRANSF TB SEC | 2.400 | 0.03303 | 0.31918 | 0.32089 | 0.03385 | 0.31326 | 0.31508 | 0.02310 | 0.16398 | 0.16560 |
| TRANSF TC PRI | 2.400 | 0.05407 | 0.37860 | 0.38244 | 0.05407 | 0.37860 | 0.38244 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TC SEC | 0.480 | 0.00436 | 0.02788 | 0.02822 | 0.00436 | 0.02788 | 0.02822 | 0.00220 | 0.01274 | 0.01293 |
| TRANSF TD PRI | 2.400 | 0.05333 | 0.36568 | 0.36955 | 0.05415 | 0.35976 | 0.36381 | 0.17413 | 0.34322 | 0.38486 |
| TRANSF TD SEC | 0.480 | 0.00433 | 0.02736 | 0.02771 | 0.00437 | 0.02713 | 0.02748 | 0.00220 | 0.01274 | 0.01293 |
| XFMR T-C4 PRI | 0.480 | 0.03151 | 0.01549 | 0.03511 | 0.03151 | 0.01549 | 0.03511 | 0.09386 | 0.01920 | 0.09581 |
| XFMR T-C4 SEC | 0.208 | 0.09002 | 0.09795 | 0.13303 | 0.09002 | 0.09795 | 0.13303 | 0.08410 | 0.09504 | 0.12691 |
| XFMR T-LC1 PRI | 0.480 | 0.02049 | 0.01489 | 0.02533 | 0.02049 | 0.01489 | 0.02533 | 0.05915 | 0.01773 | 0.06175 |
| XFMR T-LC1 SEC | 0.208 | 0.03273 | 0.05161 | 0.06112 | 0.03273 | 0.05161 | 0.06112 | 0.02889 | 0.04882 | 0.05672 |
| XFMR T-LC2 PRI | 0.480 | 0.09191 | 0.02478 | 0.09519 | 0.09191 | 0.02478 | 0.09519 | 0.28412 | 0.04207 | 0.28722 |
| XFMR T-LC2 SEC | 0.208 | 0.04957 | 0.05926 | 0.07726 | 0.04957 | 0.05926 | 0.07726 | 0.03231 | 0.05461 | 0.06345 |

# APPENDIX C – TIME CURRENT CURVES

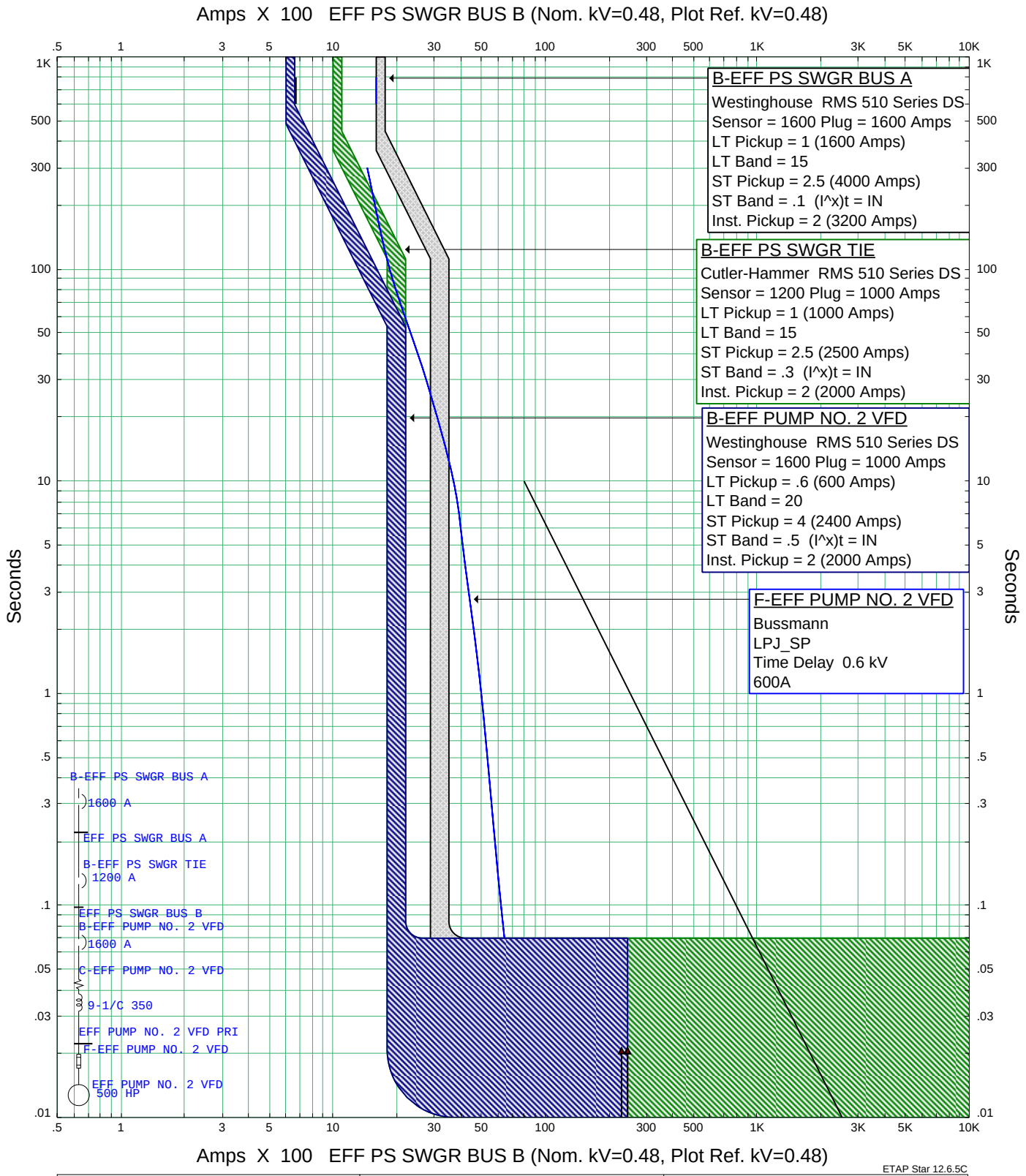



ETAP Star 12.6.5C

**ATS 8 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

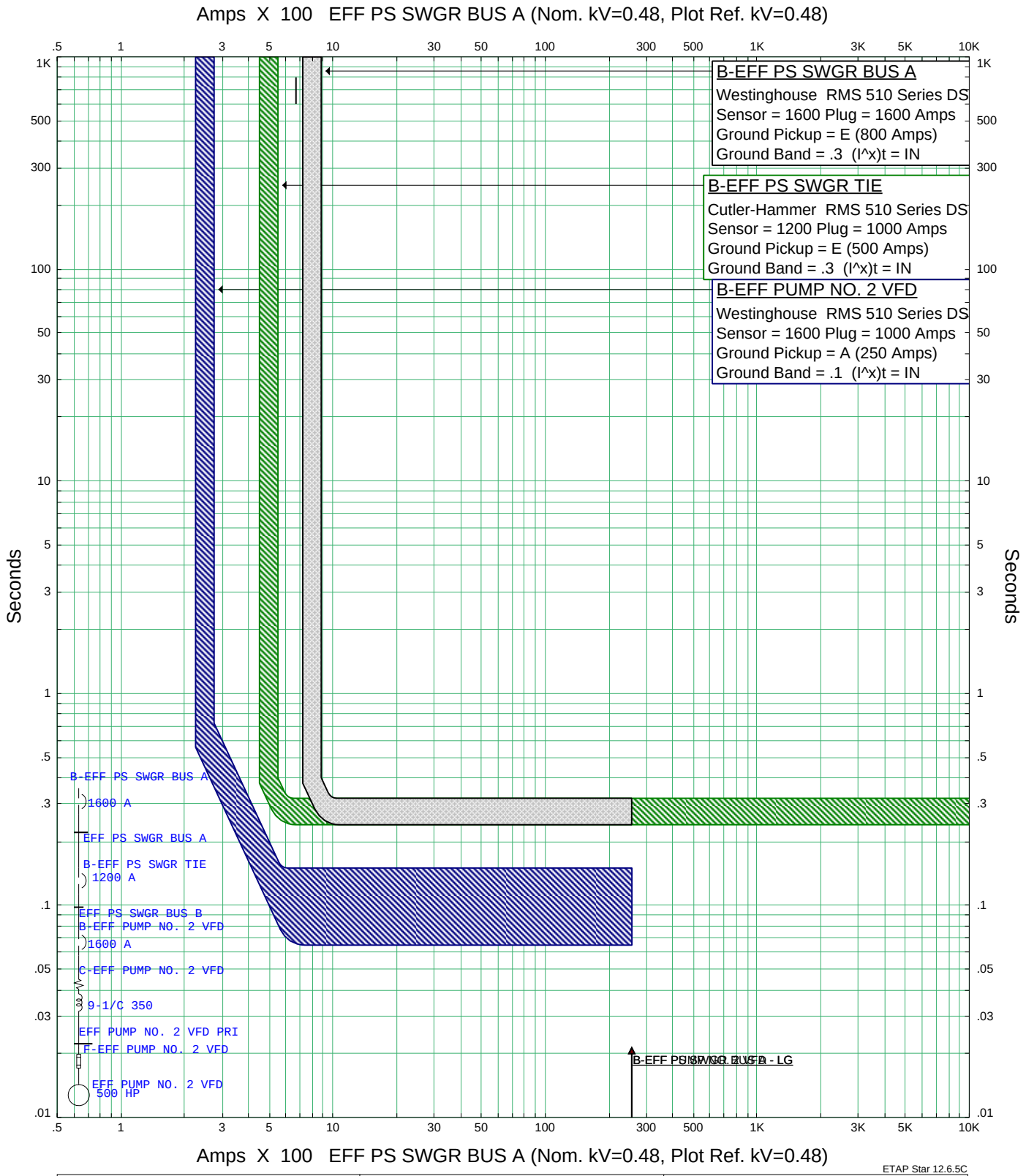



ETAP Star 12.6.5C

**EFF PUMP NO 2 VFD TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

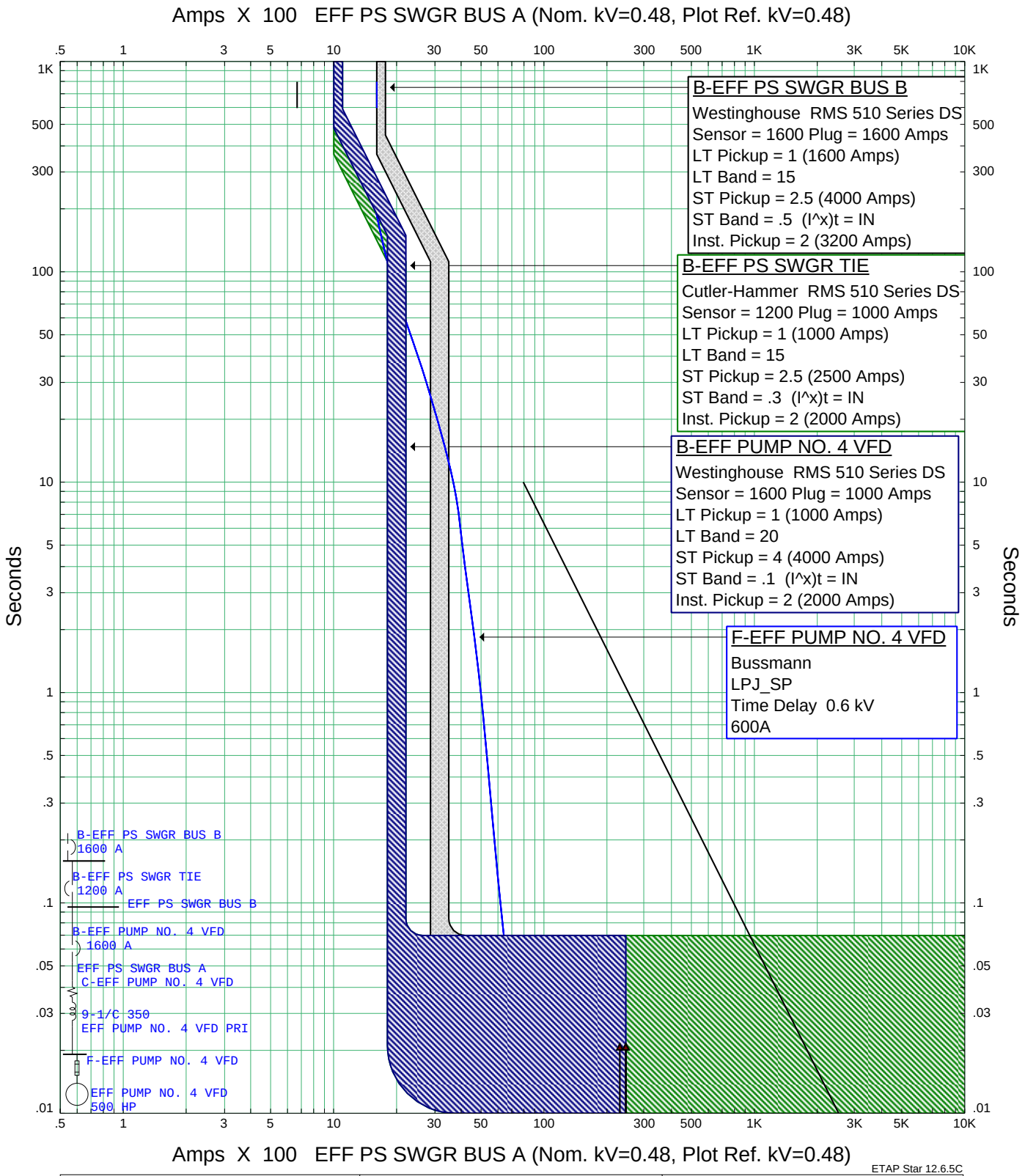



ETAP Star 12.6.5C

**EFF PUMP NO 2 VFD TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

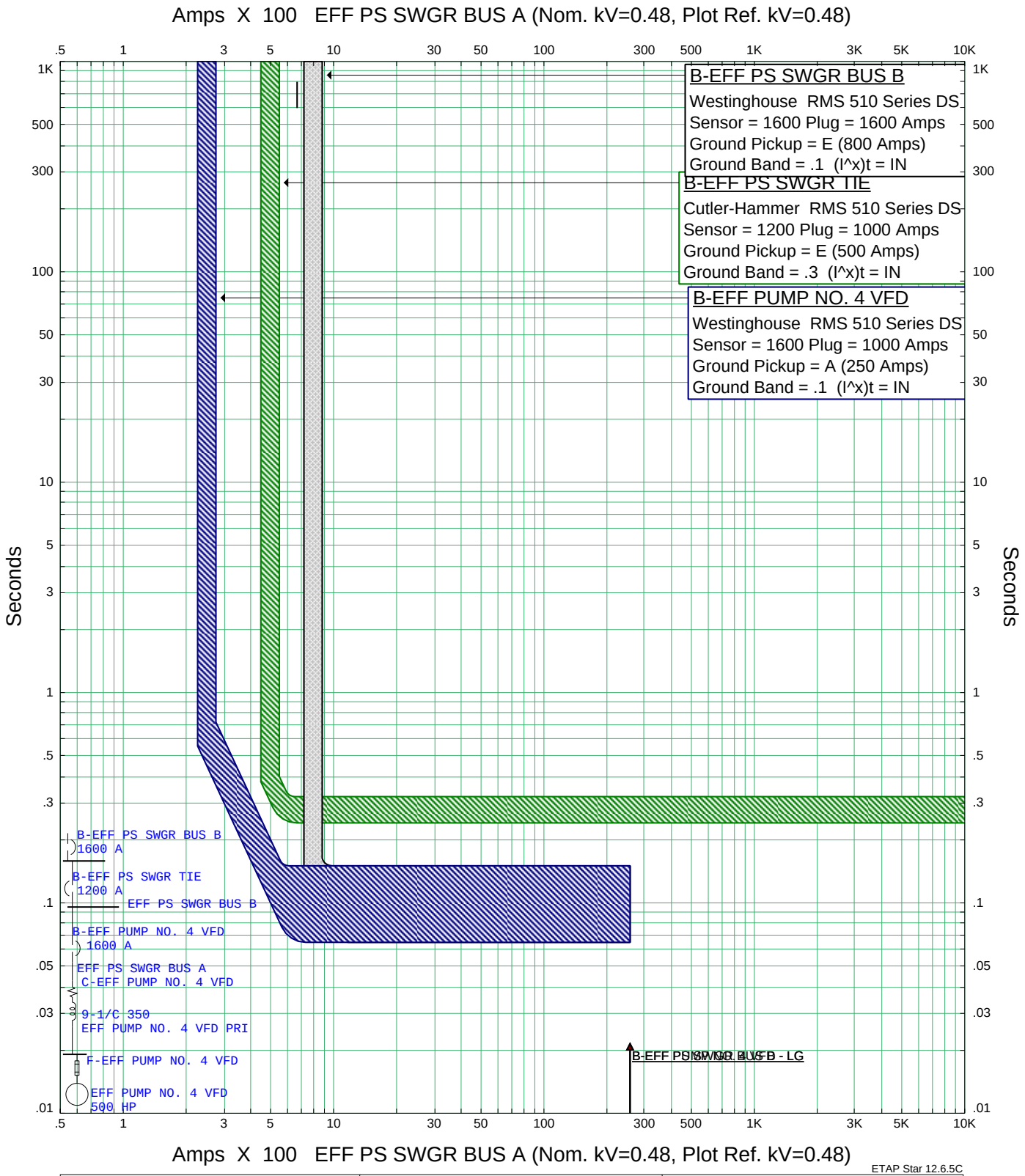



ETAP Star 12.6.5C

**EFF PUMP NO 4 VFD TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



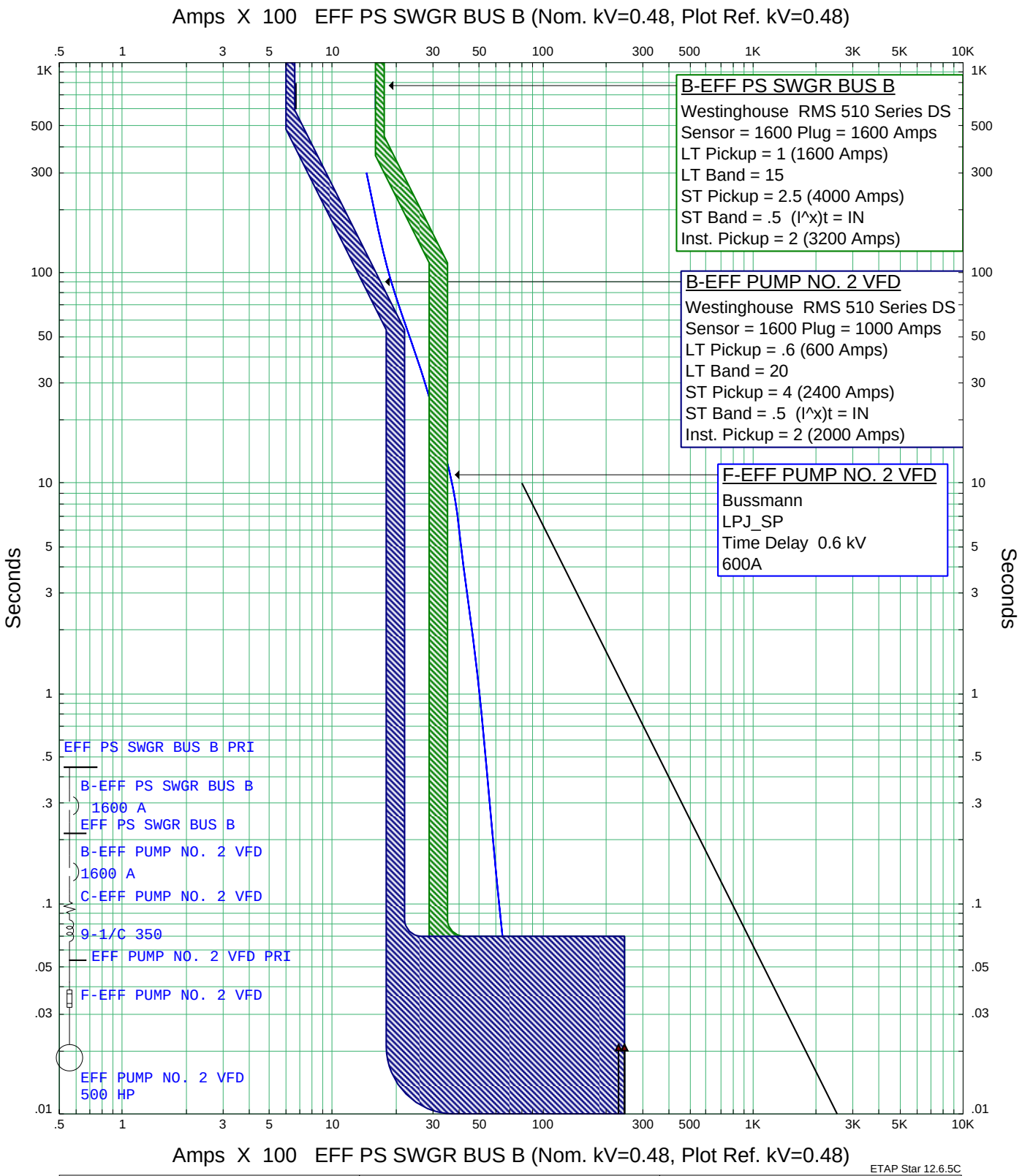

Amps X 100 EFF PS SWGR BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**EFF PUMP NO 4 VFD TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

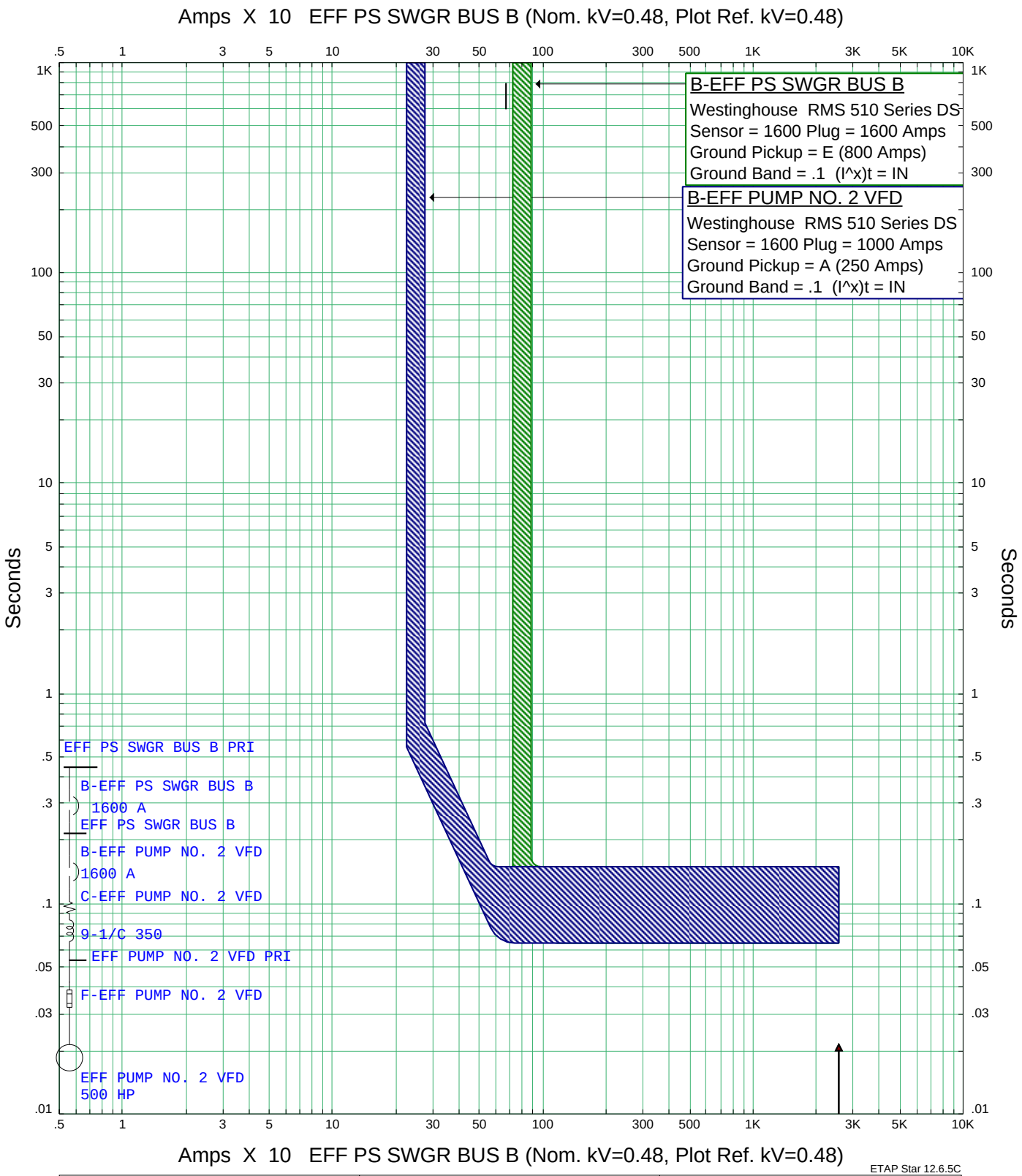



ETAP Star 12.6.5C

**EFF PUMP NO. 2 VFD TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



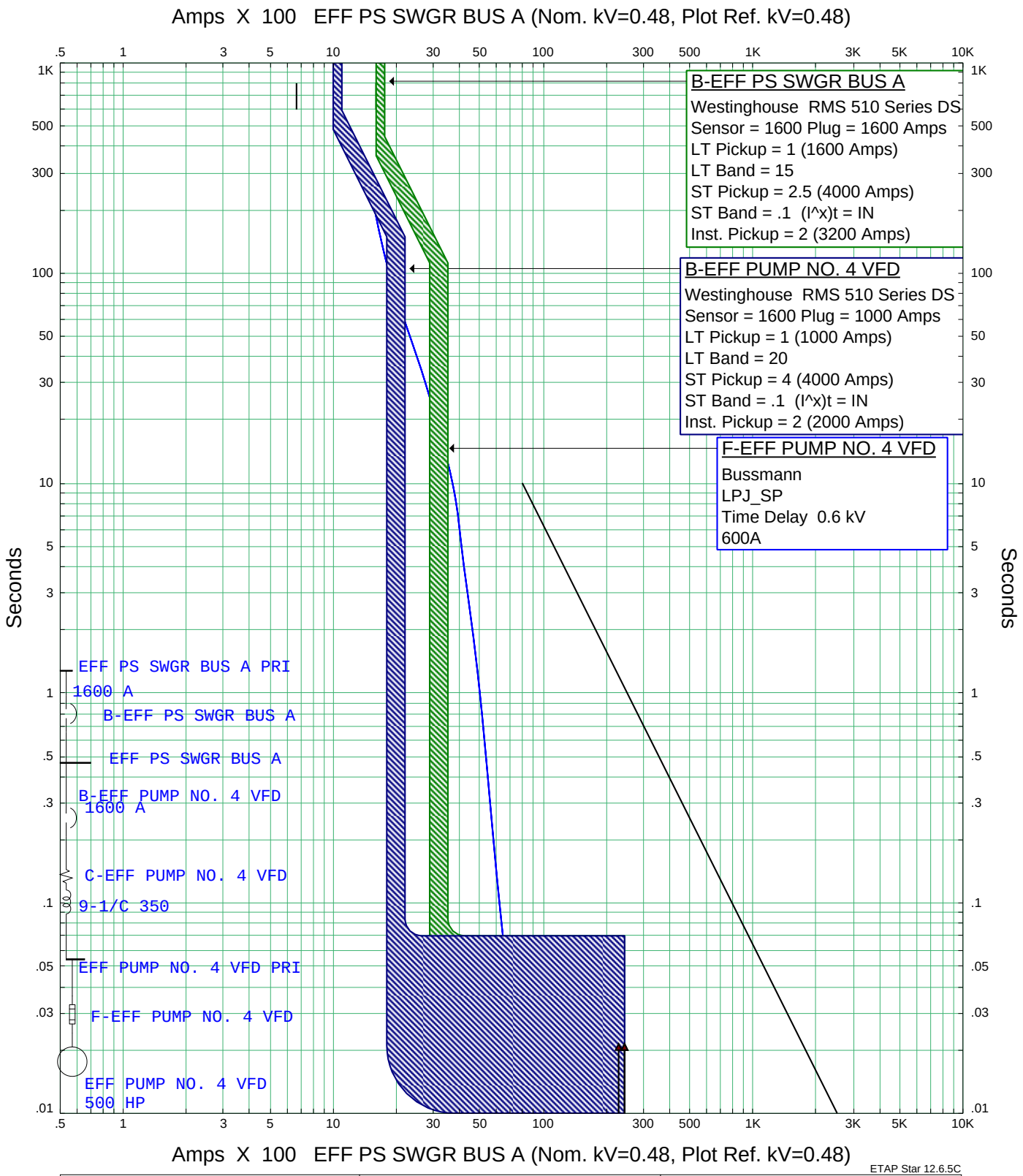

Amps X 10 EFF PS SWGR BUS B (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**EFF PUMP NO. 2 VFD TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

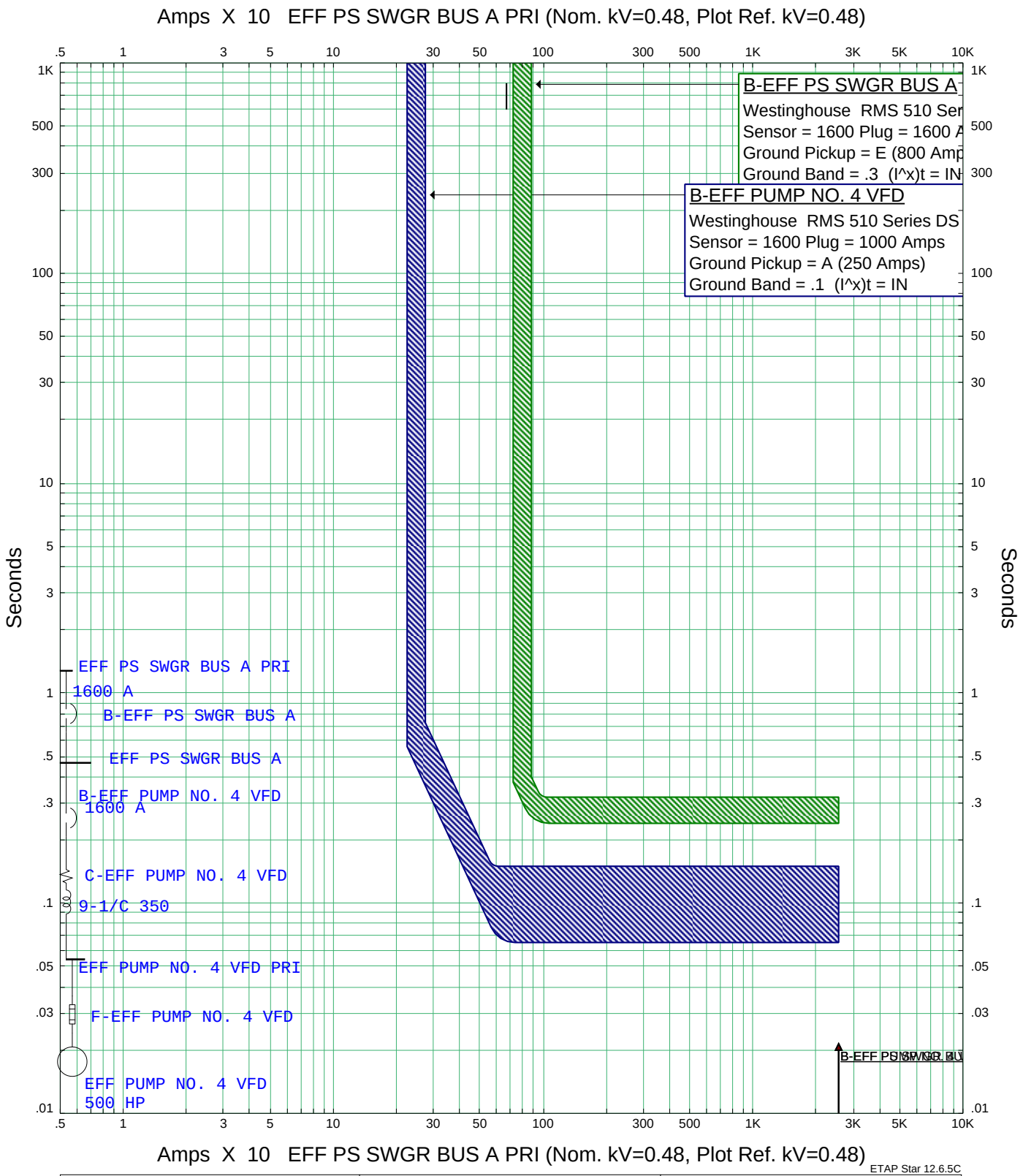



ETAP Star 12.6.5C

**EFF PUMP NO. 4 VFD TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



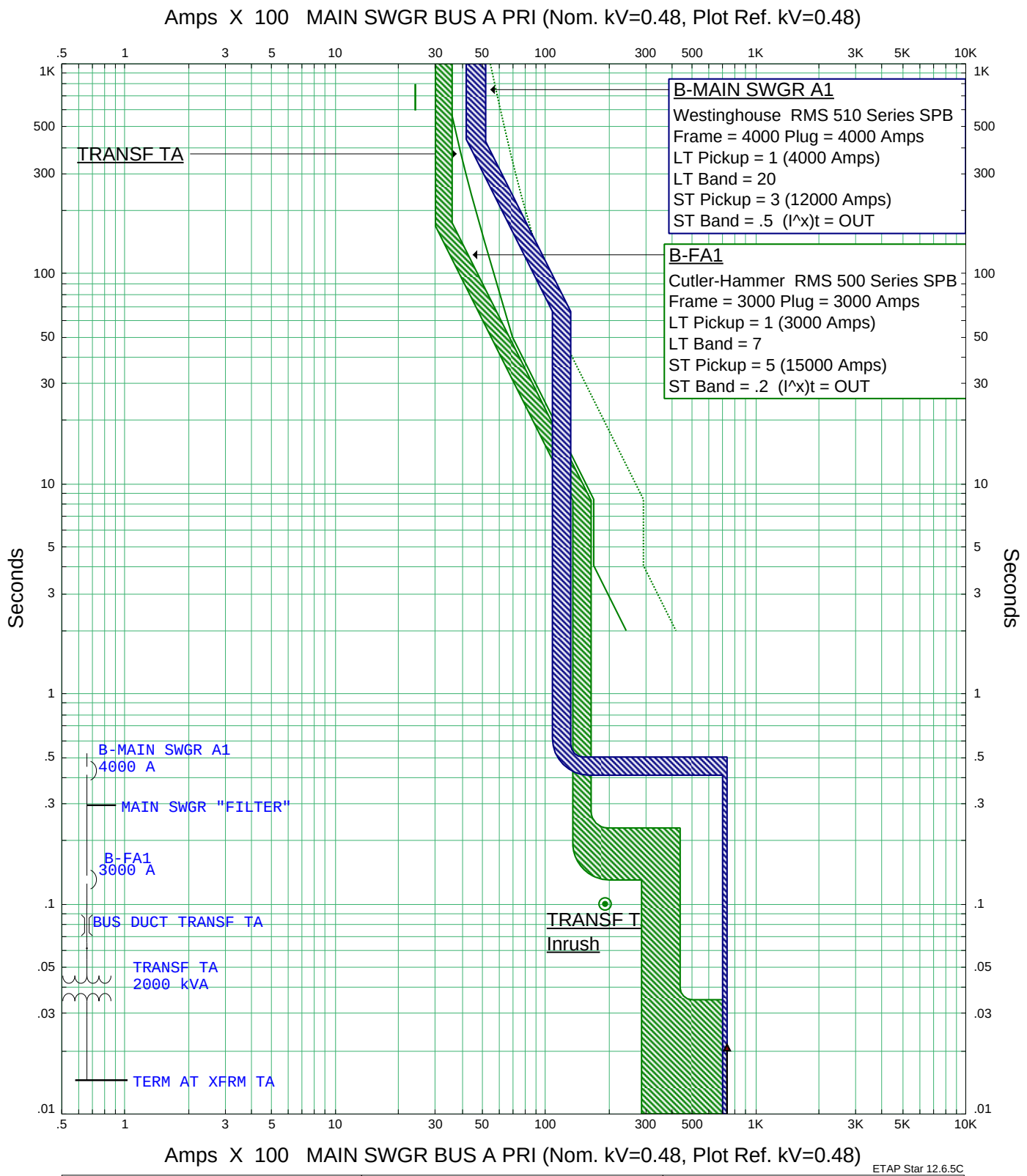

Amps X 10 EFF PS SWGR BUS A PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**EFF PUMP NO. 4 VFD TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground



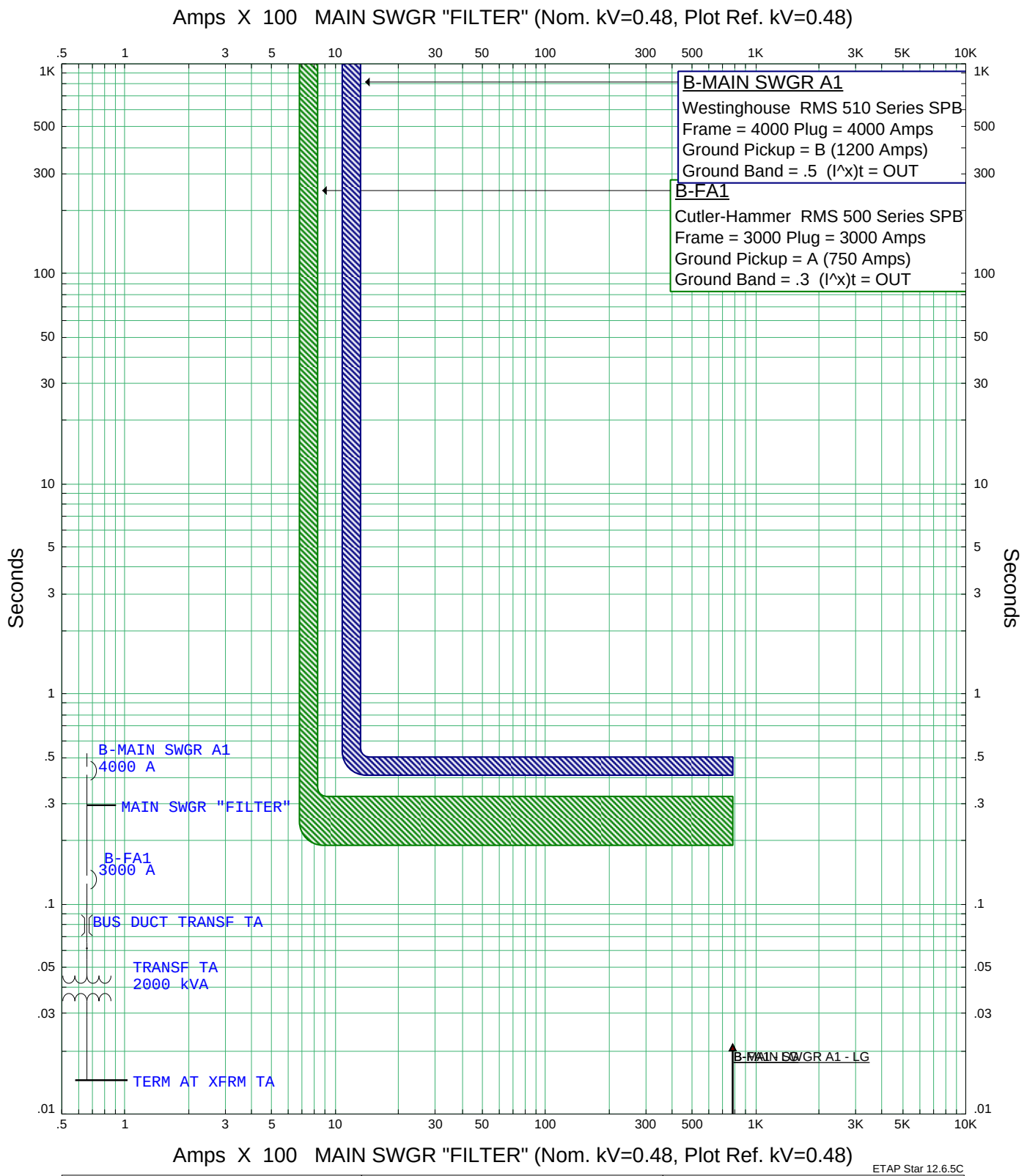

Amps X 100 MAIN SWGR BUS A PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MAIN SWGR FILTER TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



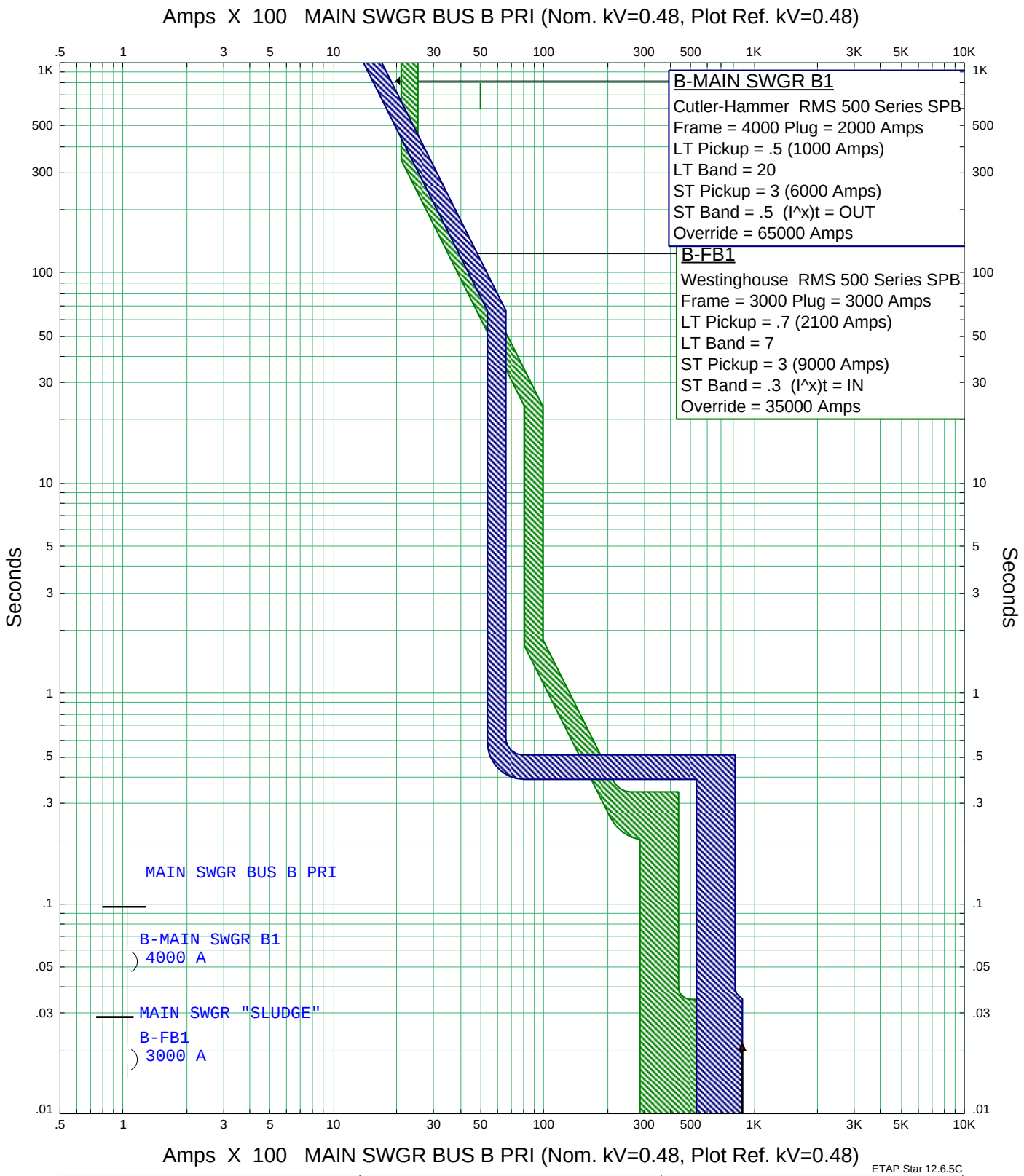

Amps X 100 MAIN SWGR "FILTER" (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MAIN SWGR FILTER TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

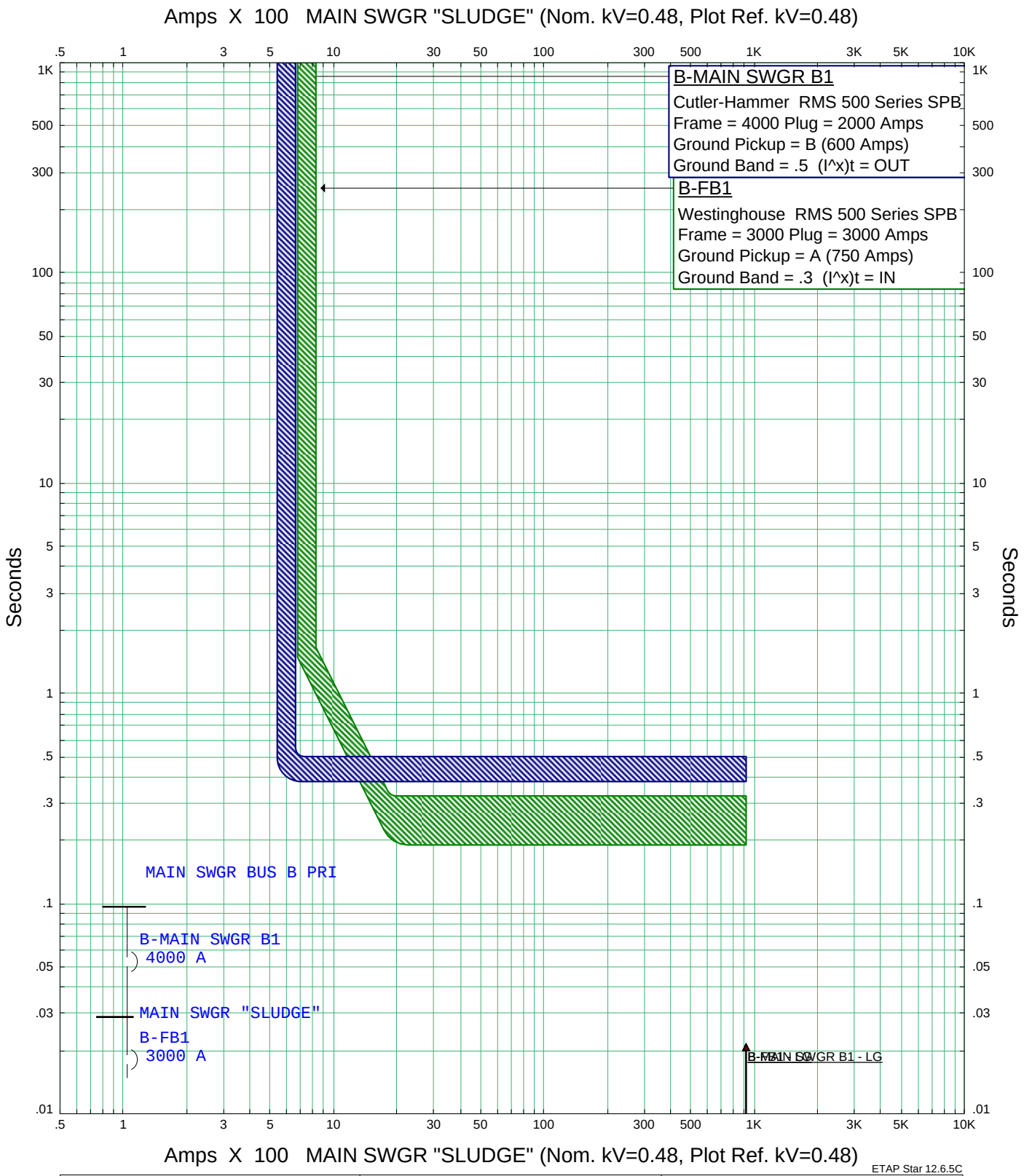



ETAP Star 12.6.5C

**MAIN SWGR SLUDGE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

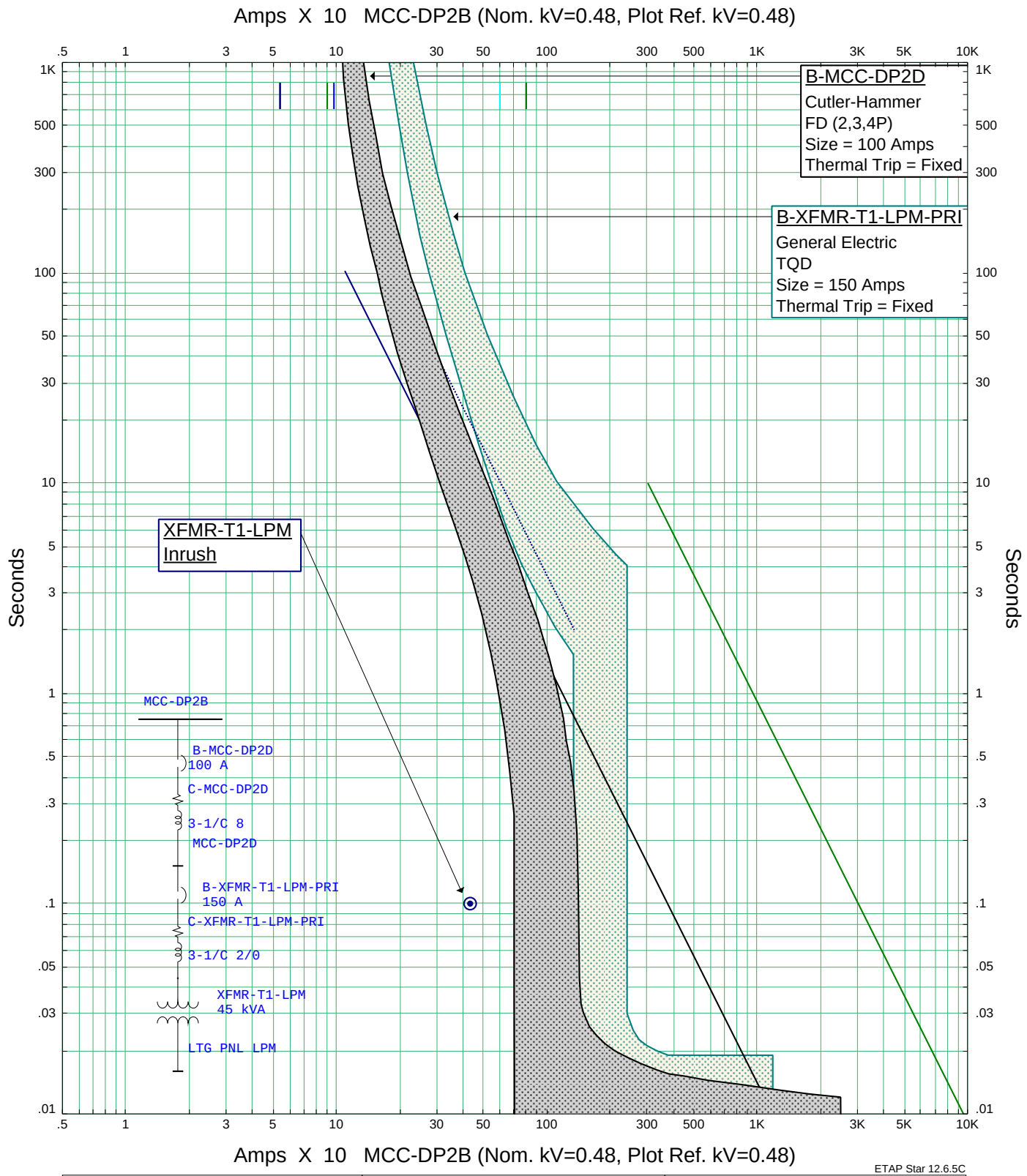



ETAP Star 12.6.5C

**MAIN SWGR SLUDGE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

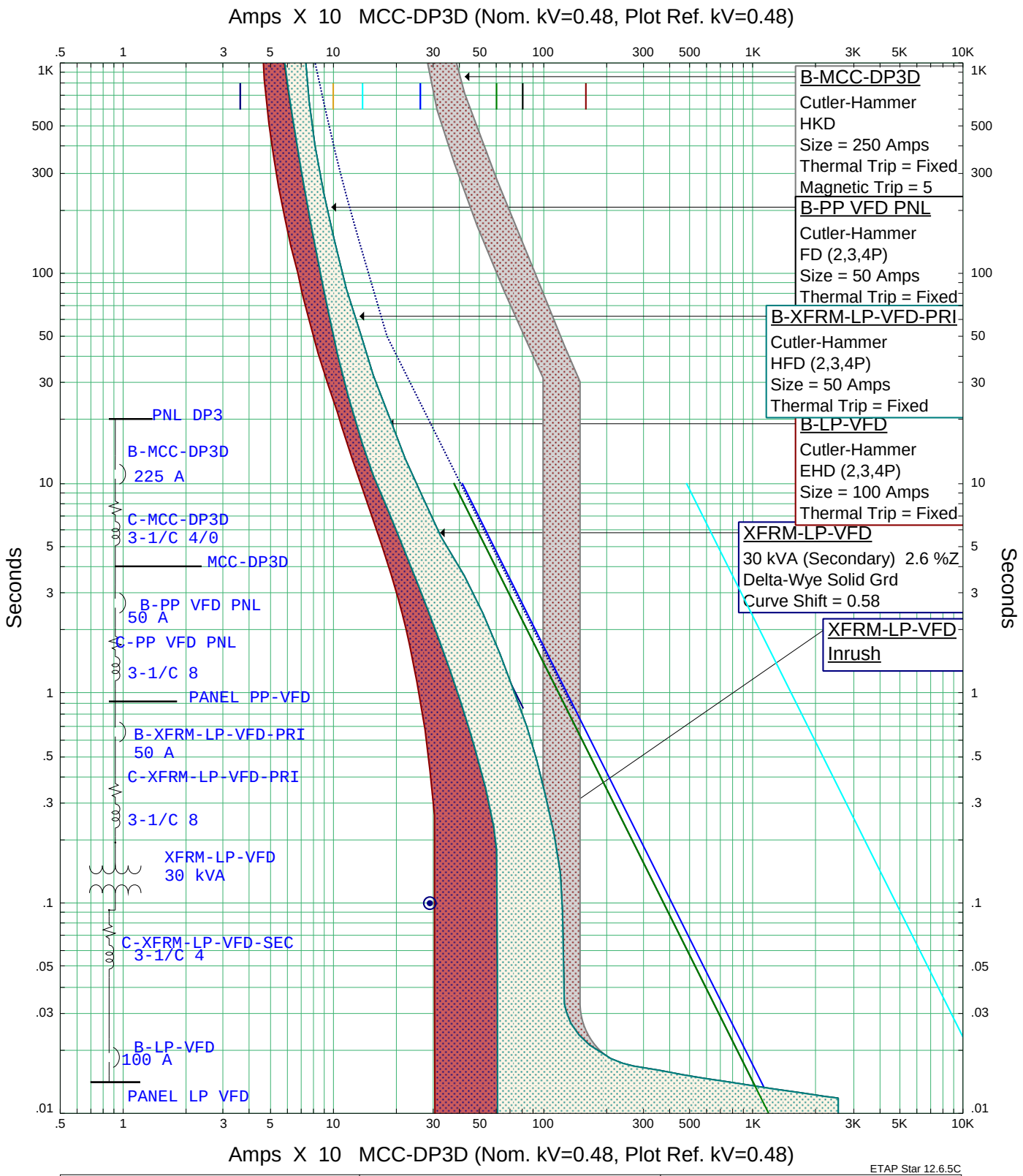



ETAP Star 12.6.5C

**MCC-DP2B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

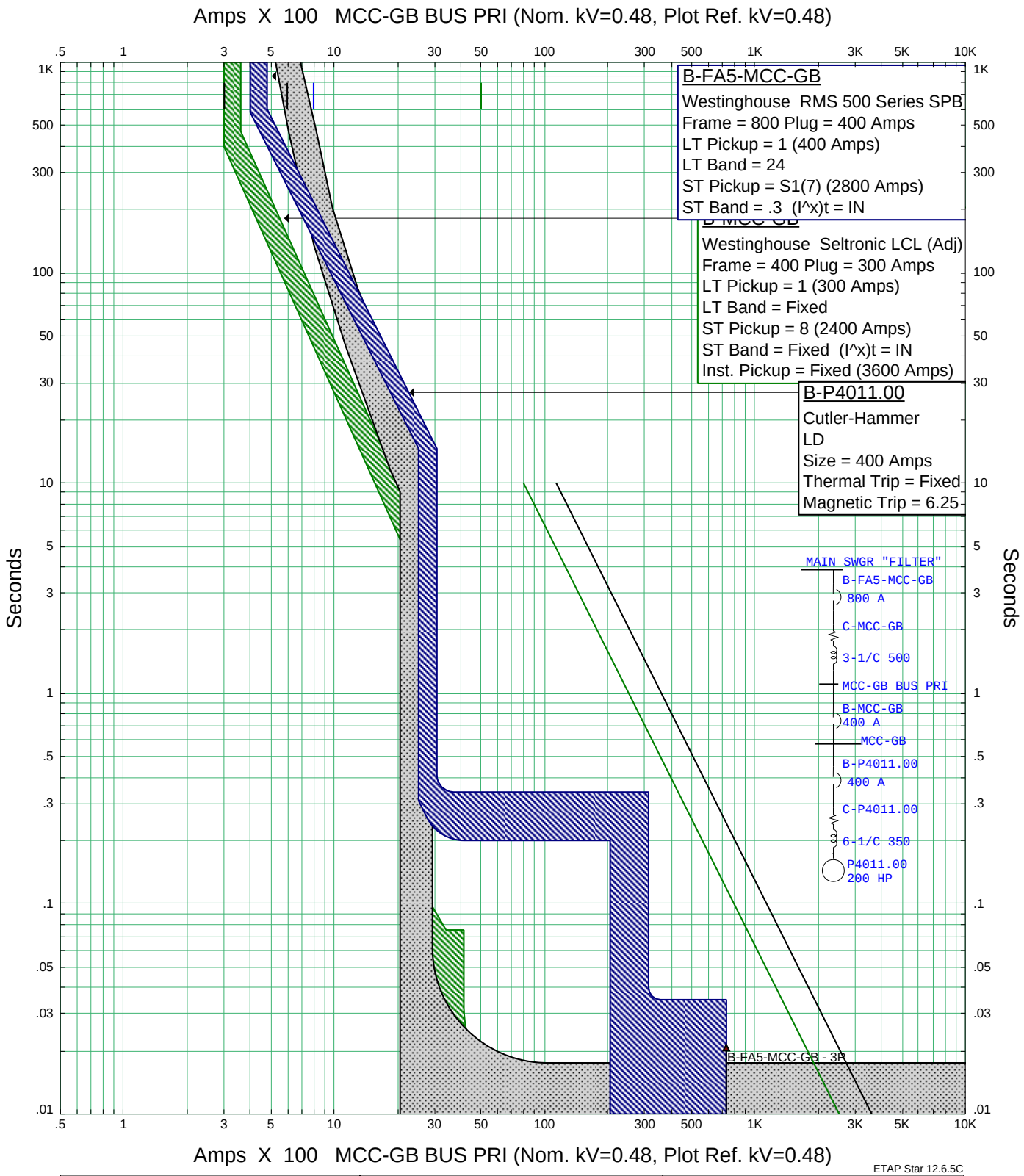



ETAP Star 12.6.5C

**MCC-DP3D TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

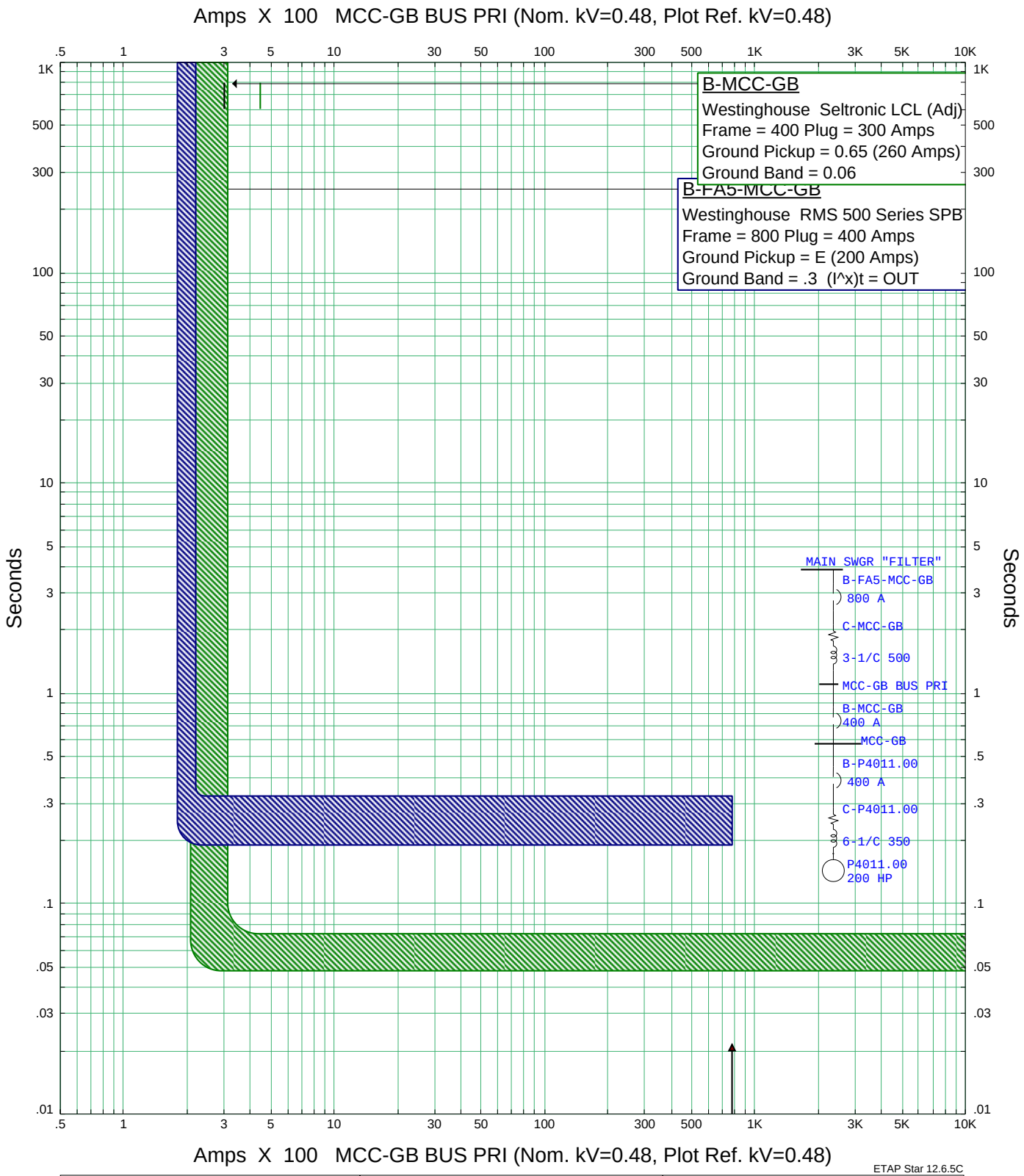



ETAP Star 12.6.5C

**MCC-GB TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

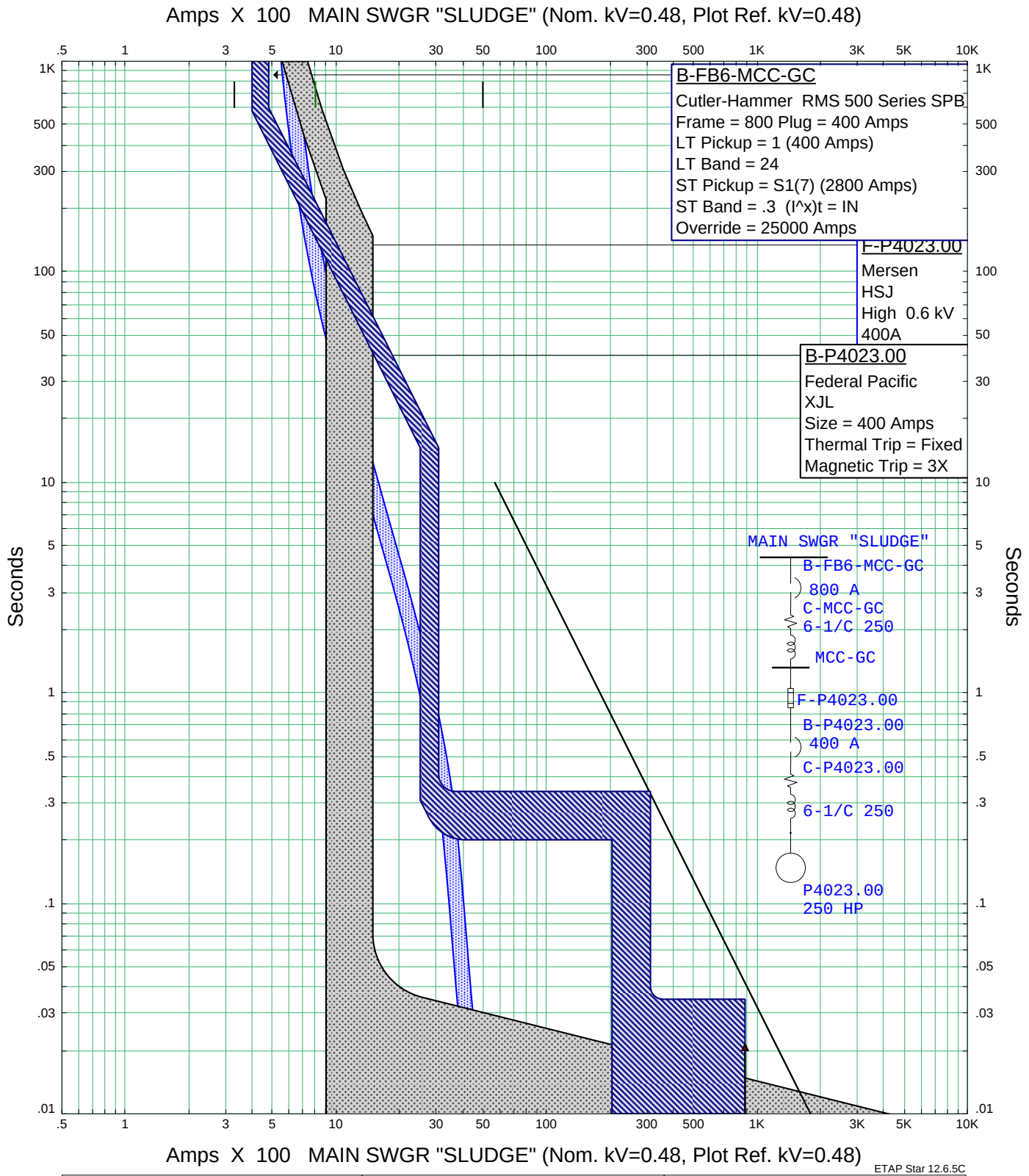



ETAP Star 12.6.5C

**MCC-GB TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

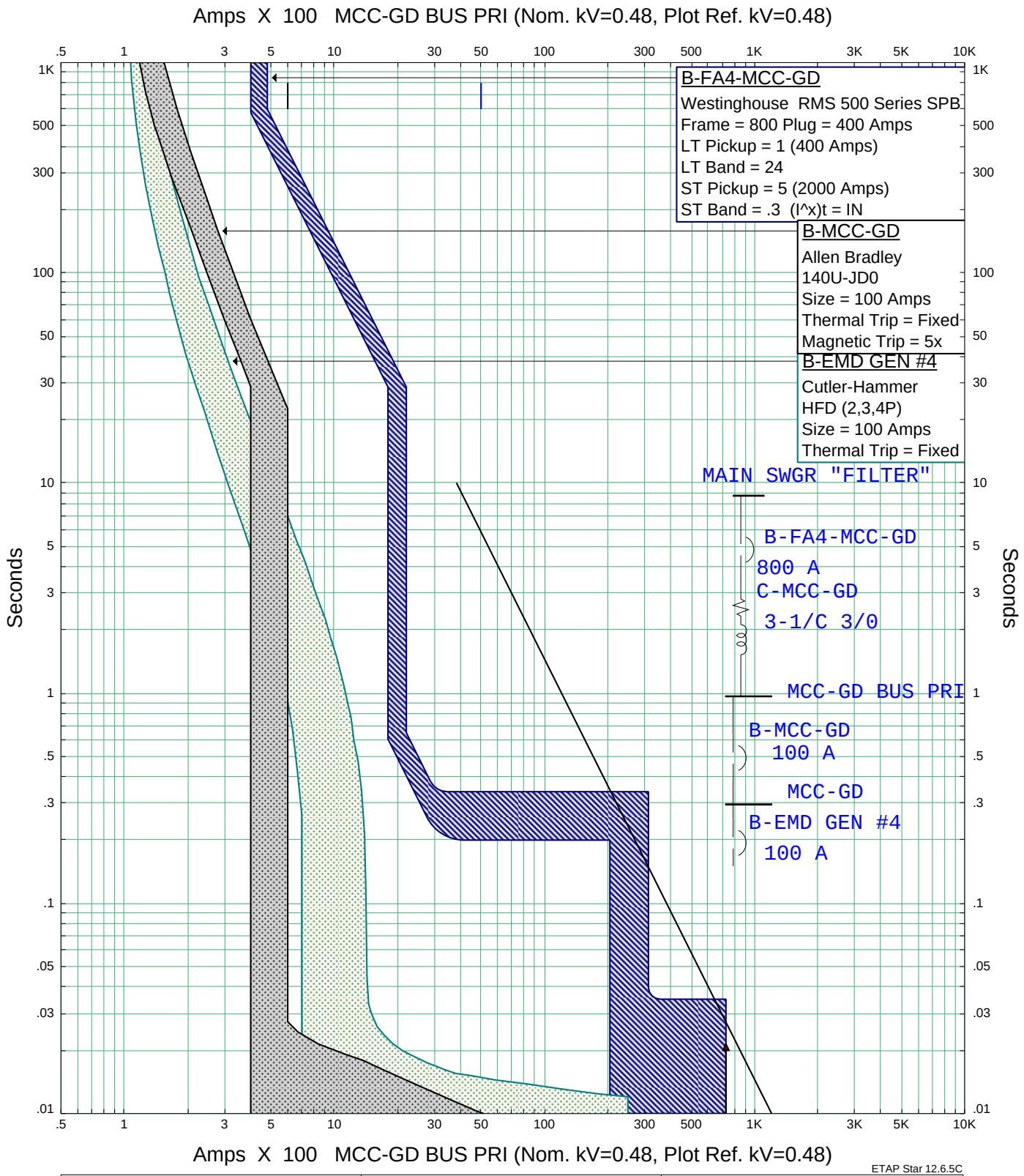



ETAP Star 12.6.5C

**MCC-GC TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



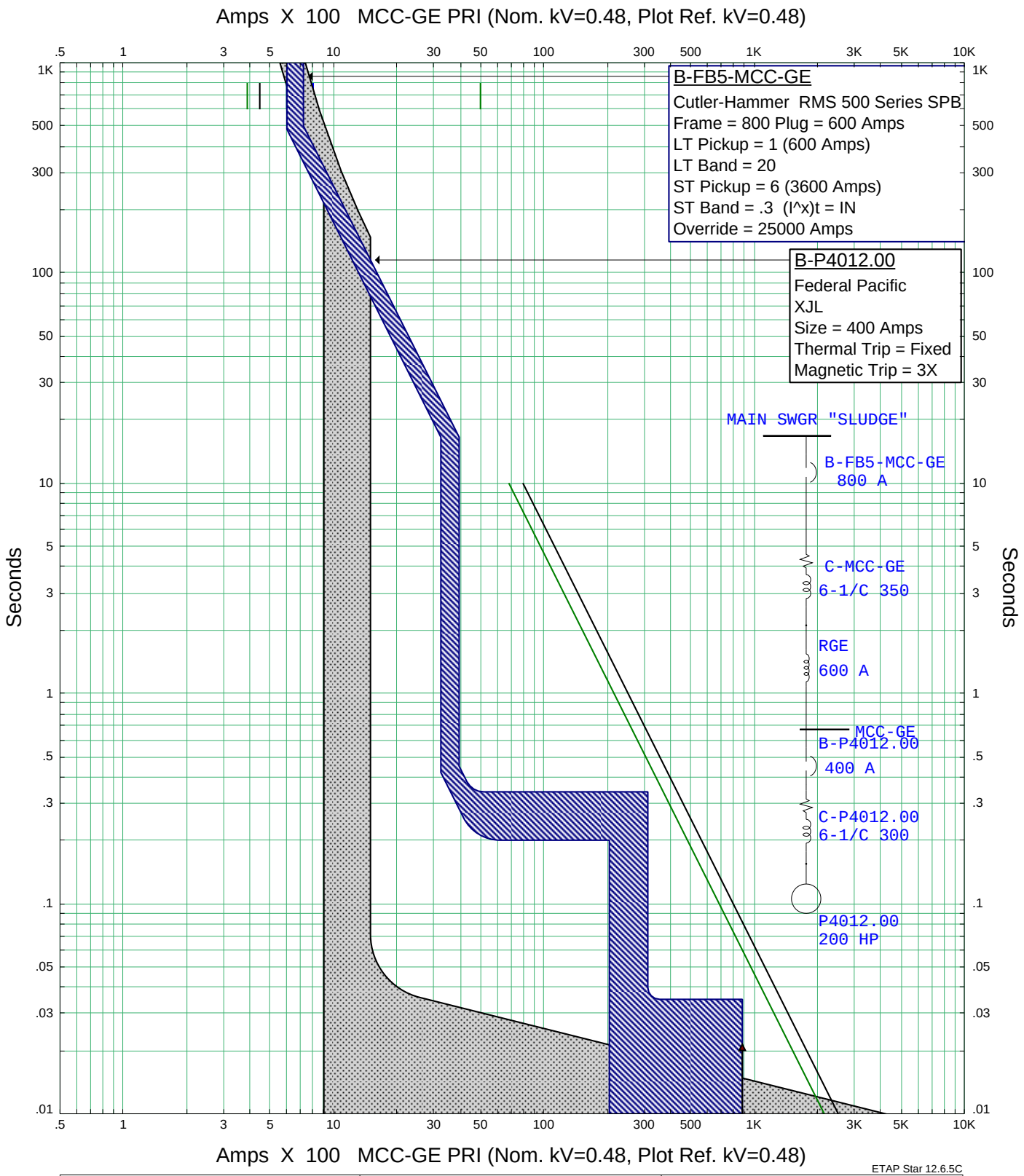

Amps X 100 MCC-GD BUS PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MCC-GD TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

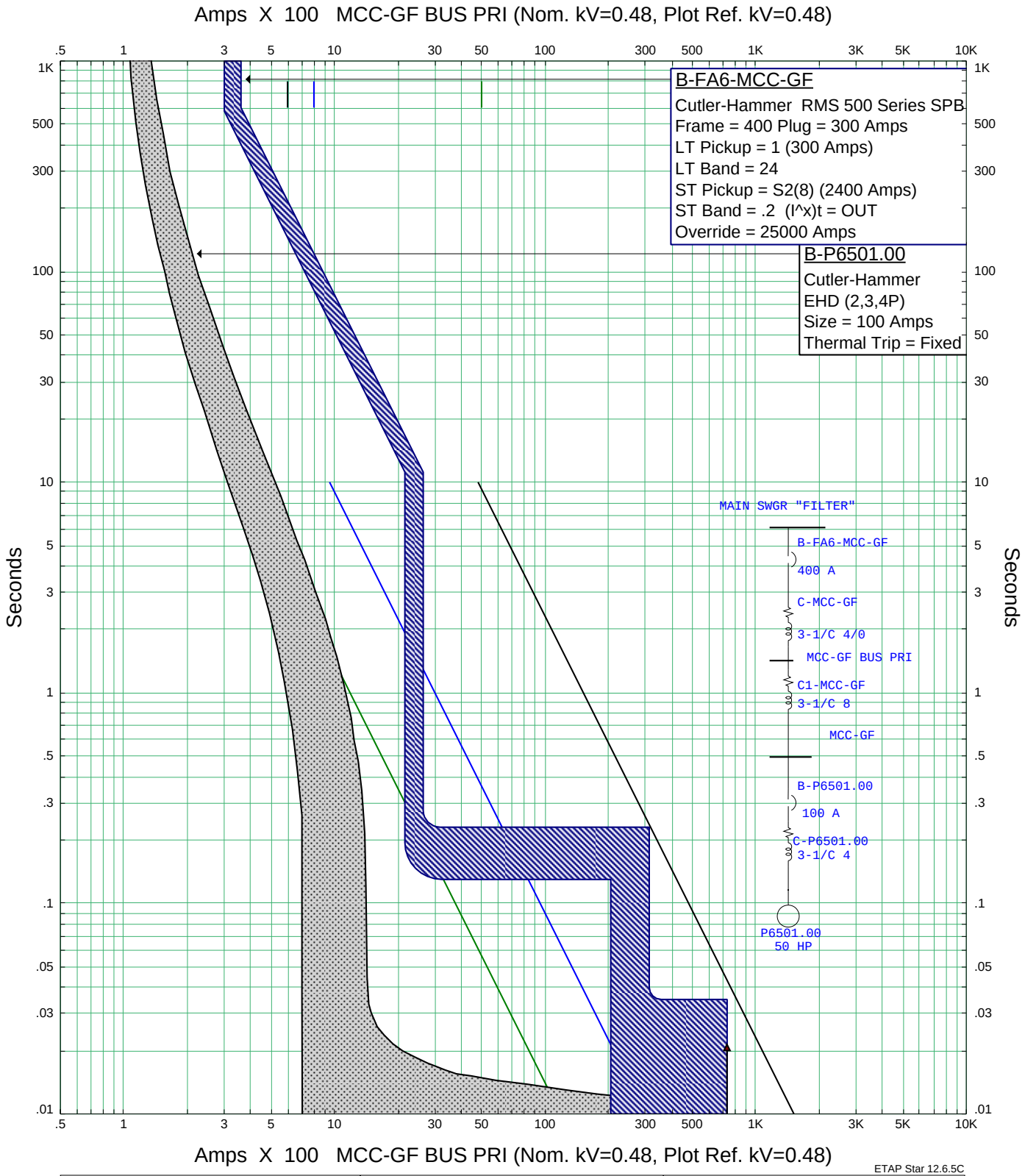



ETAP Star 12.6.5C

**MCC-GE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

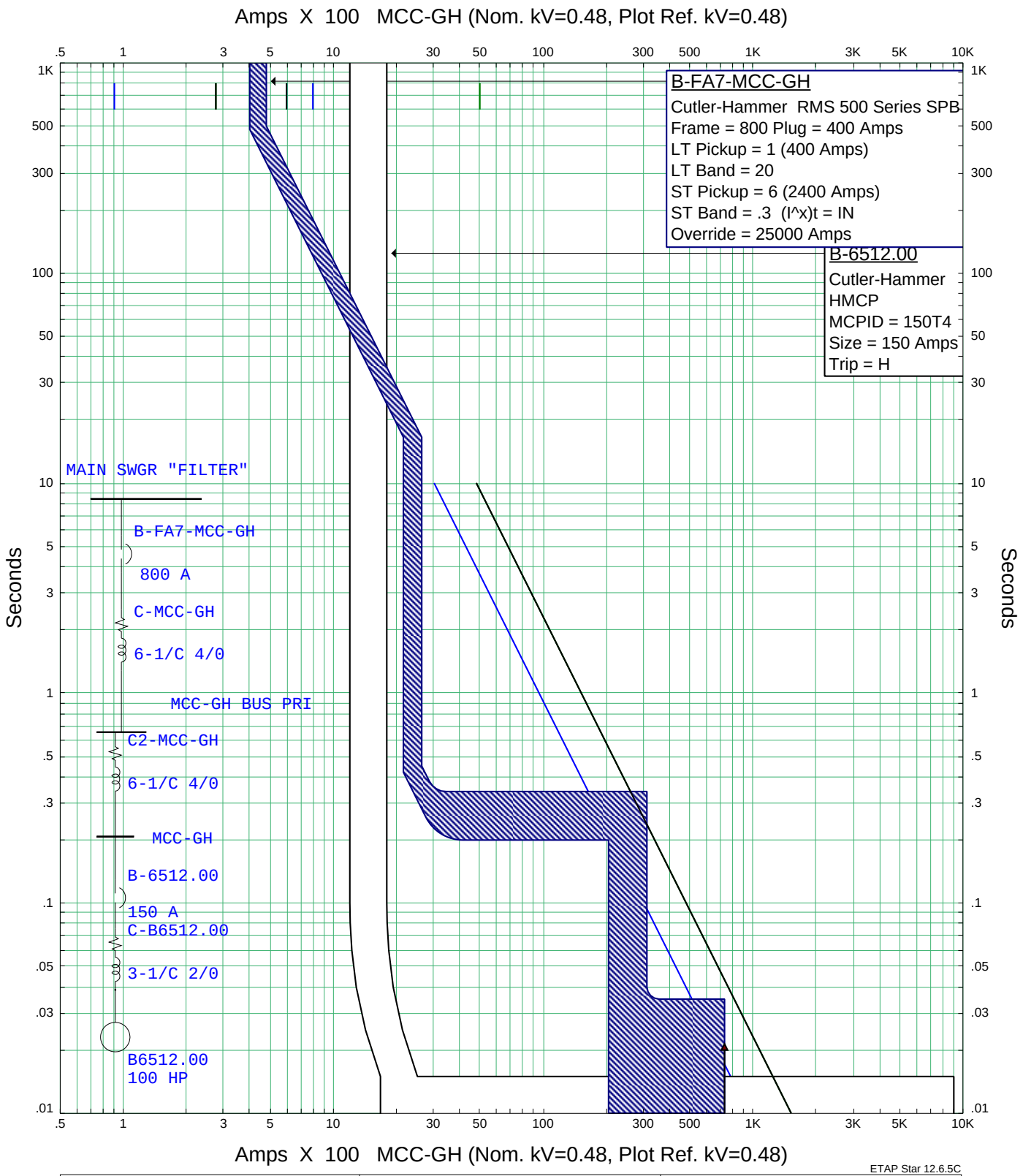



ETAP Star 12.6.5C

**MCC-GF TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

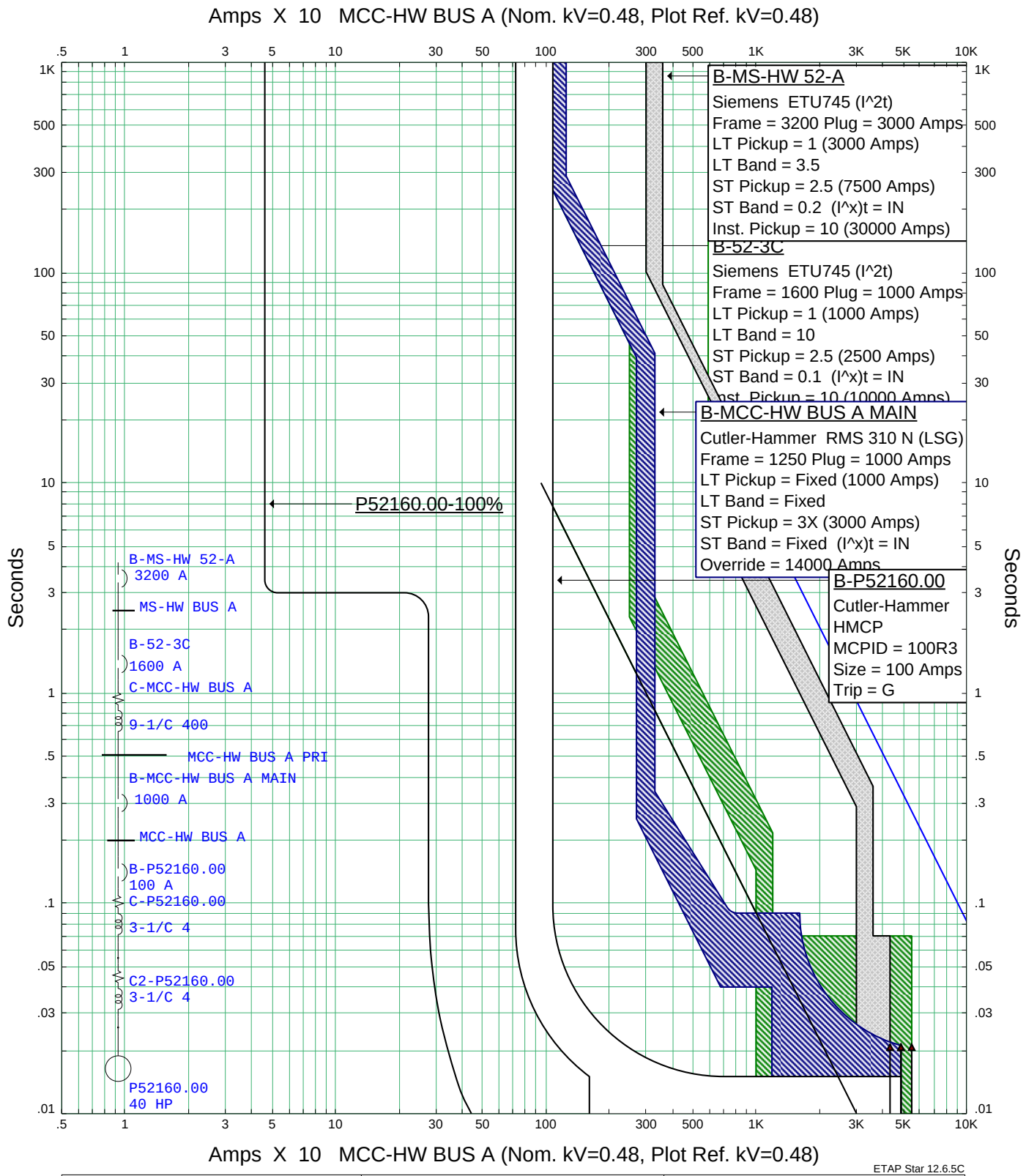



ETAP Star 12.6.5C

**MCC-GH TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

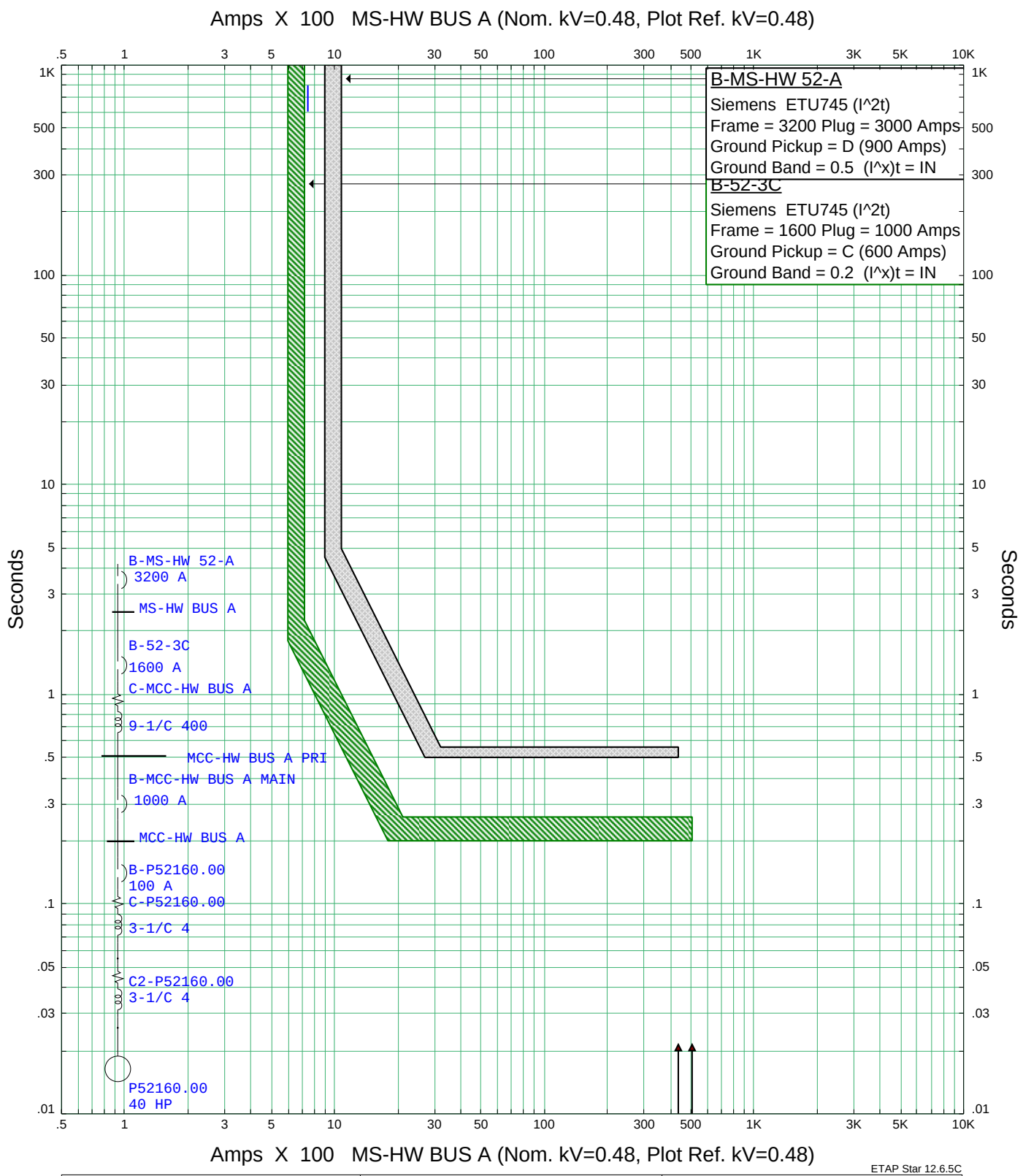



ETAP Star 12.6.5C

**MCC-HW BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



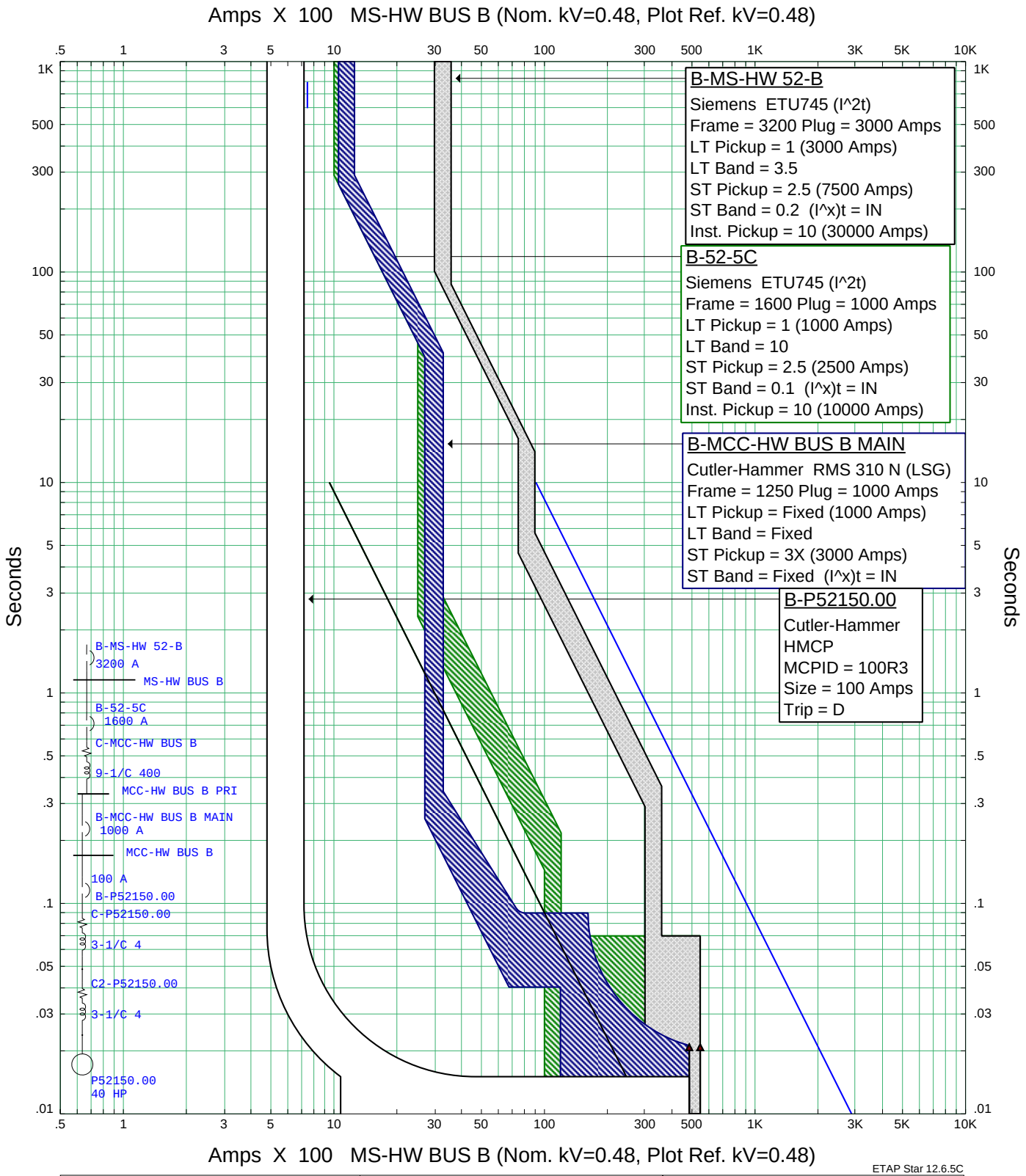

Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MCC-HW BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

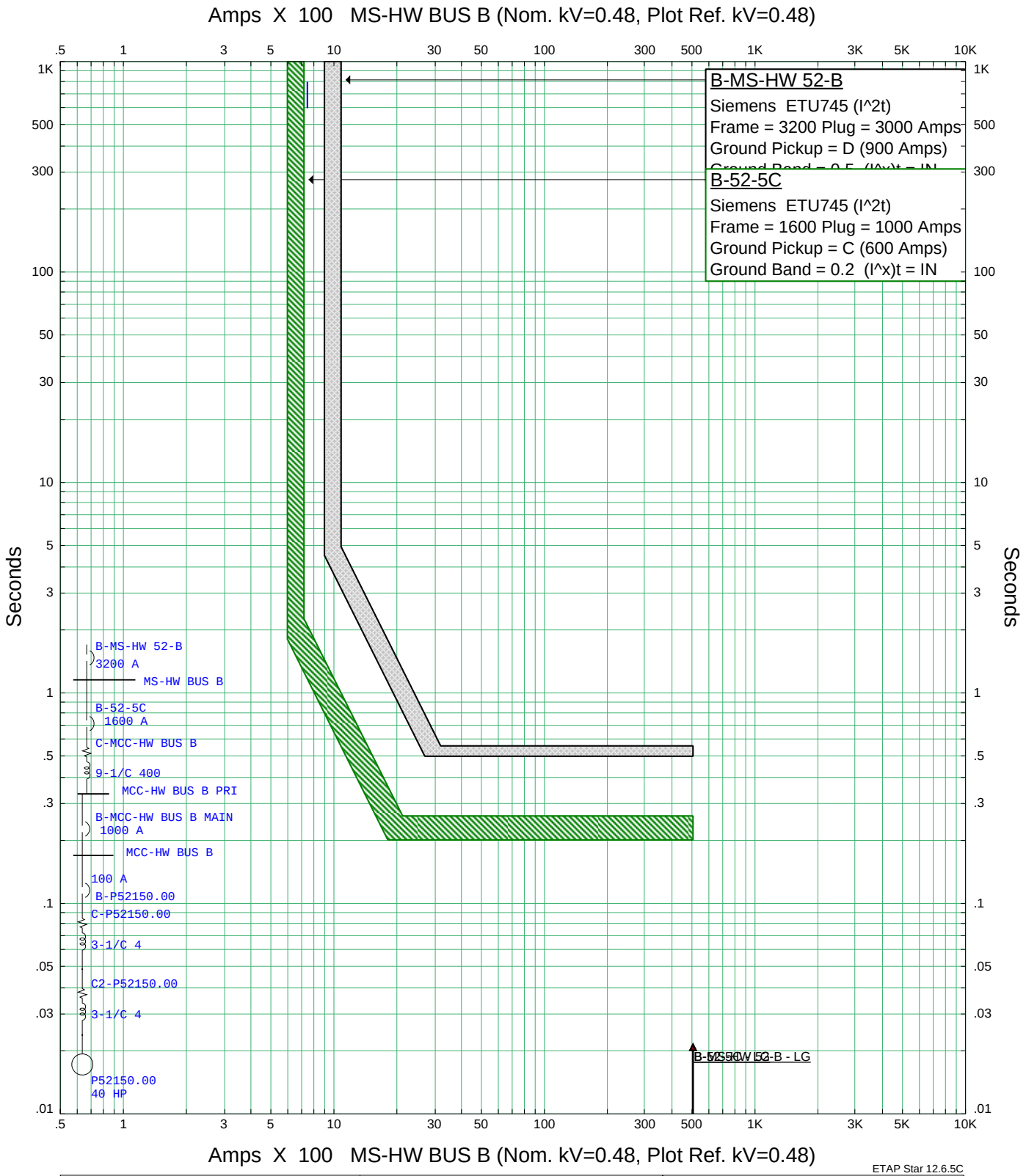



ETAP Star 12.6.5C

**MCC-HW BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

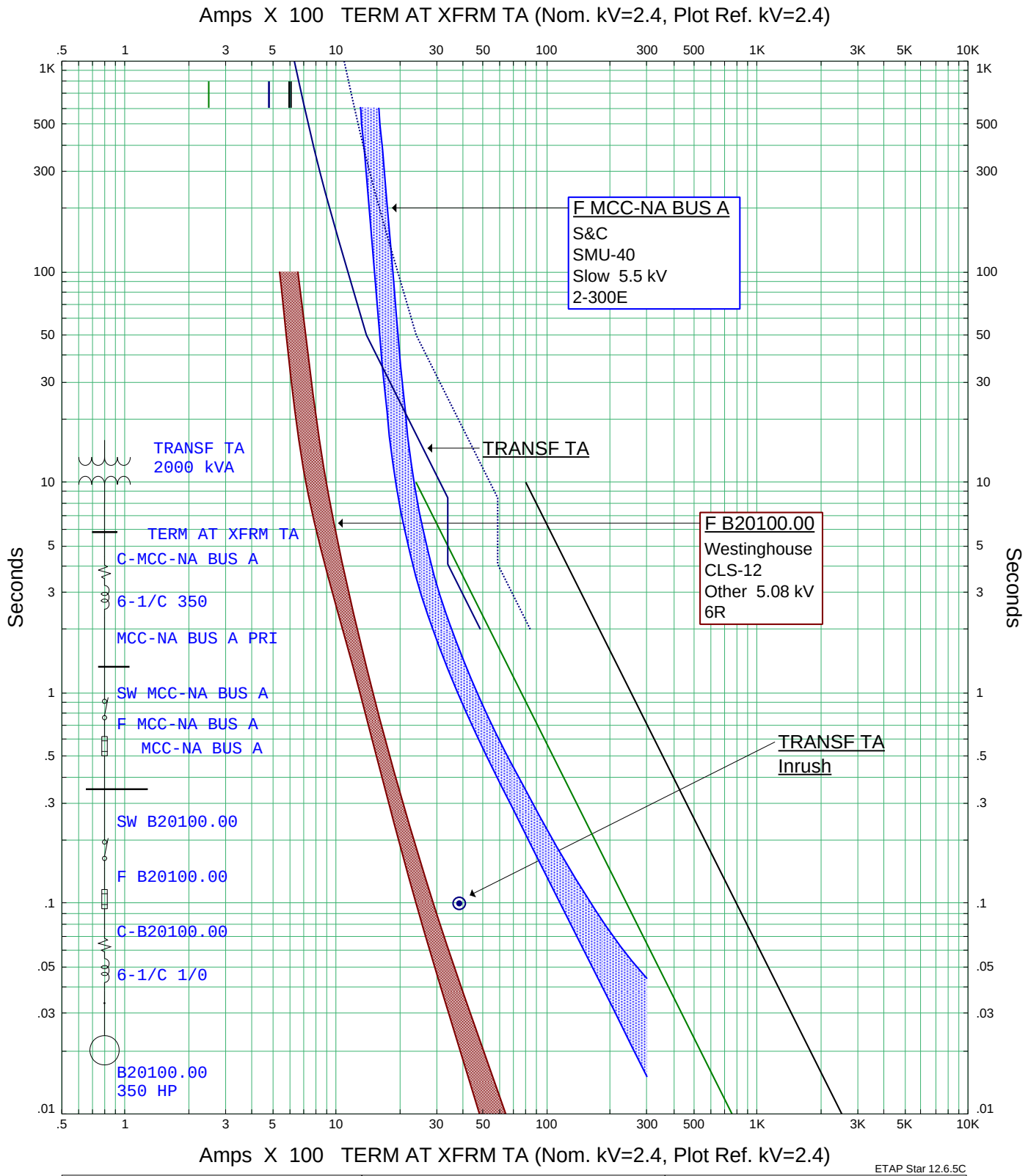



ETAP Star 12.6.5C

**MCC-HW BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

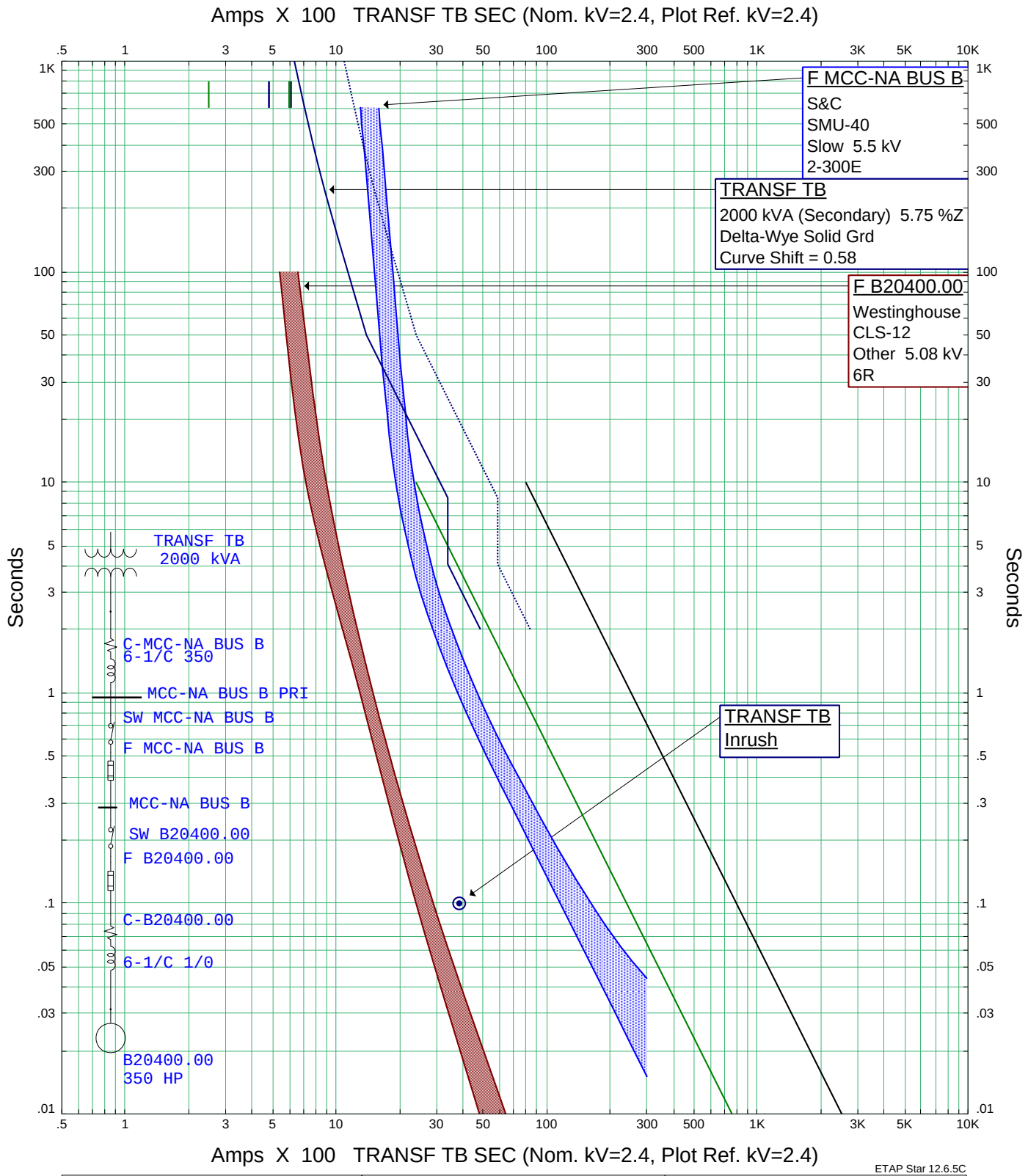



ETAP Star 12.6.5C

**MCC-NA BUA A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

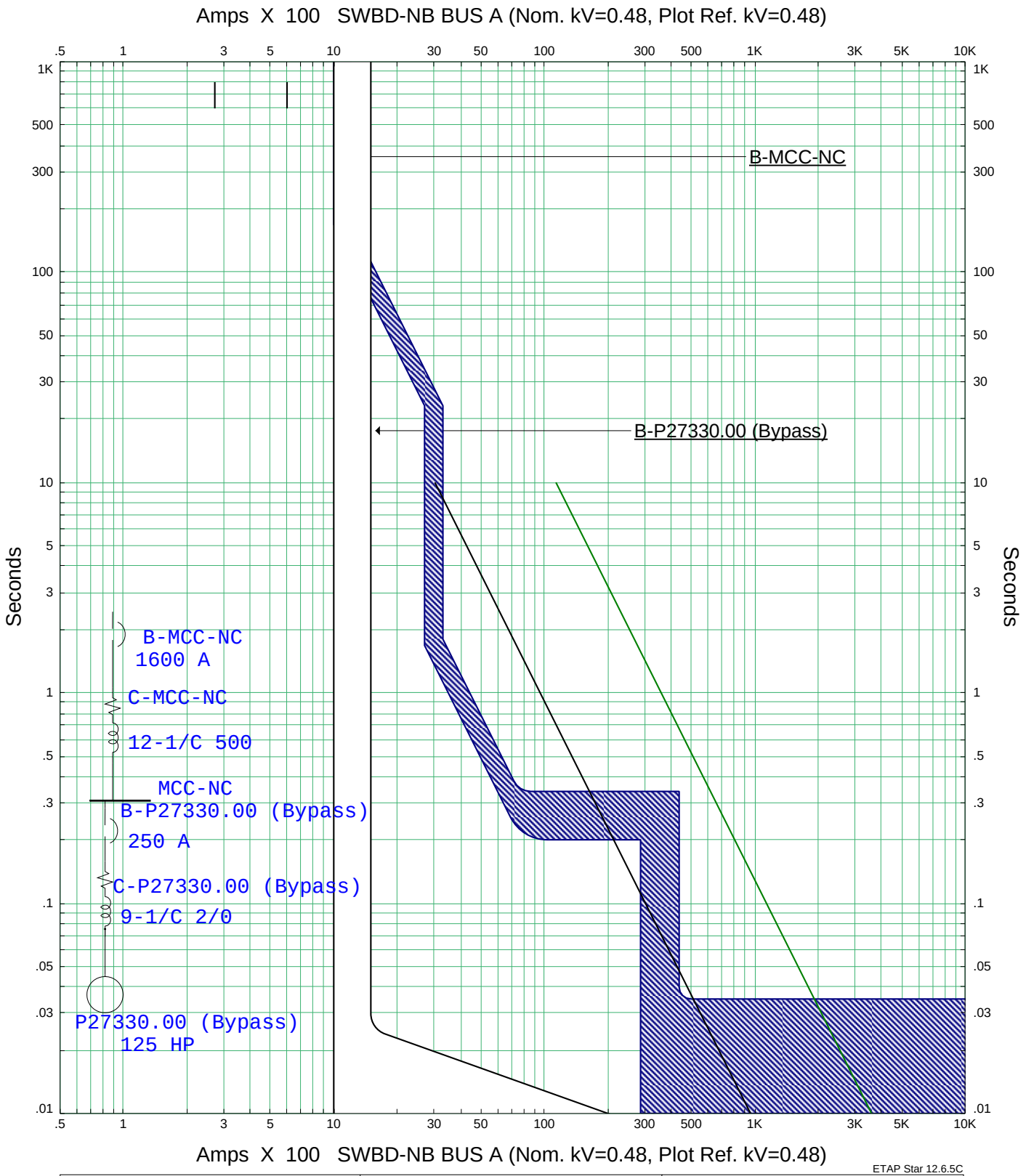



ETAP Star 12.6.5C

**MCC-NA BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

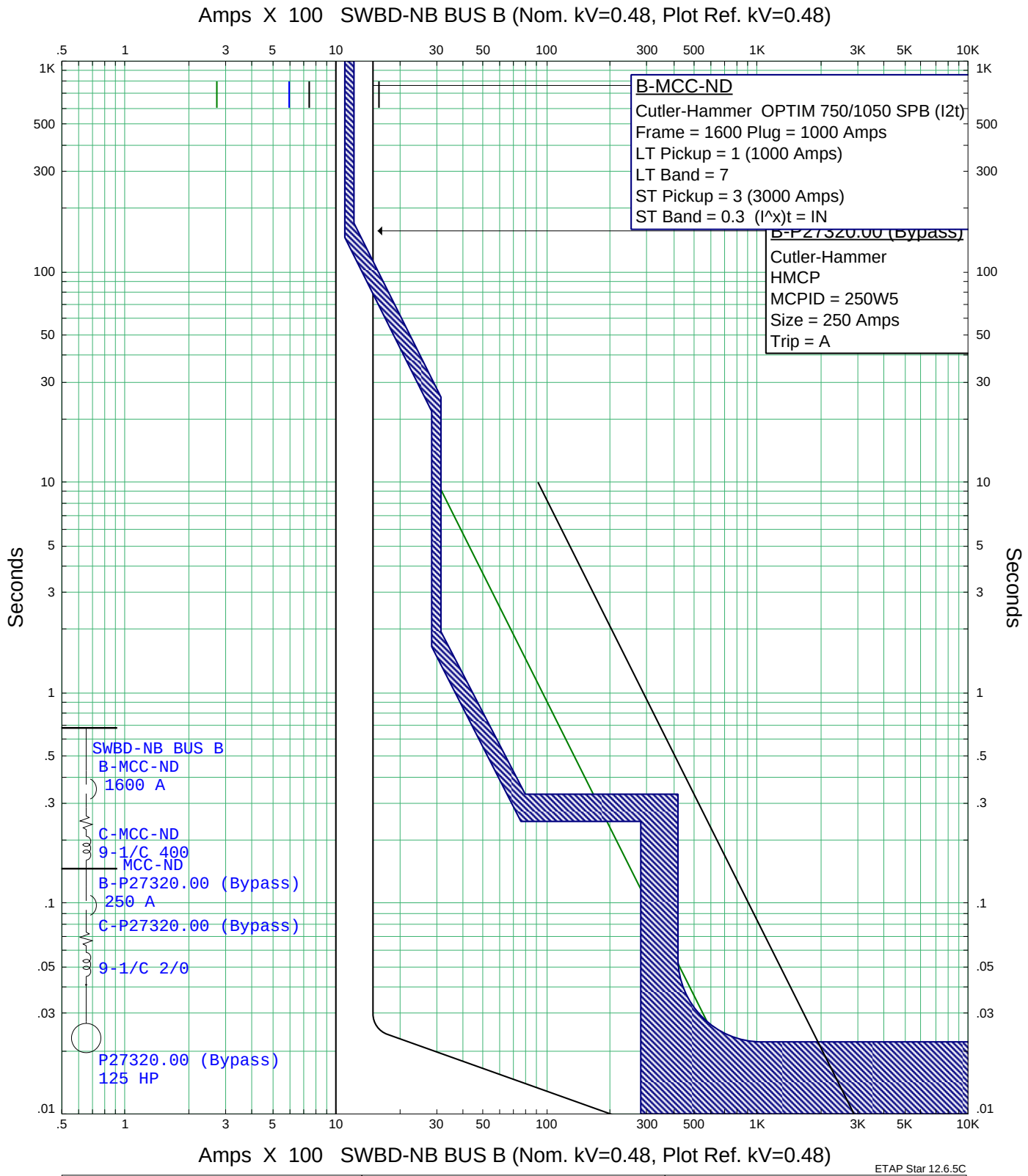



ETAP Star 12.6.5C

**MCC-NC TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

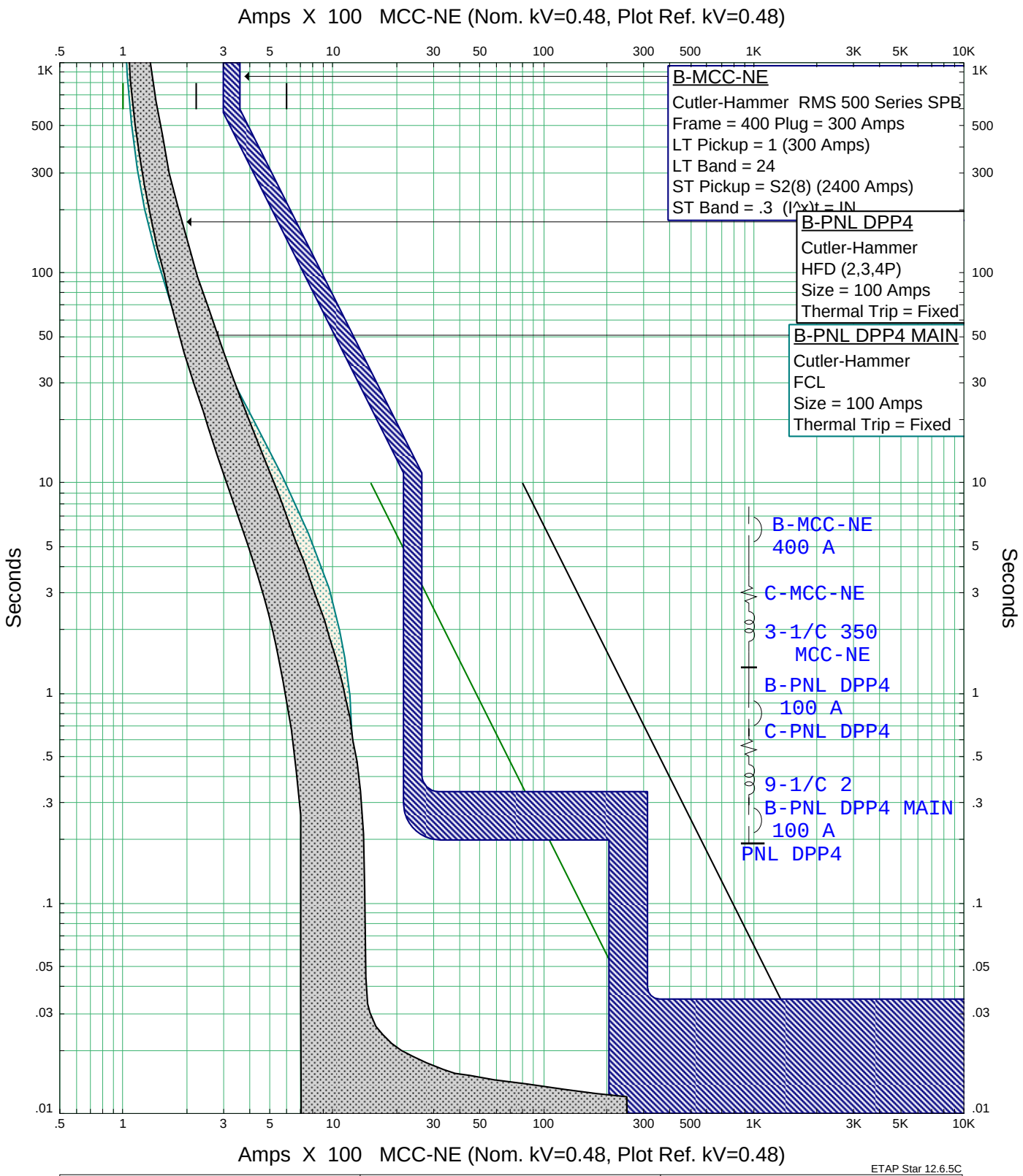



ETAP Star 12.6.5C

**MCC-ND TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



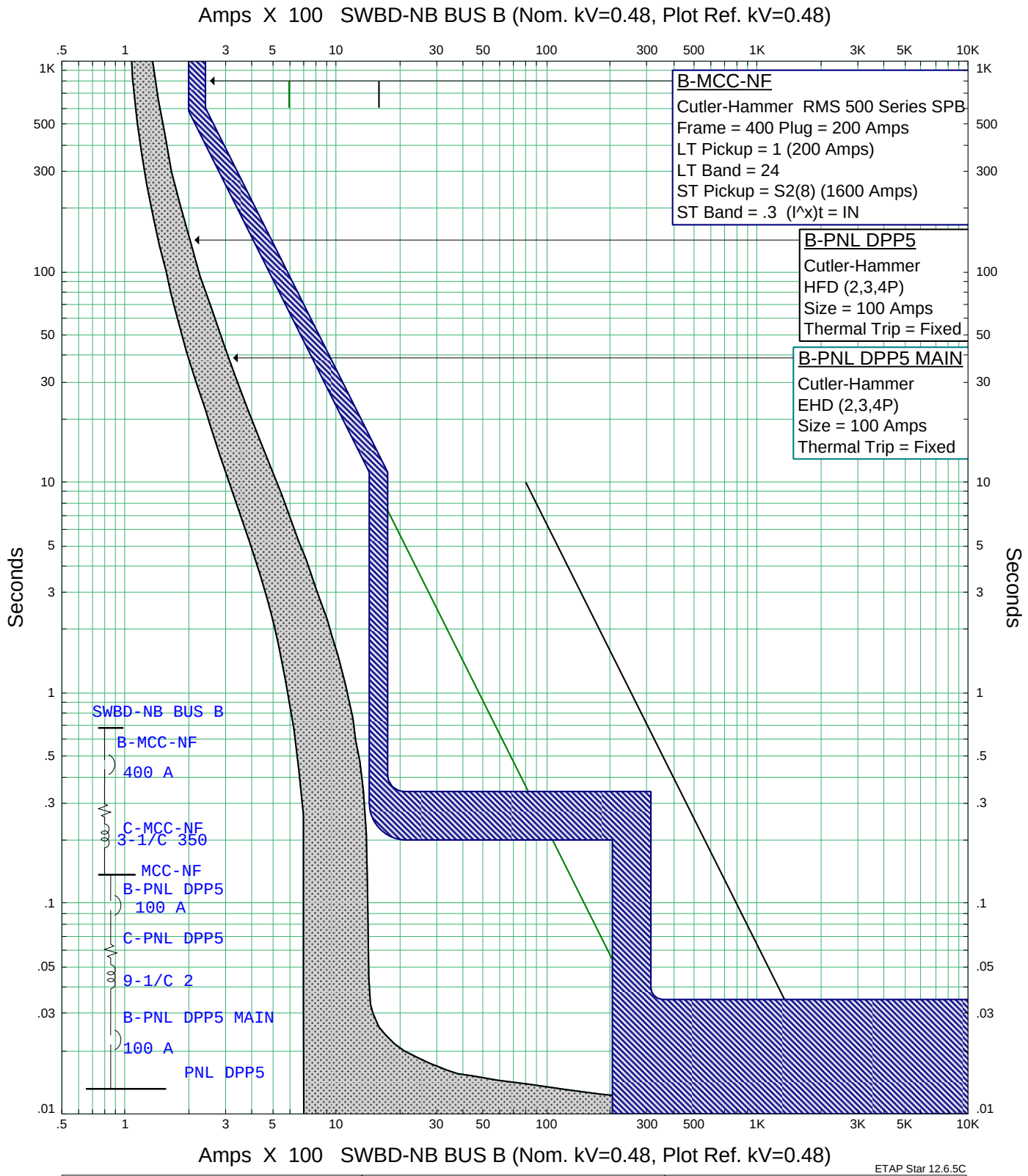

Amps X 100 MCC-NE (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MCC-NE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



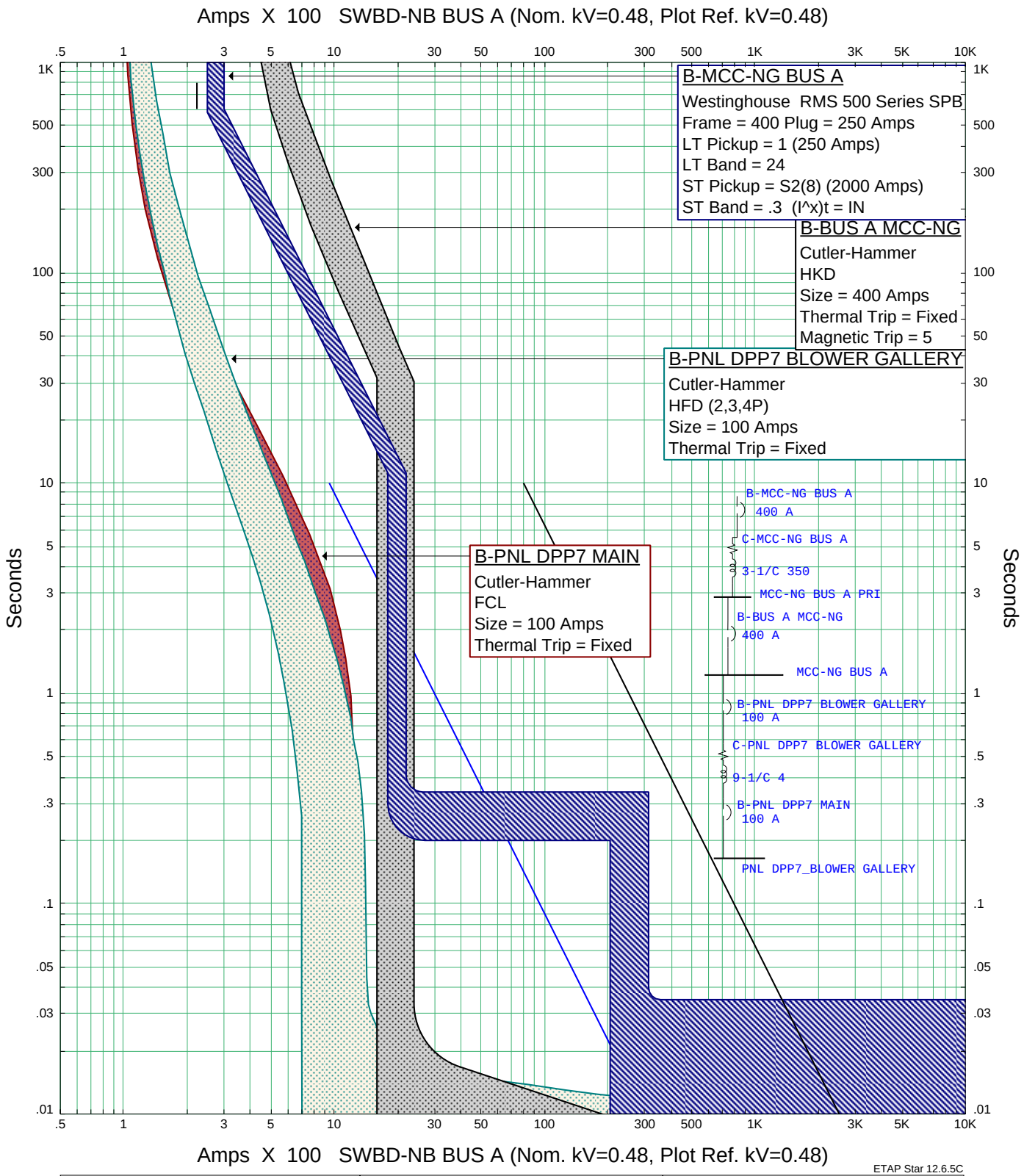

Amps X 100 SWBD-NB BUS B (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MCC-NF TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

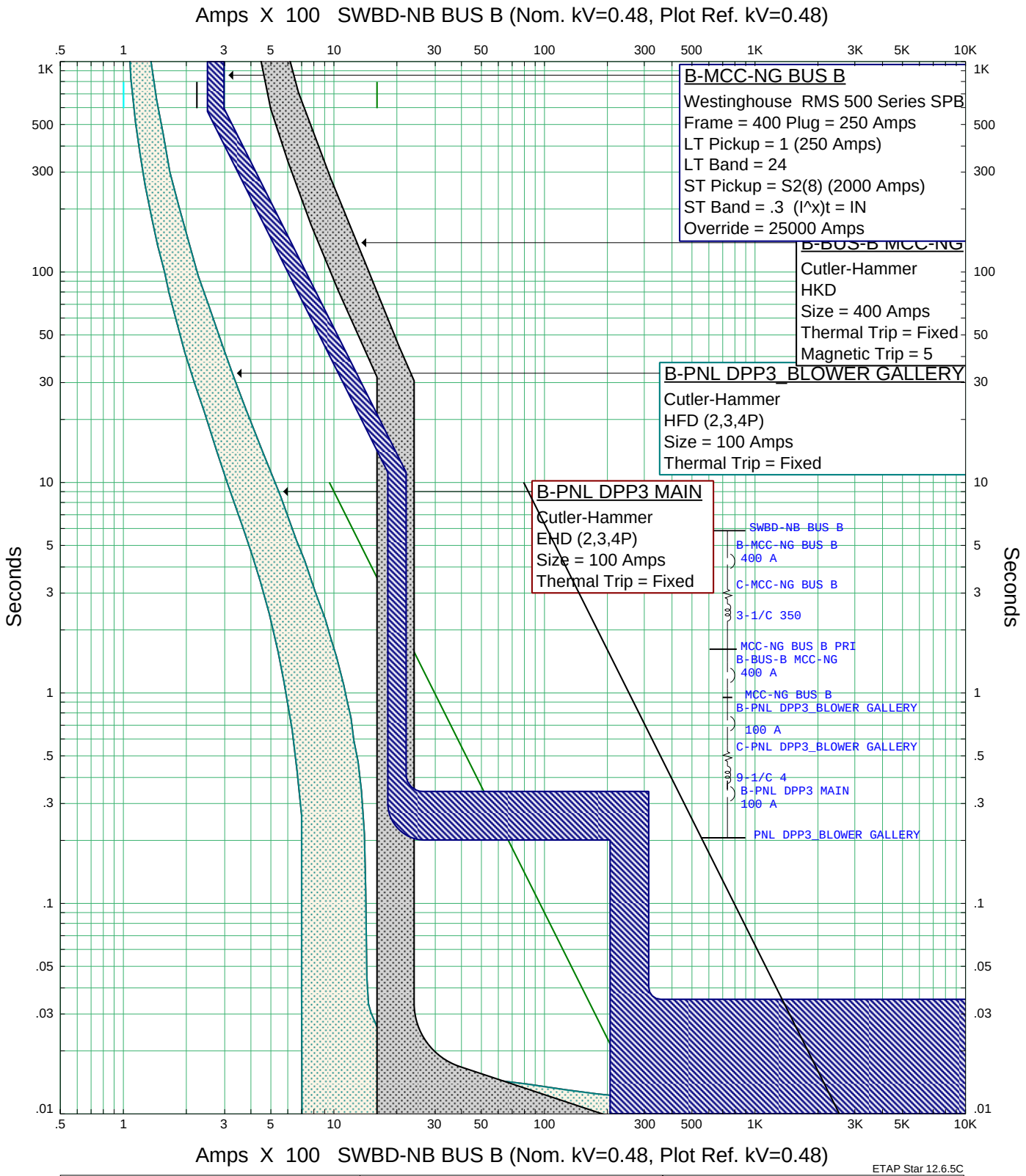



ETAP Star 12.6.5C

**MCC-NG BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

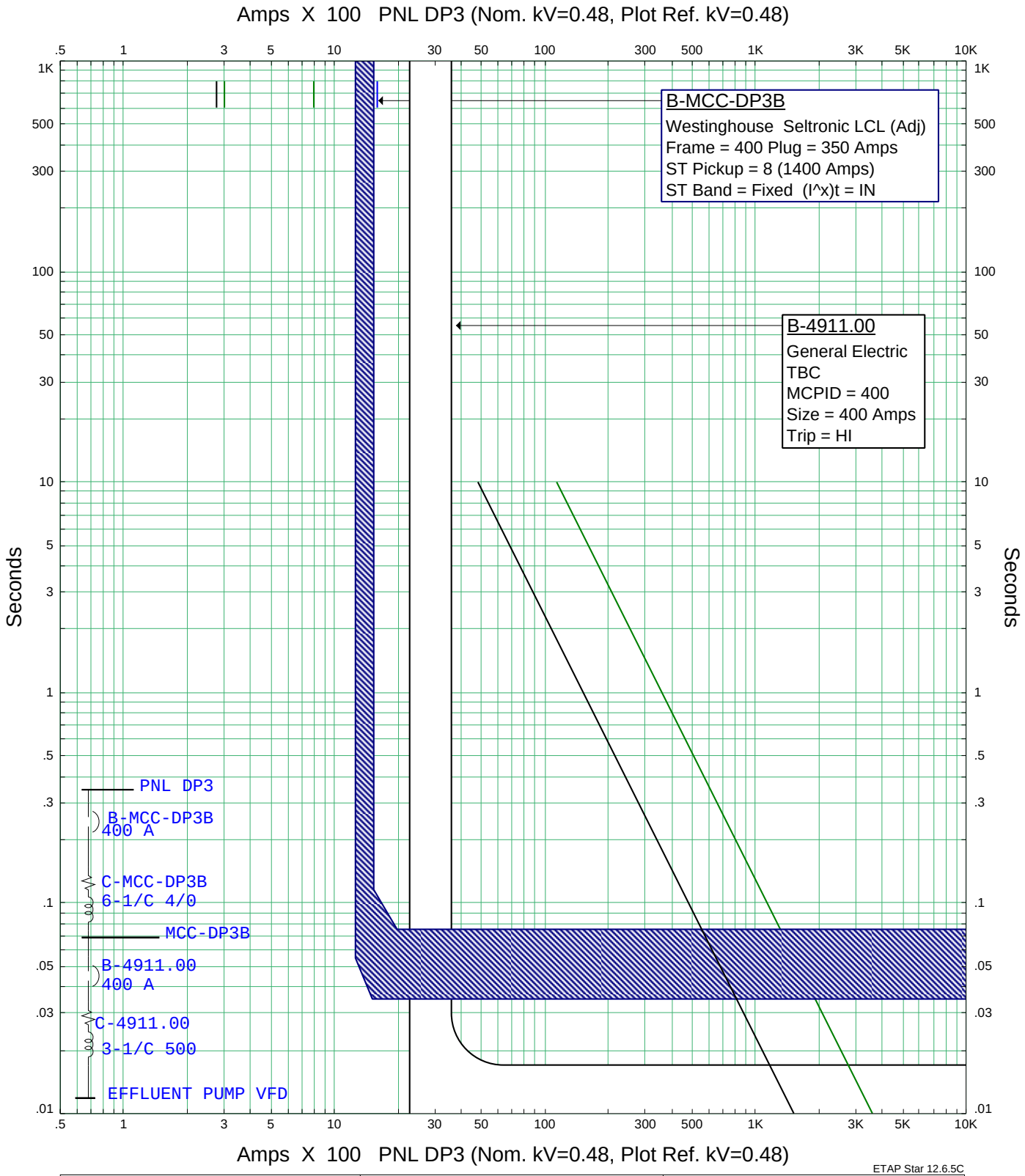



ETAP Star 12.6.5C

**MCC-NG-BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

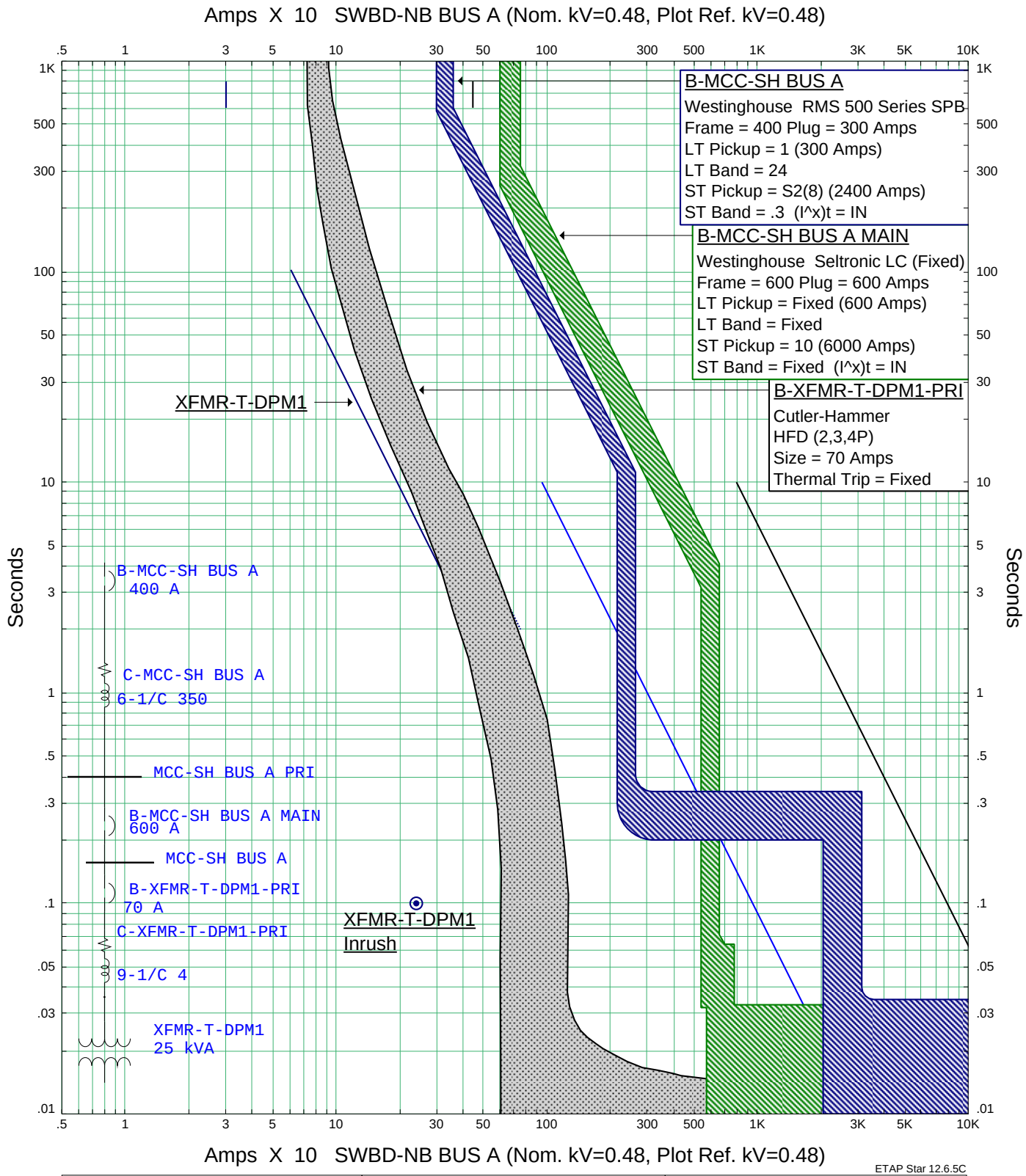



ETAP Star 12.6.5C

**MCC-PD3B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

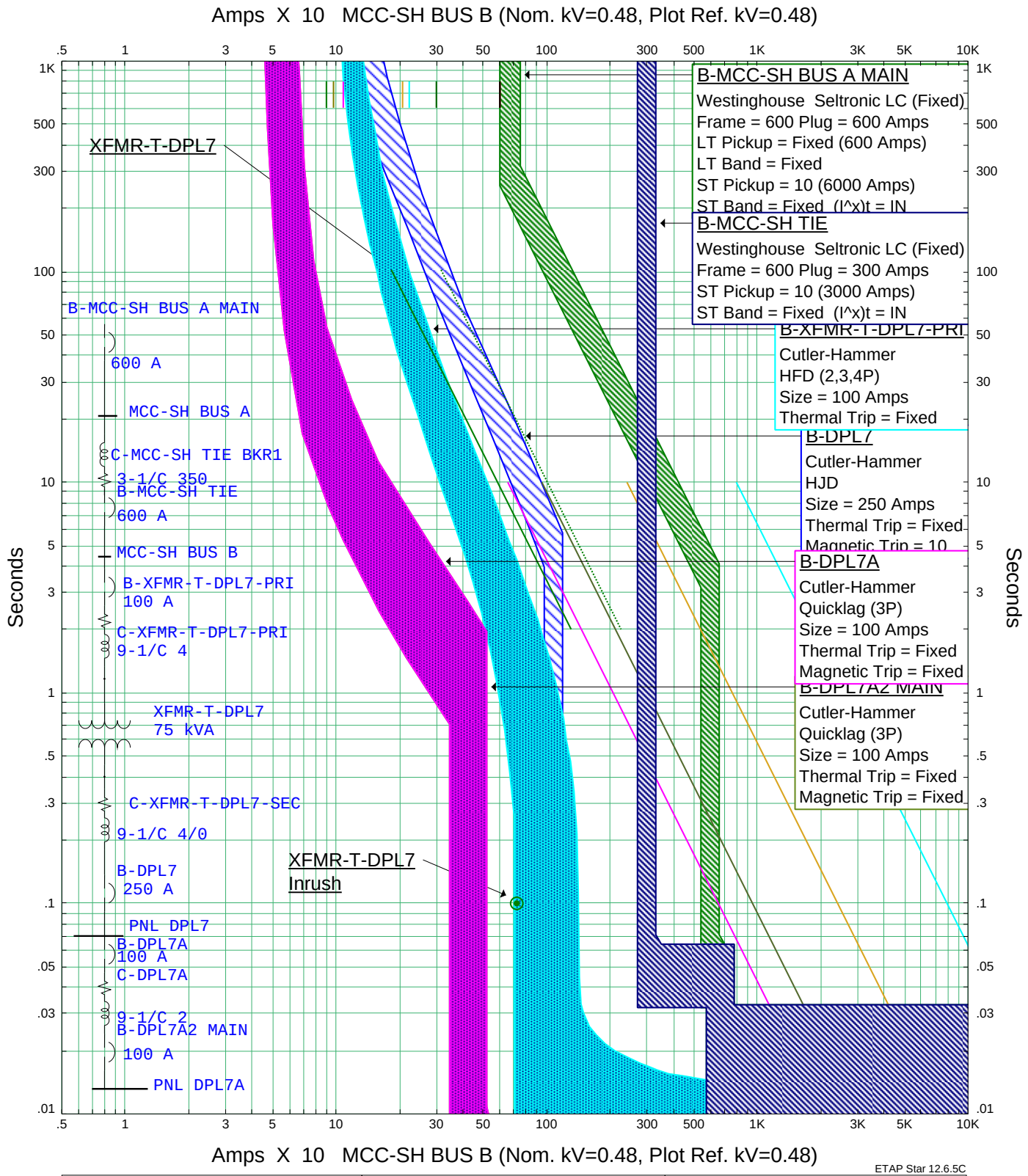



ETAP Star 12.6.5C

**MCC-SH BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

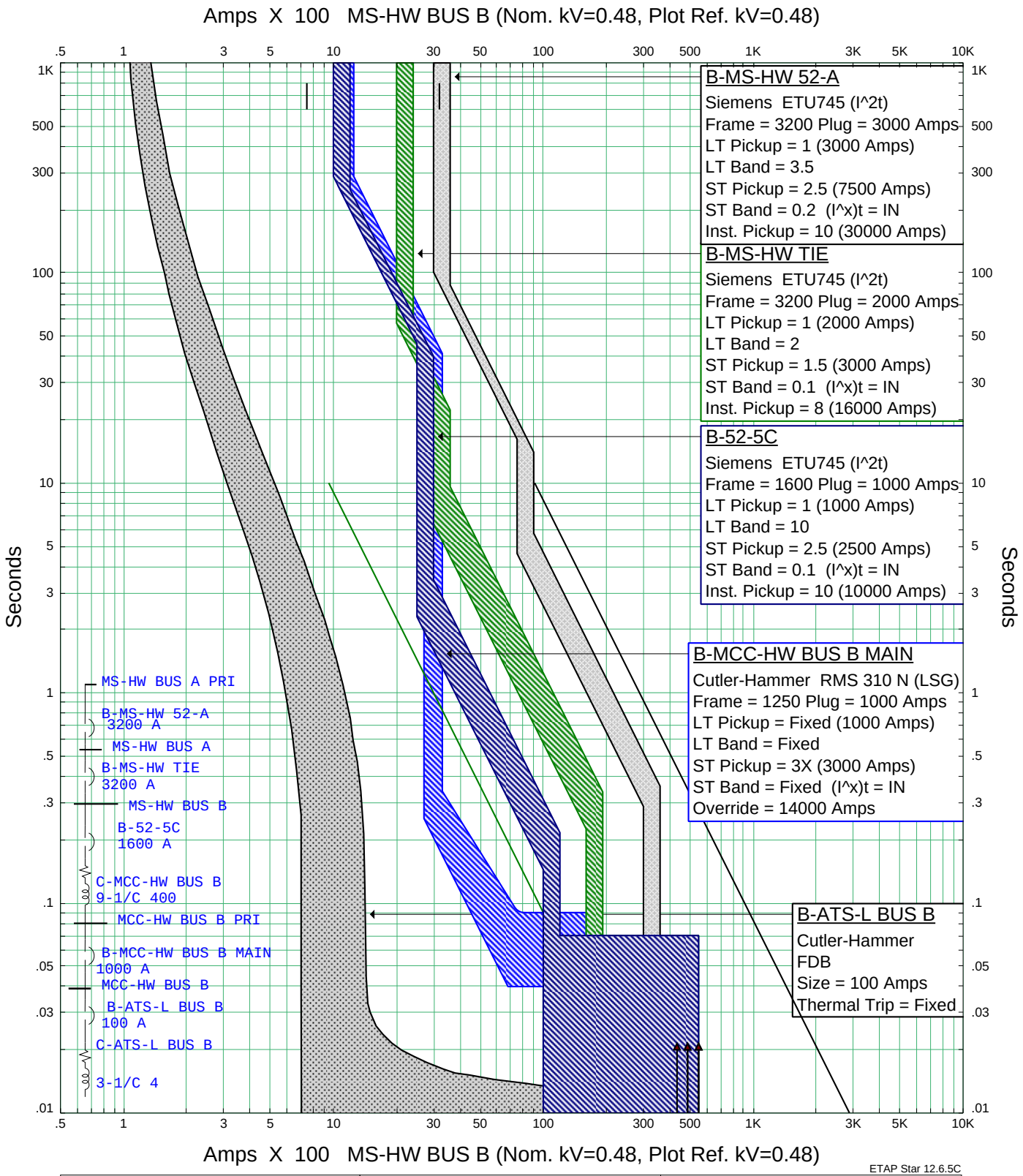



ETAP Star 12.6.5C

**MCC-SH BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

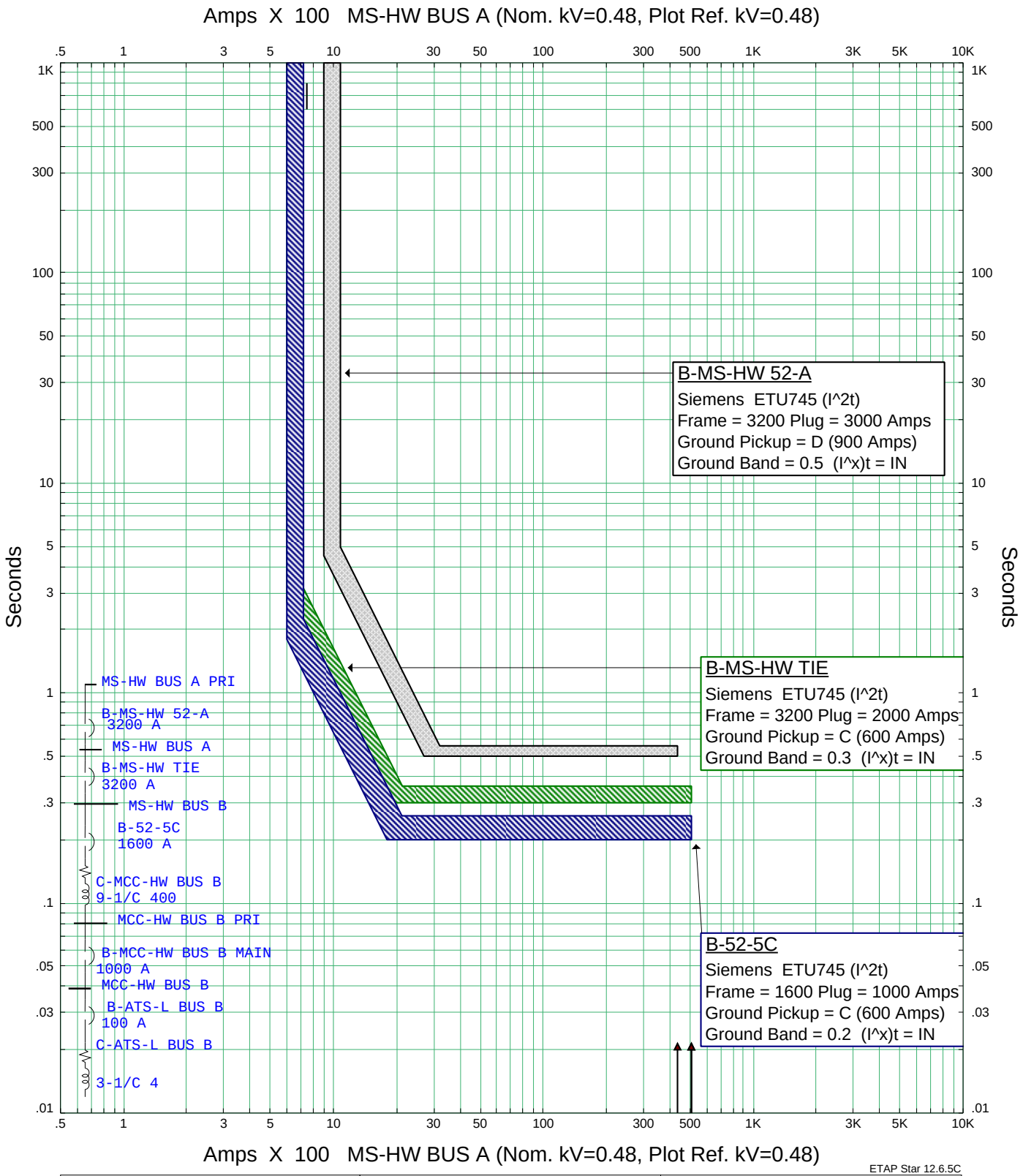



ETAP Star 12.6.5C

**MS-HW BUS A - TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

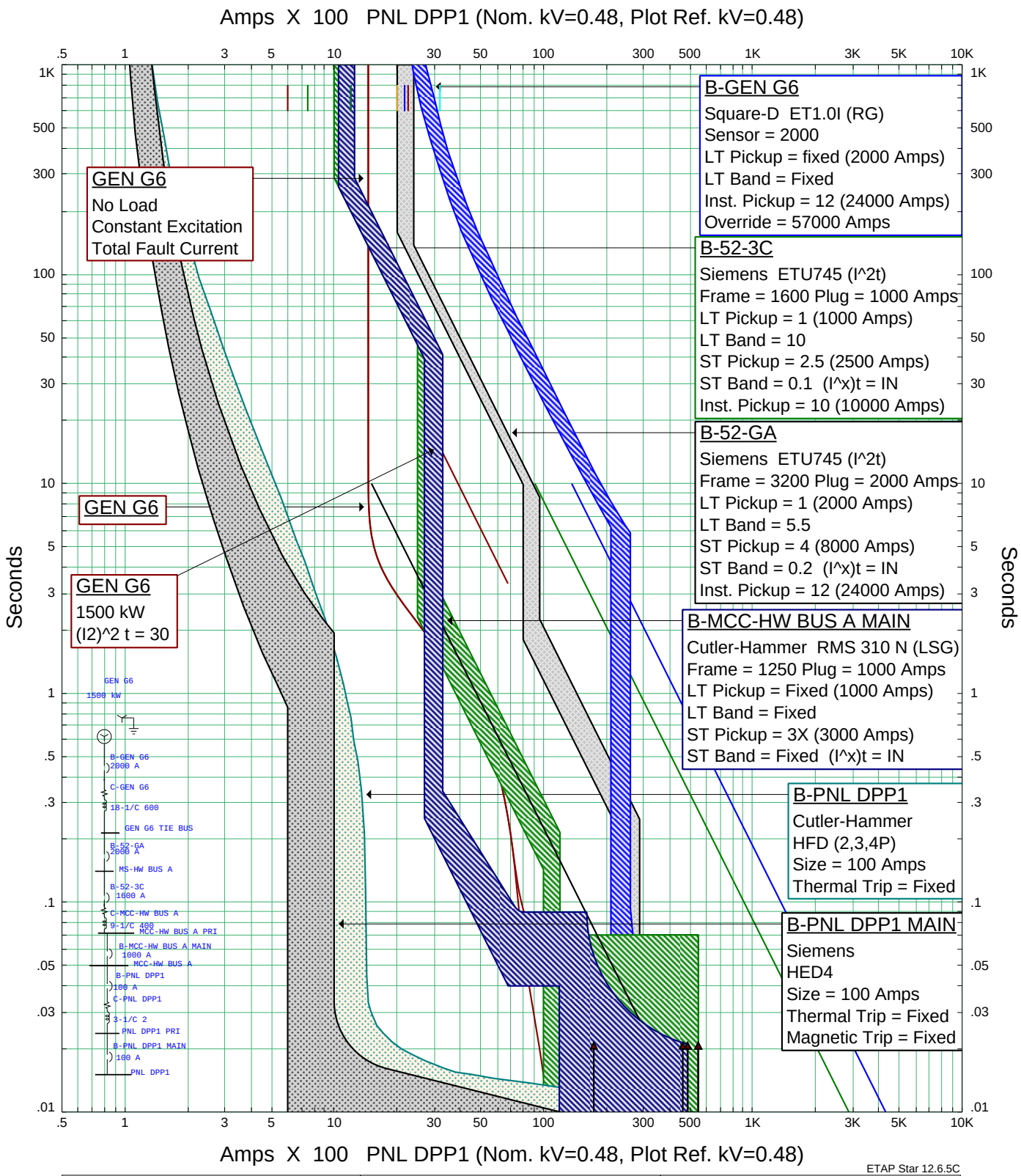



ETAP Star 12.6.5C

**MS-HW BUS A - TIE TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

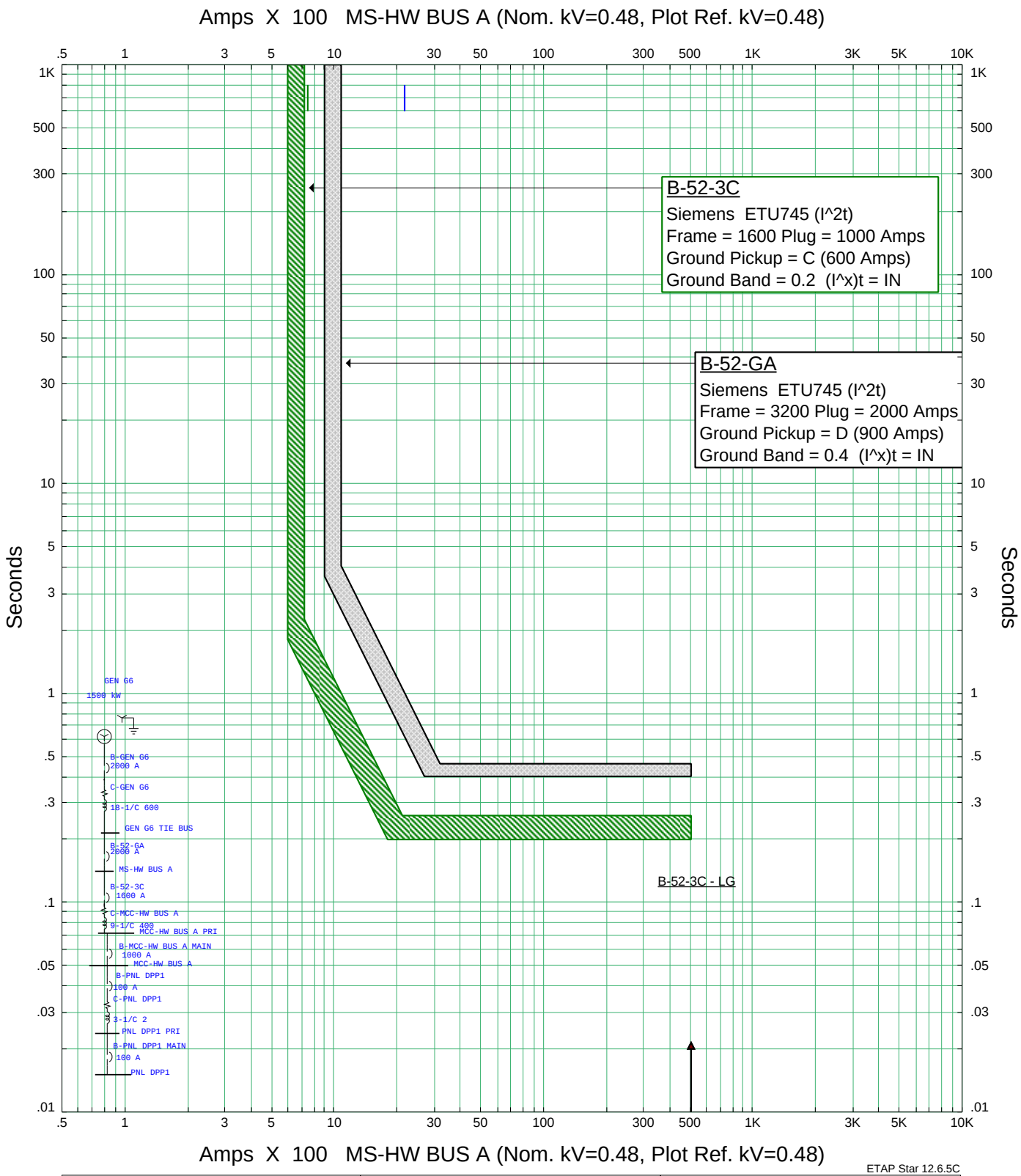



ETAP Star 12.6.5C

**MS-HW BUS A GEN TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



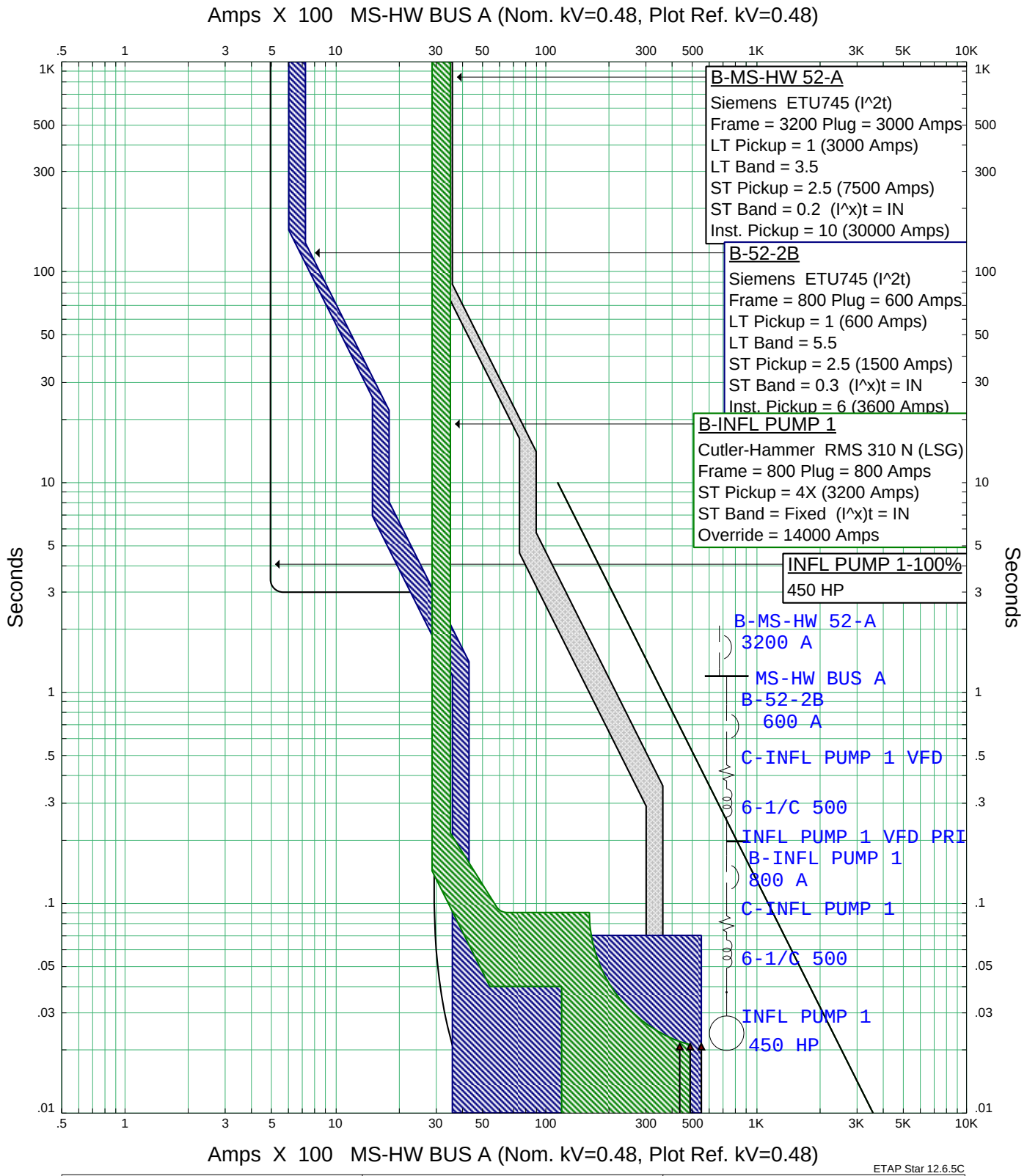

Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**MS-HW BUS A GEN TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

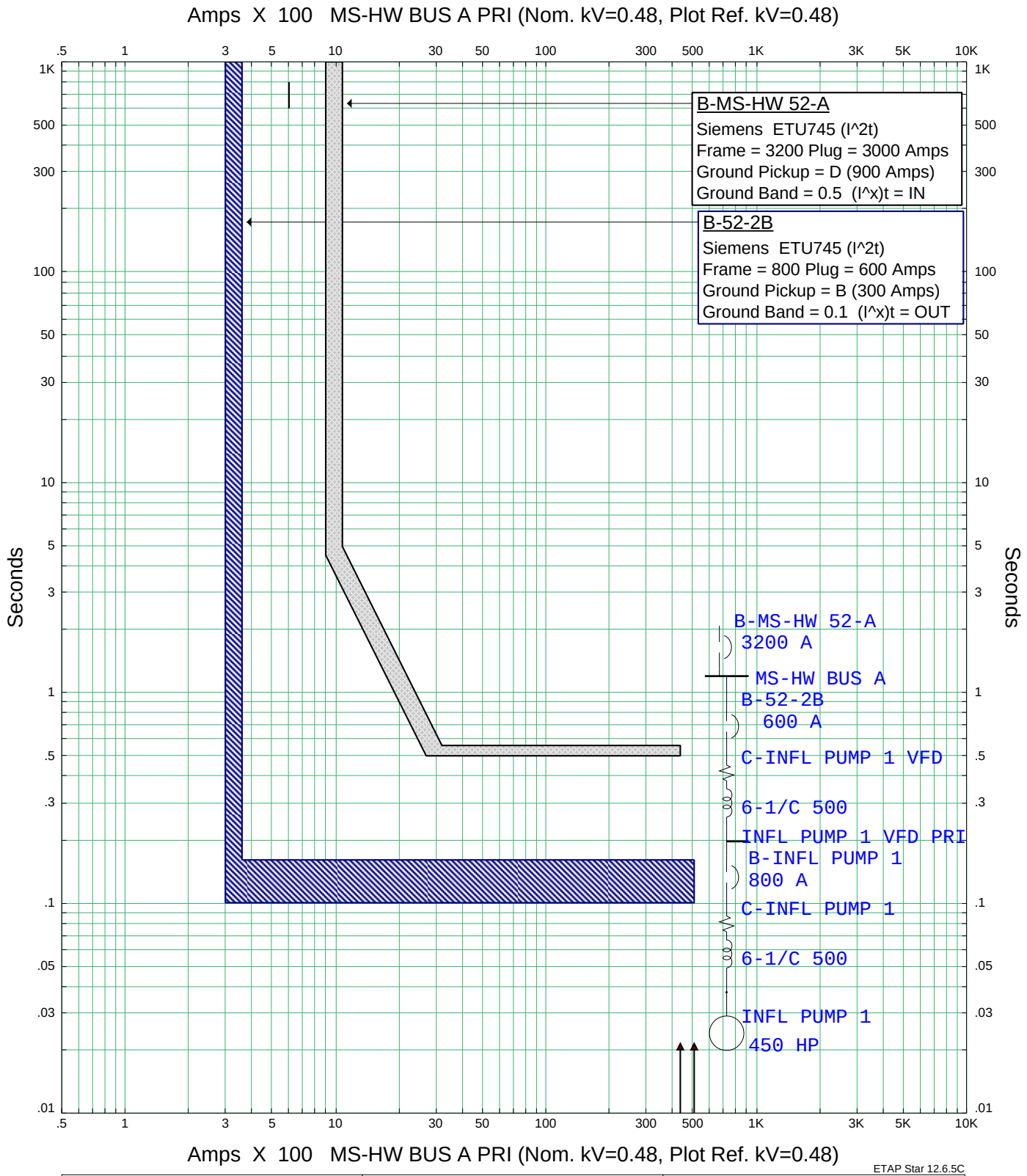



ETAP Star 12.6.5C

**MS-HW BUS A PUMP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

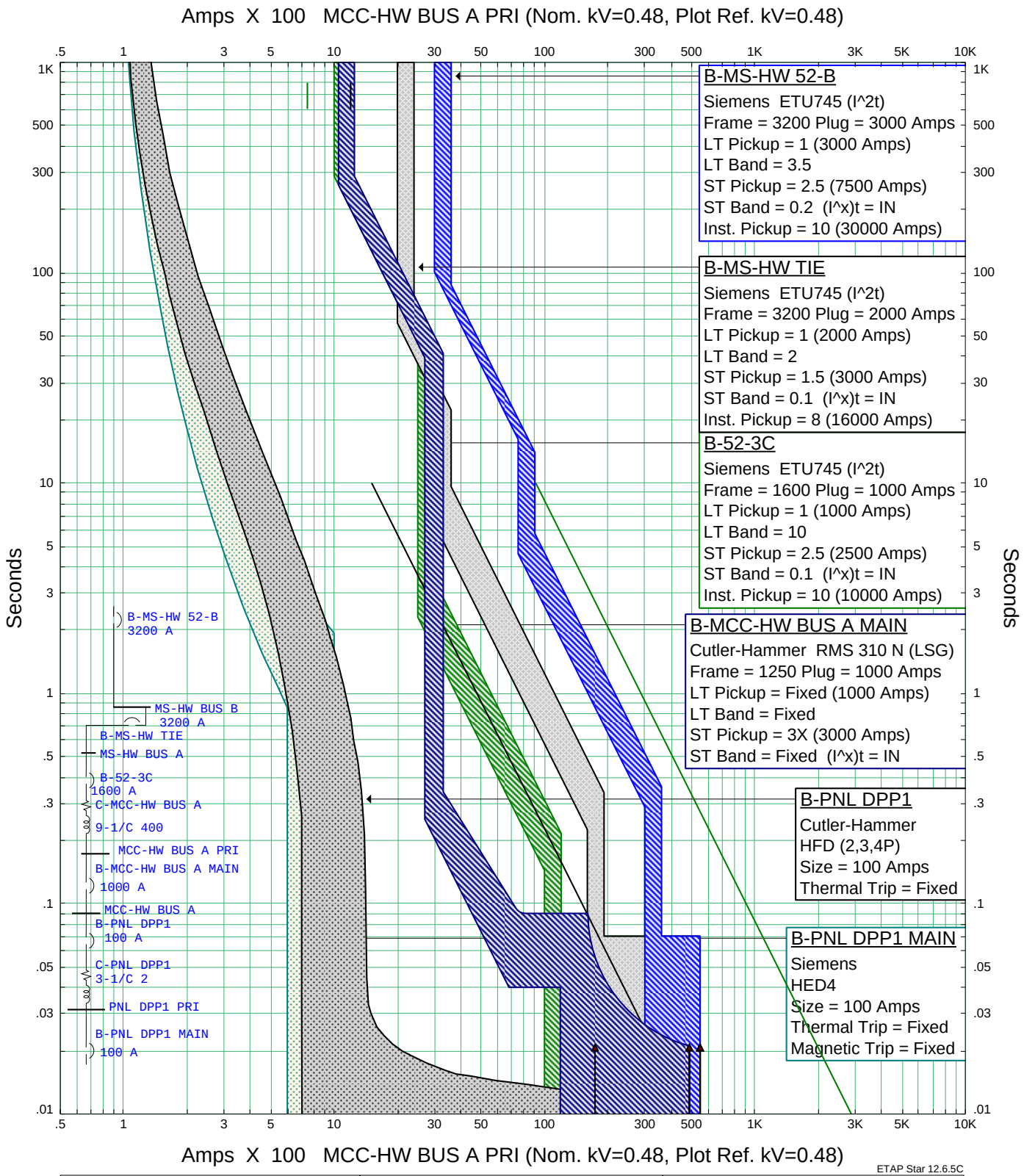



ETAP Star 12.6.5C

**MS-HW BUS A PUMP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

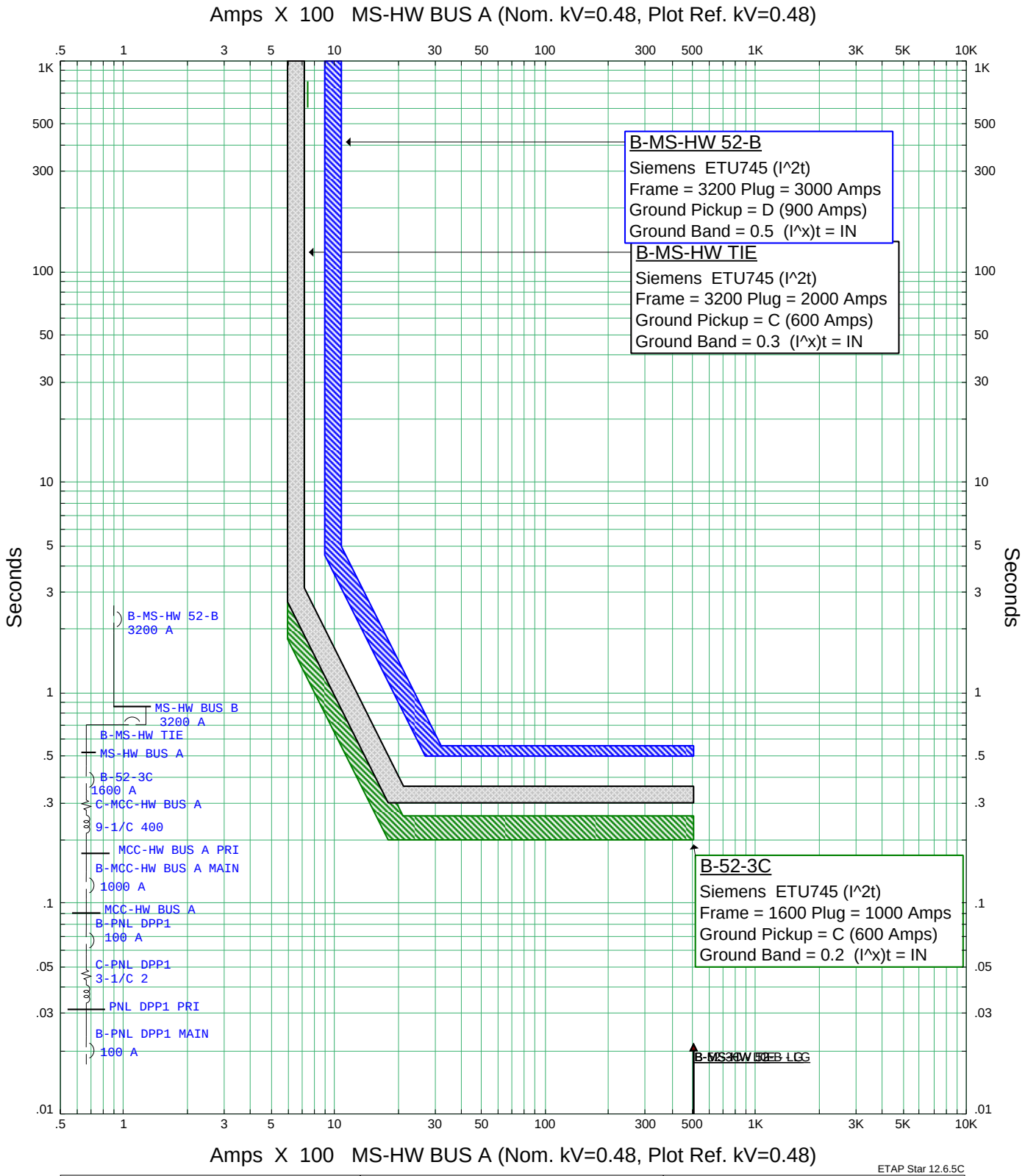



ETAP Star 12.6.5C

MS-HW BUS B - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



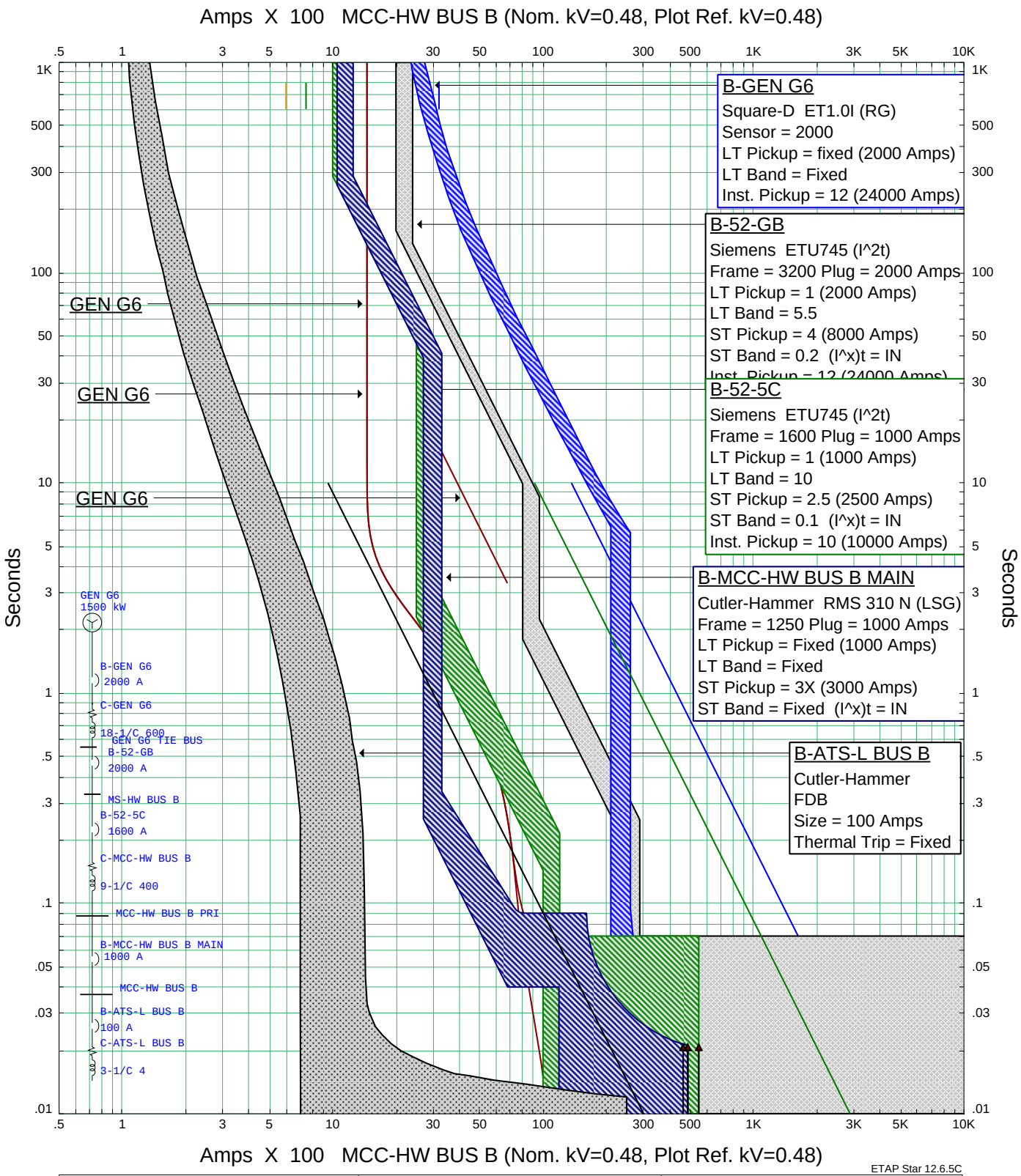

Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MS-HW BUS B - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

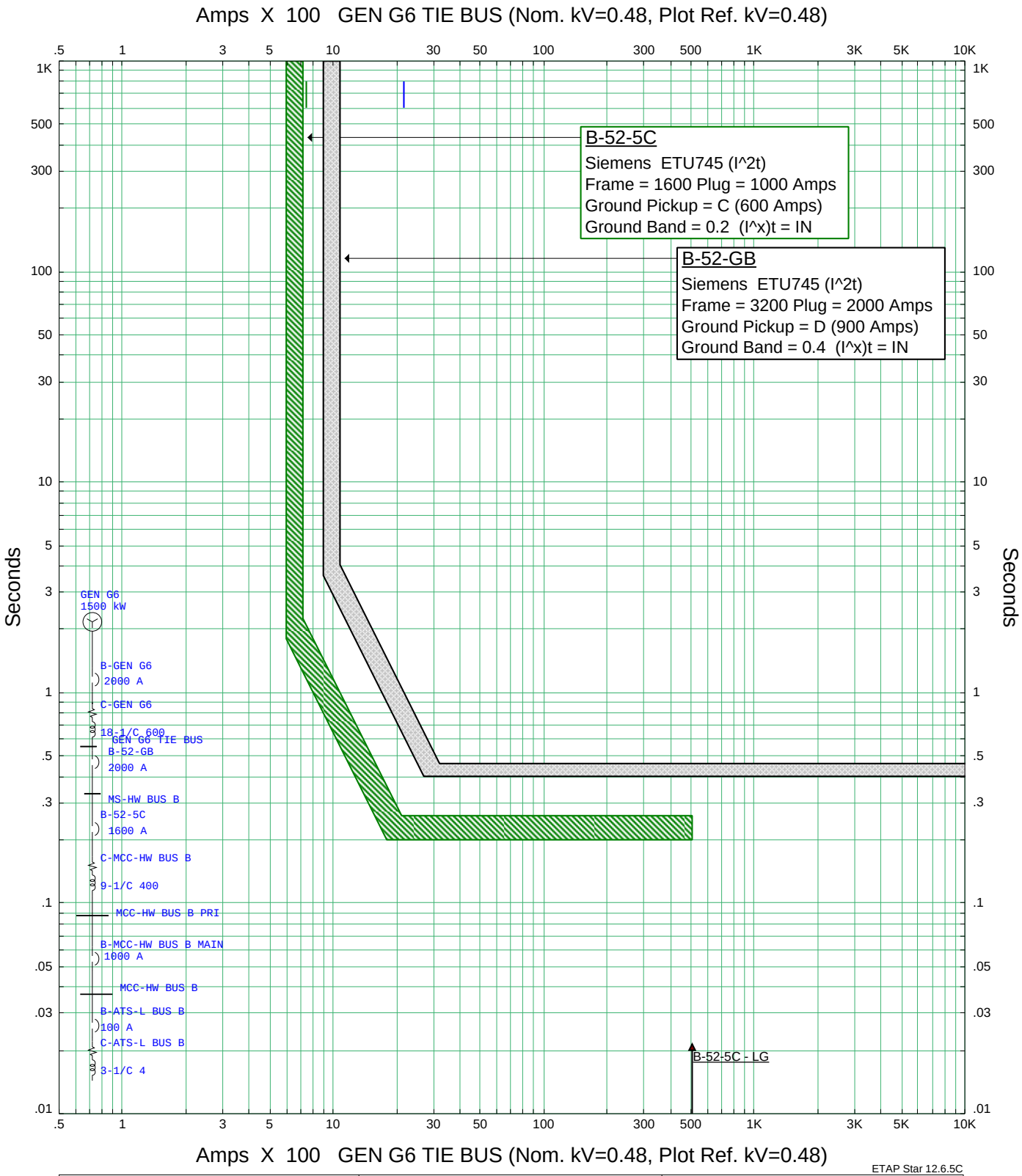



ETAP Star 12.6.5C

**MS-HW BUS B GEN TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

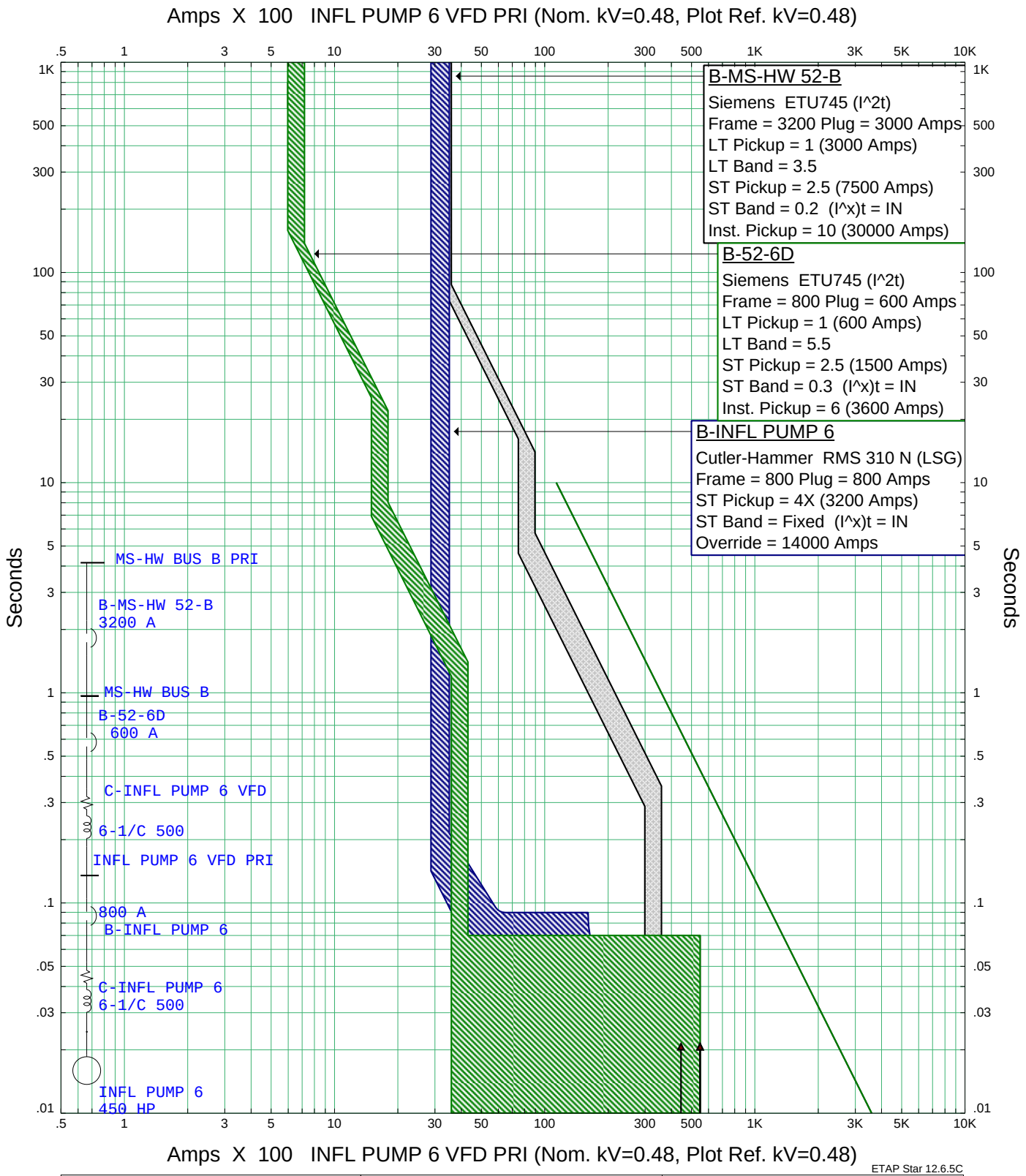



ETAP Star 12.6.5C

**MS-HW BUS B GEN TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

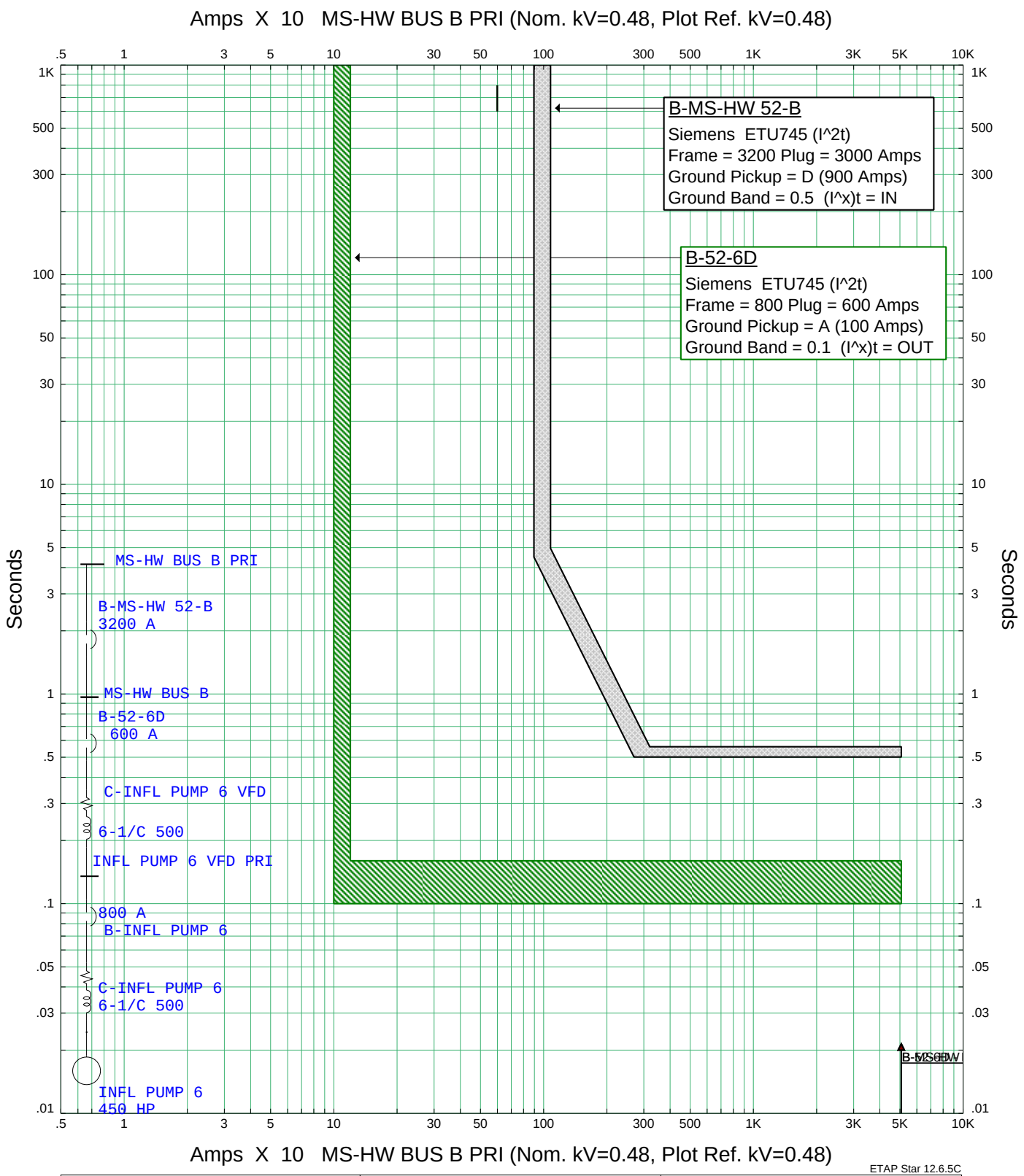



ETAP Star 12.6.5C

**MS-HW BUS B PUMP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

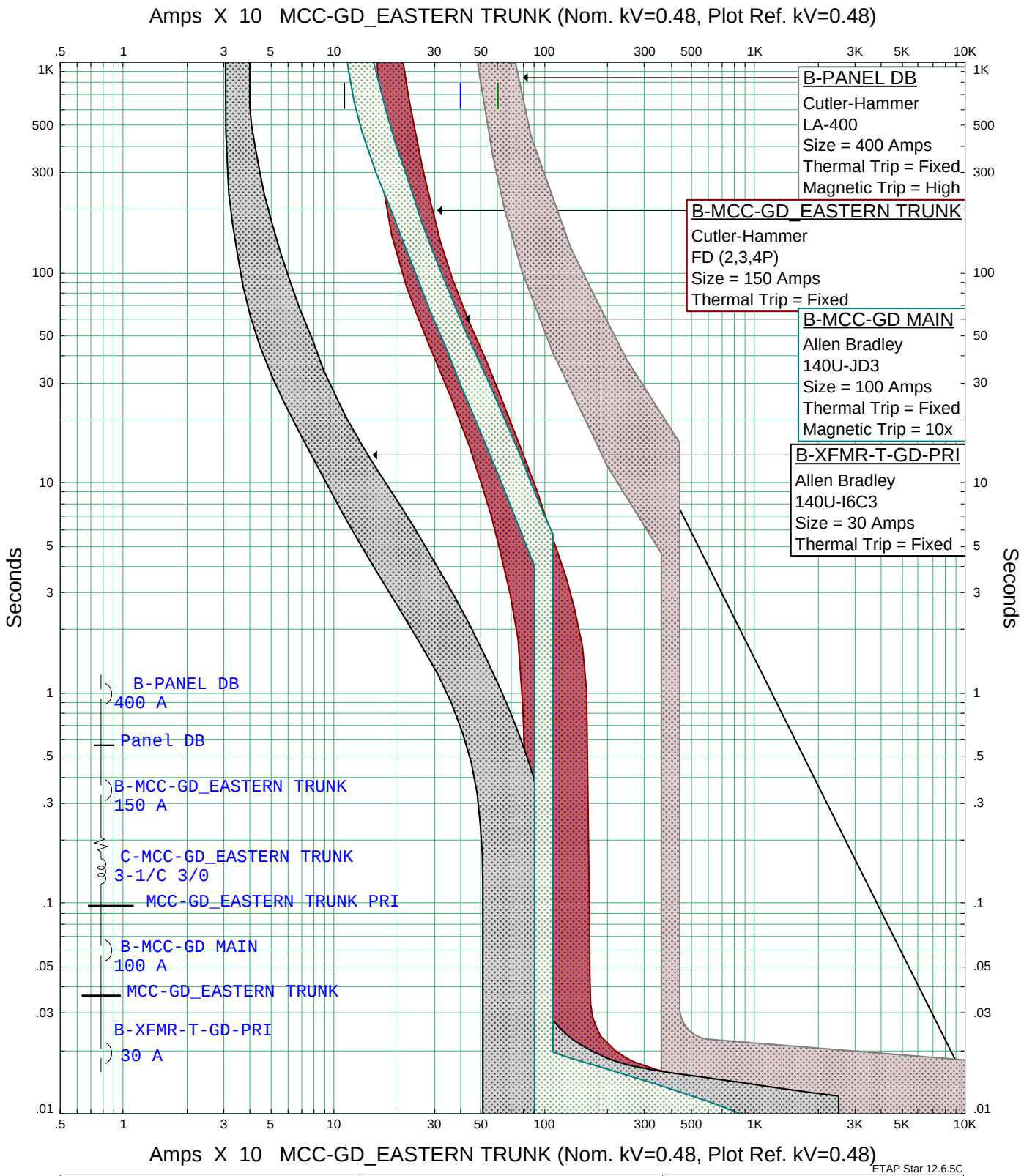



ETAP Star 12.6.5C

**MS-HW BUS B PUMP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

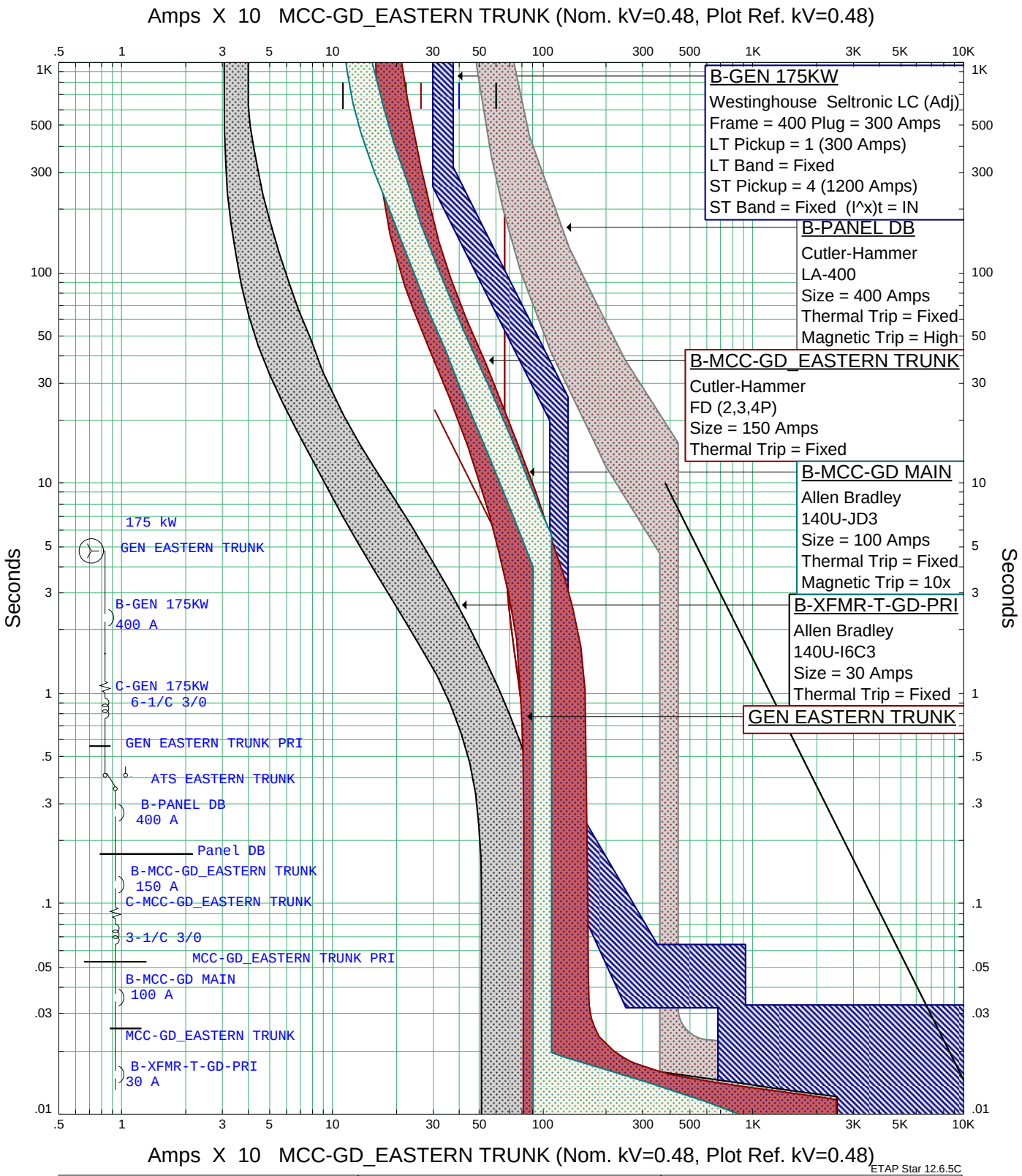



ETAP Star 12.6.5C

**PANEL DB - TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



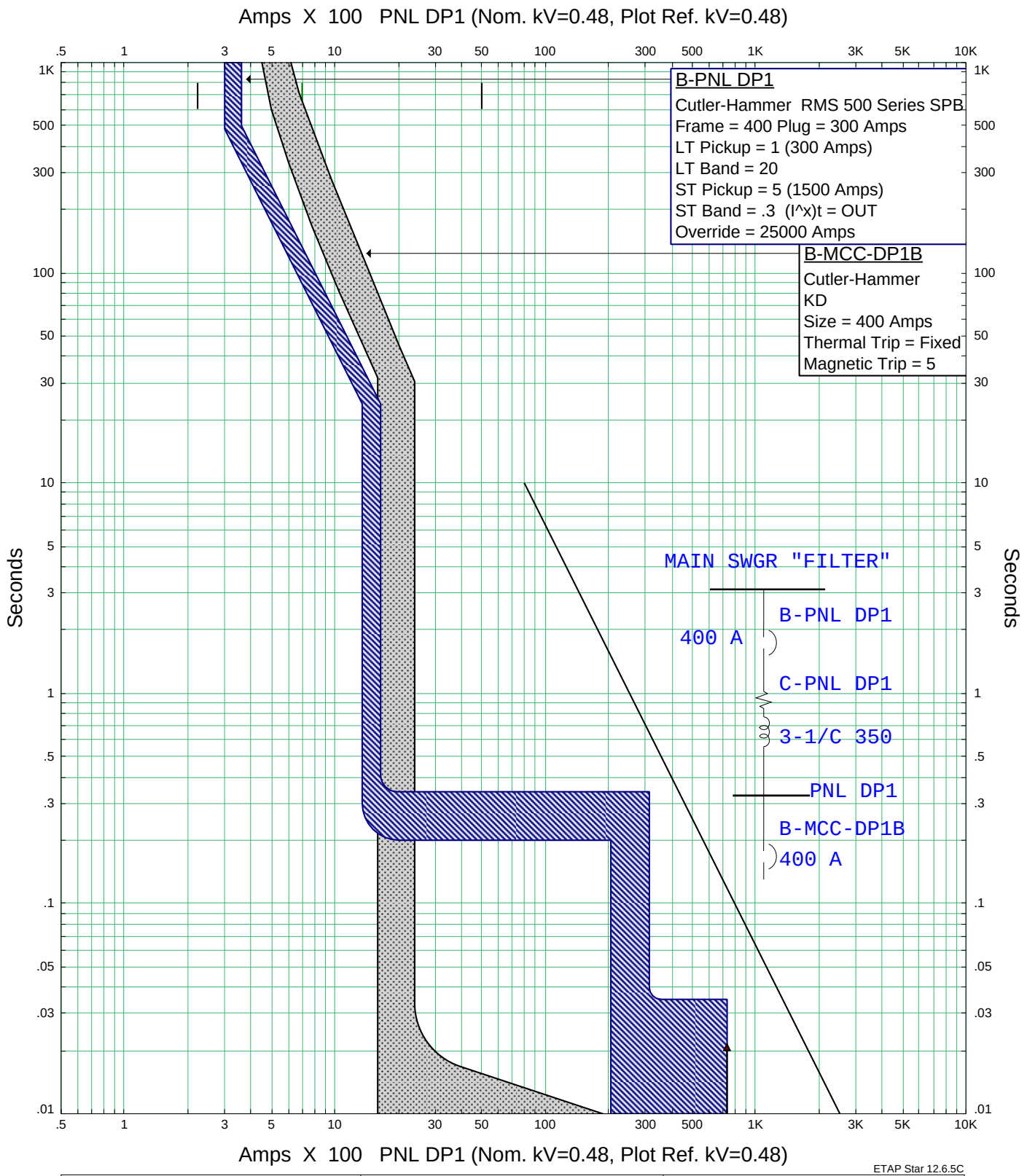

Amps X 10 MCC-GD_EASTERN TRUNK (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

**PANEL DB GEN TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

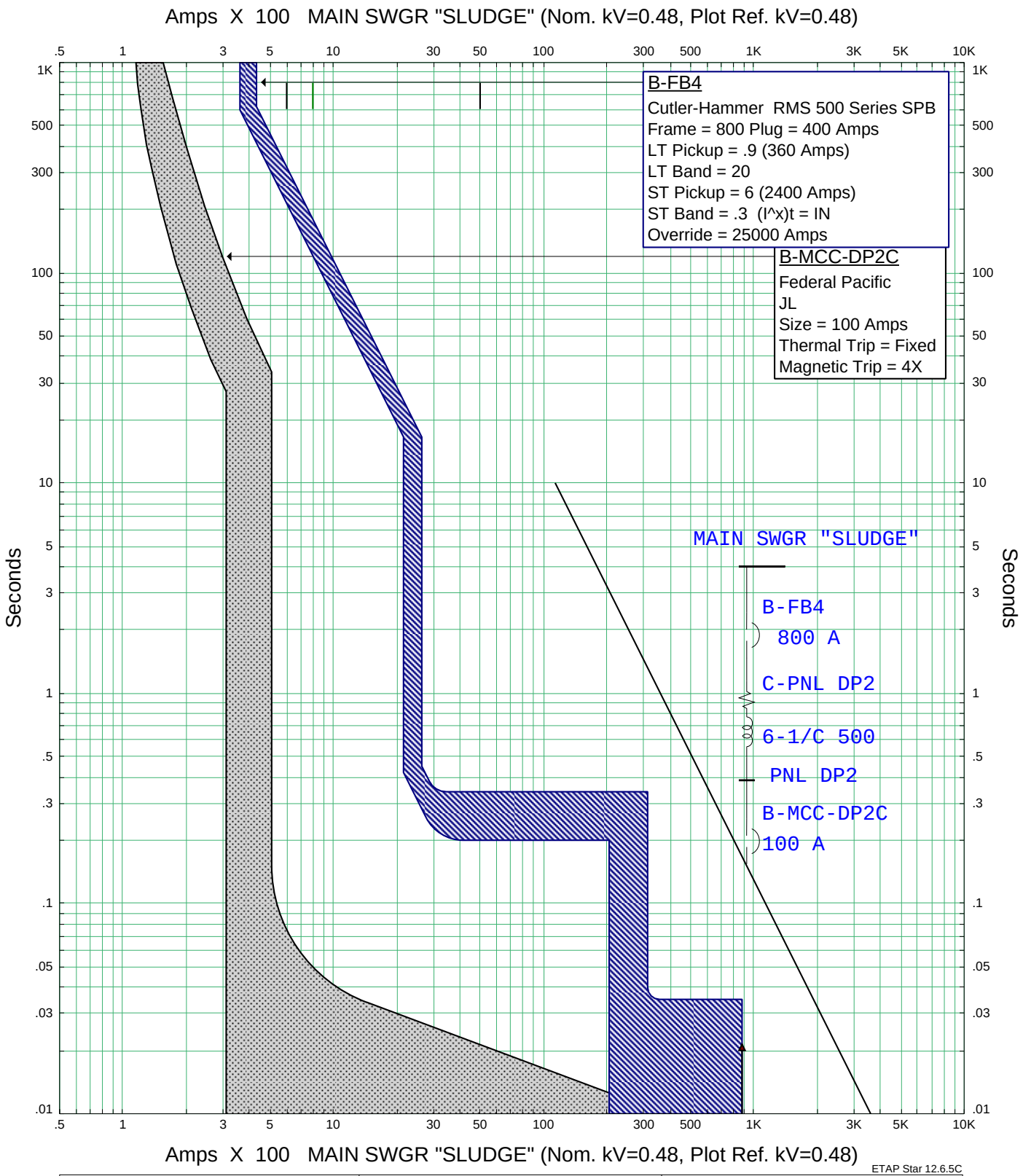



ETAP Star 12.6.5C

**PNL DP1 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

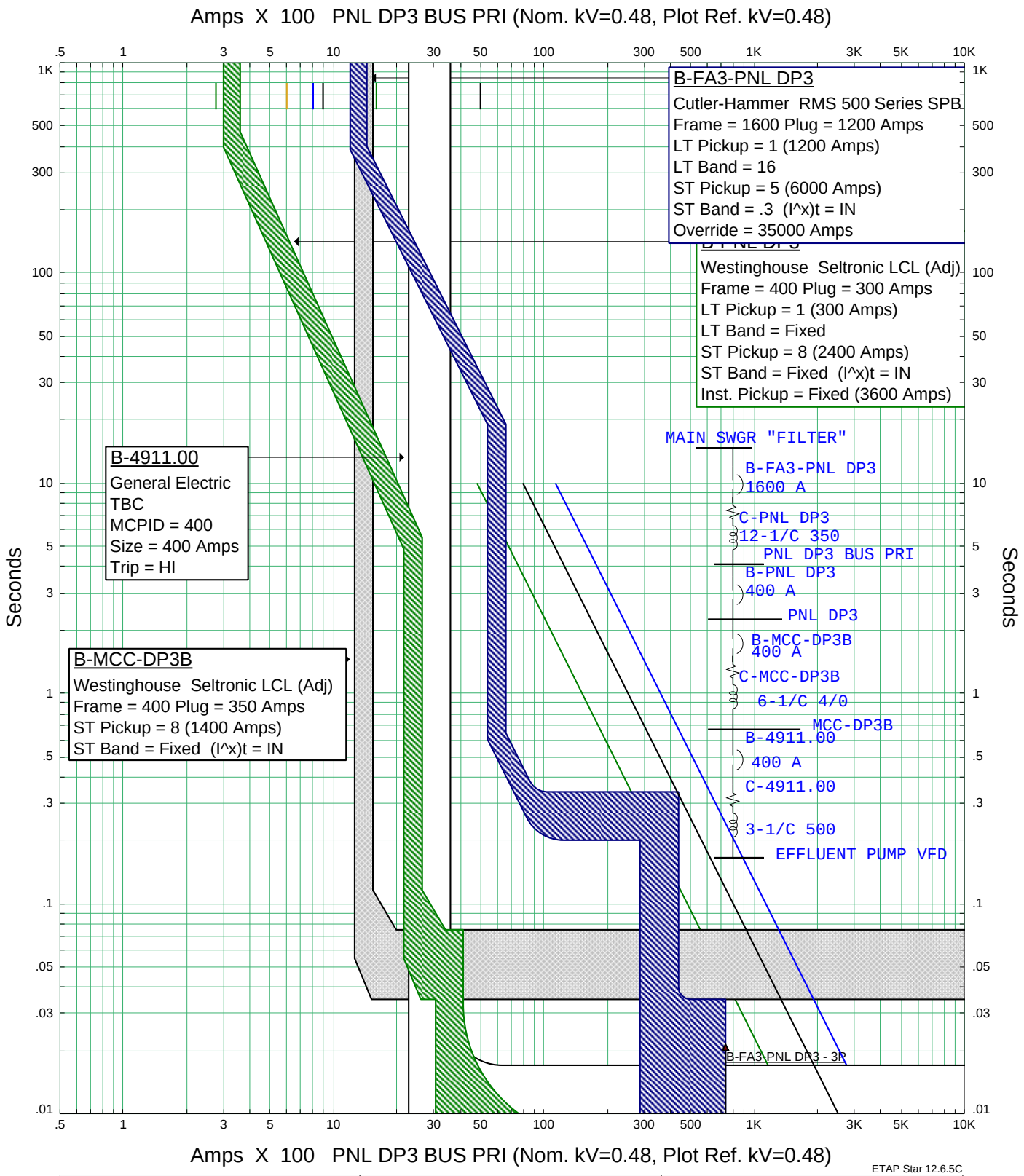



ETAP Star 12.6.5C

**PNL DP2 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

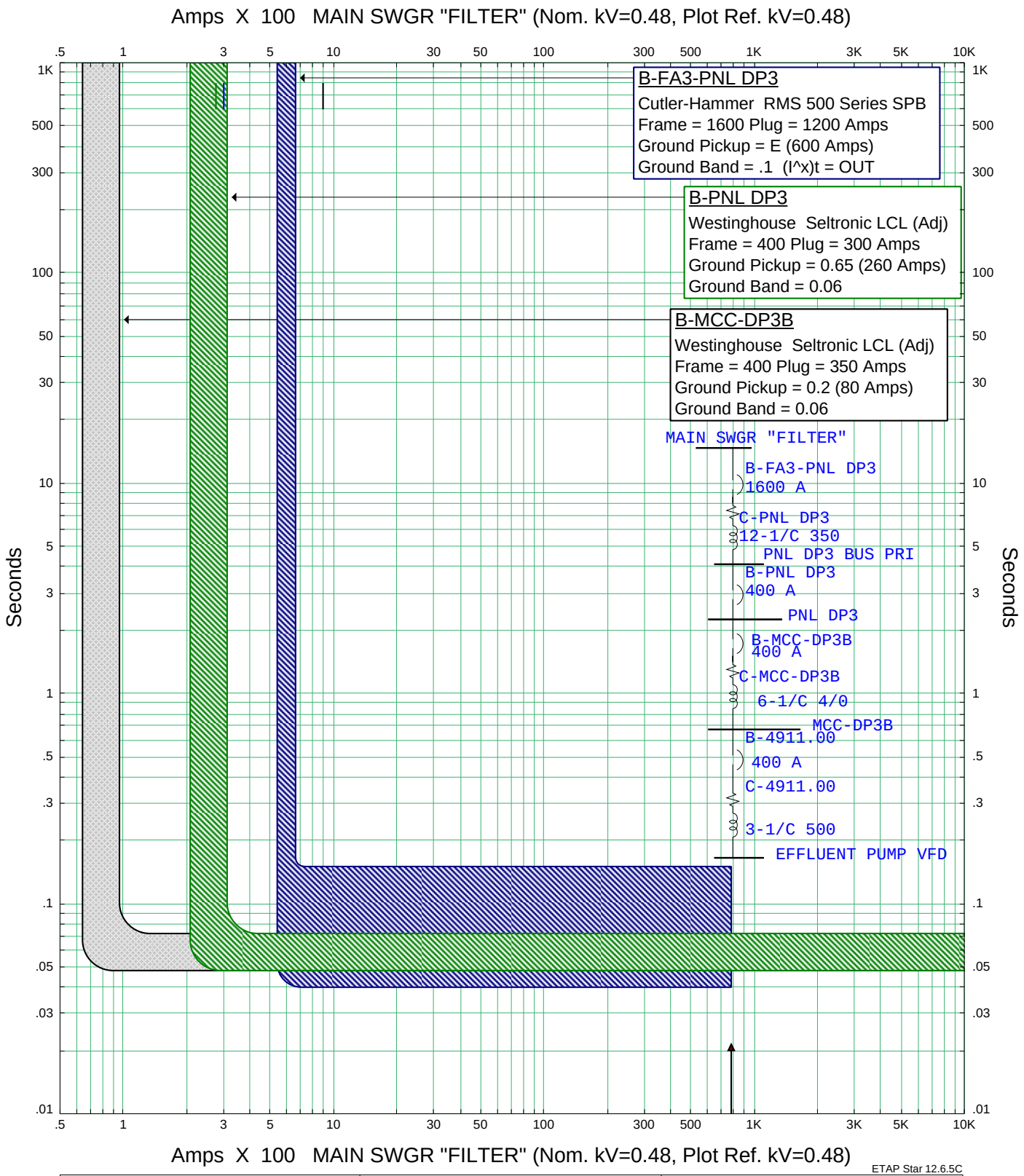



ETAP Star 12.6.5C

**PNL DP3 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

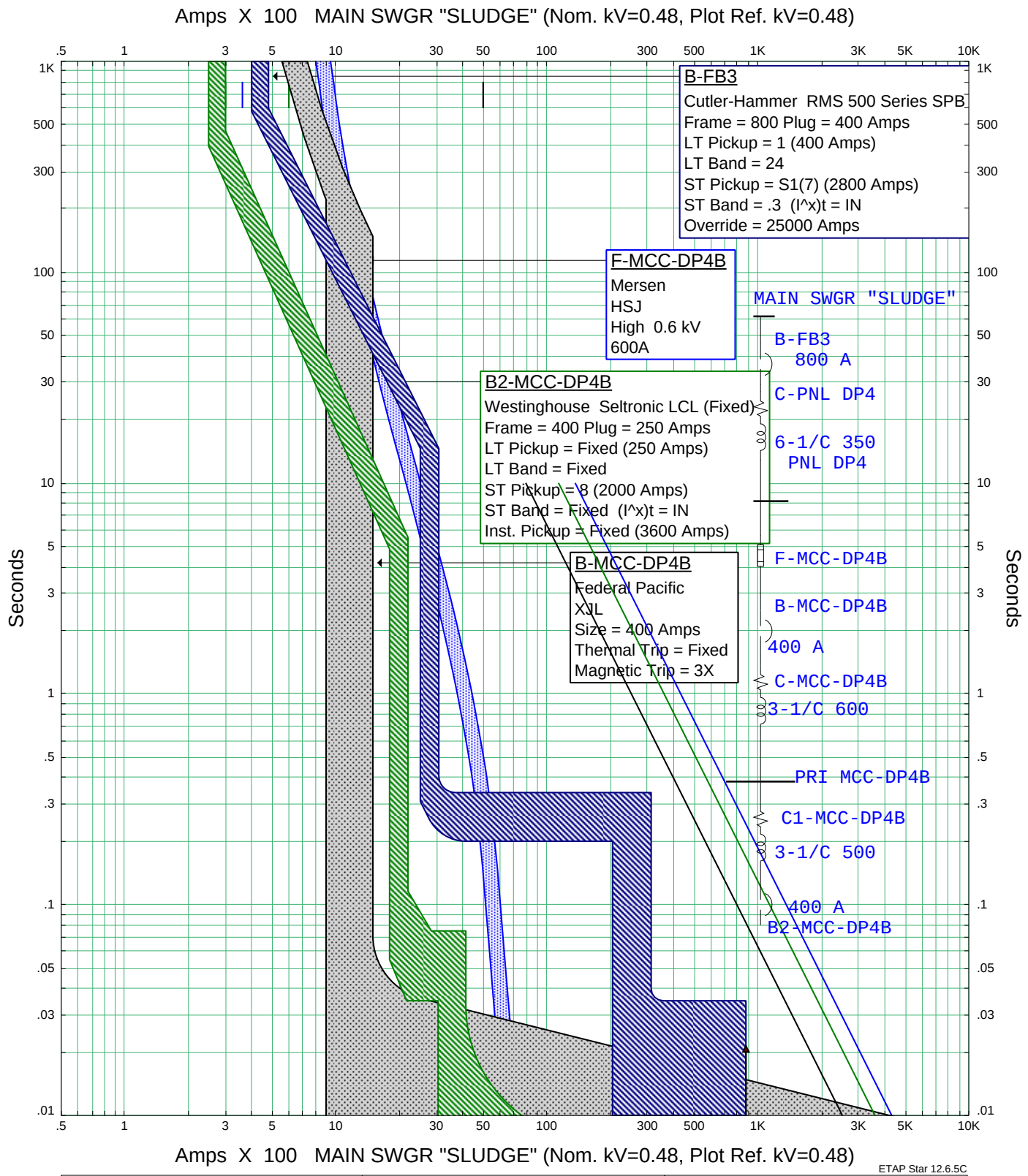



ETAP Star 12.6.5C

**PNL DP3 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

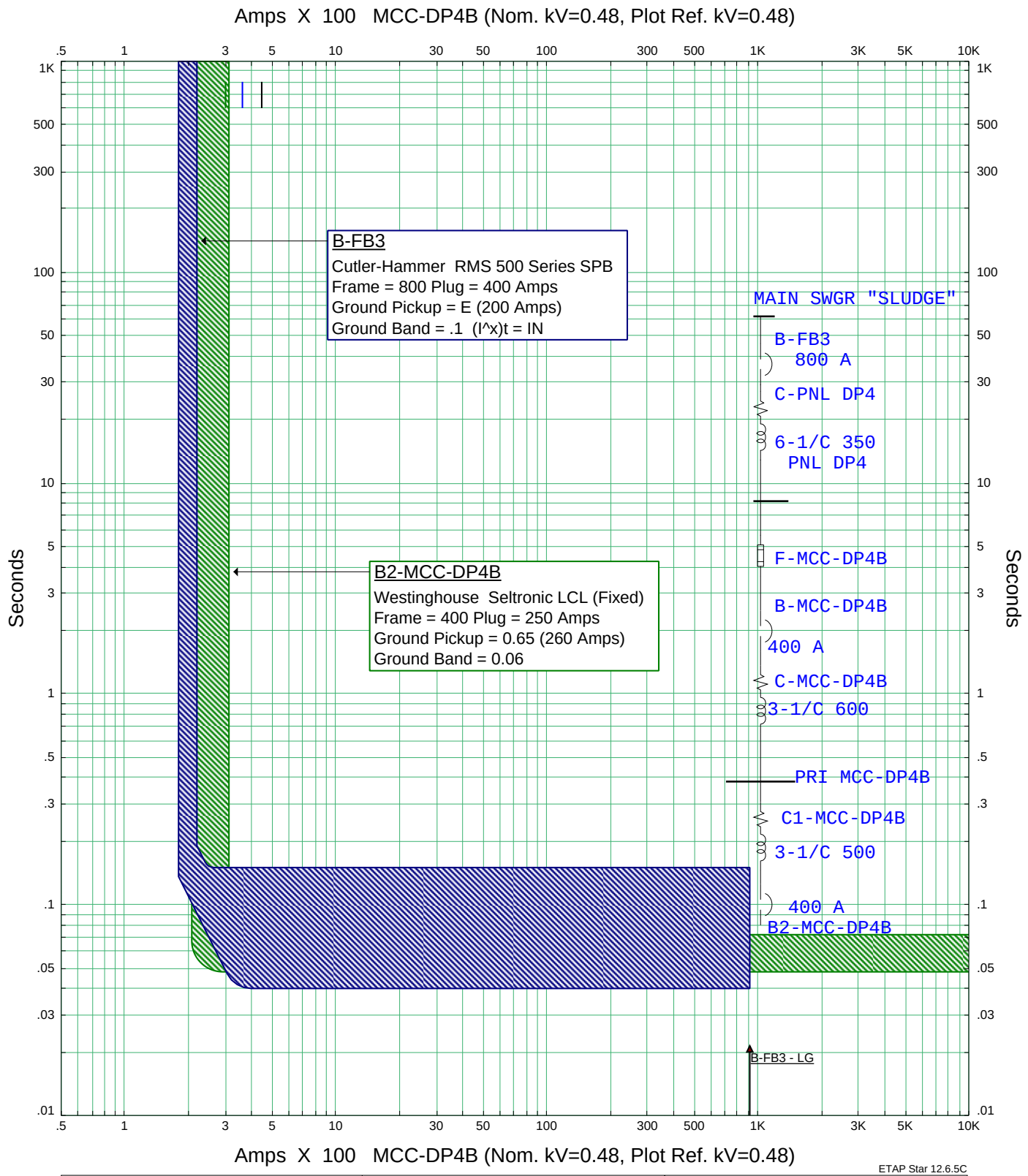



ETAP Star 12.6.5C

**PNL DP4 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

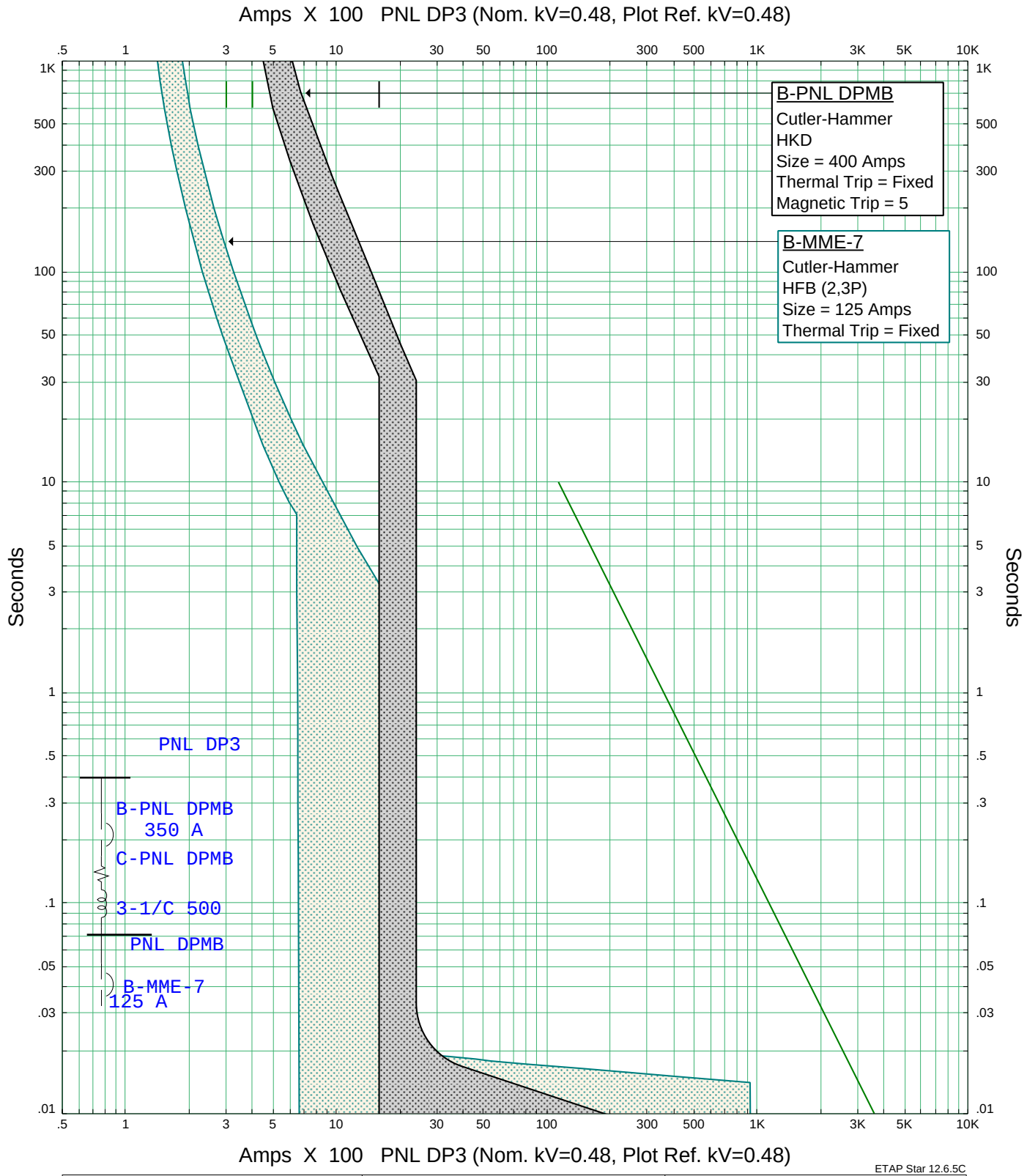



ETAP Star 12.6.5C

**PNL DP4 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

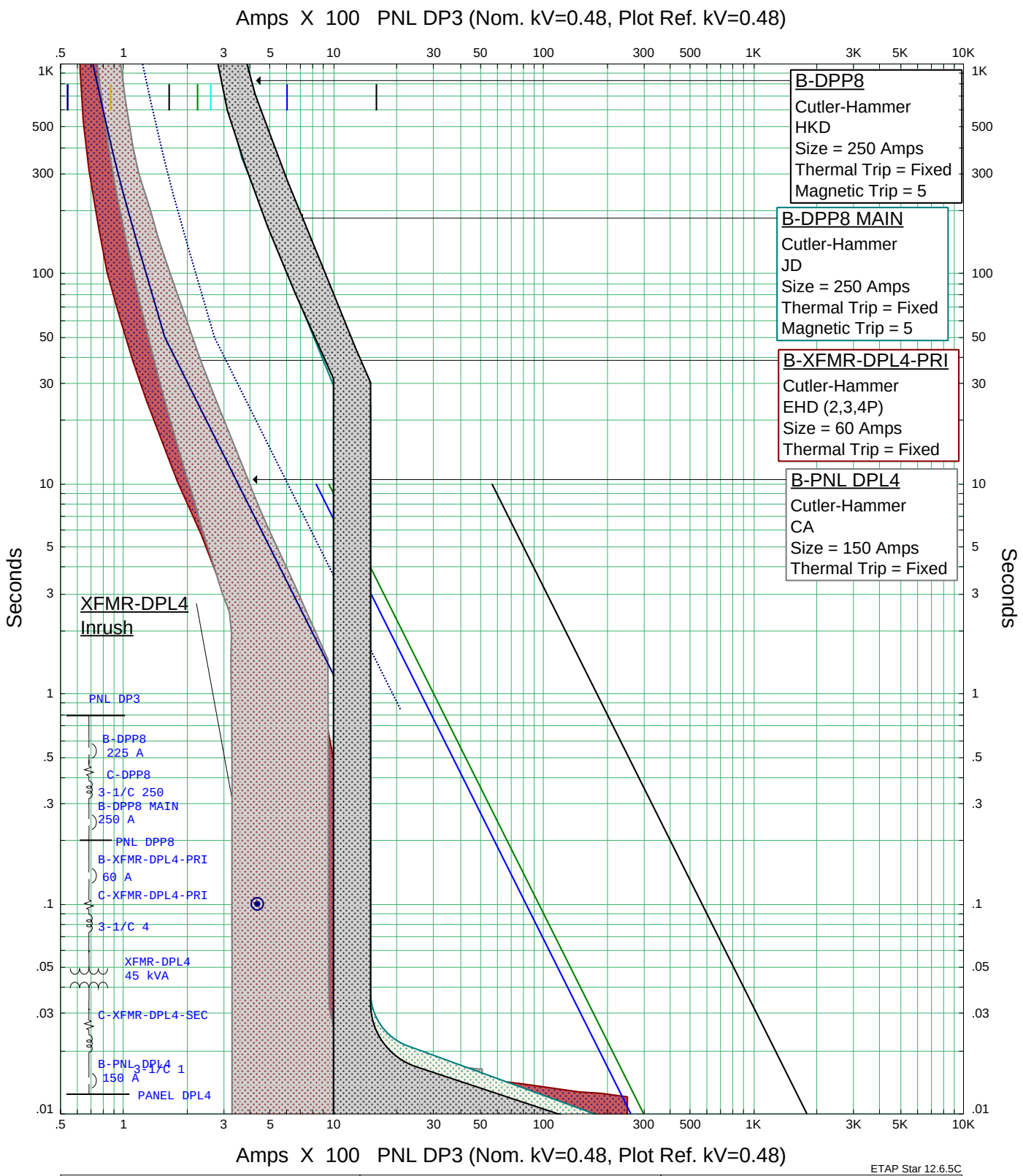



ETAP Star 12.6.5C

**PNL DPMB TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

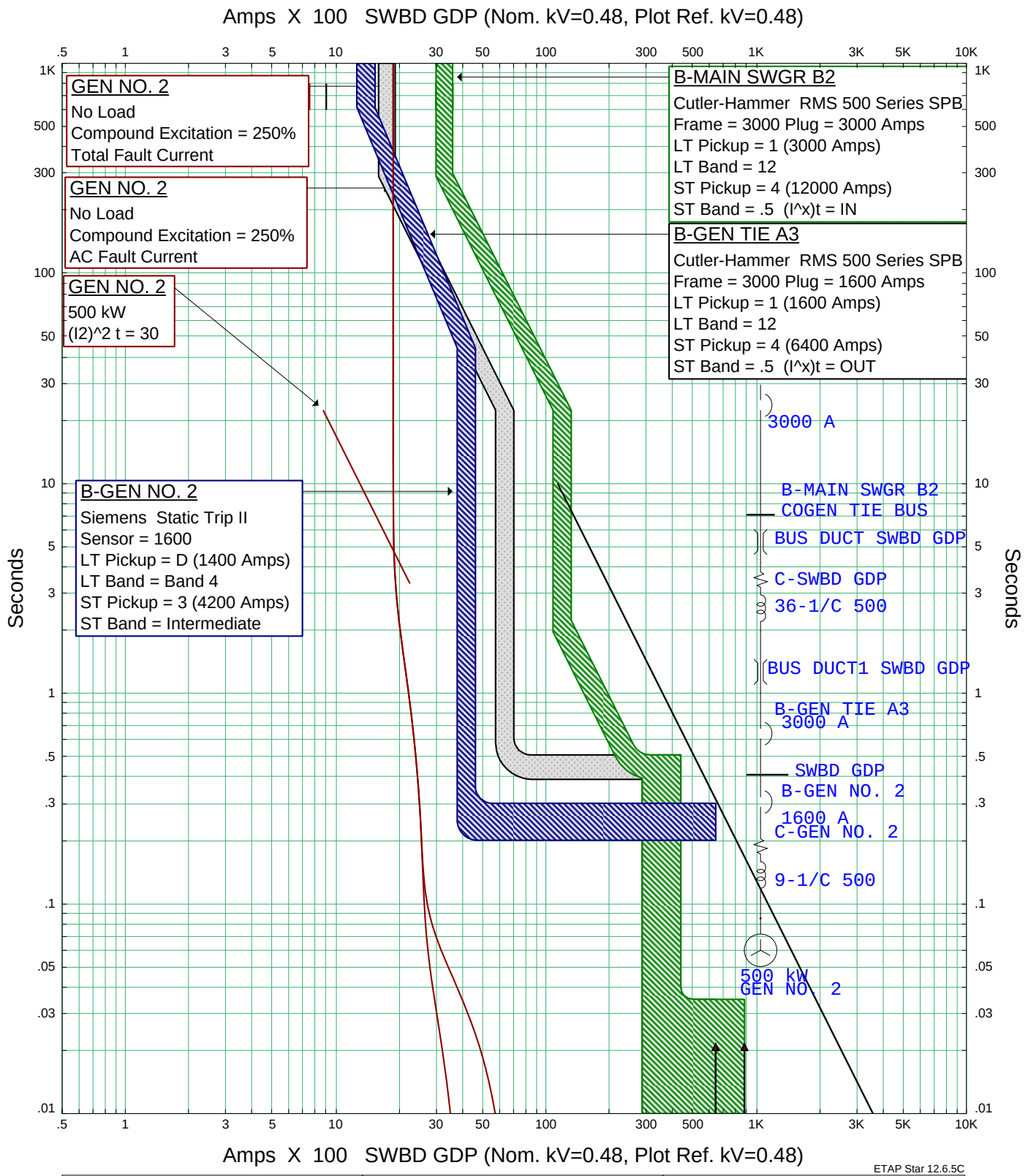



ETAP Star 12.6.5C

**PNL DPP8 TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

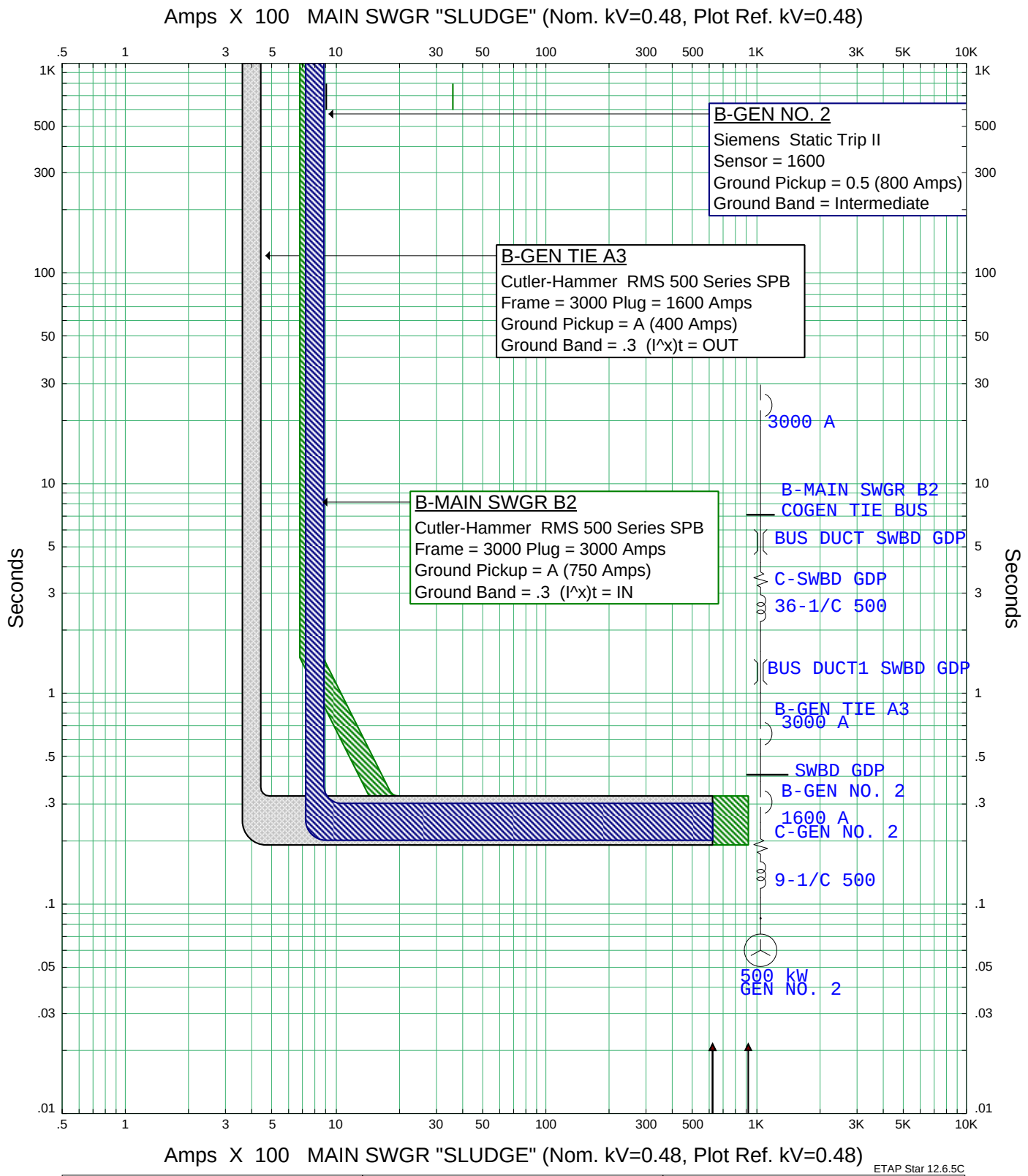



ETAP Star 12.6.5C

**SWBD GDP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

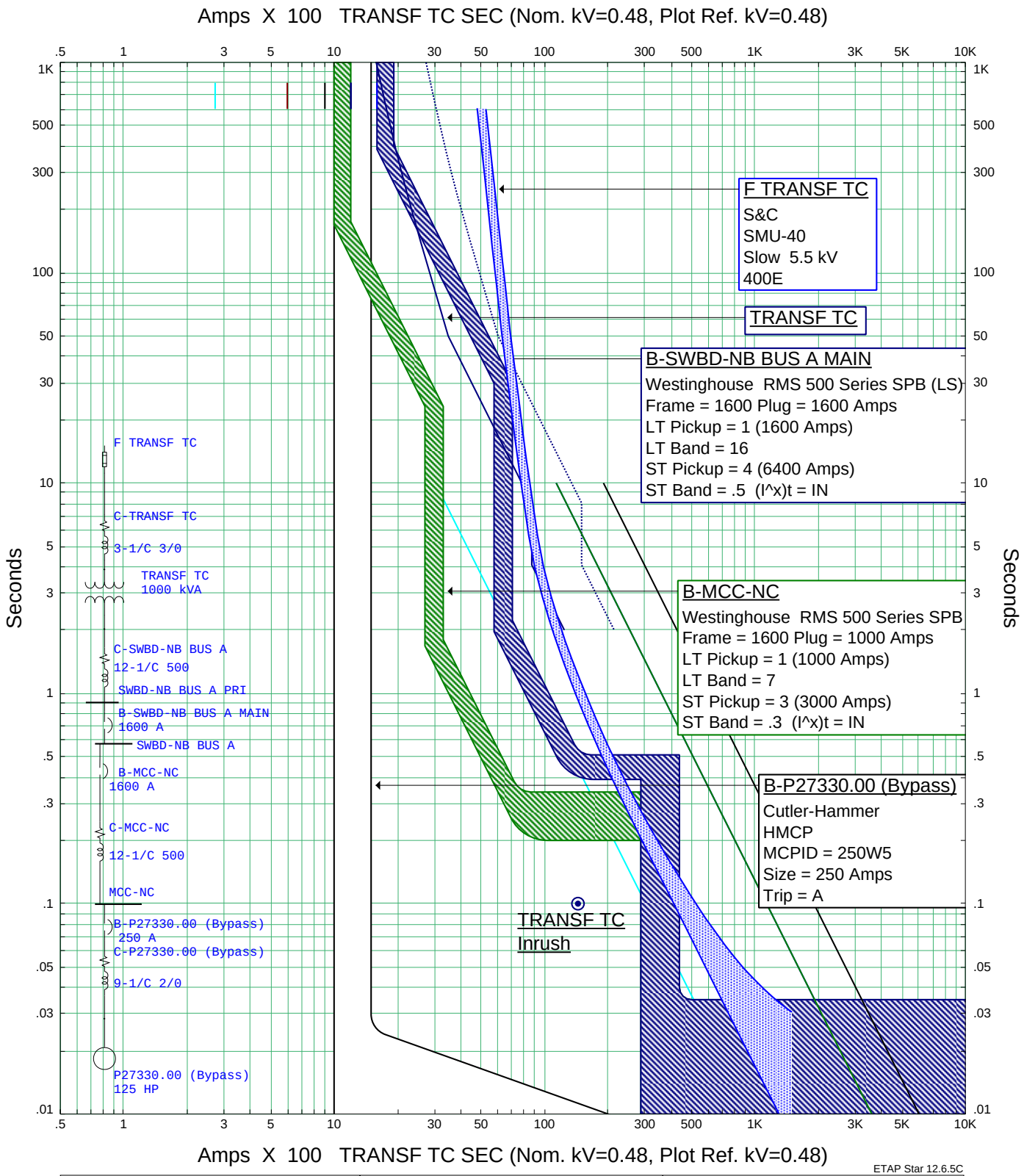



ETAP Star 12.6.5C

**SWBD GDP TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

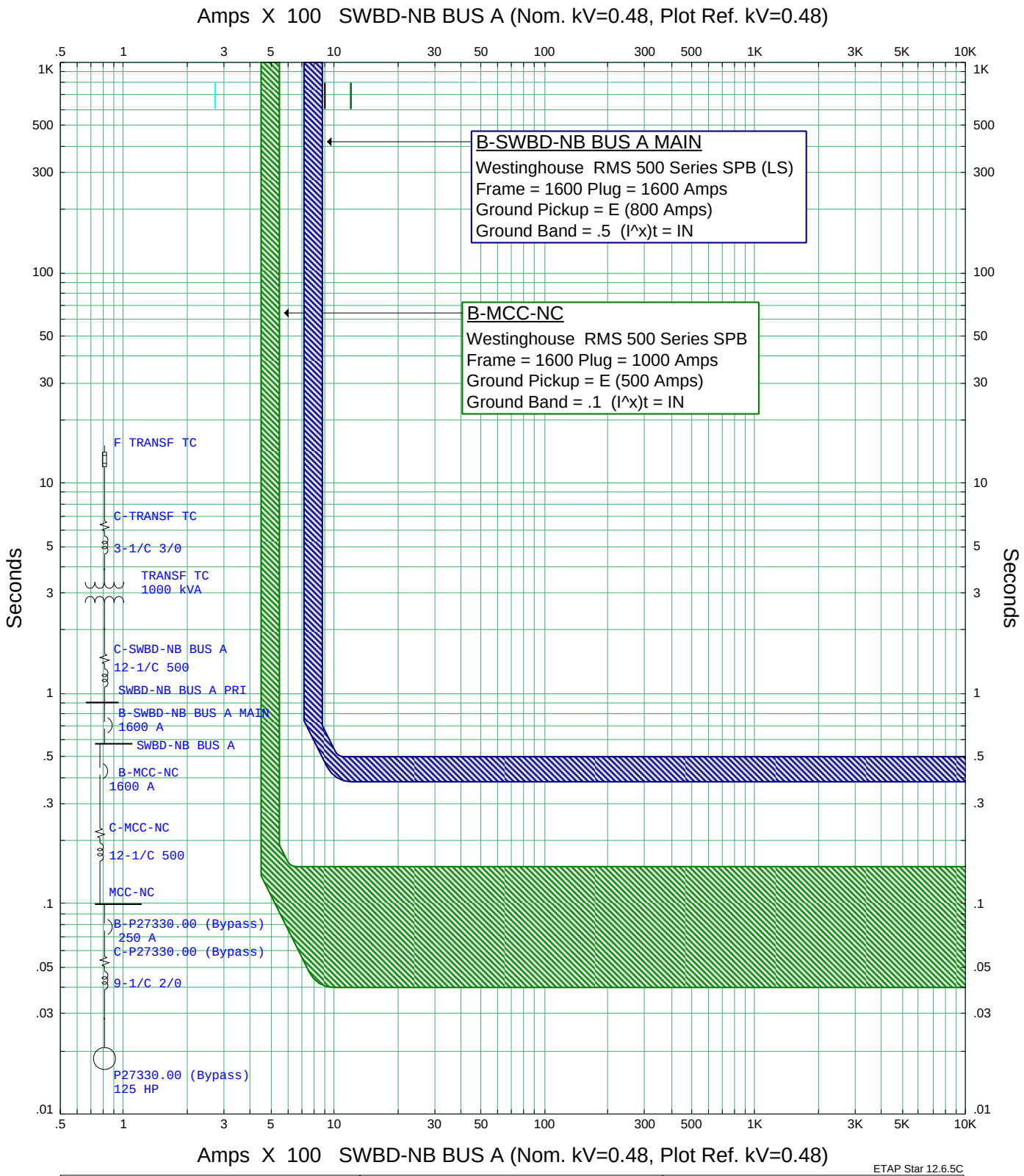



ETAP Star 12.6.5C

**SWBD-NB BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

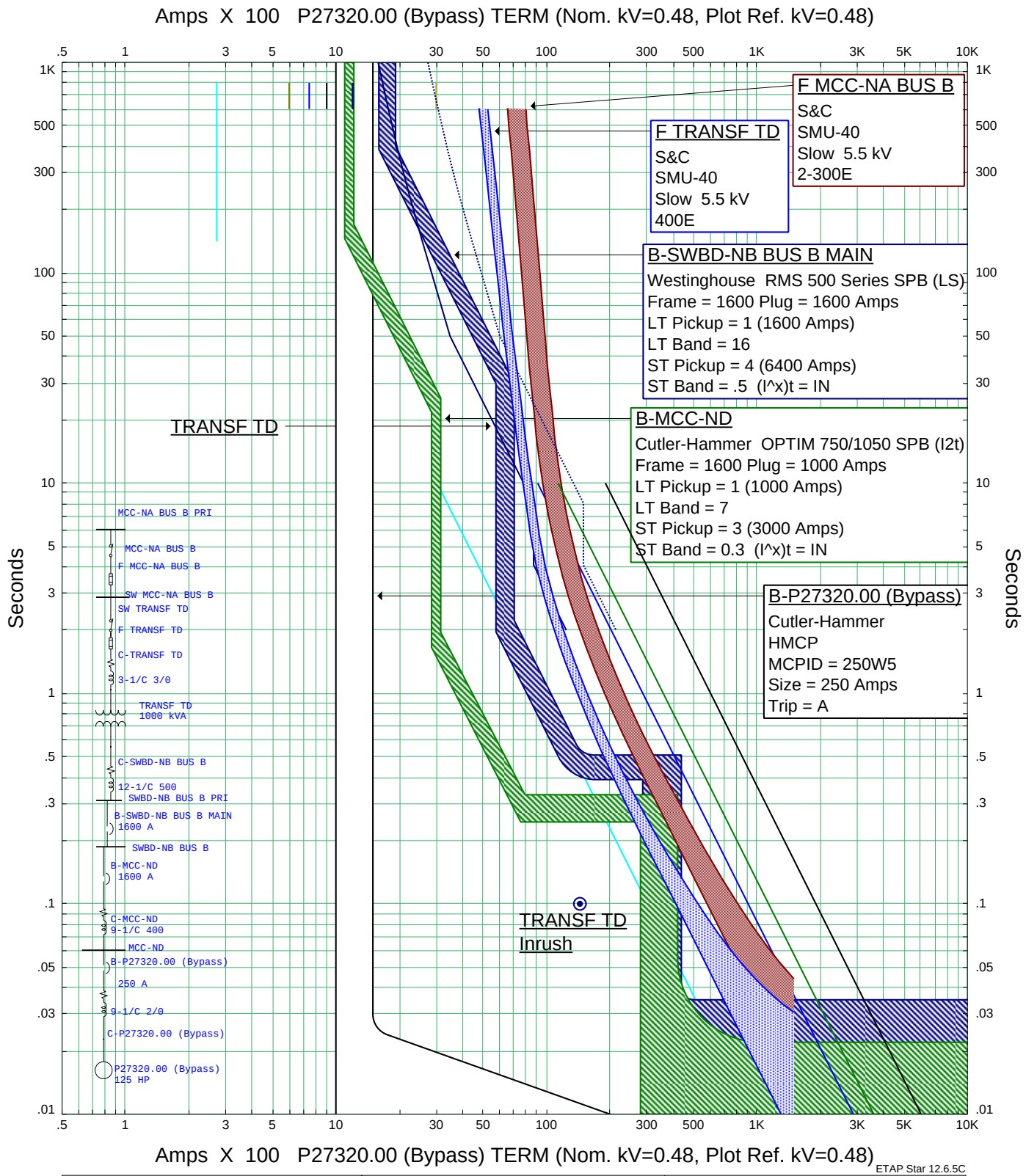



ETAP Star 12.6.5C

**SWBD-NB BUS A TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

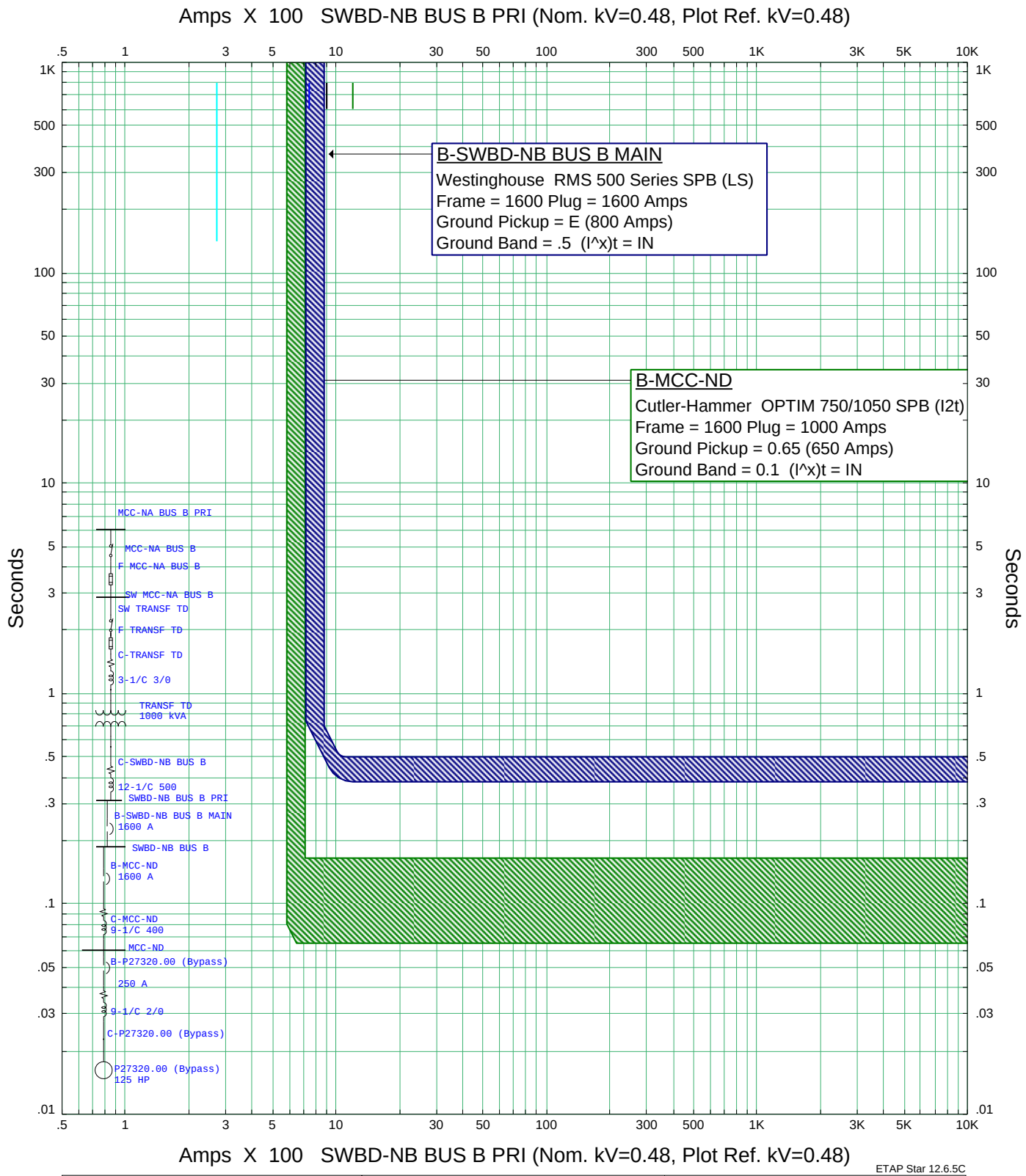



ETAP Star 12.6.5C

**SWBD-NB BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase




ETAP Star 12.6.5C

**SWBD-NB BUS B TCC**

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

# APPENDIX D – ARC FLASH STUDY

| ID | kV (kV) | Output Rpt. | Configuration | Total Energy (cal/cm²) | AFB (ft) | Energy Levels | Final FCT (sec) | Ia at FCT (kA) | Source PD ID | % Ia Variation |
|---|---|---|---|---|---|---|---|---|---|---|
| P52220.00 TERM | 0.48 | STANDBY | Standby | 0.012057 | 0.2 | Level A | 0.015 | 0.683 | B-P52220.00 | |
| P52230.00 TERM | 0.48 | STANDBY | Standby | 0.012057 | 0.2 | Level A | 0.015 | 0.683 | B-P52230.00 | |
| P52220.00 DISC | 0.48 | STANDBY | Standby | 0.012234 | 0.2 | Level A | 0.015 | 0.693 | B-P52220.00 | |
| P52230.00 DISC | 0.48 | STANDBY | Standby | 0.012234 | 0.2 | Level A | 0.015 | 0.693 | B-P52230.00 | |
| SEP53020.00 TERM | 0.48 | STANDBY | Standby | 0.028641 | 0.2 | Level A | 0.015 | 0.666 | B-SEP53020.00 | |
| SEP53020.00 DISC | 0.48 | STANDBY | Standby | 0.029068 | 0.2 | Level A | 0.015 | 0.675 | B-SEP53020.00 | |
| SEP53000.00 TERM | 0.48 | STANDBY | Standby | 0.029508 | 0.2 | Level A | 0.015 | 0.684 | B-SEP53000.00 | |
| SEP53010.00 TERM | 0.48 | STANDBY | Standby | 0.029508 | 0.2 | Level A | 0.015 | 0.684 | B-SEP53010.00 | |
| CON53020.00 TERM | 0.48 | STANDBY | Standby | 0.029717 | 0.2 | Level A | 0.015 | 0.689 | B-CON53020.00 | |
| CON53030.00 TERM | 0.48 | STANDBY | Standby | 0.029717 | 0.2 | Level A | 0.015 | 0.689 | B-CON53030.00 | |
| SEP53000.00 DISC | 0.48 | STANDBY | Standby | 0.029962 | 0.2 | Level A | 0.015 | 0.694 | B-SEP53000.00 | |
| SEP53010.00 DISC | 0.48 | STANDBY | Standby | 0.029962 | 0.2 | Level A | 0.015 | 0.694 | B-SEP53010.00 | |
| CON53020.00 DISC | 0.48 | STANDBY | Standby | 0.030171 | 0.2 | Level A | 0.015 | 0.698 | B-CON53020.00 | |
| CON53030.00 DISC | 0.48 | STANDBY | Standby | 0.030171 | 0.2 | Level A | 0.015 | 0.698 | B-CON53030.00 | |
| BSN51240.00 TERM | 0.48 | STANDBY | Standby | 0.030355 | 0.2 | Level A | 0.015 | 0.702 | B-BSN51240.00 | |
| BSN51250.00 TERM | 0.48 | STANDBY | Standby | 0.030355 | 0.2 | Level A | 0.015 | 0.702 | B-BSN51250.00 | |
| BSN51260.00 TERM | 0.48 | STANDBY | Standby | 0.030355 | 0.2 | Level A | 0.015 | 0.702 | B-BSN51260.00 | |
| BSN51270.00 TERM | 0.48 | STANDBY | Standby | 0.030355 | 0.2 | Level A | 0.015 | 0.702 | B-BSN51270.00 | |
| BSN51240.00 DISC | 0.48 | STANDBY | Standby | 0.030839 | 0.2 | Level A | 0.015 | 0.713 | B-BSN51240.00 | |
| BSN51250.00 DISC | 0.48 | STANDBY | Standby | 0.030839 | 0.2 | Level A | 0.015 | 0.713 | B-BSN51250.00 | |
| BSN51260.00 DISC | 0.48 | STANDBY | Standby | 0.030839 | 0.2 | Level A | 0.015 | 0.713 | B-BSN51260.00 | |
| BSN51270.00 DISC | 0.48 | STANDBY | Standby | 0.030839 | 0.2 | Level A | 0.015 | 0.713 | B-BSN51270.00 | |
| COM53030.00 TERM | 0.48 | STANDBY | Standby | 0.031505 | 0.2 | Level A | 0.015 | 0.727 | B-COM53030.00 | |
| CON51300.00 TERM | 0.48 | STANDBY | Standby | 0.031622 | 0.2 | Level A | 0.015 | 0.729 | B-CON51300.00 | |
| CON51320.00 TERM | 0.48 | STANDBY | Standby | 0.031622 | 0.2 | Level A | 0.015 | 0.729 | B-CON51320.00 | |
| COM53030.00 DISC | 0.48 | STANDBY | Standby | 0.032021 | 0.2 | Level A | 0.015 | 0.738 | B-COM53030.00 | |
| CON51300.00 DISC | 0.48 | STANDBY | Standby | 0.032139 | 0.2 | Level A | 0.015 | 0.74 | B-CON51300.00 | |
| CON51320.00 DISC | 0.48 | STANDBY | Standby | 0.032139 | 0.2 | Level A | 0.015 | 0.74 | B-CON51320.00 | |
| COM53040.00 TERM | 0.48 | STANDBY | Standby | 0.034273 | 0.3 | Level A | 0.015 | 0.786 | B-COM53040.00 | |
| P52240.00 TERM | 0.48 | STANDBY | Standby | 0.03439 | 0.3 | Level A | 0.015 | 0.788 | B-P52240.00 | |
| P52250.00 TERM | 0.48 | STANDBY | Standby | 0.03439 | 0.3 | Level A | 0.015 | 0.788 | B-P52250.00 | |
| COM53040.00 DISC | 0.48 | STANDBY | Standby | 0.034888 | 0.3 | Level A | 0.015 | 0.799 | B-COM53040.00 | |
| P52240.00 DISC | 0.48 | STANDBY | Standby | 0.035005 | 0.3 | Level A | 0.015 | 0.801 | B-P52240.00 | |
| P52250.00 DISC | 0.48 | STANDBY | Standby | 0.035005 | 0.3 | Level A | 0.015 | 0.801 | B-P52250.00 | |
| R BLDG N OH DOOR TE | 0.48 | STANDBY | Standby | 0.053784 | 0.3 | Level A | 0.017 | 1.071 | -SCR BLDG N OH DOO | |
| R BLDG N OH DOOR DI | 0.48 | STANDBY | Standby | 0.054554 | 0.3 | Level A | 0.017 | 1.096 | -SCR BLDG N OH DOO | |
| P54080.00 TERM | 0.48 | STANDBY | Standby | 0.05484 | 0.3 | Level A | 0.015 | 1.214 | B-P54080.00 | |
| P54090.00 TERM | 0.48 | STANDBY | Standby | 0.05484 | 0.3 | Level A | 0.015 | 1.214 | B-P54090.00 | |
| R BLDG S OH DOOR TE | 0.48 | STANDBY | Standby | 0.056366 | 0.3 | Level A | 0.016 | 1.151 | -SCR BLDG S OH DOO | |
| P54080.00 DISC | 0.48 | STANDBY | Standby | 0.056461 | 0.3 | Level A | 0.015 | 1.247 | B-P54080.00 | |
| P54090.00 DISC | 0.48 | STANDBY | Standby | 0.056461 | 0.3 | Level A | 0.015 | 1.247 | B-P54090.00 | |
| R BLDG S OH DOOR DI | 0.48 | STANDBY | Standby | 0.057423 | 0.3 | Level A | 0.016 | 1.181 | -SCR BLDG S OH DOO | |
| B52220.00 TERM | 0.48 | STANDBY | Standby | 0.064502 | 0.3 | Level A | 0.017 | 1.27 | B-B52220.00 | |
| B52220.00 DISC | 0.48 | STANDBY | Standby | 0.065324 | 0.3 | Level A | 0.017 | 1.293 | B-B52220.00 | |
| B52210.00 TERM | 0.48 | STANDBY | Standby | 0.067089 | 0.4 | Level A | 0.016 | 1.341 | B-B52210.00 | |
| B52210.00 DISC | 0.48 | STANDBY | Standby | 0.068048 | 0.4 | Level A | 0.016 | 1.367 | B-B52210.00 | |
| HVAC56110.00 TERM | 0.48 | STANDBY | Standby | 0.087954 | 0.4 | Level A | 0.014 | 1.977 | B-HVAC56110.00 | |
| HVAC56110.00 DISC | 0.48 | STANDBY | Standby | 0.091454 | 0.4 | Level A | 0.014 | 2.072 | B-HVAC56110.00 | |
| F54330.00 TERM | 0.48 | STANDBY | Standby | 0.092474 | 0.4 | Level A | 0.015 | 1.968 | B-F54330.00 | |
| F54330.00 DISC | 0.48 | STANDBY | Standby | 0.097274 | 0.4 | Level A | 0.015 | 2.063 | B-F54330.00 | |
| XFMR T-LC2 PRI | 0.48 | STANDBY | Standby | 0.101032 | 0.3 | Level A | 0.015 | 2.32 | B-XFMR T-LC2 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| P52130.00 TERM | 0.48 | STANDBY | Standby | 0.112944 | 0.5 | Level A | 0.015 | 2.368 | B-P52130.00 | |
| P52130.00 DISC | 0.48 | STANDBY | Standby | 0.114684 | 0.5 | Level A | 0.015 | 2.402 | B-P52130.00 | |
| P55020.00 TERM | 0.48 | STANDBY | Standby | 0.142762 | 0.4 | Level A | 0.018 | 2.617 | B-LCP-HWOCS | |
| P52150.00 TERM | 0.48 | STANDBY | Standby | 0.145169 | 0.5 | Level A | 0.016 | 2.762 | B-P52150.00 | |
| P52150.00 DISC | 0.48 | STANDBY | Standby | 0.147085 | 0.5 | Level A | 0.016 | 2.81 | B-P52150.00 | |
| BLWR BLDG TROLLEY | 0.48 | STANDBY | Standby | 0.152082 | 0.4 | Level A | 0.015 | 3.269 | B-BLRW BLDG TROLLEY | |
| P52170.00 TERM | 0.48 | STANDBY | Standby | 0.155725 | 0.5 | Level A | 0.016 | 3.019 | B-P52170.00 | |
| P55030.00 TERM | 0.48 | STANDBY | Standby | 0.156021 | 0.5 | Level A | 0.018 | 2.697 | B-LCP-HWOCS | |
| P52100.00 TERM | 0.48 | BASE | Normal | 0.157882 | 0.5 | Level A | 0.016 | 3.068 | B-P52100.00 | |
| P52120.00 TERM | 0.48 | BASE | Normal | 0.157946 | 0.5 | Level A | 0.015 | 3.23 | B-P52120.00 | |
| P52170.00 DISC | 0.48 | STANDBY | Standby | 0.158173 | 0.5 | Level A | 0.016 | 3.076 | B-P52170.00 | |
| P52100.00 DISC | 0.48 | BASE | Normal | 0.159545 | 0.5 | Level A | 0.016 | 3.107 | B-P52100.00 | |
| P52120.00 DISC | 0.48 | BASE | Normal | 0.160248 | 0.5 | Level A | 0.015 | 3.273 | B-P52120.00 | |
| P52110.00 TERM | 0.48 | STANDBY | Standby | 0.161184 | 0.5 | Level A | 0.023 | 2.242 | B-P52110.00 | |
| P52110.00 DISC | 0.48 | STANDBY | Standby | 0.161749 | 0.6 | Level A | 0.022 | 2.272 | B-P52110.00 | |
| LCP-HWOCS | 0.48 | STANDBY | Standby | 0.163488 | 0.4 | Level A | 0.017 | 3.205 | B-LCP-HWOCS | |
| B52190.00 TERM | 0.48 | STANDBY | Standby | 0.170336 | 0.6 | Level A | 0.016 | 3.199 | B-B52190.00 | |
| B52190.00 DISC | 0.48 | STANDBY | Standby | 0.173001 | 0.6 | Level A | 0.016 | 3.264 | B-B52190.00 | |
| F55010.00 TERM | 0.48 | STANDBY | Standby | 0.176902 | 0.6 | Level A | 0.017 | 3.227 | B-LCP-HWOCS | |
| P52160.00 TERM | 0.48 | STANDBY | Standby | 0.176908 | 0.6 | Level A | 0.019 | 2.859 | B-P52160.00 | |
| P52160.00 DISC | 0.48 | STANDBY | Standby | 0.178512 | 0.6 | Level A | 0.019 | 2.91 | B-P52160.00 | |
| HVAC56100.00 TERM | 0.48 | STANDBY | Standby | 0.178756 | 0.6 | Level A | 0.013 | 4.173 | B-HVAC56100.00 | |
| P52140.00 TERM | 0.48 | BASE | Normal | 0.187729 | 0.6 | Level A | 0.015 | 3.73 | B-P52140.00 | |
| HVAC56100.00 DISC | 0.48 | STANDBY | Standby | 0.189449 | 0.6 | Level A | 0.013 | 4.476 | B-HVAC56100.00 | |
| P52140.00 DISC | 0.48 | BASE | Normal | 0.190561 | 0.6 | Level A | 0.015 | 3.79 | B-P52140.00 | |
| XFMR T-C4 PRI | 0.48 | BASE | Normal | 0.195321 | 0.5 | Level A | 0.011 | 5.621 | B-XFMR T-C4 | |
| B52180.00 TERM | 0.48 | BASE | Normal | 0.207464 | 0.6 | Level A | 0.015 | 4.157 | B-B52180.00 | |
| B52180.00 DISC | 0.48 | BASE | Normal | 0.213587 | 0.6 | Level A | 0.015 | 4.27 | B-B52180.00 | |
| HW ELEVATOR | 0.48 | BASE | Normal | 0.265548 | 0.6 | Level A | 0.015 | 5.682 | B-HW ELEVATOR | |
| F52410.00 STR | 0.48 | STANDBY | Standby | 0.334003 | 0.8 | Level A | 0.424 | 0.669 | B-F52410.00 | |
| F52410.00 DISC | 0.48 | STANDBY | Standby | 0.340021 | 0.8 | Level A | 0.463 | 0.624 | B-F52410.00 | |
| PNL DPP1 | 0.48 | BASE | Normal | 0.343072 | 0.7 | Level A | 0.011 | 9.835 | B-PNL DPP1 MAIN | |
| XFMR T-LC1 PRI | 0.48 | BASE | Normal | 0.347395 | 0.7 | Level A | 0.014 | 7.657 | B-ATS-L BUS A | |
| F52420.00 STR | 0.48 | STANDBY | Standby | 0.355724 | 0.8 | Level A | 0.579 | 0.483 | B-F52420.00 | |
| F52420.00 DISC | 0.48 | STANDBY | Standby | 0.361183 | 0.8 | Level A | 0.624 | 0.46 | B-F52420.00 | |
| HW GATES | 0.48 | STANDBY | Standby | 0.378724 | 0.8 | Level A | 0.789 | 0.392 | B-HW GATES | |
| MCC-DP4B | 0.48 | BASE | Normal | 0.386607 | 0.8 | Level A | 0.004 | 25.872 | F-MCC-DP4B | |
| B20400.00 TERMINALS | 2.4 | STANDBY | Standby | 0.389522 | 0.5 | Level A | 0.045 | 4.209 | F B20400.00 | |
| B20100.00 TERMINALS | 2.4 | MinUtility | Normal | 0.411293 | 0.5 | Level A | 0.058 | 3.459 | F B20100.00 | |
| B20200.00 TERMINALS | 2.4 | MinUtility | Normal | 0.412669 | 0.5 | Level A | 0.059 | 3.453 | F B20200.00 | |
| PNL DPP1 PRI | 0.48 | BASE | Normal | 0.439913 | 0.8 | Level A | 0.013 | 9.835 | B-PNL DPP1 | |
| MCC-NG BUS A | 0.48 | STANDBY | Standby | 0.509439 | 0.9 | Level A | 0.016 | 9.662 | B-BUS A MCC-NG | |
| MCC-NG BUS B | 0.48 | STANDBY | Standby | 0.509791 | 0.9 | Level A | 0.016 | 9.667 | B-BUS-B MCC-NG | |
| MCC-DP2C | 0.48 | BASE | Normal | 0.56971 | 1 | Level A | 0.017 | 10.001 | B-MCC-DP2C | |
| ATS-L BUS B | 0.48 | BASE | Normal | 0.656259 | 1 | Level A | 0.013 | 15.053 | B-ATS-L BUS B | |
| ATS-L BUS A | 0.48 | BASE | Normal | 0.734519 | 1.1 | Level A | 0.013 | 16.948 | B-ATS-L BUS A | |
| ATS-L SEC | 0.48 | BASE | Normal | 0.734519 | 1.1 | Level A | 0.013 | 16.948 | B-ATS-L BUS A | |
| GRIT SCR TROLLEY | 0.48 | STANDBY | Standby | 0.736726 | 1.1 | Level A | 0.464 | 0.601 | B-GRIT SCR TROLLEY | 15% |
| NFL PUMP 2 TERMINAL | 0.48 | BASE | Normal | 0.911308 | 1.3 | Level A | 0.018 | 14.142 | B-INFL PUMP 2 | |
| NFL PUMP 4 TERMINAL | 0.48 | BASE | Normal | 0.918588 | 1.3 | Level A | 0.018 | 14.253 | B-INFL PUMP 4 | |
| NFL PUMP 3 TERMINAL | 0.48 | BASE | Normal | 0.941289 | 1.3 | Level A | 0.018 | 14.593 | B-INFL PUMP 3 | |
| NFL PUMP 5 TERMINAL | 0.48 | BASE | Normal | 0.941289 | 1.3 | Level A | 0.018 | 14.593 | B-INFL PUMP 5 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MCC-SH BUS B | 0.48 | STANDBY | Standby | 1.36 | 1.6 | Level A | 0.064 | 6.638 | B-MCC-SH TIE | |
| EFF PS SWGR BUS A | 0.48 | BASE | Normal | 1.65 | 2.5 | Level A | 0.07 | 10.382 | B-EFF PS SWGR BUS A | |
| EFF PS SWGR BUS B | 0.48 | BASE | Normal | 1.65 | 2.5 | Level A | 0.07 | 10.381 | B-EFF PS SWGR BUS B | |
| MCC-NE | 0.48 | STANDBY | Standby | 11.43 | 5.9 | Level D | 0.34 | 9.169 | B-MCC-NE | |
| MCC-NF | 0.48 | STANDBY | Standby | 11.43 | 5.9 | Level D | 0.34 | 9.169 | B-MCC-NF | |
| MCC-ND | 0.48 | BASE | Normal | 12.84 | 6.4 | Level D | 0.681 | 5.134 | B-MCC-ND | 15% |
| TRANSF TC PRI | 2.4 | STANDBY | Standby | 13.26 | 5 | Level D | 2 | 2.524 | B-SWBD-NB TIE | |
| MCC-NC | 0.48 | BASE | Normal | 13.57 | 6.6 | Level D | 0.727 | 5.007 | B-MCC-NC | 15% |
| PNL DP4 | 0.48 | BASE | Normal | 17.55 | 12.4 | Level D | 0.34 | 22.123 | B-FB3 | |
| MCC-NA BUS A | 2.4 | BASE | Normal | 2.1 | 2.7 | Level B | 0.234 | 4.085 | B-FA1 | |
| MCC-NA BUS A PRI | 2.4 | BASE | Normal | 2.1 | 2.7 | Level B | 0.234 | 4.085 | B-FA1 | |
| TRANSF TA PRI | 0.48 | BASE | Normal | 24.25 | 6.7 | Level D | 0.23 | 26.302 | B-FA1 | |
| SWBD-NB BUS A PRI | 0.48 | MinUtility | Normal | 24.74 | 15.6 | Level D | 2 | 6.109 | F TRANSF TC | |
| MCC-GE PRI | 0.48 | BASE | Normal | 24.9 | 9.5 | Level D | 0.34 | 20.184 | B-FB5-MCC-GE | |
| SWBD-NB BUS B | 0.48 | MinUtility | Normal | 25.05 | 15.7 | Level E | 2 | 6.165 | 3-SWBD-NB BUS B MAIN | |
| SWBD-NB BUS B PRI | 0.48 | MinUtility | Normal | 25.05 | 15.7 | Level E | 2 | 6.165 | F TRANSF TD | |
| SWBD-NB BUS A | 0.48 | STANDBY | Standby | 26.02 | 16.1 | Level E | 2 | 5.192 | B-SWBD-NB TIE | |
| FF PUMP NO. 2 VFD PF | 0.48 | BASE | Normal | 3.17 | 2.4 | Level B | 0.07 | 11.596 | B-EFF PUMP NO. 2 VFD | |
| FF PUMP NO. 4 VFD PF | 0.48 | BASE | Normal | 3.17 | 2.4 | Level B | 0.07 | 11.596 | B-EFF PUMP NO. 4 VFD | |
| NFL PUMP 6 TERMINAL | 0.48 | BASE | Normal | 3.8 | 2.7 | Level B | 0.07 | 12.709 | B-52-6D | |
| NFL PUMP 1 TERMINAL | 0.48 | BASE | Normal | 3.98 | 2.7 | Level B | 0.07 | 13.154 | B-52-2B | |
| MAIN SWGR "FILTER" | 0.48 | STANDBY | Standby | 34.79 | 19.7 | Level E | 2 | 5.675 | B-FA1 | |
| TRANSF TB PRI | 0.48 | BASE | Normal | 39.92 | 8.6 | Level E | 0.34 | 28.955 | B-FB1 | |
| PNL DPLC-1 | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 1.386 | | |
| PNL DPLC-2 | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 1.18 | | |
| PNL DPLC-3 | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 1.336 | | |
| PNL DPLC-4 | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 0.79 | | |
| XFMR T-C4 SEC | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 0.806 | | |
| XFMR T-LC1 SEC | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 1.396 | | |
| XFMR T-LC2 SEC | 0.208 | BASE | Normal | 4 | 3.1 | Level B | | 1.182 | | |
| INFL PUMP 2 VFD | 0.48 | STANDBY | Standby | 4.15 | 2.8 | Level C | 0.07 | 8.342 | B-52-6B | |
| INFL PUMP 4 VFD | 0.48 | STANDBY | Standby | 4.19 | 2.8 | Level C | 0.07 | 8.375 | B-52-6C | |
| INFL PUMP 3 VFD | 0.48 | BASE | Normal | 4.3 | 2.8 | Level C | 0.07 | 13.917 | B-52-2C | 15% |
| INFL PUMP 5 VFD | 0.48 | BASE | Normal | 4.3 | 2.8 | Level C | 0.07 | 13.917 | B-52-2D | 15% |
| INFL PUMP 6 VFD PRI | 0.48 | BASE | Normal | 4.83 | 3 | Level C | 0.07 | 15.676 | B-52-6D | |
| INFL PUMP 2 VFD PRI | 0.48 | BASE | Normal | 4.88 | 3 | Level C | 0.07 | 15.832 | B-52-6B | |
| INFL PUMP 4 VFD PRI | 0.48 | BASE | Normal | 4.94 | 3 | Level C | 0.07 | 15.991 | B-52-6C | |
| TRANSF TC SEC | 0.48 | BASE | Normal | 48.45 | 9.5 | Level F | 2 | 6.577 | F TRANSF TC | |
| TRANSF TD SEC | 0.48 | BASE | Normal | 49.15 | 9.6 | Level F | 2 | 6.727 | F TRANSF TD | |
| MCC-HW BUS B PRI | 0.48 | BASE | Normal | 5.09 | 3.1 | Level C | 0.07 | 16.408 | B-52-5C | |
| INFL PUMP 1 VFD PRI | 0.48 | BASE | Normal | 5.13 | 3.1 | Level C | 0.07 | 16.372 | B-52-2B | |
| INFL PUMP 3 VFD PRI | 0.48 | BASE | Normal | 5.13 | 3.1 | Level C | 0.07 | 16.373 | B-52-2C | |
| INFL PUMP 5 VFD PRI | 0.48 | BASE | Normal | 5.13 | 3.1 | Level C | 0.07 | 16.373 | B-52-2D | |
| MCC-HW BUS A PRI | 0.48 | BASE | Normal | 5.16 | 3.1 | Level C | 0.07 | 16.468 | B-52-3C | |
| TRANSF TD PRI | 2.4 | MinUtility | Normal | 5.45 | 3.2 | Level C | 0.666 | 3.674 | F TRANSF TD | |
| MCC-HW BUS A | 0.48 | STANDBY | Standby | 5.84 | 3.9 | Level C | 0.158 | 7.672 | B-MCC-HW BUS A MAIN | |
| MCC-HW BUS B | 0.48 | STANDBY | Standby | 5.84 | 3.9 | Level C | 0.158 | 7.672 | B-MCC-HW BUS B MAIN | |
| MCC-SH BUS A | 0.48 | STANDBY | Standby | 5.94 | 4 | Level C | 0.34 | 5.231 | B-MCC-SH BUS A | |
| MS-HW BUS A | 0.48 | MinUtility | Normal | 58.08 | 27.8 | Level F | 2 | 13.426 | B-MS-HW 52-A | |
| MS-HW BUS B | 0.48 | MinUtility | Normal | 58.14 | 27.9 | Level F | 2 | 13.463 | B-MS-HW 52-B | |
| MCC-SH BUS A PRI | 0.48 | STANDBY | Standby | 6.9 | 3.6 | Level C | 0.34 | 5.612 | B-MCC-SH BUS A | |
| MCC-SH BUS B PRI | 0.48 | STANDBY | Standby | 6.98 | 3.6 | Level C | 0.34 | 5.767 | B-MCC-SH BUS B | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PNL DP2 | 0.48 | BASE | Normal | 7.48 | 6.9 | Level C | 0.34 | 10.19 | B-FB4 | |
| MCC-NA BUS B | 2.4 | STANDBY | Standby | 7.94 | 10.5 | Level C | 2 | 1.666 | F TRANSF TD | |
| MCC-NA BUS B PRI | 2.4 | STANDBY | Standby | 7.94 | 10.5 | Level C | 2 | 1.666 | F TRANSF TD | |
| MCC-DP4A | 0.48 | MinUtility | Normal | 8.23 | 4.8 | Level D | 2 | 1.449 | B-FB3 | |
| TRANSF TB SEC | 2.4 | STANDBY | Standby | 8.42 | 4 | Level D | 2 | 1.646 | F TRANSF TD | |
| SR-DAF | 0.48 | STANDBY | Standby | 9.15 | 4.1 | Level D | 0.34 | 7.281 | B-SR-DAF | |
| SR-DAF PRI | 0.48 | STANDBY | Standby | 9.15 | 4.1 | Level D | 0.34 | 7.281 | B-SR-DAF | |
| MCC-GE | 0.48 | BASE | Normal | 9.45 | 5.3 | Level D | 0.34 | 8.243 | B-FB5-MCC-GE | |
| MCC-NG BUS A PRI | 0.48 | STANDBY | Standby | 9.96 | 4.3 | Level D | 0.34 | 7.777 | B-MCC-NG BUS A | |
| MCC-NG BUS B PRI | 0.48 | STANDBY | Standby | 9.96 | 4.3 | Level D | 0.34 | 7.778 | B-MCC-NG BUS B | |
| COGEN TIE BUS | 0.48 | MinUtility | Normal | 96.39 | 39.3 | Level F | 2 | 21.271 | B-GEN TIE A3 | |
| MAIN SWGR "SLUDGE" | 0.48 | MinUtility | Normal | 96.39 | 39.3 | Level F | 2 | 21.271 | B-GEN TIE A3 | |

# APPENDIX E – PROTECTION SETTINGS

# Protective Device Settings

## OCR: OCR-3 ATS #10

MFR: GE Multilin  Tag #:
Model: IFCV

| | CT | Base kV | If (kA) |
|---|---|---|---|
| CT Input: | 400/5 | | |

OC Level: OC1

| | | Range | Setting |
|---|---|---|---|
| Phase TOC | Inverse (51) (0%) | | |
| | Pickup (Tap) | 2 - 16 Sec - 5A | 6.000 |
| | Time Dial | | 1.000 |

## OCR: OCR3 ATS#11

MFR: GE Multilin  Tag #:
Model: IFCV

| | CT | Base kV | If (kA) |
|---|---|---|---|
| CT Input: | 400/5 | | |

OC Level: OC1

| | | Range | Setting |
|---|---|---|---|
| Phase TOC | Inverse (51) (0%) | | |
| | Pickup (Tap) | 2 - 16 Sec - 5A | 6.000 |
| | Time Dial | | 1.000 |

## Fuse: F B20100.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CLS-12 | kV: | 5.080 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Other | Int. kA: | 50.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 6R | Cont. Amp: | 170.000 | | | |

## Fuse: F B20200.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CLS-12 | kV: | 5.080 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Other | Int. kA: | 50.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 6R | Cont. Amp: | 170.000 | | | |

## Fuse: F B20300.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CLS-12 | kV: | 5.080 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Other | Int. kA: | 50.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 6R | Cont. Amp: | 170.000 | | | |

## Fuse: F B20400.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CLS-12 | kV: | 5.080 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Other | Int. kA: | 50.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 6R | Cont. Amp: | 170.000 | | | |

## Protective Device Settings

### Fuse: F B20500.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CLS-12 | kV: | 5.080 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Other | Int. kA: | 50.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 6R | Cont. Amp: | 170.000 | | | |

### Fuse: F MCC-NA BUS A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SMU-40 | kV: | 5.500 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Slow | Int. kA: | 25.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 2-300E | Cont. Amp: | 540.000 | | | |

### Fuse: F MCC-NA BUS B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SMU-40 | kV: | 5.500 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Slow | Int. kA: | 25.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 2-300E | Cont. Amp: | 540.000 | | | |

### Fuse: F TRANSF TC

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SMU-40 | kV: | 5.500 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Slow | Int. kA: | 25.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 400E | Cont. Amp: | 400.000 | | | |

### Fuse: F TRANSF TD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SMU-40 | kV: | 5.500 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | Slow | Int. kA: | 25.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 400E | Cont. Amp: | 400.000 | | | |

### Fuse: F-EFF PUMP NO. 2 VFD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Bussmann | Tag #: | | 3-Phase kA: | 22.94 | Asym. (Calc.) |
| Model: | LPJ_SP | kV: | 0.600 | LG kA: | 22.64 | Asym. (Calc.) |
| Speed: | Time Delay | Int. kA: | 300.000 | Base kV: | 0.480 | (Calc.) |
| Size: | 600A | Cont. Amp: | 600.000 | | | |

### Fuse: F-EFF PUMP NO. 4 VFD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Bussmann | Tag #: | | 3-Phase kA: | 22.91 | Asym. (Calc.) |
| Model: | LPJ_SP | kV: | 0.600 | LG kA: | 22.61 | Asym. (Calc.) |
| Speed: | Time Delay | Int. kA: | 300.000 | Base kV: | 0.480 | (Calc.) |
| Size: | 600A | Cont. Amp: | 600.000 | | | |

### Fuse: F-HVAC56100.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C* | Tag #: | | 3-Phase kA: | 6.13 | Asym. (Calc.) |
| Model: | SMU-20 | kV: | 0.480 | LG kA: | 3.65 | Asym. (Calc.) |
| Speed: | Standard | Int. kA: | 14.000 | Base kV: | 0.480 | (Calc.) |
| Size: | 30E | Cont. Amp: | 30.000 | | | |

* Retrieved library data is modified by user.

## Protective Device Settings

### Fuse: F-HVAC56110.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | S&C* | Tag #: | | 3-Phase kA: | 2.54 | Asym. (Calc.) |
| Model: | SMU-20 | kV: | 0.480 | LG kA: | 1.49 | Asym. (Calc.) |
| Speed: | Standard | Int. kA: | 14.000 | Base kV: | 0.480 | (Calc.) |
| Size: | 20E | Cont. Amp: | 20.000 | | | |

* Retrieved library data is modified by user.

### Fuse: F-MCC-DP4B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Mersen | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HSJ | kV: | 0.600 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | High | Int. kA: | 200.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 600A | Cont. Amp: | 600.000 | | | |

### Fuse: F-P4023.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Mersen | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HSJ | kV: | 0.600 | LG kA: | 0.00 | Asym. (Calc.) |
| Speed: | High | Int. kA: | 200.000 | Base kV: | 0.000 | (Calc.) |
| Size: | 400A | Cont. Amp: | 400.000 | | | |

### CB: B- PANEL DPC5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (2P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B- PNL DPC6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B- Polymer

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

## Protective Device Settings

### CB: B- Praestemat

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B SUMP PUMP CONTROL PANEL

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Allen-Bradley | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | 140U-I6C3 | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Allen Bradley | Thermal Trip: | Fixed |
| Model: | 140U-I6C3 | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B0P4021.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LA-400 (125-400A) | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | LA-400 | Magnetic Trip: | High |
| ID: | 400 | | |

### CB: B2-MCC-DP4B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LCL | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LCL (Fixed)
Sensor: 400
Rating Plug: 250.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | Fixed | |
| | LT Band | Fixed | |
| Short-Time | ST Pickup | 8 | |
| | ST Band | Fixed | I^xt=IN |
| INST | Inst. Pickup | Fixed | |

| Ground Setting | |
|---|---|
| Ground Pickup | 0.650 |
| Ground Band | 0.060 |

## Protective Device Settings

### CB: B-400 KW GENERATOR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Merlin Gerin* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | NSJ600N | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 600 | Cont. Amp: | 240.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Merlin Gerin
Model: STR23SP
Sensor: 600
Rating Plug: 300.00

| | | Phase Setting |
|---|---|---|
| Long-Time | LT Pickup | 1.0 |
| | LT Band | Fixed |
| Short-Time | ST Pickup | 6 |
| | ST Band | Fixed |

### CB: B-4911.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TBC4 | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: General Electric
Model: TBC
ID: 400
Pick up: HI

### CB: B-50A RECEPT

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

## Protective Device Settings

### CB: B-52-2B

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | B | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

### CB: B-52-2C

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | B | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

## Protective Device Settings

### CB: B-52-2D

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 | Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | B | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

### CB: B-52-3C

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 54.93 | Asym. (Calc.) |
| Model: | WL-L-1600 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 1600
Rating Plug: 1000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | C | |
| | LT Band | 10 | | Ground Band | 0.2 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.1 | I^xt=IN | | | |
| INST | Inst. Pickup | 10 | | | | |

## Protective Device Settings

### CB: B-52-5C

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-1600 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 1600
Rating Plug: 1000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | C | |
| | LT Band | 10 | | Ground Band | 0.2 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.1 | I^xt=IN | | | |
| INST | Inst. Pickup | 10 | | | | |

### CB: B-52-6B

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

## Protective Device Settings

### CB: B-52-6C

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 | Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

### CB: B-52-6D

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 | Asym. (Calc.) |
| Model: | WL-L-800 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 600.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 5.5 | | Ground Band | 0.1 | I^xt=OUT |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.3 | I^xt=IN | | | |
| INST | Inst. Pickup | 6 | | | | |

## Protective Device Settings

### CB: B-52-GA

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 54.93 | Asym. (Calc.) |
| Model: | WL-L-3200 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 | Asym. (Calc.) |
| Size: | 3200 | Cont. Amp: | 2000.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | D | |
| | LT Band | 5.5 | | | Ground Band | 0.4 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | | |
| | ST Band | 0.2 | I^xt=IN | | | | |
| INST | Inst. Pickup | 12 | | | | | |

### CB: B-52-GB

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | WL-L-3200 | Rating: | 100 kA, 0.508 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3200 | Cont. Amp: | 2000.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | D | |
| | LT Band | 5.5 | | | Ground Band | 0.4 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | | |
| | ST Band | 0.2 | I^xt=IN | | | | |
| INST | Inst. Pickup | 12 | | | | | |

### CB: B-6511.00

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 150T4
Pick up: E

## Protective Device Settings

### CB: B-6512.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 150T4
Pick up: H

### CB: B-AC-1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 100 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

### CB: B-ATS-C BUS A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Allen-Bradley | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | 140U-I6C3 | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Allen Bradley — Thermal Trip: Fixed
Model: 140U-I6C3 — Magnetic Trip: FIXED
ID: 70

### CB: B-ATS-C BUS B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FDB | Rating: | 18 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: FDB — Magnetic Trip: FIXED
ID: 70

### CB: B-ATS-L BUS A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | FDB | Rating: | 14 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: FDB — Magnetic Trip: FIXED
ID: 100

## Protective Device Settings

### CB: B-ATS-L BUS B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | FDB | Rating: | 18 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FDB | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-B27400.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 150T4 |
| Pick up: | F |

### CB: B-B36040.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 050K2 |
| Pick up: | G |

### CB: B-B36045.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 050K2 |
| Pick up: | G |

## Protective Device Settings

### CB: B-B4121.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 195.000 (100 - 300)

### CB: B-B4122.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

### CB: B-B4123.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

### CB: B-B4124.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

## Protective Device Settings

### CB: B-B4221.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 75.000 (50 - 150)

### CB: B-B4222.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 100.000 (100 - 300)

### CB: B-B4223.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 75.000 (50 - 150)

### CB: B-B4224.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | MCP | Rating: | 0 kA, 0 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 100.000 (100 - 300)

## Protective Device Settings

### CB: B-B52180.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: C

### CB: B-B52190.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: E

### CB: B-B52210.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

### CB: B-B52220.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

## Protective Device Settings

### CB: B-B6513.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 150U4
Pick up: H

### CB: B-B6556.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: H

### CB: B-BATTERY CHARGER XFMR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

### CB: B-BLOWER #1 BYPASSS VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

### CB: B-BLOWER #1 DISCH VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

## Protective Device Settings

### CB: B-BLOWER #1 GUIDE VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #2 BYPASS VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #2 DISCH VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #2 GUIDE VANES

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #3 BYPASS VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-BLOWER #3 DISCH VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #3 GUIDE VANES

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-BLOWER #4 BYPASS VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BLOWER #4 DISCHA VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BLOWER #4 GUIDE VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

## Protective Device Settings

### CB: B-BLOWER #5 BYPASS VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BLOWER #5 DISCHAR VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BLOWER #5 GUIDE VALVE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BLRW BLDG TROLLEY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-BSN51240.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 003A0 |
| Pick up: | B |

## Protective Device Settings

### CB: B-BSN51250.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

### CB: B-BSN51260.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

### CB: B-BSN51270.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

### CB: B-BUS A MCC-NG

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: HKD
ID: 400
Thermal Trip: Fixed
Magnetic Trip: 5

### CB: B-BUS-B MCC-NG

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: HKD
ID: 400
Thermal Trip: Fixed
Magnetic Trip: 5.000

## Protective Device Settings

### CB: B-COM53030.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

### CB: B-COM53040.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: D

### CB: B-COMPRESSOR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-CON 330040.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

## Protective Device Settings

### CB: B-CON 33010.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

### CB: B-CON 33020.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

### CB: B-CON 33030.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

### CB: B-CON51300.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

## Protective Device Settings

### CB: B-CON51320.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: D

### CB: B-CON53020.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-CON53030.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

### CB: B-CP 7561

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: G

## Protective Device Settings

### CB: B-CP7562.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: G

### CB: B-CRANE (MME-1)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFB (2,3P) — Magnetic Trip: FIXED
ID: 15

### CB: B-DPC3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 60

### CB: B-DPC7

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 50

### CB: B-DPL2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 100

## Protective Device Settings

### CB: B-DPL7

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HJD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HJD | Magnetic Trip: | 10 |
| ID: | 250 | | |

### CB: B-DPL7A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-DPL7A2 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-DPM1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 125 | Cont. Amp: | 125.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | CA | Magnetic Trip: | FIXED |
| ID: | 125 | | |

### CB: B-DPM2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 125 | Cont. Amp: | 125.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | CA | Magnetic Trip: | FIXED |
| ID: | 125 | | |

## Protective Device Settings

### CB: B-DPP8

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 225.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HKD | Magnetic Trip: | 5 |
| ID: | 250 | | |

### CB: B-DPP8 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | JD | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | JD | Magnetic Trip: | 5.000 |
| ID: | 250 | | |

### CB: B-EFF PS SWGR BUS A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 24.46 | Asym. (Calc.) |
| Model: | DSII-616 | Rating: | 65 kA, 0.48 kV | LG kA: | 25.61 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1600.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | 1 | |
| | LT Band | 15 | |
| Short-Time | ST Pickup | 2.5 | |
| | ST Band | .1 | I^xt=IN |
| INST | Inst. Pickup | 2 | |

| Ground Setting | | |
|---|---|---|
| Ground Pickup | E | |
| Ground Band | .3 | I^xt=IN |

## Protective Device Settings

### CB: B-EFF PS SWGR BUS B

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 24.50 | Asym. (Calc.) |
| Model: | DSII-616 | Rating: | 65 kA, 0.48 kV | LG kA: | 25.65 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 15 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | .5 | I^xt=IN | | | |
| INST | Inst. Pickup | 2 | | | | |

### CB: B-EFF PS SWGR TIE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | DSII-616 | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1200.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 510 Series DS
Sensor: 1200
Rating Plug: 1000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 15 | | Ground Band | .3 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | .3 | I^xt=IN | | | |
| INST | Inst. Pickup | 2 | | | | |

## Protective Device Settings

### CB: B-EFF PUMP NO. 2 VFD

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 24.50 | Asym. (Calc.) |
| Model: | DSII-616 | Rating: | 65 kA, 0.48 kV | LG kA: | 25.65 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1000.00

| | | Phase Setting | | Ground Setting | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .6 | | Ground Pickup | A | |
| | LT Band | 20 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | |
| | ST Band | .5 | I^xt=IN | | | |
| INST | Inst. Pickup | 2 | | | | |

### CB: B-EFF PUMP NO. 4 VFD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 24.46 | Asym. (Calc.) |
| Model: | DSII-616 | Rating: | 65 kA, 0.48 kV | LG kA: | 25.61 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1000.00

| | | Phase Setting | | Ground Setting | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 20 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | |
| | ST Band | .1 | I^xt=IN | | | |
| INST | Inst. Pickup | 2 | | | | |

### CB: B-ELP5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

## Protective Device Settings

### CB: B-EMD GEN #4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-EMD GEN #5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-EXHAUST FAN #1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-F21159.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 003A0 |
| Pick up: | G |

### CB: B-F21160.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 003A0 |
| Pick up: | G |

## Protective Device Settings

### CB: B-F27505.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

### CB: B-F27506.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

### CB: B-F36030.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

### CB: B-F36035.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

## Protective Device Settings

**CB: B-F36037.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

**CB: B-F37010.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: H

**CB: B-F37013.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: H

**CB: B-F37015.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

## Protective Device Settings

**CB: B-F37017.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: G

**CB: B-F37020.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

**CB: B-F37023.00**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

**CB: B-F37030**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: F

## Protective Device Settings

### CB: B-F37033.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: G

### CB: B-F52410.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

MFR: Siemens
Model: HED4
ID: 20 (0.48kV)
Thermal Trip: Fixed
Magnetic Trip: FIXED

### CB: B-F52420.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

MFR: Siemens
Model: HED4
ID: 20 (0.24kV)
Thermal Trip: Fixed
Magnetic Trip: FIXED

### CB: B-F54330.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

## Protective Device Settings

### CB: B-F7943.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

### CB: B-FA1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 | Asym. (Calc.) |
| Model: | SPB-100 (3000) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 | Asym. (Calc.) |
| Size: | 3000 | Cont. Amp: | 3000.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 7 | | Ground Band | .3 | I^xt=OUT |
| Short-Time | ST Pickup | 5 | | | | |
| | ST Band | .2 | I^xt=OUT | | | |

### CB: B-FA2-MCC-HCC

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 | Asym. (Calc.) |
| Model: | SPB-100 (1600) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 800.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | F | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | 5 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-FA3-PNL DP3

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 Asym. (Calc.) |
| Model: | SPB-100 (1600) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1200.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 16 | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | 5 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-FA4-MCC-GD

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | 5 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-FA5-MCC-GB

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .3 | I^xt=OUT |
| Short-Time | ST Pickup | S1(7) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-FA6-MCC-GF

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 Asym. (Calc.) |
| Model: | SPB-100 (400) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

| | | Phase Setting | | | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | S2(8) | | | | |
| | ST Band | .2 | I^xt=OUT | | | |

### CB: B-FA7-MCC-GH

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 20 | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | 6 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-FB1

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (3000) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 3000 | Cont. Amp: | 3000.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

| | | Phase Setting | | | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .7 | | Ground Pickup | A | |
| | LT Band | 7 | | Ground Band | .3 | I^xt=IN |
| Short-Time | ST Pickup | 3 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-FB2-MCC-HC

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (1600) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1200.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | F | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S1(7) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-FB3

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S1(7) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-FB4

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .9 | | Ground Pickup | F | |
| | LT Band | 20 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 6 | | | | |
| | ST Band | .3 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-FB5-MCC-GE

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 600.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | F | |
| | LT Band | 20 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 6 | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

### CB: B-FB6-MCC-GC

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | F | |
| | LT Band | 24 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S1(7) | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

### CB: B-FB7-MCC-GA

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | F | |
| | LT Band | 24 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S1(7) | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

## Protective Device Settings

### CB: B-FB8-ATS-8

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 | Asym. (Calc.) |
| Model: | SPB-100 (800) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 600.00

| | | Phase Setting | | | | Ground Setting | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 20 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 6 | | | | | |
| | ST Band | .1 | I^xt=IN | | | | |

### CB: B-FC-1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 100 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: HFD (2,3,4P)
ID: 15

Thermal Trip: Fixed
Magnetic Trip: FIXED

### CB: B-GAS BOOSTER BLOWER VFD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: F

### CB: B-GAS COMPRESSOR #6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD6-A | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Siemens
Model: FD6-A
ID: 250 (0.48kV)

Thermal Trip: Fixed
Magnetic Trip: 4

## Protective Device Settings

### CB: B-GAS COMPRESSOR #7

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD6-A | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | FD6-A | Magnetic Trip: | 5 |
| ID: | 250 (0.48kV) | | |

### CB: B-GEN 175KW

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LC | Rating: | 30 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Westinghouse |
| Model: | Seltronic LC (Adj) |
| Sensor: | 400 |
| Rating Plug: | 300.00 |

| | | Phase Setting | | Ground Setting | |
|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1.000 | | Ground Pickup | 0.650 |
| | LT Band | Fixed | | Ground Band | 0.060 |
| Short-Time | ST Pickup | 4 | | | |
| | ST Band | Fixed | I^xt=IN | | |

### CB: B-GEN G6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Square-D | Tag #: | | 3-Phase kA: | 46.31 | Asym. (Calc.) |
| Model: | RGF | Rating: | 35 kA, 0.48 kV | LG kA: | 49.42 | Asym. (Calc.) |
| Size: | 2000 | Cont. Amp: | 2000.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Square-D |
| Model: | ET1.0I (RG) |
| Sensor: | 2000 |

| | | Phase Setting | | |
|---|---|---|---|---|
| Long-Time | LT Pickup | fixed | LT Band | Fixed |
| INST | Inst. Pickup | 12 | | |

## Protective Device Settings

### CB: B-GEN NO. 1

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens-Allis | Tag #: | | 3-Phase kA: | 64.89 Asym. (Calc.) |
| Model: | LA-1600A | Rating: | 50 kA, 0.48 kV | LG kA: | 66.24 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: Static Trip II
Sensor: 1600

| | | Phase Setting | | |
|---|---|---|---|---|
| Long-Time | LT Pickup | B | Ground Pickup | 0.15 |
| | LT Band | Band 6 | Ground Band | Minimum |
| Short-Time | ST Pickup | 12 | | |
| | ST Band | Minimum | | |
| INST | Inst. Pickup | 12 | | |

### CB: B-GEN NO. 2

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens-Allis | Tag #: | 7713.00 | 3-Phase kA: | 64.14 Asym. (Calc.) |
| Model: | LA-1600A | Rating: | 50 kA, 0.48 kV | LG kA: | 62.04 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: Static Trip II
Sensor: 1600

| | | Phase Setting | | |
|---|---|---|---|---|
| Long-Time | LT Pickup | D | Ground Pickup | 0.5 |
| | LT Band | Band 4 | Ground Band | Intermediate |
| Short-Time | ST Pickup | 3 | | |
| | ST Band | Intermediate | | |

### CB: B-GEN NO. 3

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens-Allis | Tag #: | | 3-Phase kA: | 64.14 Asym. (Calc.) |
| Model: | LA-1600A | Rating: | 50 kA, 0.48 kV | LG kA: | 62.04 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: Static Trip II
Sensor: 1600

| | | Phase Setting | | |
|---|---|---|---|---|
| Long-Time | LT Pickup | B | Ground Pickup | 0.15 |
| | LT Band | Band 6 | Ground Band | Minimum |
| Short-Time | ST Pickup | 12 | | |
| | ST Band | Minimum | | |
| INST | Inst. Pickup | 12 | | |

## Protective Device Settings

### CB: B-GEN TIE A3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 64.14 | Asym. (Calc.) |
| Model: | SPB-100 (3000) | Rating: | 100 kA, 0.48 kV | LG kA: | 62.04 | Asym. (Calc.) |
| Size: | 3000 | Cont. Amp: | 3000.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 1600.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 12 | | Ground Band | .3 | I^xt=OUT |
| Short-Time | ST Pickup | 4 | | | | |
| | ST Band | .5 | I^xt=OUT | | | |

### CB: B-Grinder

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 30

### CB: B-GRIT SCR TROLLEY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 20

### CB: B-HOIST TROLLY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFB (2,3P) — Magnetic Trip: FIXED
ID: 15

## Protective Device Settings

### CB: B-HVAC 10001

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | GHB | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | GHB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-HVAC56100.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 30 (0.48kV) | | |

### CB: B-HVAC56110.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 20 (0.48kV) | | |

### CB: B-HVC-1750

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

### CB: B-HVC-1760

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

## Protective Device Settings

### CB: B-HW ELEVATOR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-HW GATES

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 20 (0.48kV) | | |

### CB: B-HWH

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-HYDRALIC PRESS

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-INFL PUMP 1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.58 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 41.99 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 4X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-INFL PUMP 2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 45.48 | Asym. (Calc.) |
| Model: | MDL | Rating: | 50 kA, 0.48 kV | LG kA: | 38.13 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: MDL
ID: 800

Thermal Trip: Fixed
Magnetic Trip: 4

### CB: B-INFL PUMP 2 VFD MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 45.48 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 38.13 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 4X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-INFL PUMP 3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.57 | Asym. (Calc.) |
| Model: | MDL | Rating: | 50 kA, 0.48 kV | LG kA: | 41.98 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: MDL
ID: 800

Thermal Trip: Fixed
Magnetic Trip: 4.000

## Protective Device Settings

### CB: B-INFL PUMP 3 VFD MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.57 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 41.98 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 4X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-INFL PUMP 4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 46.46 | Asym. (Calc.) |
| Model: | MDL | Rating: | 50 kA, 0.48 kV | LG kA: | 39.32 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | MDL | Magnetic Trip: | 4 |
| ID: | 800 | | |

### CB: B-INFL PUMP 4 VFD MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 46.46 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 39.32 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | | Ground Setting | |
|---|---|---|---|---|---|
| Short-Time | ST Pickup | 4X | | Ground Pickup | 1 |
| | ST Band | Fixed | I^xt=IN | Ground Band | INST |

### CB: B-INFL PUMP 5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.57 | Asym. (Calc.) |
| Model: | MDL | Rating: | 50 kA, 0.48 kV | LG kA: | 41.98 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | MDL | Magnetic Trip: | 4 |
| ID: | 800 | | |

## Protective Device Settings

### CB: B-INFL PUMP 5 VFD MAIN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.57 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 41.98 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 2X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-INFL PUMP 6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 44.56 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 37.02 | Asym. (Calc.) |
| Size: | 800 | Cont. Amp: | 800.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 4X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-LATCH

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-LCP-BFP1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-LCP-BFP2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-LCP-BFP3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-LCP-BFP4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-LCP-HWOCS

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 150 | | |

### CB: B-LCP-PD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

## Protective Device Settings

### CB: B-LP-GD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-LP-VFD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-LTG PNL LPE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TQD | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TQD | Magnetic Trip: | FIXED |
| ID: | 150 | | |

### CB: B-M25011.10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | A |

### CB: B-M25031.10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | F |

## Protective Device Settings

**CB: B-M25051.10**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

**CB: B-M25071.10**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

**CB: B-M25091.10**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: B

**CB: B-M25111.10**

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

## Protective Device Settings

### CB: B-M25131.10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: B

### CB: B-M25151.10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

### CB: B-M25171.10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

### CB: B-MAIN SWGR A1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 | Asym. (Calc.) |
| Model: | SPB-100M (4000) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 | Asym. (Calc.) |
| Size: | 4000 | Cont. Amp: | 4000.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 510 Series SPB
Sensor: 4000 (100M, 150)
Rating Plug: 4000.00

| | | Phase Setting | | | | Ground Setting | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | B | |
| | LT Band | 20 | | | Ground Band | .5 | I^xt=OUT |
| Short-Time | ST Pickup | 3 | | | | | |
| | ST Band | .5 | I^xt=OUT | | | | |

## Protective Device Settings

### CB: B-MAIN SWGR A2

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 82.68 Asym. (Calc.) |
| Model: | SPB-100 (3000) | Rating: | 100 kA, 0.48 kV | LG kA: | 89.29 Asym. (Calc.) |
| Size: | 3000 | Cont. Amp: | 3000.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 12 | | Ground Band | .3 | I^xt=OUT |
| Short-Time | ST Pickup | 4 | | | | |
| | ST Band | .5 | I^xt=IN | | | |

### CB: B-MAIN SWGR B1

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (4000) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 4000 | Cont. Amp: | 4000.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 4000
Rating Plug: 2000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .5 | | Ground Pickup | B | |
| | LT Band | 20 | | Ground Band | .5 | I^xt=OUT |
| Short-Time | ST Pickup | 3 | | | | |
| | ST Band | .5 | I^xt=OUT | | | |

### CB: B-MAIN SWGR B2

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 87.95 Asym. (Calc.) |
| Model: | SPB-100 (3000) | Rating: | 100 kA, 0.48 kV | LG kA: | 91.71 Asym. (Calc.) |
| Size: | 3000 | Cont. Amp: | 3000.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | A | |
| | LT Band | 12 | | Ground Band | .3 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | |
| | ST Band | .5 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-MAIN SWGR TIE A1-B1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-100 (4000) | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 4000 | Cont. Amp: | 4000.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 4000
Rating Plug: 4000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .9 | | | Ground Pickup | A | |
| | LT Band | 10 | | | Ground Band | .3 | I^xt=OUT |
| Short-Time | ST Pickup | 3 | | | | | |
| | ST Band | .5 | I^xt=IN | | | | |

### CB: B-MAINT

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-MCC-DP1A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-MCC-DP1B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | KD | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | KD | Magnetic Trip: | 5 |
| ID: | 400 | | |

## Protective Device Settings

### CB: B-MCC-DP2C

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | NJL | Rating: | 30 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | JL | Magnetic Trip: | 4.000 |
| ID: | 100 | | |

### CB: B-MCC-DP2D

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-MCC-DP3A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 350.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HKD | Magnetic Trip: | 5.000 |
| ID: | 400 | | |

### CB: B-MCC-DP3B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LCL | Rating: | 200 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Westinghouse |
| Model: | Seltronic LCL (Adj) |
| Sensor: | 400 |
| Rating Plug: | 350.00 |

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Short-Time | ST Pickup | 8 | | | Ground Pickup | 0.200 |
| | ST Band | Fixed | I^xt=IN | | Ground Band | 0.060 |

## Protective Device Settings

### CB: B-MCC-DP3C

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 350.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HKD | Magnetic Trip: | 5 |
| ID: | 400 | | |

### CB: B-MCC-DP3D

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 225.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HKD | Magnetic Trip: | 5 |
| ID: | 250 | | |

### CB: B-MCC-DP4A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | XF | Rating: | 14 kA, 0.6 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | XF | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-MCC-DP4B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | XJL | Rating: | 200 kA, 0.6 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | XJL | Magnetic Trip: | 3.000 |
| ID: | 400 | | |

### CB: B-MCC-EDP1A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TED | Rating: | 18 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TED (E 100) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-MCC-EDP1B

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TED | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TED (E 100) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-MCC-EDP1B-1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 150 | | |

### CB: B-MCC-EDP1C

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TED | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TED (E 100) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-MCC-EDP1D

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TED | Rating: | 18 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TED (E 100) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-MCC-EDP1E

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TED | Rating: | 18 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TED (E 100) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

## Protective Device Settings

### CB: B-MCC-GB

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LCL | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LCL (Adj)
Sensor: 400
Rating Plug: 300.00

| | | Phase Setting | | Ground Setting | |
|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1.000 | | Ground Pickup | 0.650 |
| | LT Band | Fixed | | Ground Band | 0.060 |
| Short-Time | ST Pickup | 8 | | | |
| | ST Band | Fixed | I^xt=IN | | |
| INST | Inst. Pickup | Fixed | | | |

### CB: B-MCC-GD

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Allen-Bradley | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | 140U-JD0 | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Allen Bradley
Model: 140U-JD0
ID: 100 (0.48kV)

Thermal Trip: Fixed
Magnetic Trip: 5x

### CB: B-MCC-GD MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Allen-Bradley | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | 140U-JD6 | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Allen Bradley
Model: 140U-JD3
ID: 100

Thermal Trip: Fixed
Magnetic Trip: 10x

### CB: B-MCC-GD_EASTERN TRUNK

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Model: FD (2,3,4P)
ID: 150

Thermal Trip: Fixed
Magnetic Trip: FIXED

## Protective Device Settings

### CB: B-MCC-HW BUS A MAIN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | CHND | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 1200 | Cont. Amp: | 1000.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 1250
Rating Plug: 1000.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | Fixed | |
| | LT Band | Fixed | |
| Short-Time | ST Pickup | 3X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-MCC-HW BUS B MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HND | Rating: | 65 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 1200 | Cont. Amp: | 1000.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 1250
Rating Plug: 1000.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | Fixed | |
| | LT Band | Fixed | |
| Short-Time | ST Pickup | 3X | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-MCC-HW TIE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMDLB | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 600 | Cont. Amp: | 600.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HMDLB | Magnetic Trip: | 5 |
| ID: | 600 | | |

## Protective Device Settings

### CB: B-MCC-NC

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-65 (1600) | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 7 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | 3 | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

### CB: B-MCC-ND

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-65 (1600) | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: OPTIM 750/1050 SPB (I2t)
Sensor: 1600
Rating Plug: 1000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1.000 | | | Ground Pickup | 0.650 | |
| | LT Band | 7.000 | Range=(2 - 24) | | Ground Band | 0.1 | I^xt=IN |
| Short-Time | ST Pickup | 3.000 | | | | | |
| | ST Band | 0.3 | I^xt=IN | | | | |

### CB: B-MCC-NE

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 24 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

## Protective Device Settings

### CB: B-MCC-NF

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 200.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-MCC-NG BUS A

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

### CB: B-MCC-NG BUS B

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

| | | Phase Setting | | | Ground Setting | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | E | |
| | LT Band | 24 | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | |
| | ST Band | .3 | I^xt=IN | | | |

## Protective Device Settings

### CB: B-MCC-SH BUS A

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 24 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

### CB: B-MCC-SH BUS A MAIN

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | LC | Rating: | 30 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 600 | Cont. Amp: | 600.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 600.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | Fixed | |
| | LT Band | Fixed | |
| Short-Time | ST Pickup | 10 | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-MCC-SH BUS B

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 24 | | | Ground Band | .1 | I^xt=IN |
| Short-Time | ST Pickup | S2(8) | | | | | |
| | ST Band | .3 | I^xt=IN | | | | |

## Protective Device Settings

### CB: B-MCC-SH BUS B MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LC | Rating: | 30 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 600 | Cont. Amp: | 600.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 600.00

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | Fixed | |
| | LT Band | Fixed | |
| Short-Time | ST Pickup | 10 | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-MCC-SH TIE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LC | Rating: | 30 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 600 | Cont. Amp: | 600.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 300.00

| | | Phase Setting | |
|---|---|---|---|
| Short-Time | ST Pickup | 10 | |
| | ST Band | Fixed | I^xt=IN |

### CB: B-MME-1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-MME-13

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-MME15

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-MME-4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-MME-6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-MME-7

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 125 | Cont. Amp: | 125.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 125 | | |

### CB: B-MME-9

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-MONORAIL HOSIT

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-MPV 30021.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: OPTIM 750/1050 SPB (I2t)
Sensor: 400
Rating Plug: 250.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1.000 | | | Ground Pickup | 0.650 | |
| | LT Band | 24.000 | Range=(2 - 24) | | Ground Band | 0.1 | I^xt=IN |
| Short-Time | ST Pickup | 8.000 | | | | | |
| | ST Band | 0.3 | I^xt=IN | | | | |

### CB: B-MS-HW 52-A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 43.35 | Asym. (Calc.) |
| Model: | WL-L-3200 | Rating: | 100 kA, 0.508 kV | LG kA: | 43.60 | Asym. (Calc.) |
| Size: | 3200 | Cont. Amp: | 3200.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 3000.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | D | |
| | LT Band | 3.5 | | | Ground Band | 0.5 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | | |
| | ST Band | 0.2 | I^xt=IN | | | | |
| INST | Inst. Pickup | 10 | | | | | |

## Protective Device Settings

### CB: B-MS-HW 52-B

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-3200 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 3200 | Cont. Amp: | 3200.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 3000.00

| | | Phase Setting | | Ground Setting | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | D | |
| | LT Band | 3.5 | | Ground Band | 0.5 | I^xt=IN |
| Short-Time | ST Pickup | 2.5 | | | | |
| | ST Band | 0.2 | I^xt=IN | | | |
| INST | Inst. Pickup | 10 | | | | |

### CB: B-MS-HW TIE

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 54.93 Asym. (Calc.) |
| Model: | WL-L-3200 | Rating: | 100 kA, 0.508 kV | LG kA: | 50.77 Asym. (Calc.) |
| Size: | 3200 | Cont. Amp: | 3200.000 | Base kV: | 0.480 (Calc.) |

**LV Solid State Trip Device**

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

| | | Phase Setting | | Ground Setting | | |
|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | Ground Pickup | C | |
| | LT Band | 2 | | Ground Band | 0.3 | I^xt=IN |
| Short-Time | ST Pickup | 1.5 | | | | |
| | ST Band | 0.1 | I^xt=IN | | | |
| INST | Inst. Pickup | 8 | | | | |

### CB: B-NEW INTERSTAGE BLDG

| | | | | | |
|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

## Protective Device Settings

### CB: B-ORS Sprayer

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-P20100.20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | E |

### CB: B-P20200.20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | G |

### CB: B-P20300.20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | E |

## Protective Device Settings

### CB: B-P20400.20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

### CB: B-P20500.20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: G

### CB: B-P26010.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: F

### CB: B-P26020.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

## Protective Device Settings

### CB: B-P26025.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: D

### CB: B-P26057.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

### CB: B-P26058.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

### CB: B-P26059.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

## Protective Device Settings

### CB: B-P26060.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

### CB: B-P27010.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P27020.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P27030.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

## Protective Device Settings

### CB: B-P27040.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P27110.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

### CB: B-P27120.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

### CB: B-P27130.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

## Protective Device Settings

### CB: B-P27230.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 070M2
Pick up: G

### CB: B-P27310.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P27320.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P27330.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

## Protective Device Settings

### CB: B-P27720.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: F

### CB: B-P28010.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P28020.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

### CB: B-P28030.00 (Bypass)

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-J | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

## Protective Device Settings

### CB: B-P32011.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

### CB: B-P32013.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

### CB: B-P32021.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: B

### CB: B-P32023.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: F

## Protective Device Settings

### CB: B-P32031.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

### CB: B-P32033.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: G

### CB: B-P32041.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: B

### CB: B-P32043.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

## Protective Device Settings

### CB: B-P4011.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LD | Rating: | 35 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | LD | Magnetic Trip: | 6.25 |
| ID: | 400 | | |

### CB: B-P4012.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | XJL | Rating: | 200 kA, 0.6 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | XJL | Magnetic Trip: | 3.000 |
| ID: | 400 | | |

### CB: B-P4013.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LDC | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | LDC | Magnetic Trip: | 7.5 |
| ID: | 400 (0.48kV) | | |

### CB: B-P4014.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | XJL | Rating: | 200 kA, 0.6 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | XJL | Magnetic Trip: | 3.000 |
| ID: | 400 | | |

### CB: B-P4023.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Federal Pacific | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | XJL | Rating: | 200 kA, 0.6 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Federal Pacific | Thermal Trip: | Fixed |
| Model: | XJL | Magnetic Trip: | 3.000 |
| ID: | 400 | | |

## Protective Device Settings

### CB: B-P4598

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

### CB: B-P52100.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

### CB: B-P52110.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

### CB: B-P52120.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: A

## Protective Device Settings

### CB: B-P52130.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: A

### CB: B-P52140.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

### CB: B-P52150.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

### CB: B-P52160.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

## Protective Device Settings

### CB: B-P52170.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

### CB: B-P52220.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-P52230.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-P52240.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

## Protective Device Settings

### CB: B-P52250.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-P54080.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-P54090.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

### CB: B-P6501.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-P6901.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: G

### CB: B-P6902.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

### CB: B-P6903.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

### CB: B-P7541.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: H

## Protective Device Settings

### CB: B-PANEL A

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-PANEL DB

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LA-400 (125-400A) | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | LA-400 | Magnetic Trip: | High |
| ID: | 400 | | |

### CB: B-PNL DDP6 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DP1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 73.20 | Asym. (Calc.) |
| Model: | SPB-100 (400) | Rating: | 100 kA, 0.48 kV | LG kA: | 77.93 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.480 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | RMS 500 Series SPB |
| Sensor: | 400 |
| Rating Plug: | 300.00 |

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 20 | | | Ground Band | .1 | I^xt=OUT |
| Short-Time | ST Pickup | 5 | | | | | |
| | ST Band | .3 | I^xt=OUT | | | | |

## Protective Device Settings

### CB: B-PNL DP3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | LCL | Rating: | 200 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: Seltronic LCL (Adj)
Sensor: 400
Rating Plug: 300.00

| | | Phase Setting | | Ground Setting | |
|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1.000 | | Ground Pickup | 0.650 |
| | LT Band | Fixed | | Ground Band | 0.060 |
| Short-Time | ST Pickup | 8 | | | |
| | ST Band | Fixed | I^xt=IN | | |
| INST | Inst. Pickup | Fixed | | | |

### CB: B-PNL DPC-2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BL | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | BL (2,3P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPL4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | CA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | CA | Magnetic Trip: | FIXED |
| ID: | 150 | | |

### CB: B-PNL DPL5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-PNL DPLC-1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 2.01 | Asym. (Calc.) |
| Model: | ED4 | Rating: | 65 kA, 0.24 kV | LG kA: | 2.04 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | ED4 | Magnetic Trip: | FIXED |
| ID: | 100 (0.24kV) | | |

### CB: B-PNL DPLC-2 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 1.57 | Asym. (Calc.) |
| Model: | ED6 | Rating: | 65 kA, 0.24 kV | LG kA: | 1.67 | Asym. (Calc.) |
| Size: | 90 | Cont. Amp: | 90.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | ED6 | Magnetic Trip: | FIXED |
| ID: | 90 (0.6kV) | | |

### CB: B-PNL DPLC-3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 2.01 | Asym. (Calc.) |
| Model: | BL | Rating: | 10 kA, 0.24 kV | LG kA: | 2.04 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | BL (2,3P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

### CB: B-PNL DPLC-3 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 1.89 | Asym. (Calc.) |
| Model: | BAB | Rating: | 10 kA, 0.24 kV | LG kA: | 1.84 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

### CB: B-PNL DPLC-4 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 0.88 | Asym. (Calc.) |
| Model: | BL | Rating: | 10 kA, 0.24 kV | LG kA: | 0.88 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | BL (2,3P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-PNL DPMB

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HKD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 350.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HKD | Magnetic Trip: | 5 |
| ID: | 400 | | |

### CB: B-PNL DPP1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP1 BLOWER GALLERY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP1 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 42 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.480 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 100 (0.48kV) | | |

### CB: B-PNL DPP1-MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-PNL DPP3 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP3_BLOWER GALLERY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP4 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FCL | Rating: | 150 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FCL | Magnetic Trip: | FIXED |
| ID: | 100 (0.24kV) | | |

### CB: B-PNL DPP5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-PNL DPP5 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP6_BLOWER GALLERY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP7 BLOWER GALLERY

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

### CB: B-PNL DPP7 MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FCL | Rating: | 150 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FCL | Magnetic Trip: | FIXED |
| ID: | 100 (0.24kV) | | |

### CB: B-PNL-DPC1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

## Protective Device Settings

### CB: B-PNL-DPL

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-PNL-DPL1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 80 | Cont. Amp: | 80.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 80 | | |

### CB: B-PNL-DPL6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-PNL-DPP2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 80 | Cont. Amp: | 80.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 80 | | |

### CB: B-Polymer PNL

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-PP VFD PNL

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-PURGING COMPROSSER

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 2.01 | Asym. (Calc.) |
| Model: | BL | Rating: | 10 kA, 0.24 kV | LG kA: | 2.04 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | BL (2,3P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-ROOF A/C BREAKER

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-RSS 30010.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 003A0 |
| Pick up: | F |

### CB: B-RSS30020.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 3 | Cont. Amp: | 3.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 003A0 |
| Pick up: | G |

## Protective Device Settings

### CB: B-SCR BLDG N OH DOOR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 20 (0.48kV) | | |

### CB: B-SCR BLDG S OH DOOR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 20 (0.48kV) | | |

### CB: B-SCRUBBER CHEM HANDLING

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

### CB: B-SEP53000.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.82 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.55 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 007C0 |
| Pick up: | C |

## Protective Device Settings

### CB: B-SEP53010.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

### CB: B-SEP53020.00

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 48.69 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 42.49 | Asym. (Calc.) |
| Size: | 7 | Cont. Amp: | 7.000 | Base kV: | 0.480 | (Calc.) |

**Motor Circuit Protector Trip Device**

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: C

### CB: B-SKIMMER ACTUATOR #1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

### CB: B-SKIMMER ACTUATOR #10

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

### CB: B-SKIMMER ACTUATOR #11

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

## Protective Device Settings

### CB: B-SKIMMER ACTUATOR #12

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #13

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #14

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #15

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #16

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-SKIMMER ACTUATOR #17

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #18

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #19

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #20

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-SKIMMER ACTUATOR #21

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #5

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #6

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-SKIMMER ACTUATOR #7

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #8

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMER ACTUATOR #9

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SKIMMINGS VALVES ACT#1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-SKIMMINGS VALVES ACT#2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

## Protective Device Settings

### CB: B-SKIMMINGS VALVES ACT#3

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SNAIL BOOSTER PUMP

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 20 | Cont. Amp: | 20.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 20 | | |

### CB: B-SP2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HMCP-F | Rating: | 100 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Motor Circuit Protector Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | HMCP |
| ID: | 050K2 |
| Pick up: | A |

### CB: B-SR-DAF

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-50 (400) | Rating: | 50 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 400 | Cont. Amp: | 400.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Cutler-Hammer |
| Model: | RMS 500 Series SPB |
| Sensor: | 400 |
| Rating Plug: | 300.00 |

| | | Phase Setting | |
|---|---|---|---|
| Long-Time | LT Pickup | 1 | |
| | LT Band | 2 | |
| Short-Time | ST Pickup | S2(8) | |
| | ST Band | .3 | I^xt=IN |

| Ground Setting | | |
|---|---|---|
| Ground Pickup | E | |
| Ground Band | .1 | I^xt=IN |

## Protective Device Settings

### CB: B-STANDBY GEN PNL

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens | Tag #: | | 3-Phase kA: | 2.01 | Asym. (Calc.) |
| Model: | BL | Rating: | 10 kA, 0.24 kV | LG kA: | 2.04 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.208 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | BL (2,3P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-SUMP PUMP

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 45 | Cont. Amp: | 45.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 45 | | |

### CB: B-SUPPLY FAN 1

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-SWBD-NB BUS A MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-65 (1600) | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

| | |
|---|---|
| MFR: | Westinghouse |
| Model: | RMS 500 Series SPB (LS) |
| Sensor: | 1600 |
| Rating Plug: | 1600.00 |

| | | Phase Setting | | | | Ground Setting | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 16 | | | Ground Band | .5 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | | |
| | ST Band | .5 | I^xt=IN | | | | |

## Protective Device Settings

### CB: B-SWBD-NB BUS B MAIN

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-65 (1600) | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Westinghouse
Model: RMS 500 Series SPB (LS)
Sensor: 1600
Rating Plug: 1600.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | 1 | | | Ground Pickup | E | |
| | LT Band | 16 | | | Ground Band | .5 | I^xt=IN |
| Short-Time | ST Pickup | 4 | | | | | |
| | ST Band | .5 | I^xt=IN | | | | |

### CB: B-SWBD-NB TIE

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | SPB-65 (1600) | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 1600 | Cont. Amp: | 1600.000 | Base kV: | 0.000 | (Calc.) |

**LV Solid State Trip Device**

MFR: Cutler-Hammer
Model: RMS 500 Series SPB (LS)
Sensor: 1600
Rating Plug: 1600.00

| | | Phase Setting | | | Ground Setting | | |
|---|---|---|---|---|---|---|---|
| Long-Time | LT Pickup | .9 | | | Ground Pickup | E | |
| | LT Band | 10 | | | Ground Band | .5 | I^xt=IN |
| Short-Time | ST Pickup | 3 | | | | | |
| | ST Band | .5 | I^xt=IN | | | | |

### CB: B-TIE ACB MCC-NG

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HJD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 250 | Cont. Amp: | 250.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HJD | Magnetic Trip: | 10 |
| ID: | 250 | | |

## Protective Device Settings

### CB: B-TSDF XFMR

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | FD | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | FD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-WELDER RECPT NEW ROLL U

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFB | Rating: | 25 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-XFMR T-C4

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 25 | Cont. Amp: | 25.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 25 (0.48kV) | | |

### CB: B-XFMR T-LC2

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Siemens* | Tag #: | | 3-Phase kA: | 17.39 | Asym. (Calc.) |
| Model: | HED4 | Rating: | 18 kA, 0.48 kV | LG kA: | 11.53 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.480 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Siemens | Thermal Trip: | Fixed |
| Model: | HED4 | Magnetic Trip: | FIXED |
| ID: | 45 (0.48kV) | | |

### CB: B-XFMR-DPL4-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHD | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

## Protective Device Settings

### CB: B-XFMR-LPG-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHB | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-LPJ-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | EHB | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | EHB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-T1-LPM-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | General Electric | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | TQD | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 150 | Cont. Amp: | 150.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | General Electric | Thermal Trip: | Fixed |
| Model: | TQD | Magnetic Trip: | FIXED |
| ID: | 150 | | |

### CB: B-XFMR-T-DPC1-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-T-DPC3-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-XFMR-T-DPC6-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-T-DPL2-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-XFMR-T-DPL4-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 15 | Cont. Amp: | 15.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 15 | | |

### CB: B-XFMR-T-DPL5-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-XFMR-T-DPL7-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 100 | Cont. Amp: | 100.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 100 | | |

## Protective Device Settings

### CB: B-XFMR-T-DPL-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Westinghouse | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | BA | Rating: | 10 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | Quicklag (3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-T-DPM1-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-XFMR-T-DPM2-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-XFMR-T-DPP-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | GHB | Rating: | 14 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | GHB (2,3P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFMR-T-GD-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Allen-Bradley | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | 140U-I6C3 | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Allen Bradley | Thermal Trip: | Fixed |
| Model: | 140U-I6C3 | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-XFRM-FEB-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-XFRM-LP-VFD-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 100 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 50 | Cont. Amp: | 50.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 50 | | |

### CB: B-XFRM-T-DPC7-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

### CB: B-XFRM-T-DPL1-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 60 | Cont. Amp: | 60.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 60 | | |

### CB: B-XFRM-T-DPP2-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 65 kA, 0.48 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 30 | Cont. Amp: | 30.000 | Base kV: | 0.000 | (Calc.) |

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 30 | | |

## Protective Device Settings

### CB: B-XFRM-TRAN-LPA-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 25 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-XFRM-TRAN-PPA-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 25 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

### CB: B-XFRM-TRAN-PPB-PRI

| | | | | | | |
|---|---|---|---|---|---|---|
| MFR: | Cutler-Hammer* | Tag #: | | 3-Phase kA: | 0.00 | Asym. (Calc.) |
| Model: | HFD | Rating: | 25 kA, 0.24 kV | LG kA: | 0.00 | Asym. (Calc.) |
| Size: | 70 | Cont. Amp: | 70.000 | Base kV: | 0.000 | (Calc.) |

* The retrieved library data is modified by user.

**Thermal Magnetic Trip Device**

| | | | |
|---|---|---|---|
| MFR: | Cutler-Hammer | Thermal Trip: | Fixed |
| Model: | HFD (2,3,4P) | Magnetic Trip: | FIXED |
| ID: | 70 | | |

# APPENDIX F – EQUIPMENT DATA

# Transformer Schedule

## 2-Winding Transformer

| | | Rating | | | | | | % Tap Setting | |
|---|---|---|---|---|---|---|---|---|---|
| Transformer ID | Status | kVA | Prim. kV | Sec. kV | % Z | X/R | % Tol. | Pri. | Sec. |
| TRANSF A | Energized | 2500 | 16.000 | 0.480 | 4.9 | 10.67 | 0.0 | 0.000 | 0.000 |
| TRANSF B | Energized | 2500 | 16.000 | 0.480 | 5.1 | 10.67 | 0.0 | 0.000 | 0.000 |
| TRANSF TA | Energized | 2000 | 0.480 | 2.400 | 5.8 | 7.10 | 0.0 | 0.000 | 0.000 |
| TRANSF TB | Energized | 2000 | 0.480 | 2.400 | 5.8 | 7.10 | 0.0 | 0.000 | 0.000 |
| TRANSF TC | Energized | 1000 | 2.400 | 0.480 | 5.6 | 5.79 | 0.0 | 0.000 | 0.000 |
| TRANSF TD | Energized | 1000 | 2.400 | 0.480 | 5.6 | 5.79 | 0.0 | 0.000 | 0.000 |
| T-TSDF XFMR | De-energized | 15.0 | 0.480 | 0.240 | 0.0 | 0.00 | 0.0 | 0.000 | 0.000 |
| T-XFMR-T2 | De-energized | 7.5 | 0.480 | 0.120 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR LPF | De-energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR T-C2 | Energized | 25.0 | 0.480 | 0.240 | 5.2 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR T-C4 | Energized | 15.0 | 0.480 | 0.208 | 4.4 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR T-LC1 | Energized | 45.0 | 0.480 | 0.208 | 5.9 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR T-LC2 | Energized | 30.0 | 0.480 | 0.208 | 4.4 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-DPL4 | Energized | 45.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-ELP5 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-EPH1 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-LP4 | Energized | 9.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-LP9 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-LPA | Energized | 45.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-LPD | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.92 | 0.0 | 0.000 | 0.000 |
| XFMR-LPG | Energized | 15.0 | 0.408 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-LPJ | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-STORAGE-BLDG | De-energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T1-ELP11 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T1-LPK | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T1-LPL | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T1-LPM | Energized | 45.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T2-ELP3 | Energized | 9.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T2-ELP7 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T2-LPB | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T2-LPC | Energized | 75.0 | 0.480 | 0.208 | 2.6 | 1.92 | 0.0 | 0.000 | 0.000 |
| XFMR-T2-LPE | Energized | 45.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T3-ELP10 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T3-ELP8 | Energized | 30.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T3-LPN | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T4 | De-energized | 7.5 | 0.480 | 0.120 | 7.8 | 2.47 | 0.0 | 0.000 | 0.000 |
| XFMR-T5-ELP1 | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPC1 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPC3 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPC6 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPL | De-energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |

# Transformer Schedule

## 2-Winding Transformer

| | | Rating | | | | | | % Tap Setting | |
|---|---|---|---|---|---|---|---|---|---|
| Transformer ID | Status | kVA | Prim. kV | Sec. kV | % Z | X/R | % Tol. | Pri. | Sec. |
| XFMR-T-DPL2 | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPL4 | De-energized | 9.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPL5 | Energized | 30.0 | 0.480 | 0.208 | 7.8 | 2.47 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPL7 | Energized | 75.0 | 0.480 | 0.208 | 2.6 | 1.92 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPM1 | Energized | 25.0 | 0.480 | 0.240 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPM2 | Energized | 25.0 | 0.480 | 0.240 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-DPP | De-energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFMR-T-EPH2 | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFMR-T-GD | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFRM-FEB | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-LP-VFD | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-T1-LP12 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFRM-T1-LP2 | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-T-DPC7 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFRM-T-DPL1 | Energized | 30.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-T-DPP2 | Energized | 15.0 | 0.480 | 0.208 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |
| XFRM-TRAN-LPA | Energized | 45.0 | 0.480 | 0.208 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-TRAN-PPA | Energized | 45.0 | 0.480 | 0.240 | 2.6 | 1.69 | 0.0 | 0.000 | 0.000 |
| XFRM-TRAN-PPB | Energized | 45.0 | 0.480 | 0.240 | 2.3 | 1.13 | 0.0 | 0.000 | 0.000 |

# Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| B-XFMR-T1-LPL-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C TIE ACB MCC-NG | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 5.000 ft | 1 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C1-F27505.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C1-F27506.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C1-MCC-DP4B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 5.000 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C1-MCC-GF | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C2-B52180.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-B52190.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-B52210.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 5.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C2-B52220.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 5.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C2-BSN51240.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-BSN51250.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-BSN51260.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-BSN51270.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-COM53030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-COM53040.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-CON51300.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-CON51320.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-CON53020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C2-CON53030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-F52410.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 15.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C2-F52420.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 15.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C2-F54330.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-HVAC56100.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 5.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C2-HVAC56110.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-MCC-GH | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 1.000 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C2-P52100.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 5.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C2-P52110.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-P52120.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 5.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C2-P52130.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-P52140.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 5.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C2-P52150.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-P52160.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-P52170.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 5.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C2-P52220.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-P52230.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-P52240.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-P52250.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C2-P54080.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-P54090.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-SCR BLDG N OH DOOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-SCR BLDG S OH DOOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-SEP53000.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-SEP53010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C2-SEP53020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-400KW GENERATOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 350 | 30.000 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-4543.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-4911.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 18.000 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-50A RECEPT. | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-AC-1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-AHU1503.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 35.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-AHU1505.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 40.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-AHU6591.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 35.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-AHU6592.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 35.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-ATS-8 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 870.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-ATS-C BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 3.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-ATS-C BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 10.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-ATS-L BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 3.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-ATS-L BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 10.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-AUH-7930.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 31.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B20100.00 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 1/0 | 230.00 ft | 2 | 90 | 0.13400 | 0.12300 | 0 | Ohms per 1,000 ft |
| C-B20200.00 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 1/0 | 240.00 ft | 2 | 90 | 0.13400 | 0.12300 | 0 | Ohms per 1,000 ft |
| C-B20300.00 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 1/0 | 250.00 ft | 2 | 90 | 0.13400 | 0.12300 | 0 | Ohms per 1,000 ft |
| C-B20400.00 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 1/0 | 265.00 ft | 2 | 90 | 0.13400 | 0.12300 | 0 | Ohms per 1,000 ft |
| C-B20500.00 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 1/0 | 280.00 ft | 2 | 90 | 0.13400 | 0.12300 | 0 | Ohms per 1,000 ft |
| C-B27400.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 80.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-B36040.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 70.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B36045.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 60.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4121.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 340.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4122.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 205.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-B4123.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 150.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4124.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 300.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-B4221.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 150.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4222.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 70.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4223.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 180.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B4224.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 275.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-B52180.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 215.00 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-B52190.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 200.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-B52210.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 225.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B52220.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 240.00 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-B6511.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 100.00 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-B6512.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 95.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-B6513.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 100.00 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-B6555.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-B6556.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BATTERY CHARGER XFMR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-BLOWER #1 BYPASSS VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #1 DISCH VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #1 GUIDE VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #2 BYPASS VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #2 DISCH VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #2 GUIDE VANES | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #3 BYPASS VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #3 DISCH VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #3 GUIDE VANES | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-BLOWER #4 BYPASS VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #4 DISCHA VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #4 GUIDE VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #5 BYPASS VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #5 DISCHAR VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLOWER #5 GUIDE VALVE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BLRW BLDG TROLLEY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 240.00 ft | 2 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-BSN51240.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 300.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BSN51250.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 300.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BSN51260.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 300.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-BSN51270.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 300.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-COM53030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 290.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-COM53040.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 265.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-COMPRESSOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-CON 330040.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CON 33010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CON 33020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CON 33030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CON51300.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 290.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-CON51320.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 290.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CON53020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 310.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CON53030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 310.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CP 7561 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 31.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CP3112.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 105.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CP3212.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 120.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CP3312.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 75.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CP3412.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 90.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-CP7521.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 36.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-CP7522.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 36.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-CP7562.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 31.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-CRANE (MME-1) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-DPL7A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 30.000 ft | 3 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-DPP8 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 250 | 30.000 ft | 1 | 75 | 0.05400 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-EFF PUMP NO. 2 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 40.000 ft | 3 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-EFF PUMP NO. 4 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 40.000 ft | 3 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-EMD #4 | KERITE, EPR, 5.0, 100, Copper, 1/C, Non-Mag., 90, 1000 ft,60, English, 20 90 90 40 90 | Energized | 2/0 | 30.000 ft | 1 | 90 | 0.10800 | 0.09500 | 0 | Ohms per 1,000 ft |
| C-EMD #5 | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 40 90 | Energized | 2/0 | 30.000 ft | 1 | 90 | 0.10800 | 0.11900 | 0 | Ohms per 1,000 ft |
| C-EMD GEN#4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-EMD GEN#5 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-EXHAUST FAN #1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F1003.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F1004.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F1009.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 20.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F1010.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 17.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F1011.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 20.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F21159.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 25.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F21160.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F2211.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-F27505.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 595.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F27506.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 600.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F36030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F36035.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F36037.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 85.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37013.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 100.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37015.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 85.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37017.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 80.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-F37020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 65.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37023.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 80.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37030 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 100.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F37033.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 100.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F3705.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F3706.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5111.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5112.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5113.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5114.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5121.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5131.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F5141.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F52410.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 200.00 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F52420.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 255.00 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-F54330.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 90.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-F55010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 15.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-F7911.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 31.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-F7912.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 31.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-F7912.1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 31.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-F-7941.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F7942.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F79420.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F7943.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-F7944.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-FC-1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-GAS BOOSTER BLOWER VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-GAS COMPRESSOR #6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 100.00 ft | 2 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-GAS COMPRESSOR #7 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 100.00 ft | 2 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-GEN 175KW | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 3/0 | 30.000 ft | 2 | 75 | 0.07900 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-GEN G6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 600 | 285.00 ft | 6 | 75 | 0.02500 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-GEN NO. 1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 500 | 100.00 ft | 3 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-GEN NO. 2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 85.000 ft | 3 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-GEN NO. 3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 70.000 ft | 3 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-Grinder | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 85.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-GRIT SCR TROLLEY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 310.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-HAVC 10001 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-HOIST TROLLY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-HTR 7535.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 28.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-HTR 7536.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 28.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-HVAC56100.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 40.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-HVAC56110.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 80.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-HVC-1750 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-HVC-1760 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-HW ELEVATOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 90.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-HW GATES | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 325.00 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-HWH | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-HYDRAULIC PRESS | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 120.00 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 1 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 25.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 120.00 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 2 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 40.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 120.00 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 3 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 25.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 120.00 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 4 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 35.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 5 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 120.00 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-INFL PUMP 5 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 25.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 120.00 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INFL PUMP 6 VFD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 45.000 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-INTERSTAGE ACTUATOR VAL | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 125.00 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-LATCH | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-LCP-BFP1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-LCP-BFP2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-LCP-BFP3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-LCP-BFP4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-LCP-HWOCS | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 260.00 ft | 2 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-LCP-PD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-LTG PNL ELP6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-M25011.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 180.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25031.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 220.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25051.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 260.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25071.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 300.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25091.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 345.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25111.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 385.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25131.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 430.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-M25151.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 470.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-M25171.10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 515.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-MAINT | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-MCC-DP1A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3/0 | 260.00 ft | 1 | 75 | 0.07900 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-DP1B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 265.00 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-DP2B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 250 | 30.000 ft | 1 | 75 | 0.05400 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-DP2C | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 140.00 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-DP2D | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-MCC-DP3A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 30.000 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-DP3B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 30.000 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-MCC-DP3C | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3/0 | 30.000 ft | 2 | 75 | 0.07900 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-DP3D | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 30.000 ft | 1 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-MCC-DP4A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 325.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-MCC-DP4B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 600 | 5.000 ft | 1 | 75 | 0.02500 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-EDP1A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1/0 | 260.00 ft | 1 | 75 | 0.12000 | 0.05500 | 0 | Ohms per 1,000 ft |
| C-MCC-EDP1B-1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 30.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-MCC-EDP1C | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 365.00 ft | 1 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-MCC-EDP1D | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1/0 | 580.00 ft | 1 | 75 | 0.12000 | 0.05500 | 0 | Ohms per 1,000 ft |
| C-MCC-EDP1E | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 560.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-MCC-EDP1PB | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1/0 | 100.00 ft | 1 | 75 | 0.12000 | 0.05500 | 0 | Ohms per 1,000 ft |
| C-MCC-GA | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 240.00 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-GB | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 42.000 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-GC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 250 | 36.000 ft | 2 | 75 | 0.05400 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-GD | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3/0 | 50.000 ft | 1 | 75 | 0.07900 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-GD_EASTERN TRUNK | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3/0 | 25.000 ft | 1 | 75 | 0.07900 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-MCC-GE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 65.000 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-GF | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 980.00 ft | 1 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-MCC-GH | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 980.00 ft | 2 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-MCC-HC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 750 | 950.00 ft | 2 | 75 | 0.02100 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-HCC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 750 | 955.00 ft | 2 | 75 | 0.02100 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-HW BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 30.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-MCC-HW BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 30.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-MCC-NA BUS A | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 350 | 850.00 ft | 2 | 90 | 0.04600 | 0.10400 | 0 | Ohms per 1,000 ft |
| C-MCC-NA BUS B | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 350 | 850.00 ft | 2 | 90 | 0.04600 | 0.10400 | 0 | Ohms per 1,000 ft |
| C-MCC-NC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 20.000 ft | 4 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-MCC-ND | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 15.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-MCC-NE | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 25.000 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-NF | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 25.000 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-MCC-NG BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 275.00 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-NG BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 275.00 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-SH BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 625.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-SH BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 600.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MCC-SH TIE BKR1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 5.000 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-MME-1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME-13 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME-15 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME-4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME-6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME6211.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MME-7 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-MME-9 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MONORAIL HOSIT | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-MPV 30021.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-NEW INTERSTAGE BLDG | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-ORS Sprayer | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P0103.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P20100.20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 40.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-P20200.20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P20300.20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 25.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P20400.20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 35.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P20500.20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 50.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P2201.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P26010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 75.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P26020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 70.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P26025.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 65.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P26057.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P26058.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P26059.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 48.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P26060.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 45.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P27010.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 400.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27020.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 410.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27030.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 400.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27040.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 410.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27110.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 400.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27120.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 405.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P27130.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 410.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-P27230.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P27310.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 115.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27320.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 125.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27330.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 115.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P27720.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 125.00 ft | 3 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-P28010.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 150.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P28020.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 160.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P28030.00 (Bypass) | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 150.00 ft | 3 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-P32011.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 75.000 ft | 3 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P32013.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P32021.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 70.000 ft | 3 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P32023.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P32031.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 65.000 ft | 3 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P32033.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P32041.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 60.000 ft | 3 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P32043.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P4011.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 120.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-P4012.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 300 | 120.00 ft | 2 | 75 | 0.04500 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-P4013.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 105.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-P4014.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 105.00 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-P4021.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 250 | 105.00 ft | 2 | 75 | 0.05400 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-P4023.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 250 | 88.000 ft | 2 | 75 | 0.05400 | 0.05200 | 0 | Ohms per 1,000 ft |
| C-P4531.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P4598 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P5091.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-P5092.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-P52100.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 320.00 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-P52110.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 310.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P52120.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 300.00 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-P52130.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 290.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P52140.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 250.00 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-P52150.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 240.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P52160.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 230.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P52170.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 215.00 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P52220.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 335.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P52230.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 335.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P52240.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 265.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P52250.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 265.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-P54080.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 160.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P54090.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 160.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P55020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 15.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P55030.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 15.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-P6501.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P6503.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-P6561.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-P6601.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P6701.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-P6901.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P6902.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P6903.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 90.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-P7531.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 36.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-P7532.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 36.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-P7538.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 34.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-P7541.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 34.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-P7542.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-P7554.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 31.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-PANEL A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 10.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-PANEL DPC5 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 5.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-PNL DP1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 1020 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-PNL DP2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 380.00 ft | 2 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-PNL DP3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 235.00 ft | 4 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-PNL DP4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 15.000 ft | 2 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-PNL DPC-2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 8.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-PNL DPLC-1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 6.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-PNL DPLC-2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3 | 1.000 ft | 1 | 75 | 0.25000 | 0.05900 | 0 | Ohms per 1,000 ft |
| C-PNL DPLC-3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 10.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-PNL DPLC-4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 10.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-PNL DPMB | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 30.000 ft | 1 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-PNL DPP1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 55.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-PNL DPP1 BLOWER GALLERY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 90.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PNL DPP3_BLOWER GALLERY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 90.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PNL DPP4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 30.000 ft | 3 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-PNL DPP5 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 365.00 ft | 3 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-PNL DPP6_BLOWER GALLERY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 90.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PNL DPP7 BLOWER GALLERY | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 50.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PNL-DPL | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | De-energized | 6 | 100.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-Polymer | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-Polymer PNL | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PP VFD PNL | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-Praestemat | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-PURGING COMPROSSER | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-ROOF A/C BREAKER | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 31.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-RSS 30010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 125.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-RSS30020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 130.00 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-SCR BLDG N OH DOOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 175.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SCR BLDG S OH DOOR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 160.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SCRUBBER CHEM HANDLING | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-SEP53000.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 310.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SEP53010.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 310.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SEP53020.00 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 320.00 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #10 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #11 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #12 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #13 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-SKIMMER ACTUATOR #14 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #15 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #16 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #17 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #18 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #19 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #20 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #21 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #5 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #6 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #7 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #8 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMER ACTUATOR #9 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMINGS VALVES ACT#1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-SKIMMINGS VALVES ACT#2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-SKIMMINGS VALVES ACT#3 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-SNAIL BOOSTER PUMP | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-SP2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 3 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-SR-DAF | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 175.00 ft | 1 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-STANDBY GEN PNL | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-SUMP PUMP | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-SUPPLY FAN 1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-SWBD GDP | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 320.00 ft | 12 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-SWBD-NB BUS A | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 40.000 ft | 4 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-SWBD-NB BUS B | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 500 | 40.000 ft | 4 | 75 | 0.02900 | 0.04800 | 0 | Ohms per 1,000 ft |
| C-TRANSF TC | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 3/0 | 20.000 ft | 1 | 90 | 0.08700 | 0.11500 | 0 | Ohms per 1,000 ft |
| C-TRANSF TD | KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90 | Energized | 3/0 | 20.000 ft | 1 | 90 | 0.08700 | 0.11500 | 0 | Ohms per 1,000 ft |
| C-TSDF XFMR | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-WELDER RECPT NEW ROLL U | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR T-C2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 40.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR T-C4 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 15.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR T-LC1 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 55.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR T-LC2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 160.00 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-DPL4-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-DPL4-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-XFMR-ELP5-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-ELP5-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-EPH1-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-LP4-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-XFMR-LP9-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPA-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 73.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPA-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 30.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPD-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 16.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPD-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPF | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPG-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPG-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-LPJ-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 3 | 30.000 ft | 1 | 75 | 0.25000 | 0.05900 | 0 | Ohms per 1,000 ft |
| C-XFMR-STORAGE-BLDG-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T1-LPK-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T1-LPK-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 8.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T1-LPM-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 80.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2 | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-ELP3-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-XFMR-T2-ELP7-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPB-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 76.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPB-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPC-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 14.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPC-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 350 | 30.000 ft | 1 | 75 | 0.03900 | 0.05000 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPE-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T2-LPE-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 30.000 ft | 1 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T3-ELP8-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T3-ELP8-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T3-LPN-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T3-LPN-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 15.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T4-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 12 | 30.000 ft | 1 | 75 | 2.00000 | 0.06800 | 0 | Ohms per 1,000 ft |
| C-XFMR-T5-ELP1-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 80.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T5-ELP1-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPC1-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPC1-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 3 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPC3-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 53.000 ft | 3 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPC3-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 3 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPC6-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-XFMR-T-DPC6-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL2-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 95.000 ft | 3 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL2-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2 | 30.000 ft | 3 | 75 | 0.20000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL4-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL5-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL5-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL7-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL7-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4/0 | 30.000 ft | 3 | 75 | 0.06300 | 0.05100 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPL-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPM1-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPM1-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 30.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPM2-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPM2-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 30.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-DPP PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 10 | 30.000 ft | 1 | 75 | 1.20000 | 0.06300 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-GD-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFMR-T-GD-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 30.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFRM-FEB-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-LP-VFD-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFRM-LP-VFD-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |

## Cable Data Schedule

| Cable ID | Library | Status | Size | Length | #/ph | T (C) | R | X | Y | Impedance Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| C-XFRM-T1-LP12-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFRM-T1-LP12-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 6 | 15.000 ft | 1 | 75 | 0.49000 | 0.06400 | 0 | Ohms per 1,000 ft |
| C-XFRM-T1-LP2-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 8 | 30.000 ft | 1 | 75 | 0.78000 | 0.06500 | 0 | Ohms per 1,000 ft |
| C-XFRM-T1-LP2-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1 | 30.000 ft | 1 | 75 | 0.16000 | 0.05700 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPC7-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPC7-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 400 | 30.000 ft | 3 | 75 | 0.03500 | 0.04900 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPL1-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPL1-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPP2-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 95.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-T-DPP2-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 10.000 ft | 3 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-LPA-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-LPA-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 30.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-PPA-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-PPA-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 2/0 | 30.000 ft | 1 | 75 | 0.10000 | 0.05400 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-PPB-PRI | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 4 | 30.000 ft | 1 | 75 | 0.31000 | 0.06000 | 0 | Ohms per 1,000 ft |
| C-XFRM-TRAN-PPB-SEC | NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90 | Energized | 1/0 | 30.000 ft | 1 | 75 | 0.12000 | 0.05500 | 0 | Ohms per 1,000 ft |

# APPENDIX G – SUMMARY OF THE CONDITION ASSESSMENT

| | A | B | O | P | Q | R |
|---|---|---|---|---|---|---|
| 1 | Equipment | Location | Manufacturer | Install Year | Condition | Reason |
| 2 | MCC-DP3A | Administration Bldg | Federal Pacific | 1978 | 4 | 1, 2 |
| 3 | MCC-EDP1E | Administration Bldg | Federal Pacific | 1978 | 4 | 1, 2 |
| 4 | MCC-NG Bus A | Blower Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 5 | MCC-NG Bus B | Blower Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 6 | COGEN SWBD | Cogen Bldg | Westinghouse Pow-R-Line | 1989 | 4 | 1, 2 |
| 7 | MCC-DP3B | Cogen Bldg | Federal Pacific | 1978 | 5 | |
| 8 | MCC-GA | Cogen Bldg | Federal Pacific | 1978 | 5 | 1, 2 |
| 9 | Panel DP3 | Cogen Bldg | Federal Pacific | 1978 | 5 | 1, 2 |
| 10 | Panel DPP8 | Collec. Sys. Maint Bldg | | | | |
| 11 | MCC-DP1A | DAF Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 11 |
| 12 | MCC-DP1B | DAF Bldg | Federal Pacific | 1978 | 5 | 1, 3, 4, 5, 11 |
| 13 | MCC-EDP1A | DAF Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 11 |
| 14 | Panel DP1 | DAF Bldg | Federal Pacific | 1978 | 5 | 1, 3 |
| 15 | SR-DAF | DAF Tank Area | | | | |
| 16 | MCC-DP2C | Digester Control Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3 |
| 17 | MCC-EDP1C | Digester Control Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 5, 9 |
| 18 | MCC-GF | Digester Control Bldg | Federal Pacific | 1978 | 4 | 1, 2 |
| 19 | MCC-GH | Digester Control Bldg | Federal Pacific | 1978 | 4 | 1, 2 |
| 20 | MCC-GD_AB | Eastern Trunk | Allen-Bradley Centerline 2100 | 2011 | 1 | |
| 21 | Panel DB | Eastern Trunk | Westinghouse Pow-R-Line C | 1989 | 5 | 1, 3 |
| 22 | MCC-DP4A | Eff. Pump Station | Federal Pacific | 1978 | 5 | 1, 2, 3, 5, 10 |
| 23 | MCC-EDP1D | Eff. Pump Station | Federal Pacific | 1978 | 5 | 1, 2, 3, 5, 10 |
| 24 | Eff PS SWGR Bus A | Gym | C-H Westinghouse DS II | 1997 | 2 | |
| 25 | Eff PS SWGR Bus B | Gym | C-H Westinghouse DS II | 1997 | 2 | |
| 26 | IPS Pump No. 1 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 27 | IPS Pump No. 2 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 28 | IPS Pump No. 3 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 29 | IPS Pump No. 4 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 30 | IPS Pump No. 5 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 31 | IPS Pump No. 6 | Headworks Elec. Bldg | Allen-Bradley 1336 Plus II | 2007 | 2 | |
| 32 | MCC-HW Bus A | Headworks Elec. Bldg | Allen-Bradley Centerline | 2007 | 2 | |
| 33 | MCC-HW Bus B | Headworks Elec. Bldg | Allen-Bradley Centerline | 2007 | 2 | |
| 34 | Panel DPP1 (HW) | Headworks Elec. Bldg | Siemens | 2007 | 2 | |
| 35 | SWGR MS-HW Bus A | Headworks Elec. Bldg | Siemens Type WL LV SWGR | 2007 | 2 | |
| 36 | SWGR MS-HW Bus B | Headworks Elec. Bldg | Siemens Type WL LV SWGR | 2007 | 2 | |
| 37 | Main SWGR Bus A | Main Electrical Bldg | Westinghouse | 1989 | 4 | 1, 2, 6, 8 |
| 38 | Main SWGR Bus B | Main Electrical Bldg | Westinghouse | 1989 | 4 | 1, 2, 6, 8 |
| 39 | MCC-DP4B | Main Electrical Bldg | Federal Pacific | 1978 | 5 | 1, 2, 5, 8 |
| 40 | MCC-GB | Main Electrical Bldg | Federal Pacific | 1978 | 4 | 1, 2, 5, 8 |
| 41 | MCC-GC | Main Electrical Bldg | Federal Pacific | 1978 | 4 | 1, 2, 5, 8 |
| 42 | MCC-GD | Main Electrical Bldg | Federal Pacific | 1978 | 4 | 1, 2, 5, 8 |
| 43 | MCC-GE | Main Electrical Bldg | Federal Pacific | 1978 | 4 | 1, 2, 5, 8 |
| 44 | Panel DP4 | Main Electrical Bldg | Federal Pacific | 1978 | 5 | 1, 2, 7, 8 |
| 45 | MCC-NA Bus A | N. Area Elec. Room | Westinghouse Ampguard MV MCC | 1989 | 3 | |
| 46 | MCC-NA Bus B | N. Area Elec. Room | Westinghouse Ampguard MV MCC | 1989 | 3 | |
| 47 | MCC-NC | N. Area Elec. Room | Westinghouse Series 2100 | 1989 | 3 | |
| 48 | MCC-ND | N. Area Elec. Room | Westinghouse Series 2100 | 1989 | 3 | |
| 49 | MCC-NE | N. Area Elec. Room | Westinghouse Series 2100 | 1989 | 3 | |
| 50 | MCC-NF | N. Area Elec. Room | Westinghouse Series 2100 | 1989 | 3 | |
| 51 | Panel DPP4 | N. Area Elec. Room | Westinghouse Pow-R-Line C | 1989 | 3 | |

| | A | B | O | P | Q | R |
|---|---|---|---|---|---|---|
| 52 | SWBD-NB Bus A | N. Area Elec. Room | Westinghouse | 1989 | 3 | |
| 53 | SWBD-NB Bus B | N. Area Elec. Room | Westinghouse | 1989 | 3 | |
| 54 | MCC-DP2B | Old Blower Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 9, 11 |
| 55 | Panel DP2 | Old Blower Bldg | Federal Pacific | 1978 | 5 | 1, 3, 11 |
| 56 | ATS PSS1 | Old Headworks Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 57 | MCC-DP2A-1 | Old Headworks Bldg | Federal Pacific | 1978 | 4 | |
| 58 | MCC-EDP1B-1 | Old Headworks Bldg | Federal Pacific | 1978 | 4 | 1, 2 |
| 59 | MCC-HCC | Old Headworks Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 60 | ATS-8 | Old Infl. Bldg | Federal Pacific | 1978 | 5 | 1, 3 |
| 61 | MCC-DP2A | Old Infl. Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 11 |
| 62 | MCC-EDP1B | Old Infl. Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 5, 9, 11 |
| 63 | Panel EDP-1 | Old Infl. Bldg | Federal Pacific | 1978 | 5 | 1, 2, 3, 4 |
| 64 | MCC-DP2D | Plant Control Center | Federal Pacific | 1978 | 5 | 1, 2, 3, 4, 5 |
| 65 | Panel DPMB | Plant Maint Bldg | Sierra Switchboard Company | Unknown | 5 | 3 |
| 66 | MCC-SH Bus A | Solids Processing Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 67 | MCC-SH Bus B | Solids Processing Bldg | Westinghouse Series 2100 | 1989 | 3 | |
| 68 | Panel DPP7 | South Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 69 | Panel DPP1 | South Pipe Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 70 | Panel DPP2 | South Pipe Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 71 | Panel DPP3 | South Pipe Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 72 | Panel DPP6 | South Pipe Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 73 | MCC-DP3C | Thickeners | Federal Pacific | 1978 | 5 | 1, 2 |
| 74 | MCC-DP3D | Thickeners | Federal Pacific | 1978 | 5 | 1, 2 |
| 75 | Panel DPP5 | West Pipe Gallery | Westinghouse Pow-R-Line C | 1989 | 3 | |
| 76 | Panel PP-VFD | | Cutler-Hammer Pow-R-Line C | 1999 | 3 | 3 |
| 77 | | | | | | |
| 78 | Condition Score | | | | | |
| 79 | 1 = Equipment like new. | | | | | |
| 80 | 2 = Equipment in good condition. | | | | | |
| 81 | 3 = Equipment in adequate condition. Nearing end of useful life. Parts may be difficult/expensive to obtain. | | | | | |
| 82 | 4 = Equipment in poor condition. Past useful life. Parts are difficult/expensive or impossible to obtain. | | | | | |
| 83 | 5= Equipment in very poor condition. Past useful life. Parts are difficult/expensive or impossible to obtain. | | | | | |
| 84 | | | | | | |
| 85 | Reasons for condition assessment | | | | | |
| 86 | 1. Equipment is at or nearing end of life | | | | | |
| 87 | 2. Replacement parts difficult to find or expensive. | | | | | |
| 88 | 3. Very dusty and/or rusty. | | | | | |
| 89 | 4. Uncovered holes in equipment. | | | | | |
| 90 | 5. Broken/missing components | | | | | |
| 91 | 6. Feeder circuit breaker to DP1 charging motor does not operate. | | | | | |
| 92 | Charging spring handle on the Tie breaker is broken. Relays have not been tested in a long time. | | | | | |
| 93 | 7. Not fully rated for short circuit current. | | | | | |
| 94 | 8. Building is in poor condition. The leaky roof presents dangerous conditions when there is rain. | | | | | |
| 95 | 9. Exposed bus. | | | | | |
| 96 | 10. Unconditioned room w/ engine driven pumps | | | | | |
| 97 | 11. Unconditioned room. | | | | | |