

Ordering Guide J Rear Wire System



always on



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1. Overview

The *J Rear Wire* system features extraordinary power density in a 1U footprint. Though small in size, it is a full-featured DC power system providing alarming, temperature sense, DC distribution, and an optional low-profile controller.

Power System Description

The power system consists of several configurable items, plug in modules, and associated accessories that are designed to seamlessly work together. These items include:

- Chassis
- J-series Rectifiers
- Network Interface Card (NIC) controller
- AC Line Cords
- Alarm Cables
- Temperature Probes
- Fuses and breakers

Each of these items has a unique and structured part numbering scheme that is described in the proceeding sections.

2. J Rear Wire System Combinations

Chassis Types

The following table provides details of the available chassis. The chassis includes a position for a network interface card (NIC) and J-series rectifiers.

| Shelf Family | Width (inches) | Height (U) | DC Distribution Width (inches) | Controller Type | Number of Rectifiers | AC Input Type | DC Output Circuit |
|-----------------|-------------------|---------------|-----------------------------------|--------------------|-------------------------|---------------------|-------------------------|
| JJ | 19 | 1 | 8 | NIC,TRIO | 2 | S | 39 |
| JK | 19 | 1 | 4 | NIC,TRIO | 3 | S | 35 |
| JM | 19 | 1 | N/A | NIC | 4 | | 1 |

Table 1 - Chassis Types



Figure 1 - JJ Shelf



Figure 2 - JK Shelf



Figure 3 - JM Shelf

AC Input Types

The following table provides details of the AC connection style and AC input compatibility of the various letter codes.

| AC Type Letter Code | Input Type | Termination Style | Input Voltage |
|------------------------|---------------|-------------------------|---------------|
| S | 1¢ Single | Terminal Block or Strip | 120/208/240V |
| I | 1Φ Individual | IEC 15A Receptacle | 120/208/240V |

Table 2 - AC Input Types

DC Distribution Circuits

The circuit diagrams below describe the available DC distribution configurations. Circuit diagrams show available positions for breakers and GMT style fuse outputs. GMT fuse blocks are rated up to 15A. Overcurrent protection devices are ordered separately.



Rectifier Models

| Model | Voltage | Current | AC Input | Temperature |
|------------|---------|---------|-------------------------|---------------|
| J0600A1-VC | 48V | 12amps | 90-264 VAC | -40 to +70°C* |
| J1000A1-VC | 48V | 20amps | 90-264 VAC | -40 to +70°C* |
| J1500A1-VC | 48V | 25amps | 90-170 VAC (low line) | -40 to +70°C* |
| J1500A1-VC | 48V | 30amps | 180-264 VAC (high line) | -40 to +70°C* |

Table 3 - J Series Rectifier Models

*Note: Full power up to +50°C; derate above 50°C by 2% per 1°C



Figure 4 - J-Series Rectifier

Micro System Alarm and Communication Options

The Micro System provides two system alarm & communication options: TRIO and NIC.

The TRIO is a built-in control and monitoring card that provides contacts for form C relays and temperature probes through a rear alarm port. It comes standard with the JJ and JK shelves. The JM shelf does not contain a TRIO and therefore does not have form C relay contacts. Instead, the alarm port on the rear of the shelf makes use of the opto-isolated alarms of the rectifiers.

The NIC-series controller provides communication ports and control over system operating parameters. It is an optional device, but it is required to adjust system parameters. The following sections provide more detail on these options and their interactions.

NIC (Network Interface Card)-Series Controller

The NIC-series controller provides various communication connections allowing power system access through a network, or on site communication via appropriate cable connections to a notebook/local computer. This connectivity provides the capability of logging onto the system to change various parameters and/or relay mappings if a TRIO is installed. All parameters are field adjustable, including TRIO-based form C alarm contacts.

| Model | Communication |
|------------------|--|
| | RS232 (front port) |
| NIC2001-201-10VV | 10/100BASE-T (through Ethernet port on shelf rear) |

Table 4 - NIC-Series Controller



Table 5 - NIC2001

AC Line Cords

AC line cords can be purchased from Eltek Valere. The JJ and JK shelves each have a single set of terminal blocks for AC input, requiring only one line cord to power the entire shelf. The JM shelf has an IEC-style connector for each rectifier, requiring a separate line cord for every rectifier installed (up to a maximum of 4 modules). Many cords are available in different wire gauges and lengths. See the naming convention below and Table 7 for available line cords.

| Shelf | Line Cord Type | Description | AC Input Type |
|-------|----------------|--|---------------------|
| JJ | LU | Line cord with un-terminated shelf end | S (single feed) |
| JK | LU | Line cord with un-terminated shelf end | S (single feed) |
| JM | LI | Line cord with 15A IEC connector | I (individual feed) |

Table 6 - Line Cord Types





Available Line Cords

| Part # | Description |
|-------------------|---|
| LI1014-UU | Line Cord, 10', 14 AWG, IEC320-C13 Plug to Un-Terminated |
| 111014-NI515D | Line Cord, 10', 14 AWG IEC320-C13 Plug to NEMA N515P, 120 VAC, 15 Amp |
| | Non Locking Plug |
| 111014-1615P | Line Cord, 10', 14 AWG IEC320-C13 Plug to NEMA L615P, 240 VAC, 15 Amp |
| | Non Locking Plug |
| LI1014-N615P | Line Cord, 10', 14 AWG IEC320-C13 Plug to NEMA N615P, 240 VAC, 15 Amp |
| | Non Locking Plug |
| 1 11 01 4-1 51 5P | Line Cord, 10', 14 AWG IEC320-C13 Plug to NEMA L515P, 120 VAC, 15 Amp |
| | Non Locking Plug |
| LU1008-UU | Line Cord, 10', 8 AWG, Un-Terminated to Un-Terminated |
| 1111008-1650P | Line Cord, 10', 8 AWG IEC320-C13 Plug to NEMA L650P, 240 VAC, 50 Amp |
| 201000 20301 | Non Locking Plug |
| 1111008-N650P | Line Cord, 10', 8 AWG IEC320-C13 Plug to NEMA N650P, 120 VAC, 50 Amp |
| 201000 100001 | Non Locking Plug |
| LU1010-UU | Line Cord, 10', 10 AWG, Un-Terminated to Un- Terminated |
| 1111010-1530P | Line Cord, 10', 10 AWG, Un-Terminated to NEMA L530P, 120 VAC, 30 Amp |
| 20101023301 | Locking Plug |
| | Line Cord, 10', 10 AWG, Un-Terminated to NEMA L630P, 240 VAC, 30 Amp |
| 10101010000 | Locking Plug |
| 1111010-NI515P | Line Cord, 10', 10 AWG, Un-Terminated to NEMA N515P, 120 VAC, 15 Amp |
| | Locking Plug |

| Part # | Description |
|-------------------|---|
| LU1010-N530P | Line Cord, 10', 10 AWG, Un-Terminated to NEMA N530P, 120 VAC, 30 Amp Locking Plug |
| LU1010-N630P | Line Cord, 10', 10 AWG, Un-Terminated to NEMA N630P, 240 VAC, 30 Amp Locking Plug |
| LU1012- L1420P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N1420P, 480 VAC, 20 Amp Locking Plug |
| LU1012-L515P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N630P, 120 VAC, 15 Amp Locking Plug |
| LU1012-L520P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N630P, 120 VAC, 20 Amp Locking Plug |
| LU1012-L620P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N630P, 240 VAC, 20 Amp Locking Plug |
| LU1012-N520P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N630P, 120 VAC, 20 Amp Locking Plug |
| LU1012-N620P | Line Cord, 10', 12 AWG, Un-Terminated to NEMA N630P, 240 VAC, 20 Amp Locking Plug |
| LU1012-UU | Line Cord, 10', 12 AWG, Un-Terminated to Un-Terminated |
| LU1014-L615P | Line Cord, 10', 14 AWG, Un-Terminated to NEMA N630P, 240 VAC, 15 Amp Locking Plug |
| LU1014-N515P | Line Cord, 10', 14 AWG, Un-Terminated to NEMA N630P, 120 VAC, 15 Amp Locking Plug |
| LU1014-N615P | Line Cord, 10', 14 AWG, Un-Terminated to NEMA N630P, 240 VAC, 15 Amp Locking Plug |
| LU1014-UU | Line Cord, 10', 14 AWG, Un-Terminated to Un-Terminated |

Table 7 – Line Cord Naming Examples

Alarm Cables

The controller can use three standard length alarm cables (10', 50', and 100'). Note that there are different alarm cables for form C relay contacts and optoisolated alarms. Since the variability of these cables is low, part numbers do not have any set convention.

| Part # | Description | Shelf |
|-------------|---|--------|
| CA210203104 | Form C Relay Alarm Cable – Solid Wire, 10' | JJ, JK |
| CA210203105 | Form C Relay Alarm Cable – Solid Wire, 50' | JJ, JK |
| CA210203106 | Form C Relay Alarm Cable – Solid Wire, 100' | JJ, JK |
| CA312181178 | Opto-isolated Alarm Cable – Solid Wire, 10' | JM |

Table 8 - Alarm Cables

Temperature Probes

Temperature probes are available in two styles, ring terminal and paddle, and in two lengths, 10' and 20'.

| Part # | Description |
|--------|--------------------------------------|
| TPR10 | Thermal Probe, ¼" Ring Terminal, 10' |
| TPR20 | Thermal Probe, ¼" Ring Terminal, 20' |
| TPP10 | Thermal Probe, Paddle Terminal, 10' |

| Part # | Description |
|--------|---|
| TPP20 | Thermal Probe, Paddle Terminal, 20' |
| TPL10 | Thermal Probe, 5/16" Ring Terminal, 10' |
| TPL20 | Thermal Probe, 5/16" Ring Terminal, 20' |

Table 9 - Temperature Probes



Figure 5 - Thermal probe (ring terminal)



Figure 6 - Thermal probe (paddle style)

Circuit Breakers

Plug-in circuit breakers with bullet-nosed terminals are compatible only with systems using circuit 35 (JJ shelf) or circuit 39 (JK shelf). Circuit 35 requires a special 1U-high plug-in breaker. Available breakers are listed in the tables on the next page. The JM shelf features bulk DC output only and therefore cannot use breakers or fuses.

Electro-mechanical trip breakers (CBBxxxE) produce an alarm when they are in a tripped state or in the OFF position, and are most useful when protecting batteries in which the user will not know that a breaker has been turned off without an alarm. These breakers have black actuators.

Mid-trip breakers (CBBxxxM) only produce an alarm when in a tripped state, and are most useful when the user wishes to leave a breaker in the system in the OFF position. These breakers have white actuators.



Figure 7 - E-trip bullet-style circuit breaker "CBB"

Circuit 35 Breakers

Circuit 35 (used in the JK shelf) has a single vertical position for a special 1U breaker. This breaker is designated with the prefix "JB". It is available in both electro-mechanical and mid-trip.



Figure 8 - 1U Bullet-style breaker "JBB" for Circuit 35

Circuit Breaker Examples

Common bullet-style circuit breakers:

| Part # | Description |
|---------|---|
| CBB000 | Strap for bridging circuit breaker position, Bullet Style |
| CBB005E | Circuit Breaker, Bullet Style, Single Pole, 5 A Electro-Mechanical Trip |
| CBB010E | Circuit Breaker, Bullet Style, Single Pole,10 A Electro-Mechanical Trip |
| CBB020E | Circuit Breaker, Bullet Style, Single Pole, 20 A Electro-Mechanical Trip |
| CBB030E | Circuit Breaker, Bullet Style, Single Pole, 30 A Electro-Mechanical Trip |
| CBB040E | Circuit Breaker, Bullet Style, Single Pole, 40 A Electro-Mechanical Trip |
| CBB050E | Circuit Breaker, Bullet Style, Single Pole, 50 A Electro-Mechanical Trip |
| CBB060E | Circuit Breaker, Bullet Style, Single Pole, 60 A Electro-Mechanical Trip |
| CBB075E | Circuit Breaker, Bullet Style, Single Pole, 75 A Electro-Mechanical Trip |
| CBB080E | Circuit Breaker, Bullet Style, Single Pole, 80 A Electro-Mechanical Trip |
| CBB100E | Circuit Breaker, Bullet Style, Single Pole, 100 A Electro-Mechanical Trip |
| CBB005M | Circuit Breaker, Bullet Style, Single Pole, 5 A Mid-Trip |
| CBB010M | Circuit Breaker, Bullet Style, Single Pole, 10 A Mid-Trip |
| CBB020M | Circuit Breaker, Bullet Style, Single Pole, 20 A Mid-Trip |
| CBB030M | Circuit Breaker, Bullet Style, Single Pole, 30 A Mid-Trip |
| CBB040M | Circuit Breaker, Bullet Style, Single Pole, 40 A Mid-Trip |
| CBB050M | Circuit Breaker, Bullet Style, Single Pole, 50 A Mid-Trip |
| CBB060M | Circuit Breaker, Bullet Style, Single Pole, 60 A Mid-Trip |
| CBB075M | Circuit Breaker, Bullet Style, Single Pole, 75 A Mid-Trip |
| CBB080M | Circuit Breaker, Bullet Style, Single Pole, 80 A Mid-Trip |
| CBB100M | Circuit Breaker, Bullet Style, Single Pole, 100 A Mid-Trip |

Circuit 35 1U bullet-style breakers:

| Part # | Description |
|---------|---|
| JBB005E | 1U Circuit Breaker, Bullet Style, Single Pole, 5 Amp Electro-Mechanical Trip |
| JBB010E | 1U Circuit Breaker, Bullet Style, Single Pole,10 Amp Electro-Mechanical Trip |
| JBB020E | 1U Circuit Breaker, Bullet Style, Single Pole, 20 Amp Electro-Mechanical Trip |
| JBB030E | 1U Circuit Breaker, Bullet Style, Single Pole, 30 Amp Electro-Mechanical Trip |
| JBB040E | 1U Circuit Breaker, Bullet Style, Single Pole, 40 Amp Electro-Mechanical Trip |
| JBB050E | 1U Circuit Breaker, Bullet Style, Single Pole, 50 Amp Electro-Mechanical Trip |
| JBB060E | 1U Circuit Breaker, Bullet Style, Single Pole, 60 Amp Electro-Mechanical Trip |
| JBB005M | 1U Circuit Breaker, Bullet Style, Single Pole, 5 Amp Mid-Trip |
| JBB010M | 1U Circuit Breaker, Bullet Style, Single Pole, 10 Amp Mid-Trip |
| JBB020M | 1U Circuit Breaker, Bullet Style, Single Pole, 20 Amp Mid-Trip |
| JBB030M | 1U Circuit Breaker, Bullet Style, Single Pole, 30 Amp Mid-Trip |
| JBB040M | 1U Circuit Breaker, Bullet Style, Single Pole, 40 Amp Mid-Trip |
| JBB050M | 1U Circuit Breaker, Bullet Style, Single Pole, 50 Amp Mid-Trip |
| JBB060M | 1U Circuit Breaker, Bullet Style, Single Pole, 60 Amp Mid-Trip |

Fuses

GMT fuses are small blade type fuses that have a maximum rating of 15 amps.

TPS fuses are larger fuses, which fit into a holding device that looks similar to a bullet-style circuit breaker. TPS fuses are rated and available up to 100 amps and take up one circuit breaker position. All TPS fuse holders come with a 0.18A GMT fuse for alarm indication. A fuse holder, which is the same for all fuse sizes, and the fuse are ordered as separate line items.



Figure 9 - TPS fuse and holder



Figure 10 - GMT indicator fuse

Fuse Examples

| Part # | Description |
|---------|-----------------------------------|
| GMT0018 | Fuse, GMT Style, 0.18 A |
| GMT0100 | Fuse, GMT Style, 1 A |
| GMT0133 | Fuse, GMT Style, 1.33 A |
| GMT0200 | Fuse, GMT Style, 2 A |
| GMT0300 | Fuse, GMT Style, 3 A |
| GMT0400 | Fuse, GMT Style, 4 A |
| GMT0500 | Fuse, GMT Style, 5 A |
| GMT0700 | Fuse, GMT Style, 7 A |
| GMT0750 | Fuse, GMT Style, 7.5 A |
| GMT1000 | Fuse, GMT Style, 10 A |
| GMT1500 | Fuse, GMT Style, 15 A |
| TPS010 | Fuse, TPS Style, 10 A |
| TPS015 | Fuse, TPS Style, 15 A |
| TPS020 | Fuse, TPS Style, 20 A |
| TPS025 | Fuse, TPS Style, 25 A |
| TPS030 | Fuse, TPS Style, 30 A |
| TPS040 | Fuse, TPS Style, 40 A |
| TPS050 | Fuse, TPS Style, 50 A |
| TPS060 | Fuse, TPS Style, 60 A |
| TPS100 | Fuse, TPS Style, 100 A |
| TPSB100 | Fuse Holder, Bullet-Nose Terminal |

For TPS fuses, part number TPSB100 is a bullet-nosed plug-in fuse holder that fits into standard bullet breaker positions.

3. How to Order

To order a complete working system, select part numbers and quantity for the following items.

- 1. Chassis and TRIO (if applicable)
- 2. J-series rectifier(s)
- 3. Network interface card controller (optional)
- 4. AC line cord(s)
- 5. Alarm cable
- 6. Thermal probes
- 7. GMT fuses (circuit 35 or circuit 39)
- 8. Circuit breaker or TPS fuses

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Appendix A - Part Numbering Conventions

The following sections show how to read the *J Rear Wire* part numbering conventions. Other configurations based on these guidelines may also be available. Please consult your Eltek Valere representative for availability and lead time.

Shelf Part Numbering

The following part numbering convention can be used to identify the J Rear Wire shelf:



Figure 11 - Shelf Naming

Rectifier Naming Convention

Use the naming convention below to determine the part number of the required rectifiers.



Figure 12 - Rectifier Naming

NIC-Series Controller Naming Convention



<u>NIC 2001 - Z 01 - 10 VC</u>

Figure 13 - NIC Naming Convention

Line Cord Naming Convention

Refer to AC Cable drawing CA113002282 for more information. Use the following naming convention to identify appropriate AC cables:



Figure 14 - Line cord naming convention

The NEMA AC plug type suffix (L615P in the example above) is in the form: **wxyyz**

 $\mathbf{w} - \mathbf{L} = \mathbf{Locking}$ or $\mathbf{N} = \mathbf{Non-locking}$

 \mathbf{x} – 5 is for 3-wire (delta), low line AC; 6 is for 3-wire, high line AC; 14 is for 4-wire (wye), high line AC

yy – Current rating of plug in amps

z – Plug (P)

Temperature Probes





Bullet Style Breaker Naming Convention



Figure 16 - Bullet Style Breaker Naming Conventions

GMT Fuse Naming Convention





TPS Fuse Naming Convention



Figure 18 - TPL Fuse Naming Convention

Appendix B – System Controller Profiles

The controller has many adjustable system operating parameters that provide tremendous flexibility in managing a variety of applications. These operating parameters are field adjustable and can also be factory programmed to a specific set of values. Up to three presets or "setting registers" may be stored to make future system adjustments easy. Each profile is given a two-digit identifier. The 01 profile is the standard parameter set that ensures safe system operation. The following tables list some of the system operating parameters for a 48V *J Rear Wire* system.

| | | Register |
|---------------------------|--|----------------|
| System Parameters | Description | Values |
| Plant Settings | | Nominal 48 Vdc |
| Float Voltage | The voltage to which the rectifiers will regulate the plant voltage during float mode (Volts) | 54 V DC |
| High Voltage Shutdown | The Controller/NIC will shut down the rectifiers if the plant voltage exceeds this set point. (Volts) | 58 V DC |
| Rectifier Current Limit | Enables the system current limit feature | Disabled |
| Current per Rectifier | The Controller/NIC will limit the current of the rectifiers to this value (Amps) | 220 A |
| Language | Webpage language display | English |
| Alarm Settings | | |
| High Voltage Alarm | The Controller/NIC will issue a High Voltage Alarm if the plant voltage exceeds this set point (Volts) | 57 V DC |
| Battery on Discharge | The Controller/NIC will issue a Battery-On- Discharge alarm if the plant voltage falls below this set point (Volts) | 48 V DC |
| Low Voltage Alarm | The controller will issue a Low Voltage Alarm if the plant voltage falls below this set point (Volts) | 44 V DC |
| Communication Alarm | An alarm is set if any rectifier either stops communicating or is removed from the shelf. User action is required to clear the alarm | Disabled |
| Battery Boost Settings | | |
| Boost Voltage | The output voltage to which the rectifiers will raise to when the Boost feature is executed (Volts) | 56.5 V DC |
| Boost Duration | Duration of time the boost charge is active (H:M:S) | 12:00:00 |
| Boost Stop Current | The lower limit at which the boost test will stop. 0 = disabled. Requires battery shunt (Amps) | 0 |
| Battery Boost Start Modes | | |
| Manual Mode | Enables or disables the manual boost mode feature | Disabled |
| Periodic Mode | Enables or disables automatic boost mode that runs a boost test every x number of days | Disabled |

| | | Register |
|--|--|-----------|
| System Parameters | Description | Values |
| Doriod | The number of days in between periodic boost | 30 Days |
| Pendu | The time of day the periodic boost mode will | |
| Time of Day | start (H:M:S). 24 hour format | 8:00:00 |
| | Enables or disables the current based | |
| | autoboost test. When enabled the boost | Disabled |
| Auto Current Mada | feature will automatically start if the start | |
| Auto current Mode | The amount of time the start current must be | |
| Current Delay | exceeded before the test will start. (Minutes) | 0 |
| | The value at which the current autoboost test | 100 4 |
| Start Current | will start. (Amps) | 100 A |
| | Enables or disables the AC fail based autoboost | |
| | test. When enabled the boost feature will | Disabled |
| AC Fail Mode | than the AC fail duration | |
| | The length of time the AC failure must last to | 0.1 5.00 |
| AC Fail Duration | trigger the autoboost feature (H:M:S) | 0:15:00 |
| | The voltage the batteries must drop below | |
| | during the AC failure to trigger the autoboost | 44 V DC |
| DC Drop Voltage | feature (Volts) | |
| Battery Discharge Test | Sate the length of time that the battery | |
| Duration | discharge test will run (H·M·S) | 0:30:00 |
| Daration | Sets the voltage at which an alarm will be | |
| | generated if the battery voltage falls below it | 42 V DC |
| Alarm Voltage | during the Battery Discharge Test. (Volts) | |
| | The voltage at which the battery discharge test | (0) (0 0 |
| Abort Voltage | will abort at when the battery voltage drop | 42 V DC |
| Abort voltage | Enabling this value will take thermal | |
| | compensation effects into account during the | |
| | test. Disabling this value will disable Thermal | |
| | Compensation effects during the test. Both | Disabled |
| | Thermal Compensation and T Comp BDT have to | |
| Thormal Comp Adjust | be Enabled for thermal comp. effects to take | |
| BDT Start Modes | | |
| BDT Start Houes | Enables or Disables the battery discharge test | |
| Manual Mode | feature | Disabled |
| Rechrg I Limit | | |
| Battery Recharge Current Limit Enable | Enables the battery recharge current limit function | Disabled |
| Battery Pechargo Current | The maximum amount of current that the | |
| | controller will allow to flow into the battery | 40 V DC |
| | during recharge. (Amps) | |
| Thermal Comp Setpoints | Engling or display theread correspondential | Dischlad |
| Inermal Compensation | Enables of disables thermal compensation | DISADLED |

| | | Register |
|--------------------------------------|---|-----------|
| System Parameters | Description | Values |
| Thermal Sense | Selects temperature sensing device to use for battery temperature compensation; Internal sensor or External temp probes. | External |
| Temperature Units | Select either degrees C or F | Celsius |
| T Comp Boost | | |
| High Start Temp | The controller begins to reduce the float voltage when the highest measured battery temperature reaches this value (°C) | 35℃ |
| High Slope | If battery temperature is above the start temperature, the controller will linearly reduce the plant voltage by this slope (mV/°C) | 72 mV/°C |
| High Stop Voltage | The minimum voltage to which the controller will reduce plant voltage for thermal compensation (Volts) | 50.5 V DC |
| Low Start Temp | The controller begins to increase the float voltage when the lowest measured battery temperature reaches this value (°C) | -20°C |
| Low Slope | If battery temperature is below the start temperature, the controller will linearly increase the plant voltage by this slope (mV/°C) | 0 mV/℃ |
| Low Stop Voltage | The maximum voltage to which the controller will raise plant voltage for thermal compensation (Volts) | 56 V DC |
| Runaway Temperature | The temperature at which the controller will reduce the Float Voltage to Runaway Clamp Voltage (°C) | 60°C |
| Runaway Stop Voltage | The Float Voltage to which the controller will reduce for temperatures above Runaway Clamp Voltage (Volts) | 50 V DC |
| LVD Setpoints | | |
| Battery LVD Open Voltage | The battery LVD contactor will open if the plant voltage falls below this setpoint (Volts) | 42 V DC |
| Battery LVD Disconnect Delay Time | The amount of time the system voltage must be below the battery LVD disconnect voltage before the contactor will open (Sec) | 0:00:05 |
| Battery LVD Reconnect Voltage | The battery LVD contactor will reconnect if the plant voltage exceeds this setpoint (Volts) | 50 V DC |
| Battery LVD Reconnect Delay Time | The amount of time that the plant voltage must exceed the battery LVD reconnect setpoint prior to reconnecting the LVD contactor (secs) | 0:00:20 |

Table 10 - Controller Parameters (Profile A01)



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