



SPS –48V Slimline Power Shelf

Models: J2007003L001 - alpha suffixes per Slimline Power System Brochure



No vertical spacing is required, allow a minimum 2 inch clearance at back of shelf for rectifier airflow.
Refer to *Slimline Power System Brochure* for details and accessories.

Tools required:

Wire cutters and strippers
Cable crimpers

Torque wrench - 0-65 in-lb (0-10Nm)
Sockets - 5/16", 7/16, etc.

Screwdrivers - Phillips #1 and #2, Flat small

Step 1 - Mount Shelf

1. Reposition mounting ears as required - 1 screw each.
Torque to 25 in-lb (2.8Nm) - Phillips screwdriver.
2. Attach shelf to the frame using a minimum of four screws (two on each side) - 12-24 (provided).
Torque to 35 in-lb (4Nm) - 5/16" socket.

Step 2 - Connect Chassis Ground

Lug Landing: #10 double-hole on 5/8-inch center (lug not provided)
Some applications may rely on frame mounting screws for shelf ground omitting the chassis ground cable.
Minimum 10 AWG wire is recommended.
Torque 10-32 screws to 30 in-lb (3.4Nm) - 5/16" socket.

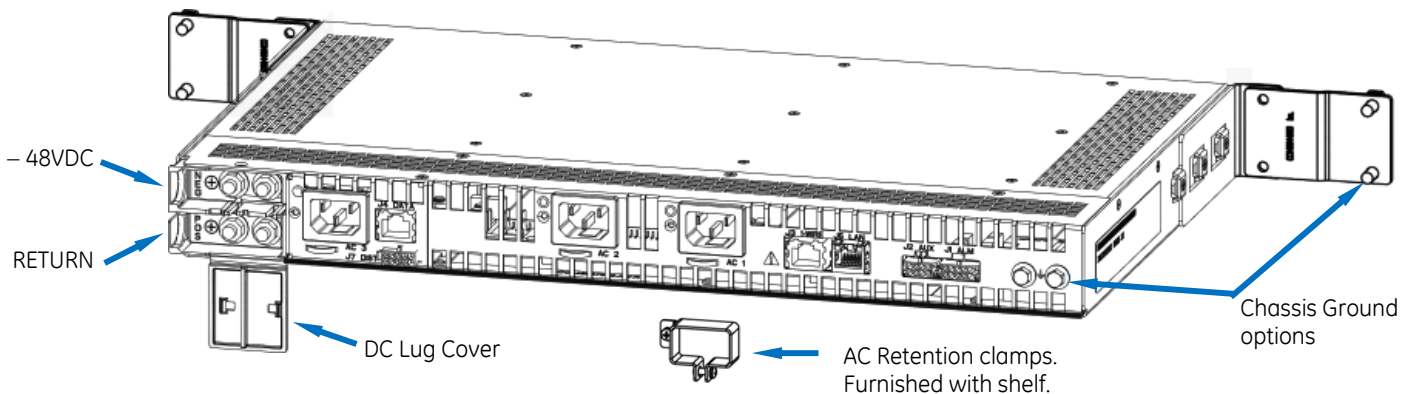
Step 3 - Connect AC Input

Connect AC cords
Secure cord with the furnished AC retention clamps.

Danger: If blunt cut cords are used ensure AC power is OFF and use appropriate lock-out tag-out procedures before continuing with ac connections. Follow all local and national wiring rules when connecting to ac mains.

Caution: Route AC cables to avoid contact with sharp or rough surfaces that may damage insulation and cause a short circuit.

AC Input		
Cords	Input	Recommended External AC Breaker
1 x C19	200-240Vac	see Information: Rectifier Options
3 x C13	120Vac/200-240Vac	



Step 4 - Connect DC Output

Connections are on the rear under covers.

Lug Landings - 2 x 1/4" on 5/8" center, 0.7" (18mm) max. tongue width.

Connect cables with suitable lugs to -48V and RETURN.

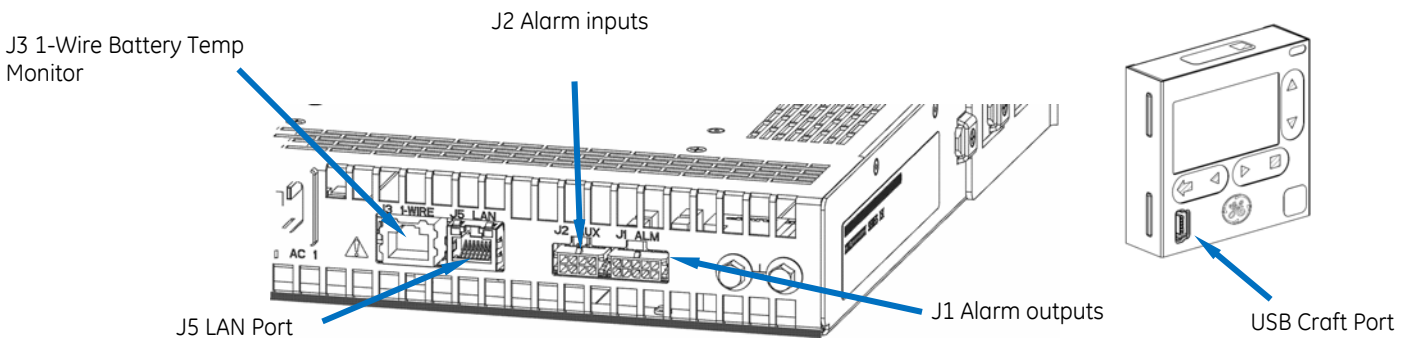
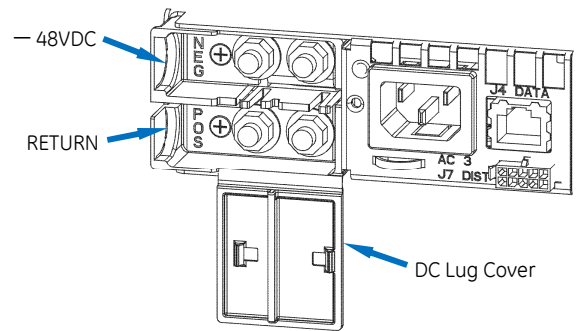
For straight lugs break out the plastic to the left of the terminals.

Torque to 65 in-lb (7.3 Nm).

Close DC Lug Cover. Snap closed.

CAUTION: Verify battery voltage and polarity with a voltmeter before proceeding.

Note: RETURN must be externally connected to DC Reference (CO) ground.



Signal Connections

Step 5 - Set Jumpers - LAN Port and Relay per Galaxy Pulsar Edge Controller Quick Start Guide

Step 6 - Install Controller per Galaxy Pulsar Edge Controller Quick Start Guide

Step 7 - Install Signal and Communications Cables

Connectors are on rear.

1. J1-2 Alarms and Inputs - Connect to office alarms and signals.
See *Information: Alarm Connections* for Details
2. J5 LAN - Connect to Ethernet network.

Step 8 - Install 1-Wire Battery Temp and Voltage Monitor per Galaxy Pulsar Edge Controller Quick Start Guide - Optional

1. Connect 1-Wire Battery Temp and Voltage Monitor to J3

Step 9 - Install Rectifiers

Firmly push the rectifier into the rectifier slot.

Tighten the thumb screw until the rectifier is seated.

NOTE: When installing a rectifier in a powered system the RUN LED on the rectifier will blink until communication with the controller is established.



Step 10 - Initial Start Up

Verify that all AC, DC and Alarm connections are complete and secure. Turn on AC input breakers. If there are no alarms, make required adjustments to the default settings on the controller for this installation.

Step 11 - Configure Controller per Galaxy Pulsar Edge Controller Quick Start Guide

Verify and edit controller basic configuration parameters per site engineering instructions.

Information: Rectifier Options

Rectifiers single phase, hot-pluggable, fan-cooled		Input		Recommended AC Breaker		Output		
		Vac	A	L1A Shelf C13 AC Cords	L1 Shelf C19 AC Cord	Float Vdc	W	A ¹
150027894	EP0500-UTEZ: 540W	100-120	6.5	10A		48-58	540	10
CC109165602	EP1000-UTEZ: 1000W	100-120	12	15A		48-58	1000	20
		200-240	6	10A	15A	48-58	1000	20
CC109165610	EP1600-UTEZ: 1600W	100-120	15	20A		48-58	1200	24
		200-240	7.5	10A	20A	48-58	1600	32

¹ Output Current at 54.5V. Outputs are power limited, not current limited.

Information: Alarm Connections

See the *Slimline Power System Brochure* for details.

Alarm connections are on the rear of the shelf - J1 is Alarm Outputs and J2 is Alarm Inputs.

Change alarm descriptions via LAN port (Web pages) or Craft port (EasyView2) when required.

Connector		J1 - Controller Variants			J2 - All Controllers		
Pin	Controller	Color	0I5R_D - 5 Alarm Relays	3C3R - 3 Alarm Relays,	9C0R_USB - 9 Inputs	Color	All
	1		BK	Output: R3 = Rtn	Input: PBT/TR	Input: Door Open	Y
2		BR	Output: R2 = Rtn	Input: Hi Ext. Temp.	Input: Surge Protect Fail	S	--
3		R	Output: R1 = Rtn	Output: R1 = Rtn	Input: Door 2 Open	O	Input: AUX MAJ
4		O	Output: PMN Rtn	Output: PMN Rtn	Input: Ext DC Gail Major	V	Input: Air Cond. Fail
5		Y	Output: PMJ Rtn	Output: PMJ Rtn	Input: Ext DC Fail Minor	W	Input: Door Open
6		G	Output: R3 = ACF	Input: RTNS	Input: Returns	BL	-48V
7		BL	Output: R2 = RFA	Input: Cust. Alm 1	Input: Retrieve Generator	BR	-48V
8		V	Output: R1 = BD	Output: R1 = BD	Input: Battery Fail	BK	-48V
9		S	Output: PMN	Output: PMN	Input: Air Conditioner Fail		
10		W	Output: PMJ	Output: PMJ	Input: External Fan Fail		

Specifications and Application

- Specifications and Ordering Information – are in brochures listed in **Reference Documents**.
- External Surge Protective Devices (SPDs) - are required on all AC inputs.
Equipment Safety is Approved in IEC 60664-1 Installation Category II environments.
- Equipment and subassembly ports - 1. are suitable for connection to intra-building or unexposed wiring or cabling;
2. can be connected to shielded intra-building cabling grounded at both ends.
- Grounding / Bonding Network – Isolated Ground Plane (Isolated Bonding Network) or Integrated Ground Plane (Mesh-Bonding Network, or Common Bonding Network).
- Installation Environment - Network Telecommunication Facilities, OSP, or where NEC applies.
- DC Returns - Isolated DC return (DC-I) or Common DC return (DC-C).

Reference Documents

These documents are available at www.qecriticalpower.com.

Document	Title
850035894	Galaxy Pulsar Edge Quick Start Guide
CC848815341	Pulsar Edge Controller Family Product Manual
	Slimline Power System Brochure



