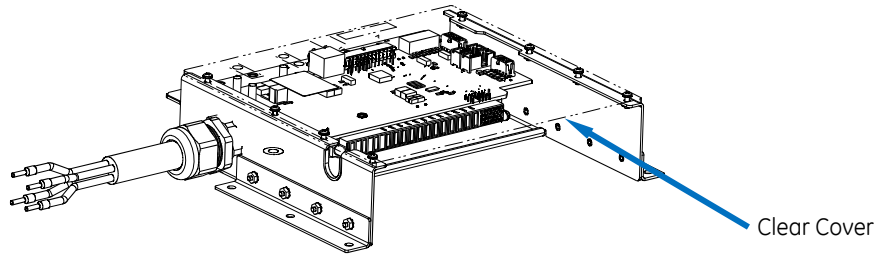




GP100 Rectifier Backplane

150044268 (J2014001L901)



Read and follow all safety statements, warnings, and precautions in this guide.

The backplane is Safety Approved in Service Access locations only. Minimum clearance for cooling airflow: 3" front and rear.

Rectifier retention latch engagement and front mechanical support are not provided by the backplane.

Caution: Equipment Damage

Turn AC power OFF to the backplane before installing or removing rectifiers to avoid damage to the rectifier.
This backplane does not support hot plug in of rectifiers.

Tools required:

Torque wrench - 0-240 in-lb / 28 Nm
Screw Driver - Phillips #2

Sockets- 5/16"

Step 1 - Set Jumpers

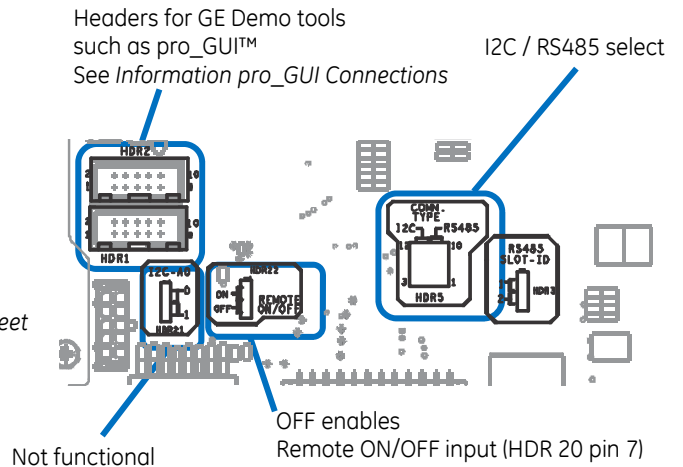
Jumpers are on the top under the cover.

Set jumpers per engineering instructions.

- HDR3 not used with I²C
- HDR5 I²C / RS485
- HDR21 I²C A0
- HDR22 Remote ON/OFF enable

1. Remove cover - 8 screws.
2. Set jumpers

Details: See *GP100 Global Platform Line High Efficiency Rectifier Data Sheet*



Step 2 - Mount Backplane

Attach the backplane to the frame/rack using a 6 (three on each side) 12-24 screws (provided).
Torque to 35 in-lb - 5/16" socket.

Step 3 - Connect DC Output

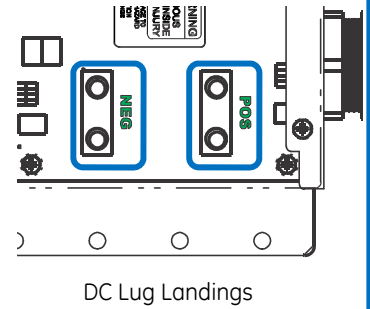
DC lug landings are at the top rear, under the cover.

There are no DC output protectors in the shelf.

DC Output - 115A max.

Lug Landings - 10-32 on 5/8" centers

1. Remove cover - 8 screws - if not removed in step 1.
2. Connect wires with suitable lugs to POS and NEG lug landings. Install. Torque to 30 in-lb (3.4 Nm).
3. Install cover - 4 screws.



Step 4 - Connect AC Input

Each Rectifier: 380 Vac at 10 A or 480Vac at 8 A.

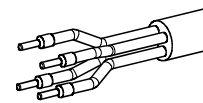
Danger: Turn OFF and lock-out tag-out the AC source before making AC connections or working on the backplane. When connecting to AC mains, follow all local and national wiring rules.

Caution: When routing AC ensure cables do not come in contact with sharp or rough surfaces that may damage insulation and cause a short circuit.

External AC protector - 30A max.

AC Cable termination - Phoenix 3200535 terminals.

1. Assemble suitable connector housing onto AC cable or cut pins off as required.
2. Connect backplane AC cable to 380/480Vac 3-phase.



Green	Ground
Black	Phase A
Red	Phase B
White	Phase C

Step 5 - Connect Signals

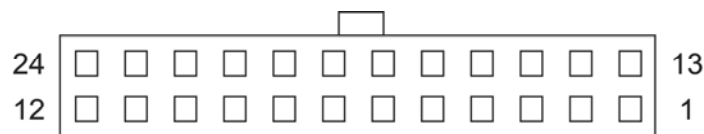
Connect per engineering instructions.

Connections are to HDR20 "DATA" at the rear of the backplane.

Signal Details: See GP100 Global Platform Line High Efficiency Rectifier Data Sheet

Signal Connector: Housing - Molex 43025-2408 Contacts - Molex Female Terminal series 46235.

Signals - HDR20 "DATA"							
Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	SDA0	7	REMOTE ON/OFF ¹	13	SCL1	19	STBY_TRIM
2	ALERT0#	8	VPROG	14	LOGIC_GND	20	MOD_PRES
3	LOGIC_GND	9	PFW	15	ALERT1	21	FAULT
4	SDA1	10	ISHARE	16	SCL1	22	8V_INT
5	LOGIC_GND	11	N/C	17	I2CA1_A3 (Rack_ID)	23	PROTOCOL
6	5VA	12	RS485-	18	5VA	24	RS485+



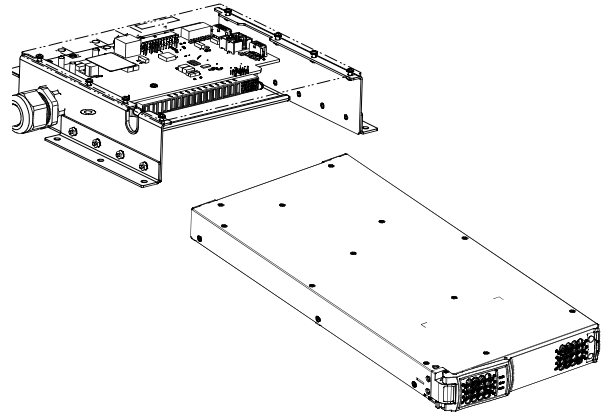
1. REMOTE ON/OFF input is enabled only when HDR22 is set to OFF.

Step 6 - Install Rectifier

Caution: Equipment Damage

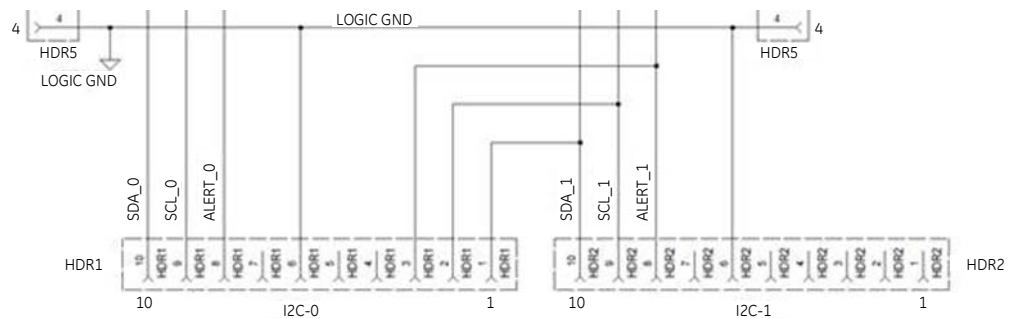
Turn AC power OFF to the backplane before installing or removing rectifiers to avoid damage to the rectifier. This backplane does not support hot plug in of rectifiers.

1. Verify AC to backplane is OFF.
2. Slide Rectifier firmly into a Rectifier position - oriented as shown. Assure that the rectifier is fully mated with the backplane connector before applying AC power



Information pro_GUI Connections

pro_GUI Connections are to HDR1 and HDR2



Specifications and Application

- Specifications and engineering information are in the GP100 Global Platform Line High Efficiency Rectifier Data Sheet available at www.gecriticalpower.com
- 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 – Connect to an Isolated Ground Plane (Isolated Bonding Network) or an Integrated Ground Plane (Mesh-Bonding Network or Common Bonding Network).
- Installation Environment - Service Access area only.
- DC return may be either Isolated DC return (DC-I) or Common DC return (DC-C). DC output can either be isolated or either side could be connected to frame ground for reference.

Reference Documents

These documents are available at www.gecriticalpower.com.

Document	Title
GP100	GP100 Global Platform Line High Efficiency Rectifier Data Sheet

Drawings and other engineering information is available - contact Technical Support at 1- 888 546-3243 or PE.TechSupport@ge.com .

