



DESCRIPTION

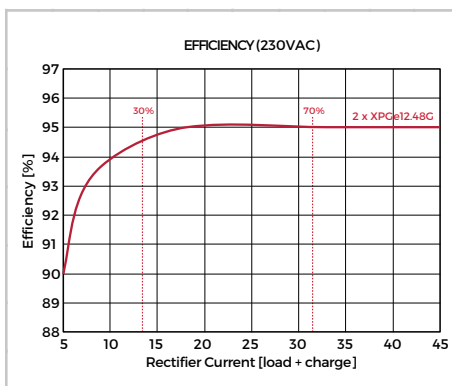
KEY FEATURES

- ◆ >95% Efficiency Rectifiers
- ◆ 45A / 2.4kW Capacity
- ◆ Small Battery Low Power Version
- ◆ Remote Monitoring & Control
- ◆ Field Replaceable Controller
- ◆ Ethernet Comm. with SNMPv3
- ◆ 3 LED Alarm/Status Indicators
- ◆ 4 Form-C Relay Alarms
- ◆ 4 Load & 1 Battery Breakers
- ◆ LCD Display/Touchpad

SAFETY CERTIFICATIONS

UL60950-1 2nd Ed.
 CSA22.2 No. 60950-1 2nd Ed.
 EN60950-1 2nd Ed.

TWO-YEAR WARRANTY



Aspiro 1U is a compact 1RU high 19/23" or ETSI rack-mounted, integrated DC power system providing an output of -48VDC. The system can accommodate 1 or 2 Aspiro family high efficiency hot-swap rectifiers. A total load + charge current of 45A / 2.4kW is available. The rectifiers are internally fan cooled with speed control which is a function of load and temperature, keeping acoustic noise to a minimum.

Aspiro 1U family features a low power version fitted with a 20A shunt to provide improved management of small batteries (<10AH). This version is limited to a total load + charge current of 15A .

The DC output circuits can provide up to 4 loads with breakers rated from 1A to 30A. An additional breaker provides battery protection. A programmable low voltage battery disconnect (LVBD) is standard.

The ACC Extended remote access controller monitors system parameters, controls rectifier output, and provides alarms for system failures. The Controller Module is also pluggable for easy field replacement in case of failure. There are 2 LED alarm indicators which indicate failures, (RED) Alarm and (YELLOW) Message. A third green LED indicates the controller is working properly. As standard four form-C relay outputs provide the alarms for remote use. Two digital inputs and outputs are also provided as well as a microSD card slot that accepts an up to 4GB card which is sufficient for more than 20 years data logging.

The system can be programmed by means of a remote PC web page display. Communication is by Ethernet LAN with SNMPv3 including alarm trapping. It also has provision for temperature compensated charging of an external battery using a supplied TC probe. An LCD Display/Touchpad is included for local metering, status, and setup.

The Aspiro 1U is compatible with UNIPOWER's free [PowCom™ software](#) which offers local and remote management through an advanced Windows GUI.

SYSTEM SPECIFICATION & CAPABILITY GUIDE

SYSTEM DESIGNATION	ASPIRO 1U - 1-M00035			
OUTPUT				
System Voltage	-48VDC nominal 53.5V float			
	STANDARD VERSION		LOW POWER VERSION	
Maximum Power @ 120VAC nom.	1600W		800W	
Maximum Power @ 230/400VAC nom.	2400W		800W	
Maximum Current @ 120VAC nominal	Load	23A @90-100VAC, 25A @ 100-180VAC		15A
	Battery	25A discharge s/w controlled (deducted from load capacity)		15A discharge s/w controlled (deducted from load capacity)
Maximum Current @ 230/400VAC nominal	Load	45A		15A
	Battery	45A discharge s/w controlled (deducted from load capacity)		15A discharge s/w controlled (deducted from load capacity)
No. Rectifier Slots	2			
DC DISTRIBUTION				
Loads Circuits	4 x 1A to 30A (see configuration guide on page 5)			
Battery Circuits	1 x 40A to 65A (see configuration guide on page 5)			
INPUT				
Voltage (nominal)	1-phase 100-120/200-240VAC (L + N + PE) 2 x 1-phase 100-120/200-240VAC (L + N + PE)			
Frequency	47-63Hz			
Maximum Input Current	1-phase - 16A 2-phase - 8A each input		1-phase - 9A 2-phase - 4.5A each input	
Rectifier Power Factor	>0.98 (typical)			
MONITORING & CONTROL (ACC Extended Controller)				
Alarm Relays	4			
Local Interface	4 x 20 LCD, 4-key menu, USB / RS232, microSD card slot (4GB max.) for data logging			
Remote Interface	Ethernet / Modem using PowCom™ software package Ethernet port allows monitoring and control over a TCP/IP network Web browser support + SNMPv3			
LED Indications	Green - System ON; Yellow - Message(s); Red LED - Alarm(s)			
External Digital I/O	2 x Inputs, 2 x Outputs (Open Collector)			
BATTERY MANAGEMENT				
Symmetry Inputs	6 or 12 (can be redefined as analog inputs up to 100VDC)			
Low Voltage Battery Disconnect (LVBD)	1 x 80A Programmable			
Temperature Compensated Charging	Programmable			
COMPLIANCE				
EMC	EN 300 386 ; EN61000-6-3 (Emission) ; EN61000-6-2 (Immunity)			
Safety	IEC60950-1:2005 2 Ed. +A1:2009			
ENVIRONMENTAL				
Operating Temperature	-40°C to +65°C (derated above +55°C, see manual and rectifier datasheet for details)			
Storage Temperature	-40°C to +85°C			

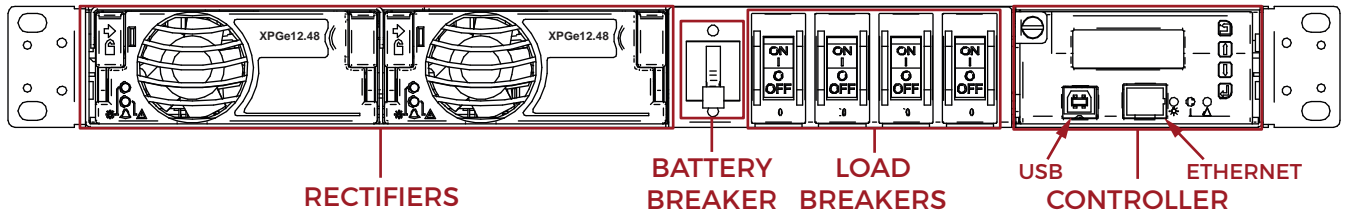
RECTIFIER MODULES vs. SYSTEM CAPACITIES

RECTIFIER MODULES (float voltage 53.5V)						SYSTEM CAPACITY			
MODEL NUMBER	EFFICIENCY ¹	INPUT VOLTAGE ²	INPUT CURRENT ³	OUTPUT POWER	OUTPUT CURRENT	MAX. LOAD CURRENT STANDARD VERSION		MAX. LOAD CURRENT LOW POWER VERSION ⁵	
						TOTAL	1+1 ⁴	TOTAL	1+1 ⁴
XR04.48G	>88.0%	85-275VAC	5.3A/2.5A	400W	7.5A	15.0A	7.5A	15.0A	7.5A
XR08.48G	>90.0%	85-275VAC	10.5A/4.9A	800W	15.0A	30.0A	15.0A	15.0A	7.5A
XPGe12.48G	>95.0%	90-180VAC	7.3A	600W	11.2A	22.4A	11.2A	15.0A	7.5A
		180-275VAC	7.0A	1200W	22.4A	44.8A	22.4A	15.0A	7.5A

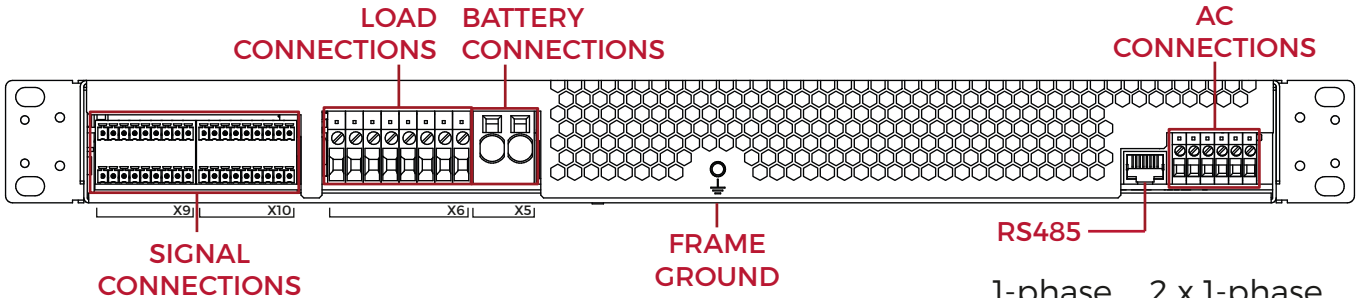
Notes:

1. When operating at 230VAC.
2. All models will operate over the full range, automatically limiting output current/power according to the actual input voltage range applied.
3. Input currents shown are expected maximums at 90VAC/180VAC as appropriate.
4. Figures quoted are at 110VAC input. See separate rectifier [datasheet](#) for details.
5. May require reduction in maximum charge current when batteries not fully charged.
6. The Low Power Version is configured with a 20A shunt to improve measurement resolution when using a small (~10Ah or less) battery.

FRONT PANEL DESCRIPTION



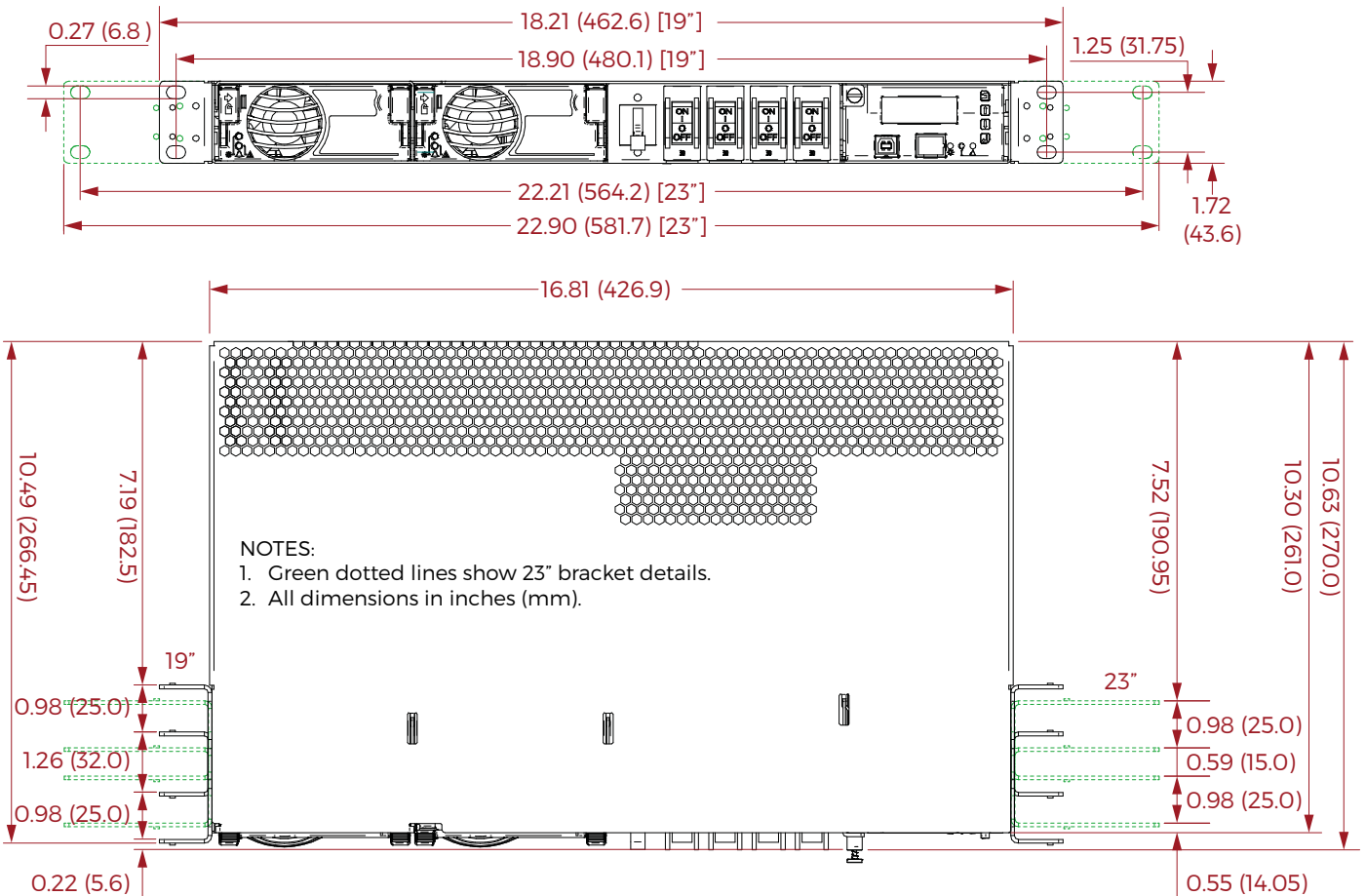
REAR PANEL DESCRIPTION



Note that when the 1-phase configuration is selected only the left hand set of 3 terminals is present and this is connect to both rectifier positions within the unit.



DETAILED DIMENSIONS (19/23")



CONFIGURATION GUIDE

PLEASE COMPLETE THE BELOW TABLE AND SUBMIT TO UNIPOWER FOR VERIFICATION AND CONF. NO. ALLOCATION (This form is fully interactive and may be completed electronically OR it can be printed and completed by hand)	
STEP 1 - CUSTOMER DETAILS	
Company: _____ Address: _____ Zip Code: _____ Country: _____	Contact Name: _____ Email Address: _____ Telephone: _____ Quantity for quotation: _____
STEP 2 - INPUT TYPE - Choose one version	
1-Phase (120/240V) 2-Phase (120/240V) 1-phase Low Power Version with 20A shunt (120/240V) 2-phase Low Power Version with 20A shunt (120/240V)	1-phase OR 2-phase OR 1-phase LP OR 2-phase LP
STEP 3 - RECTIFIER MODULES - Choose one type only and enter quantity 1 2 - dummies will be inserted into unused slots	
XR04.48G - 400W / 9.1A - >88% Efficiency XR08.48G - 800W / 18.2A - >90% Efficiency XPGe12.48G - 1200W / 22.6A - >95% Efficiency	Qty 1 OR Qty 2 OR Qty 1 OR Qty 2 OR Qty 1 OR Qty 2
STEP 4 - CONTROLLER & ALARM INTERFACE - Select desired controller and alarm interface	
ACC Extended with SD Card Slot (default configuration) ACC Extended without SD Card Slot	WITH SD card slot OR WITHOUT SD card slot
STEP 5 - BATTERY BREAKERS - Choose rating and quantity or NONE	
No Breakers (Not recommended) OR 40A x1 OR 50A x1 OR 65A x1	None OR Qty 1 OR Qty 1 OR Qty 1
STEP 6 - LOAD BREAKERS - Choose quantity for desired ratings - maximum 4 positions. Positions not filled will have a blank fitted. [Configuration will be checked by UNIPOWER]	
1A single pole 4A single pole 5A single pole 7.5A single pole 10A single pole 15A single pole 20A single pole 25A single pole 30A single pole	LOAD CIRCUITS Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.) Quantity ____ (4 max.)
STEP 7 - TEMPERATURE SENSOR - available for battery and ambient temperature measurement	
Battery Temperature Sensor - 1.9m (-6ft) OR 3.0m (-10ft) Ambient Temperature Sensor - 1.9m (-6ft) OR 3.0m (-10ft)	NONE OR 1.9m (-6ft) OR 3m (-10ft) NONE OR 1.9m (-6ft) OR 3m (-10ft)
STEP 8 - SYMMETRY CABLES	
Symmetry Cable - 1.9m (-6ft) OR 3.0m (-10ft) - end measure	NONE OR 1.9m (-6ft) OR 3m (-10ft)
STEP 9 - MOUNTING BRACKETS (Choose one type only - slide types allow front access)	
19/23" (allows front or mid fixed position mounting) OR ETSI (allows front or mid fixed position mounting)	19/23" OR ETSI
STEP 10 - OPTIONS & ACCESSORIES (Select required items)	
VDE w/Schuko 10A 3m	NONE OR YES
STEP 11 - SUBMIT COMPLETED FORM TO UNIPOWER FOR CHECKING AND ALLOCATION OF CONFIGURATION PART NUMBER	
Configuration Part Number: 1-M00035_____ (leave blank for completion by UNIPOWER)	