

## INDUSTRIES & APPLICATIONS



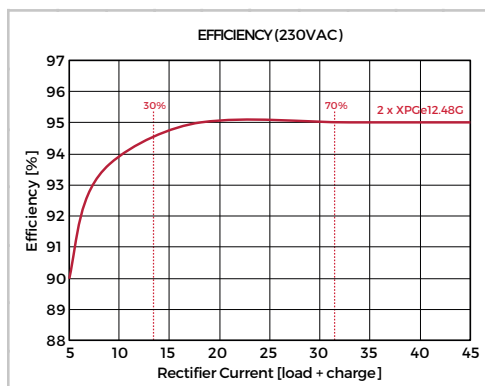
## KEY FEATURES

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

## SAFETY CERTIFICATIONS

CAN/CSA C22.2 No 62368-1:2014  
 UL 62368-1:2014  
 EN 62368-1:2014/A11:2017

## THREE YEAR WARRANTY



## DESCRIPTION

Aspiro1U 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.

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 (LVD) is standard.

The ACX Advanced 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 - M00035	
OUTPUT			
System Voltage		-48VDC nominal   53.5V float	
Maximum Power @ 120VAC nom.		1600W	
Maximum Power @ 230/400VAC nom.		2400W	
Maximum Current @ 120VAC nominal	Load	23A @90-100VAC, 25A @ 100-180VAC	
	Battery	25A discharge   s/w controlled (deducted from load capacity)	
Maximum Current @ 230/400VAC nominal	Load	45A	
	Battery	45A discharge   s/w controlled (deducted from load capacity)	
No. Rectifier Slots		2	
DC DISTRIBUTION			
Loads Circuits		4 x Breakers 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 (ACX Advanced 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		CAN/CSA C22.2 No 62368-1:2014, UL 62368-1:2014, EN 62368-1:2014/AT1:2017	
ENVIRONMENTAL			
Operating Temperature		-40°C to +55°C	
Storage Temperature		-40°C to +85°C	

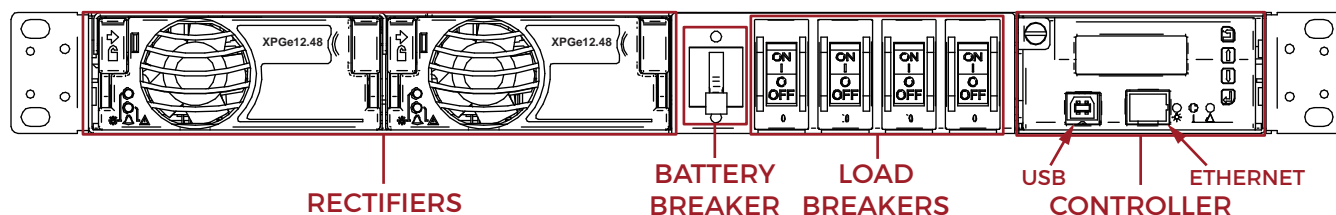
## RECTIFIER MODULES vs. SYSTEM CAPACITIES

RECTIFIER MODULES (float voltage 53.5V)						SYSTEM CAPACITY	
MODEL NUMBER	EFFICIENCY <sup>1</sup>	INPUT VOLTAGE <sup>2</sup>	INPUT CURRENT <sup>3</sup>	OUTPUT POWER	OUTPUT CURRENT	MAX. LOAD CURRENT	
						TOTAL	1+1 <sup>4</sup>
XPGe12.48G	>95.0%	90-180VAC	7.3A	600W	11.2A	22.4A	11.2A
		180-275VAC	7.0A	1200W	22.4A	44.8A	22.4A

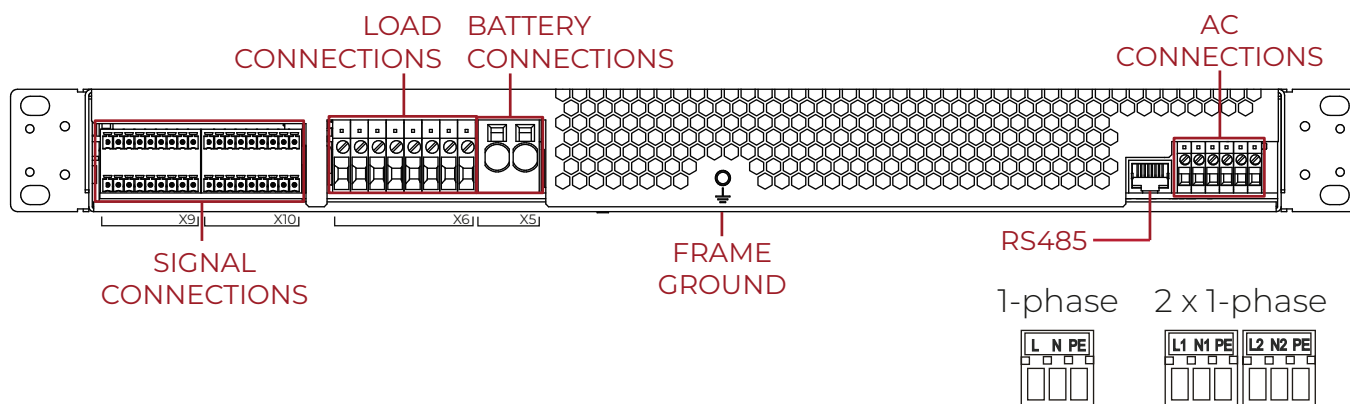
Notes:

- When operating at 230VAC.
- Operates over the full range, automatically limiting output current/power according to the actual input voltage range applied.
- Input currents shown are expected maximums at 90VAC/180VAC as appropriate.
- Figures quoted are at 110VAC input. See separate rectifier datasheet for details.

## FRONT PANEL DESCRIPTION



## REAR PANEL DESCRIPTION



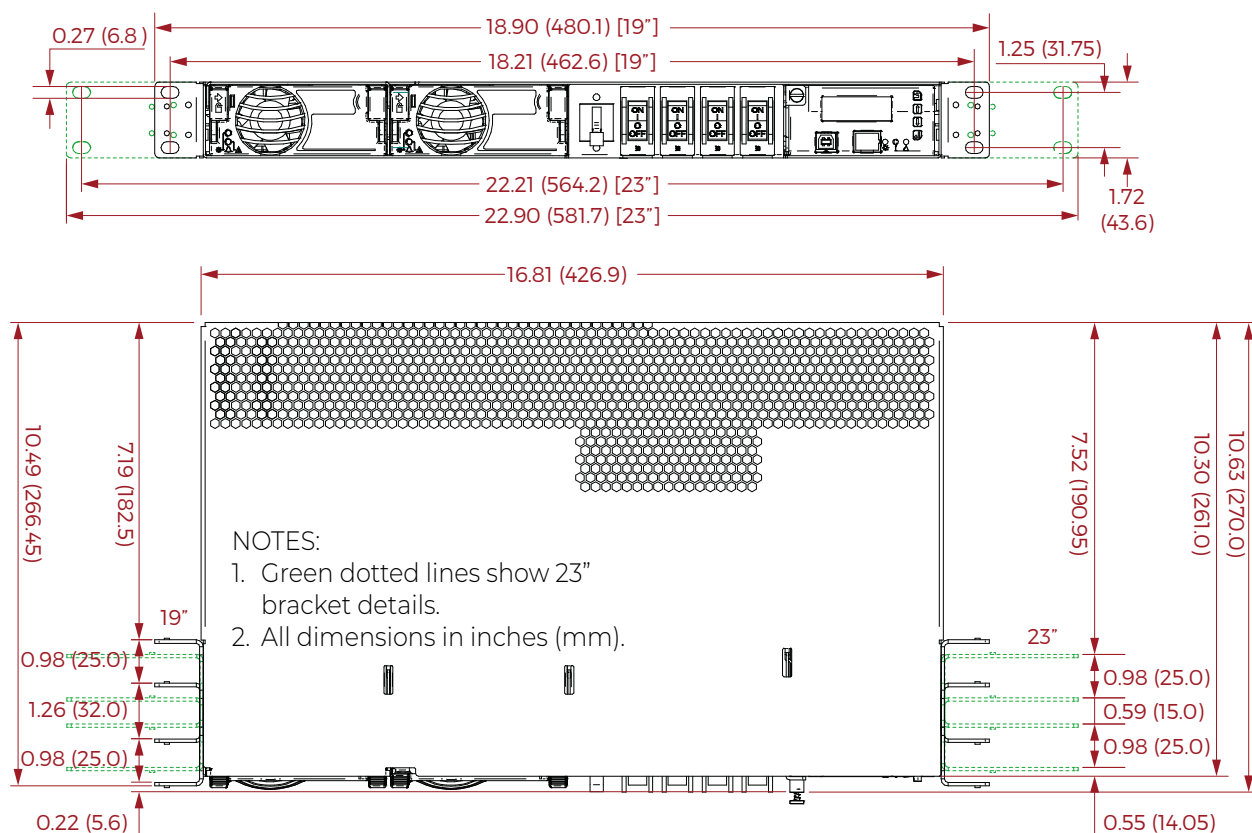
Note that when the 1-phase configuration is selected only the left hand set of 3 terminals is present and this is connect to both rectifier positions within the unit.

## WEIGHTS & DIMENSIONS

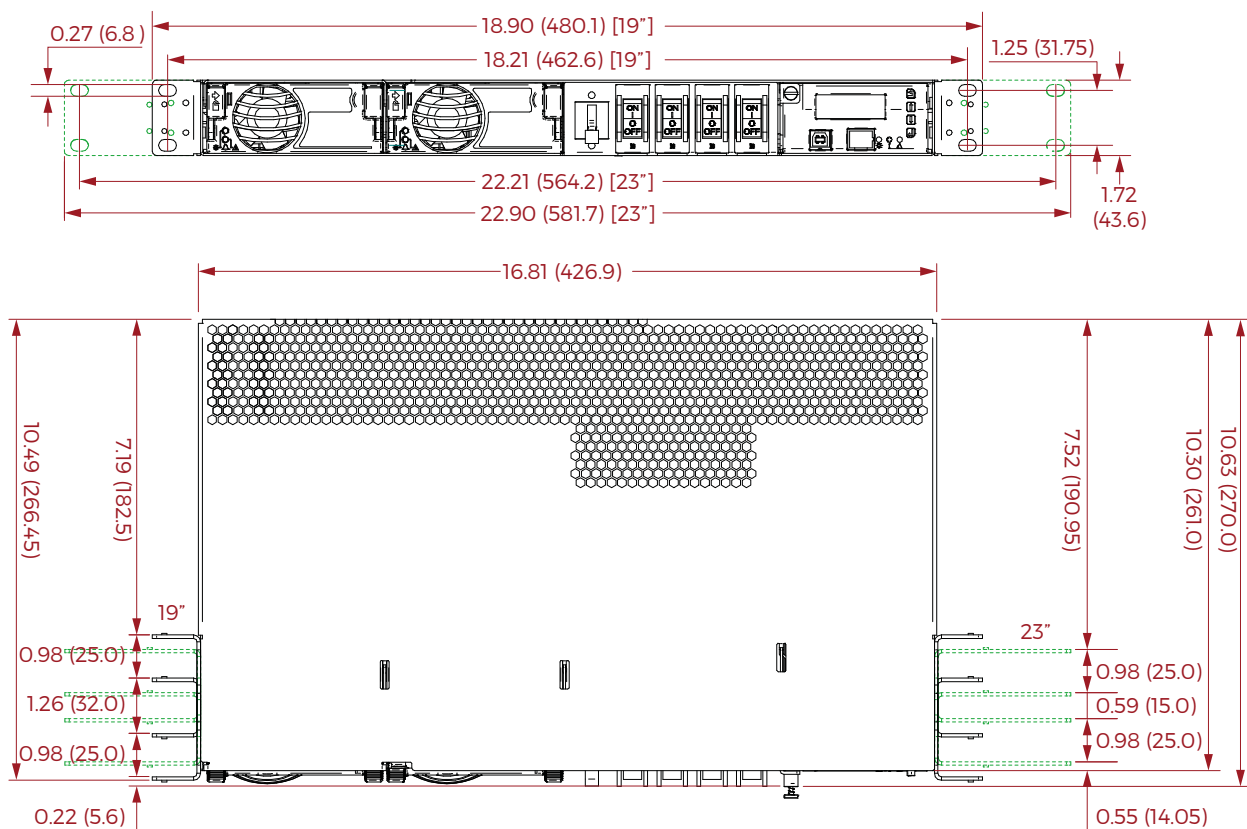
UNIT	UNIT				PACKAGED				
	Width	Height	Depth	Weight	Width	Height	Depth	Weight	# in box
System Unit (19" Mounting)	18.90 (480.1)	1.72 (43.6)	10.41 (264.5)	9.5 lbs (4.3 kg)	23.2 (589)	7.9 (200)	15.3 (387)	11 lbs (5 kg)	1
System Unit (ETSI Mounting)	21.10 (535.0)								
Rectifier Module	4.0 (102)	1.6 (41)	9.0 (229)	2.4 lbs (1.1 kg)	6.0 (152)	2.2 (55)	11.5 (291)	2.6 lbs (1.2 kg)	1

Dimensions in inches (mm)

### DETAILED DIMENSIONS (19/23")



### DETAILED DIMENSIONS (ETSI/21")



## CONFIGURATION GUIDE

<b>PLEASE COMPLETE THE BELOW TABLE AND SUBMIT TO UNIPOWER FOR VERIFICATION AND CONF. NO. ALLOCATION</b> (This form is fully interactive and may be completed electronically OR it can be printed and completed by hand)			
<b>STEP 1 - CUSTOMER DETAILS</b>			
Company: _____ Address: _____ Zip Code: _____ Country: _____		Contact Name: _____ Email Address: _____ Telephone: _____ Quantity for quotation: _____	
<b>STEP 2 - INPUT TYPE - Choose one version</b>			
1-Phase (120/240V) 2-Phase (120/240V)		1-phase OR 2-phase	
<b>STEP 3 - RECTIFIER MODULES - Enter quantity 1 or 2 - XB-01-G blanking modules will be inserted into unused slots</b>			
XPGe12.48G - 1200W / 22.6A - >95% Efficiency		Qty 1      OR Qty 2	
<b>STEP 4 - BATTERY BREAKERS - Choose rating and quantity or NONE</b>			
No Breakers <b>[PLEASE CHECK WITH SALES FOR AVAILABILITY]</b> OR 40A x 1 OR 50A x 1 OR 65A x 1		None OR Qty 1 OR Qty 1 OR Qty 1	
<b>STEP 5 - LOAD BREAKERS - Choose quantity for desired ratings. Maximum 4 for breakers, positions not filled will have a blank fitted. [Configuration will be checked by UNIPOWER]</b>			
<b>BREAKERS - 4 max. total</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">1A single pole - quantity _____</div> <div style="width: 50%;">15A single pole - quantity _____</div> <div style="width: 50%;">4A single pole - quantity _____</div> <div style="width: 50%;">20A single pole - quantity _____</div> <div style="width: 50%;">5A single pole - quantity _____</div> <div style="width: 50%;">25A single pole - quantity _____</div> <div style="width: 50%;">7.5A single pole - quantity _____</div> <div style="width: 50%;">30A single pole - quantity _____</div> <div style="width: 50%;">10A single pole - quantity _____</div> </div>			
<b>STEP 7 - TEMPERATURE SENSOR - available for battery and ambient temperature measurement</b>			
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)	
<b>STEP 8 - SYMMETRY CABLES</b>			
Symmetry Cable - 1.9m (~6ft) OR 3.0m (~10ft) - end measure		NONE      OR 1.9m (~6ft)      OR 3m (~10ft)	
<b>STEP 9 - MOUNTING BRACKETS</b>			
19"/23" (allows front or mid fixed position mounting) OR ETSI (allows front or mid fixed position mounting)		19"/23" (standard in all regions) OR ETSI (optional in EMEA region only)	
<b>STEP 10 - OPTIONS &amp; ACCESSORIES (Select required items)</b>			
VDE w/Schuko 10A 3m (available in EMEA region only)		NONE      OR YES	
<b>STEP 11 - SUBMIT COMPLETED FORM TO UNIPOWER FOR CHECKING AND ALLOCATION OF CONFIGURATION PART NUMBER</b>			
Configuration Part Number: M00035_____ (leave blank for completion by UNIPOWER)			