

Modular Power System

HPR2 SERIES

400-1200 Watts



For HPR400 Modules

•
CE Marked - LVD

•
Universal Input, PFC

•
Hot Pluggable

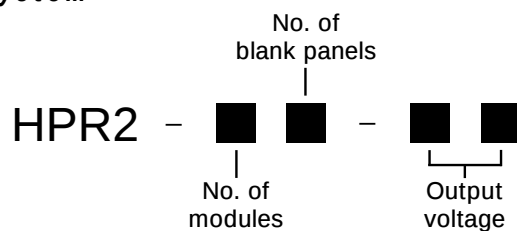
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Standard Alarm Package

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Integral Series Diode

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24 V, 27 V, 48 V, 54 V Versions

Specification

Input Voltage	• 85-264 V AC single phase
Input current	• 4.9 A maximum at 100 V input, 400 W output per module 2.0 A maximum at 230 V input, 400 W output per module
Frequency	• 47-63 Hz
Power Factor	• Typical 0.99, greater than 0.95 @ 400 W
Input Fuse	• 7 A T 250 V internal (module)
Efficiency	• 82% typical
Line Regulation	• 0.2% Vnom max. For input 85-264 V AC (400 W load)
Load Regulation	• 1% Vnom max. 0-100% load
Dynamic Regulation	• Step 50%-100% I _{max} results in ± 250 mV voltage deviation, recovery within 1% of set voltage in 1 ms
Hold Up	• 20 ms minimum @ 400 W output per module
Current Limit	• Constant current limit: set to 105% I _{max}
Output Voltages	• See Table
Output Current	• See Table
Output Noise	• <50 mV rms 10 Hz to 100 MHz, 32 dB rnc, 2 mV rms psophometric
Output Ripple & Noise	• Psophometrically weighted noise to CCITT no. 1 - does not exceed 2 mV rms, C message weighted noise meets 25 dB rnc. Wideband differential noise over 100 MHz bandwidth does not exceed 150 mV pk/pk
Output Voltage Adjust	• Via 20 turn pot - See Table for range
Power	• Continuously rated 400 W up to maximum rated temperature per module
Overvoltage Protection	• 24/27 V nom: adjustable to 25 V - 30 V, 48/54 V nom: adjustable to 50 V - 60 V
Remote Sense	• Local as standard - can compensate for 500 mV if remote connected
Operating Temperature	• 24/27 V nom: -40 °C to 50 °C derate @ 2.5%/°C up to 70 °C 48/54 V nom: -40 °C to 60 °C derate @ 2.5%/°C up to 70 °C
Indicators	• Front Panel LED's for rectifier fail
Alarms	• Rectifier fail, AC mains fail
Connection	• Input via IEC320 per module on rear of rack, output via terminal on rear of rack
Temperature Coefficient	• $\pm 0.02\%$ /°C max. over the range 0 to 50 °C
Isolation	• Primary to secondary barrier components tested to 4 kV AC, input to output to 2.1 kV DC for 1 minute, primary to earth 2.1 kV DC for 1 minute, secondary to earth 700 V DC for 1 minute
Safety	• CE marked to LVD in accordance with EN60950. Also UL1950 and CSA 22.2
EMI/RFI	• EN55022-B conducted
Immunity	• IEC1000-4-4-B, IEC1000-4-2-A, ENV142-B
MTBF	• Exceeds 100,000 hours MIL217 Rev F @ 25 °C

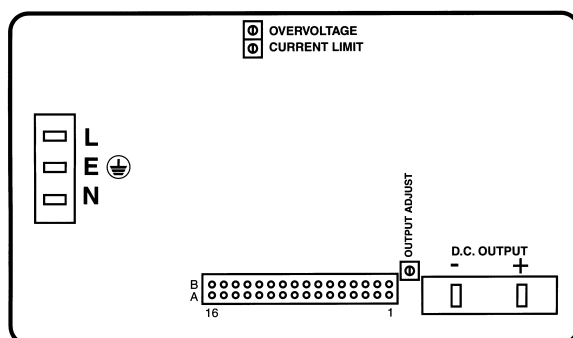
Model Numbering System**Output Voltage & Current Ratings**

Output Voltage	Total Current	Redundant Current	Total Power	Model Number
24 V	42 A	28 A + 14 A	1008 W	HPR2-30-24*
24 V	28 A	14 A + 14 A	672 W	HPR2-21-24*
24 V	14 A		336 W	HPR2-12-24*
27 V	42 A	28 A + 14 A	1134 W	HPR2-30-27*
27 V	28 A	14 A + 14 A	756 W	HPR2-21-27*
27 V	14 A		378 W	HPR2-12-27*
48 V	21 A	14 A + 7 A	1008 W	HPR2-30-48*
48 V	14 A	7 A + 7 A	672 W	HPR2-21-48*
48 V	7 A		336 W	HPR2-12-48*
54 V	21 A	14 A + 7 A	1134 W	HPR2-30-54*
54 V	14 A	7 A + 7 A	756 W	HPR2-21-54*
54 V	7 A		378 W	HPR2-12-54*

Notes:

1. All modules are wired to single output terminal studs at rear of rack.
2. Spare modules available, order part no. HPR400PSXX-H.
3. Blank Panels available, order part no. HPR2-HBP.

* Configured from stock.

Module Connections & Alarms**Input**

VIA Din 41612 H3 plug

Output

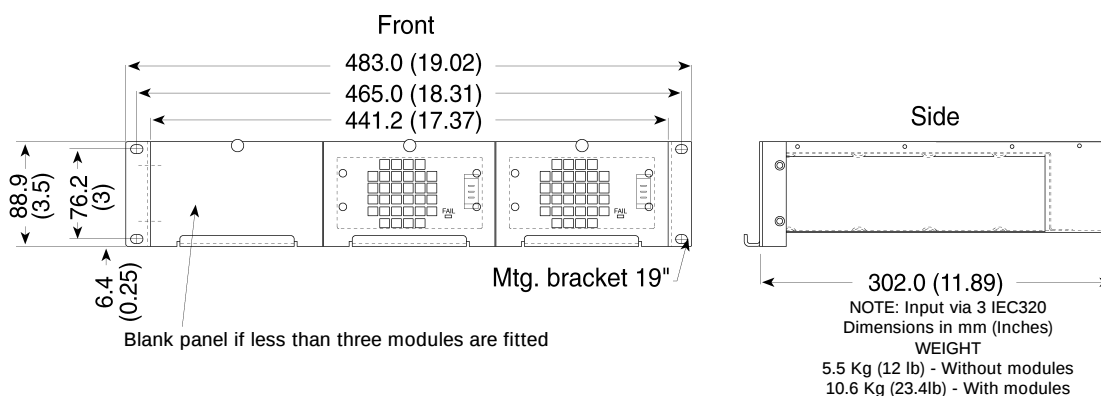
VIA Din 41612 modular H body, 2 way plug

Signals

VIA Din 41612 32way, 1/2 B body plug

Pin No.	Row 'A'	Row 'B'
1	Current Analogue	Voltage Program
2	N/C	DC Healthy Opto
3	O/P Healthy Common	+ Sense
4	O/P Healthy N/C	- Sense
5	O/P Healthy N/O	Marginate
6	Enable	Current Share
7	Over Temp Opto*	Inhibit Opto A
8	Over Voltage Opto*	Inhibit Opto K
9	Over Current Opto*	Opto Common
10	Fan Fail Opto*	AC Healthy Opto
11	N/C	Current Low Opto*
12	N/C	Spare
13	N/C	Spare
14	N/C	Spare
15	N/C	Spare
16	N/C	Spare

* Standard package does not have these available - consult sales office for enhanced signals package.

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