



- Wide Operating Temperature (-40°C to 80°C)
- Quiet, Fanless Operation
- 1+1 Current Share Capable
- Rugged, Conformal Coated PCB
- 3yr Warranty
- Universal Input
- High Reliability Design (MTBF: 200kh)
- OPP/SCP/OTP Protection Features
- Power Good (PG) Signal

### Electrical Specifications

#### Input

Input Voltage	90-264VAC
Input Frequency	47-63 Hz
Input Current (RMS)	5A Max
Power Factor	>0.95 @110Vac; >0.93 @220VAC full load
Inrush Current	<80A peak @ 220VAC, cold start
Leakage Current	<250µA I/O Leakage (264Vac/63Hz) <3,500µA Earth Leakage (264Vac/63Hz)
Efficiency (Typical)	88% (220Vac input, full load)

#### Environmental & Reliability

Operating Temperature	-40°C to 80°C (See Derating Curves)
Storage Temperature	-40°C to +85°C
Operating Humidity	20% - 90% non-condensing
Storage Humidity	10% - 95% non-condensing
MTBF:	>200K hours per MIL-HDBK-217F at full load and 25°C ambient

#### Output

Total Output Power	400W <sup>1</sup> (See Derating Curves)
Output Voltage	5VDC
Output Current	80A Max. (See Derating Curves)
Voltage Adjustability	-17%, +2%
Set Point Accuracy	±2%
Line Regulation	±0.5%
Load Regulation	±2%
Hold Up Time	8ms (220Vac, 80% load)
Load Share Balance	>90%
Minimum Load	No minimum load
Ripple and Noise	<200mVpp <sup>2</sup> from 0°C to 25°C <150mVpp <sup>2</sup> from 25°C to 80°C

#### Compliance

##### Safety Approvals

##### USA/Canada

UL/cUL60950-1 2nd Ed,  
IEC60950-1:2005 2nd Ed.  
EN60950-1:2006

##### Europe

##### Isolation:

3000VAC input to output  
1500VAC input to ground

##### Isolation Resistance

10MΩ

##### EMC (IEC60601-1-2:2014) :

FCC Class B Radiated & Conducted  
EN55022/55024 Class B Radiated & Conducted

##### Harmonic Currents

##### Voltage Flicker

##### Electrostatic Discharge

##### Radiated Immunity

##### EFT/Burst

##### Surge Immunity

##### Conducted Immunity

##### Magnetic Field

##### Dips / Interruptions

IEC 61000-3-2: Class D  
IEC 61000-3-3  
IEC 61000-4-2: 8kV Air, 4kV contact  
IEC 61000-4-3: 3V/m  
IEC 61000-4-4: +/-1kV  
IEC 61000-4-5: 2005 1kV differential  
IEC 61000-4-6: 3Vrms  
IEC 61000-4-8: 1A/m  
IEC 61000-4-11:

#### Protection

Overpower	106% - 137.5% Hiccup Mode
Overtemperature	105°C±5°C (Case temp of primary switches)
Short Circuit	Auto recovery

#### Notes:

- 1 For operation at full rated power, mounting on a 400mm square aluminum plate is recommended to improve heat dissipation. Contact our office for more details.
- 2 R&N Measured at 20MHz BW with 0.1µF ceramic and 100µF electrolytic capacitors in parallel with DC output at load.

#### General

##### Dimensions Weight

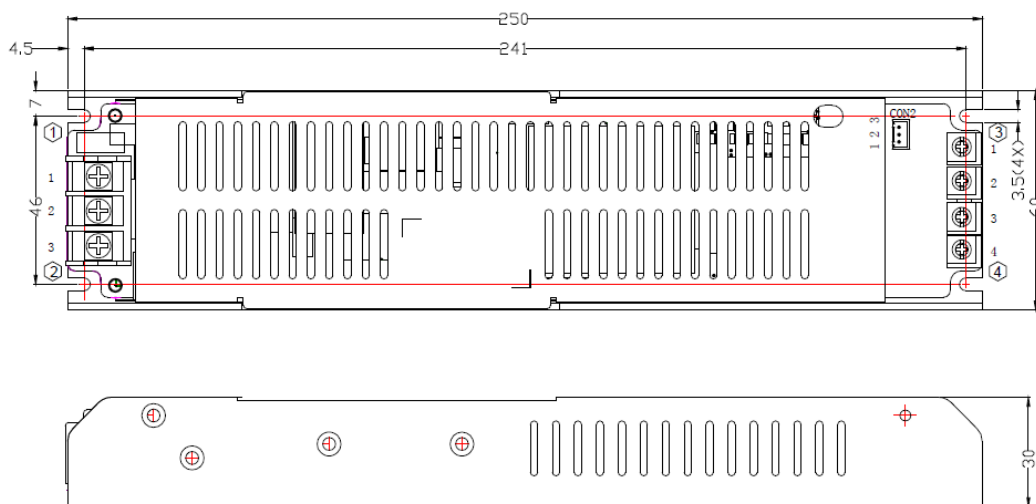
2.36"W x 9.84"L x 1.18"H  
1.5 pounds

Your Partners in Power.....

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Website: [www.powerpartners-inc.com](http://www.powerpartners-inc.com)

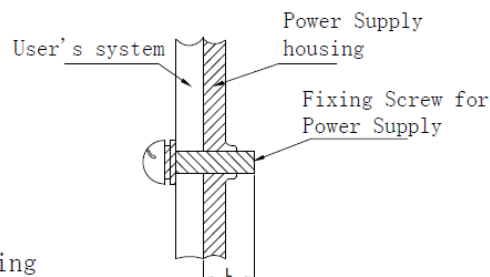


### Mechanical Drawings



Mounting Position	Mounting Type	Mounting Position Number	Screw Type	Lmax	Mounting Torque (max)
Bottom Mounting	Fixing by screws	①—④	M3	4mm	6.5Kgf.cm (max)

Remark: For safety purpose, the screw length inside the PSU housing should follow above table. (Refer the drawing on right side.)



Instructions:

- 1, Dimension unit: mm
- 2, The unmarked tolerance of overall dimension is  $\pm 1\text{mm}$
- 3, Choose the best mounting type of the module

### I/O Configuration

#### Input

Terminal	Function	Wire Gauge	Max Torque
1	L	22-12AWG	73.5cNm
2	N	22-12AWG	73.5cNm
3	GND	22-12AWG	73.5cNm

#### Output

Terminal	Function	Wire Gauge	Max Torque
1	RTN	26-14AWG	73.5cNm
2	RTN	26-14AWG	73.5cNm
3	DC+	26-14AWG	73.5cNm
4	DC+	26-14AWG	73.5cNm

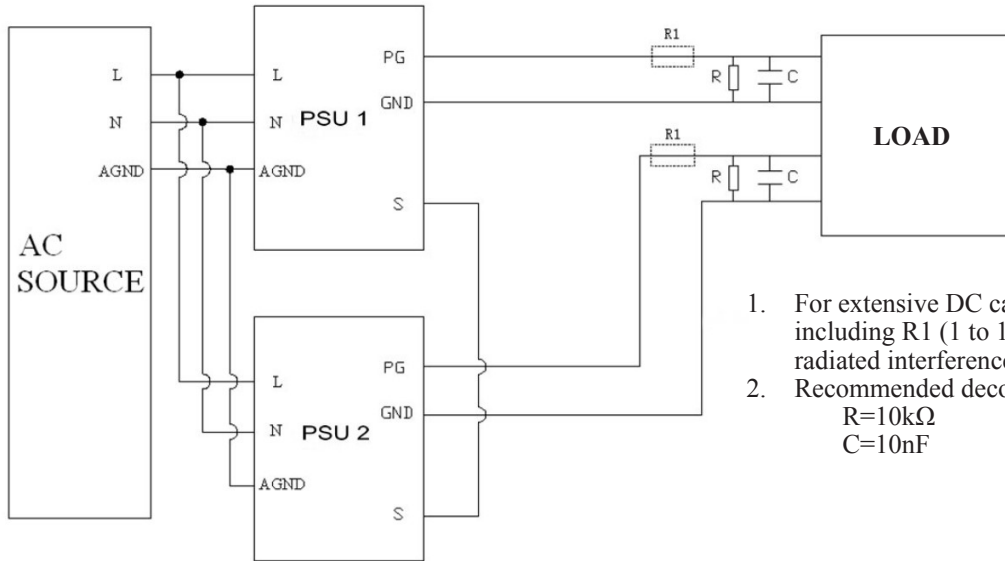
#### Signal (AW2001-WV/3P)

Pin	Function
1	SHARE BUS
2	RTN
3	POWER GOOD <sup>3</sup>

3) PG=3~3.5V: Normal Operation  
PG=0~0.7V: Fault

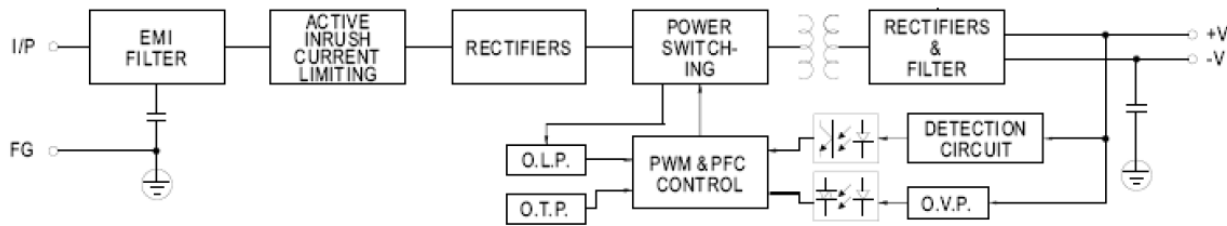


### Current Share Arrangement



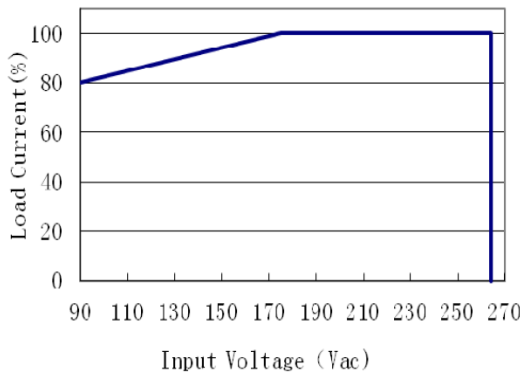
1. For extensive DC cable runs, consider including R1 (1 to 10Ω) to reduce radiated interference.
2. Recommended decoupling network:  
R=10kΩ  
C=10nF

### Block Diagram



### Derating Curves

Low-Line Derating



Thermal Derating

