



- High Power Density
- Up to 87% Efficiency
- Universal AC Input
- Active PFC (90-264VAC)
- Remote On/Off
- 5V/5W Standby
- Inrush Current Protection
- RoHS Compliant

Electrical Specifications

Input

Input Voltage	90-264VAC
Input Frequency	47-63 Hz
Input Current	See Full Product Specification
Input Protection	See Full Product Specification
Inrush Current	See Full Product Specification
Power Factor	Per EN61000-3-2
Leakage Current	750µA-1400µA @240VAC
Safety Isolation	3000VAC Input to output 1500VAC Input to ground

Output

Total Output	160-220W
Output Voltage	See table
Hold Up Time	22mS minimum
Efficiency	Up to 87% (Note 1)
Minimum Load	No minimum load
Over/Under Shoot	10% maximum @ turn-on

Protection

Overvoltage	V1, V2, V3 (latches off)
Overpower	Auto recovery
Short Circuit	Auto recovery (all outputs)
Thermal Shutdown	Auto recovery against over temperature

Notes:

1. See product specification.

Signals

Remote Sense	See Full Product Specification
Remote Enable Input	Low-true input
Fan Output	See Full Product Specification

Environmental & Operating

Operating Temperature	-20°C to +50°C
Temperature Derating	2.5%/°C from +50°C to +70°C
Storage Temperature	-40°C to +85°C
Forced Air Cooling	10CFM minimum
MTBF:	>200,000 hours calculated

Compliance

Safety Approvals

USA	UL60950-1/2007
Canada	CSA-C22.2 No. 60950-1-07
Europe	Directive 2006/95/EC (Low Voltage Safety) IEC60950-1-2005 (2nd Edition) CB Report

EMC

Directive 2004/106EC (EMC Directive)	EN61204-3-2001
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Harmonic Currents Voltage Flicker

EN61000-3-2	EN61000-3-3
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Radiated Immunity EFT/Burst Surge Immunity Conducted Immunity Dips / Interruptions

EN61000-4-3	EN61000-4-4
EN61000-4-5	EN61000-4-6
EN61000-4-6	EN61000-4-11



Models and Ratings Chart

Model	Output #	Voltage	Current	Regulation	Ripple & Noise (p-p)	Dimensions W x D x H
PNA160-1ATX	V1	3.3	15A	2%	50mV	3 x 5 x 1.25" 76.2 x 127 x 31.7mm
	V2	5	20A	4%	50mV	
	V3	12	6A	5%	120mV	
	V4	-12	1A	5%	120mV	
	V5	5sb	1A	5%	50mV	
PNA220-1ATX	V1	24	6A	4%	240mV	3 x 5 x 1.3" 76.2 x 127 x 33mm
	V2	5	10A	4%	50mV	
	V3	12	1A	5%	120mV	
	V4	-12	0.2A	5%	120mV	
	V5	5sb	1A	5%	50mV	

Mechanical Outline

