

MPS

Millennium Power Systems

MPP1-0500-R5-0050

1U, 500 watt, Redundant Power Supply

SPECIAL FEATURES

- Active Power Factor Correction
- Full range input
- Redundant operation
- Remote management through I2C
- Single wire current sharing on +5V, +3.3V and +12V
- Diode isolation
- Power good signals, TTL and open collector
- Secondary power enable / power disable.
- Inhibit, Fan Fail & multifunction LED
- No minimum load
- Short-circuit protection
- Overload protection with constant current and delayed latching
- UL, CUL and DEMKO approval
- CE compliant
- Designed for 1U applications
- Handle and user latch
- Ruggedized hot swap connector
- Multiple input and output configurations
- Optional cooling configurations

ELECTRICAL SPECIFICATIONS

Input parameters

Input range	90-264 VAC
Frequency	47-63 Hz
EMI filter	EN55022 Class B, FCC part 15
Inrush current	< 32A @ 230VAC
Input current	6.8A - 2.3A
Isolation	4242 VDC (input to output)
Efficiency	73% @ 120 VAC
Active PFC	0.99%
Switching freq.	130KHz



VOLTAGE / CURRENT RATINGS

Voltage	Maximum	Peak
+5V	60A	60A
+3.3V	35A	35A
+12V	36A	36A
-12V	5A	5A
+5VSB	2A	2A

Output parameters

DC output	Maximum continuous output
Line regulation	+/- 0.5%
Load regulation	+/- 1% on all outputs
Ripple and noise	1% Pk to Pk
Transient response	2% maximum deviation, return 1ms
Long term stability	0.01% after 20 min warm-up
Hold-up time	20ms minimum
Inhibit	TTL active "low"

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Email: Sales@MPS-POWER.COM

Model: MPP1-0500-R5-0055

OUTPUT SPECIFICATIONS:

Long term Stability: 0.01% after 20 minutes

Hold-Up time: 20m seconds minimum

OVP: 115% to 135% on all outputs

Short circuit protect: Constant current with delayed latching method on all outputs except utilizes the hiccup method.

Overload Protection: Constant current with delayed latching method on all outputs except the 5V standby which utilizes hiccup method. The constant current method allows for a 5 second delay before the power supply shuts down if the output current rating exceeds 110% to 130% of the maximum rated output current. The AC must be recycled to reset.

Current Sharing: The +5V, +3.3V and +12V outputs only.

Diode isolation: Internal diode isolation provided for N+1 redundant operation on all outputs.

Power Good: A TTL high logic signal is provided on pin number P1-26 when the input and output voltages are within normal operating conditions.

Power Fail: A TTL low signal is provided on pin P1-29 when the input and output voltages are within normal operating conditions.

Power disable: The secondary outputs are enabled only upon mating pin P1-27 to output common on the customer's backplane.

Inhibit: A TTL low logic signal to pin P1-22 inhibits all outputs except the %VSB. Upon release of RTO signal, outputs are restored.

Fan Fail: A TTL low logic signal is provided on P1-32 when the fan speed is below 50% of normal operating speed.

ENVIROMENTAL SPECIFICATIONS:

Humidity: Up to 95% non-condensing

Storage Temperature: -20 to +85 C

Ambient operating temperature: 0-50C continuous duty,

Derate linearly to 50% of full rating at 71C

Cooling: Self-contained fan cooling

PIN ASSIGNMENTS:

P1-46	AC-N
P1-47	AC-L
P1-45	AC-GROUND
P1-1, 2, 3, 4, 6	+5V
P1-30	+5V +SENSE
P1-28	+5V CURRENT SHARE
P1-11, 13, 14	+3.3V
P1-23	+3.3V +SENSE
P1-24	+3.3V CURRENT SHARE
P1-15, 16, 18	+12V
P1-25	+12V +SENSE
P1-31	+12V CURRENT SHARE
P1-19	-12V
P1-21	+5VSB
P1-5, 7, 8, 9, 10, 12, 17, 20	DC COMMON
P1-32	FAN FAIL
P1-29	POWER FAIL
P1-26	POWER GOOD
P1-27	POWER DISABLE (short pin)
P1-22	INHIBIT
P1-35	COMMON
P1-33	SDA-I2C SERIAL Bi Directional
P1-36	AO-User-Set I2C Address Inputs
P1-37	A1-User-Set I2C Address Inputs
P1-38	3.3V INH
P1-39	A2-User-Set I2C Address Inputs
P1-40	O.S. – Over Temperature Shut down (OC)
P1-41	5V INH

CONNECTOR:

AC Input and DC output: Positronic PCIH47M400A1

MECHANICAL DIMENSIONS

Dimensions:	11”L x 4.10”W x 1.57”H 279.4mm x 104.5mm x 40mm
Weight:	3.25 lbs.
Handle:	Folding / Fixed optional
Latch:	Finger / thumb screw
Connector:	Hot plug, Positronic PC147
AC input:	Hot plug connector / IEC optional

WARRANTY: 1 YEAR

NOTES: Specifications subject to change without notice.

05/05/05

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