

Series TPCP

AC/DC Power Supply Hot-Plug System with PFC 800W, 1000W, 1200W



Includes Isolated 5V, ¼ A Standby Output Hot-Swap Operation
12, 24 or 48 VDC Outputs
Integral LED Status Indicators
I²C Serial Data Bus Option
Up to 15 Watts/Cubic Inch
Power Factor Corrected
Low Profile: 1.6 Inches High
Single Hot-Swappable Connector
Staged Pin Engagement
ORing Diode on Output
1U, 19" Rack Holds 2 or 3 Units*
Active Current Sharing
Universal 85 to 264VAC Input
Class B EMI Input Filter
Optimized Thermal Management
No Minimum Load
Control & Monitoring Features
UL, CSA, EN



Option: Modul TPCP7000 available for Power over Ethernet Applications

OUTPUT SPECIFICATIONS

Total Output Power,	
Continuous, Max	800-1200 Watts
Voltage Adjustment Range, Min.	±5%
Total Regulation ¹	2.0%
Total Regulation,	
Standby Supply	5.0%
Ripple & Noise, Pk-Pk ²	1%
Holdup Time	20mS
Dynamic Response ³	300µS
Temperature Coefficient	±0.02%/°C
Minimum Load	0A
Overload Protection	Auto Recovery
Overvoltage Protection	Latched Shutdown
Remote Sense	Up to 0.25V Per Wire
Current Share	±10% Full Load Rating
Standby Output	+5V, 250mA
DC Power Good Signal	Logic Low
AC Power Fail Signal	Logic High
Global Inhibit	Logic Low
Enable	Logic Low
Thermal Warning	Logic High

INPUT SPECIFICATIONS

Input Voltage Range	85-264VAC
Power Factor	0.99
Input Frequency	47-63Hz
Inrush Current Limiting	50A Peak
Input EMI Filter	EN55022 Curve B FCC20780 pt. 15J Curve B EN61000-3-2
Harmonic Distortion	
Input Immunity, Conducted	
Fast Transients, Line-Line	±2kV (EN61000-4-4 Level 3)
Surges, Line-Line	±2kV (EN61000-4-5 Level 3)
Surges, Line-Ground	±4kV (EN61000-4-5 Level 4)
Input Protection	Internal Fuse, 20A

GENERAL SPECIFICATIONS

Efficiency ⁴	80-87% at Full Load
Switching Frequency,	
PFC Converter	48-110kHz
Output Converter	275kHz Nominal
Isolation, Class I, min. ⁵	
Input-Output	3000VAC
Input-Ground	1500VAC
Output-Ground	50VDC
MTBF (Bellcore)	200,000 Hours
Safety Standards	EN60950, UL1950, CSA22.2 No.950

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0° C to 70° C Ambient
Derating	2.5% / °C, 50° C to 70° C
Storage Temperature	-40° C to + 85° C
Cooling	Integral Ball Bearing Fans

PHYSICAL SPECIFICATIONS

Case Material	Aluminum
Dimensions, Inches(mm)	1.6 H x 5.0 W x 10.0 D (40.6 x 127 x 254)
Weight	3.15 lbs. (1.43 kg.)

NOTES:

1. No load to full load, including line regulation and load regulation.
2. 20MHz bandwidth. Measure with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output.
3. <4% deviation recovering to within 1% for 25% load change.
4. Typical efficiency is at low end of range for 12V output and at high end of range for 48V output.
5. Input-output isolation figure is for isolation components only.
100% production Hipot tested.

Typical at Nominal 115/230VAC Line, Full Load and 25°C Unless Otherwise Noted.

STANDARD MODELS

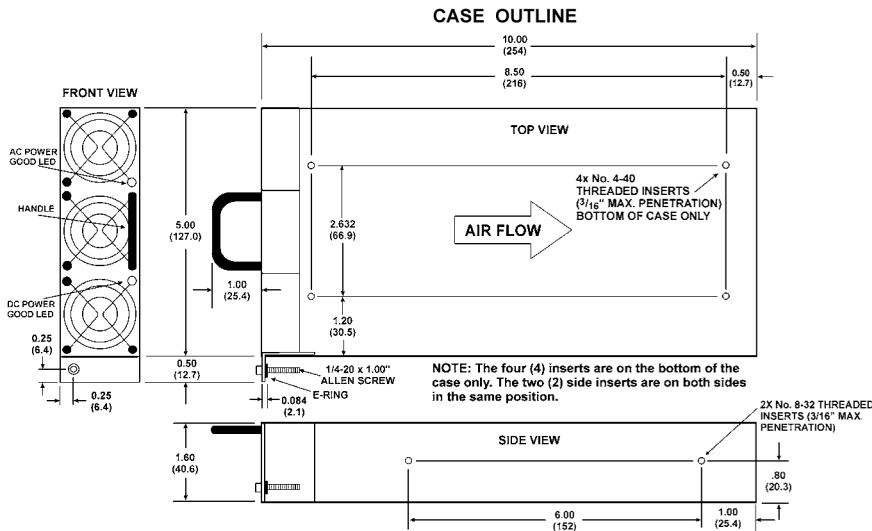
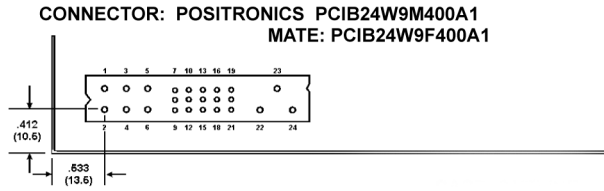
MAX. OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT VOLTAGE	PFC	MODEL NUMBER
800W	12VDC	66.7A	85-264 VAC	YES	TPCP3000
1000W	24VDC	41.7A	85-264 VAC	YES	TPCP5000
1200W	48VDC	25.0A	85-264 VAC	YES	TPCP7000

NOTE: The table does not show the independent 5V, ¼A standby output which is standard on both models.

RACK ORDERING GUIDE:

For 1U, 19-inch rack holding three TPCP modules, order TPCPR1U3 version A, B or C. See separate data sheet for racks.

CODE	OPTION
Z	I ² C Serial Data Bus



ALL DIMENSIONS IN INCHES mm. All specifications subject to change without notice.

NOTE: The TPCP Model is shown. The PCP version does not have handle or mounting bracket with bolt.

PIN CONNECTIONS			
PIN	FUNCTION	PIN	FUNCTION
1	+V Out*	13	Module Present
2	+V Out*	14	DC Power Good/ADD GA1*
3	+V Out*	15	AC Power Fail
4	V Return*	16	V Trim
5	V Return*	17	Overtemp. Warning/ADD GA0*
6	V Return*	18	Current Share
7	Enable*	19	Current Monitor/ADD GA2*
8	+ Sense	20	+5V Standby
9	- Sense	21	Standby Return
10	Inhibit	22	Chassis Ground
11	Spare/SDA*	23	AC Line
12	Spare/SDA*	24	AC Neutral

*NOTES: For unit to operate, pin 7 must be at logic LO or shorted to pin 9. For proper operation the following pins must be connected together: All V Out pins (1-3); all V Return pins (4-6). Pins 11, 12, 14, 17 & 19 function as I²C outputs when that option is present. For I²C operation pin 21 must be connected to pin 9.

MATING INTERFACE BOARD
Order Kit Number 009-3850-000