

PowerCassette®: NEXT GENERATION FRONT-END SWITCHER

1U High, Up to 1200 Watts with PFC and Integral Hot Swap Provision

FEATURES

- 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

*TCP Models

PCP Series
(Chassis Mount)



TCP Series
(Hot-Swap)



1U High
1.6" x 5" x 10"
(41 x 127 x 254 mm)



Three-Unit Rack



2006/95/EC

TWO-YEAR WARRANTY

Patents Issued & Pending

STANDARD MODELS

Delete "T" prefix to model no. for chassis mount version.

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
1000W	28VDC	35.7A	85-264 VAC	YES	TPCP6000
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.

CODE	OPTION
Z	I ² C Serial Data Bus

NOTE: Add Option Code as suffix to model no.
Contact factory on availability of Option Z.

SAFETY STANDARDS

UL60950-1
CSA22.2, No. 60950-1
EN60950-1

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.

SPECIFICATIONS, PowerCassette® PCP & TPCP SERIES FRONT ENDS

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

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max 800-1200 Watts
 Voltage Adjustment Range, Min. ±5%
 Total Regulation¹, 2.0%
 Total Regulation, Standby Supply 5.0%
 Ripple & Noise, Pk-Pk² 1%
 Holdup Time 20mS
 Dynamic Response³ 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
 Harmonic Distortion EN61000-3-2
 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

Efficiency⁴ 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 UL60950-1, CSA22.2 No.950-1
 EN60950-1

ENVIRONMENTAL SPECIFICATIONS

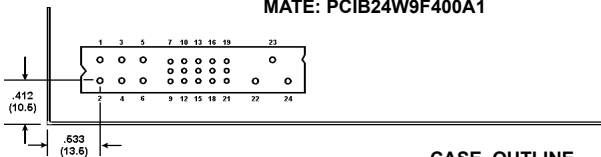
Operating Temperature
 0°C to 70°C Ambient
 Derating 2.5% / °C, 50°C to 70°C
 Storage Temperature -40°C to +85°C
 Cooling Integral Ball Bearing Fans

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)

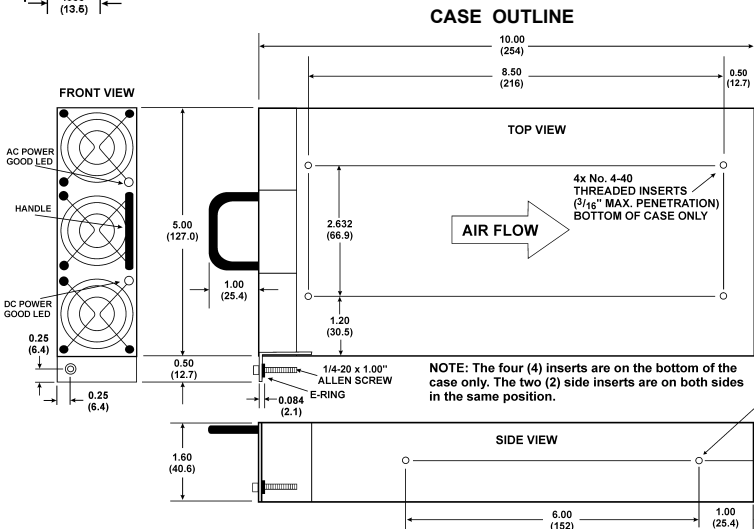
- NOTES:**
1. No load to full load, including line regulation and load regulation.
 2. 20MHz bandwidth. Measure with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output.
 3. <4% deviation recovering to within 1% for 25% load change.
 4. Typical efficiency is at low end of range for 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.

CONNECTOR: POSITRONICS PCIB24W9M400A1
 MATE: PCIB24W9F400A1



MATING INTERFACE BOARD

Order Kit Number
 009-3850-0000



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.

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.

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