

PowerCassette®: NEXT GENERATION FRONT-END SWITCHER

1U High, Up to 450 Watts with PFC and Integral Hot Swap Provision

FEATURES

- Includes Isolated 5V, □ A Standby Output
- Hot-Swap or Chassis Mount Versions
- 12, 24 or 48 VDC Outputs
- Integral LED Status Indicators
- I²C Serial Data Bus Option
- Up to 5.6 Watts/Cubic Inch Power Density
- Power Factor Corrected
- Low Profile: 1.6 Inches High
- Single Hot-Swappable Connector
- Staged Pin Engagement
- ORing Diode on Output
- 1U, 19" Racks Holds 3 Units*
- Active Current Sharing
- Universal 85 to 264VAC Input
- Class B EMI Input Filter
- Optimized Thermal Management
- No Minimum Load
- Control & Monitoring Features



PCG Series
(Chassis Mount)



TPCG Series
(Hot-Swap)

1U High
1.6" x 5" x 10.16"
(41 x 127 x 258 mm)



3-Unit, 19" Rack

*TPCG Models



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
370W	12VDC	30.8A	85-264VAC	YES	TPCG3000
400W	24VDC	16.7A	85-264VAC	YES	TPCG5000
450W	48VDC	9.4A	85-264VAC	YES	TPCG7000

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

OPTIONS

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 CERTIFICATIONS

AGENCY	STANDARD
UL	UL60950
CUL	CSA22.2, No. 60950
DEMKO	EN60950

RACK MOUNT ORDERING GUIDE:

For 1U 19-inch rack holding three TPCG modules, order TPCMR1U3. See separate data sheet for this rack.

SPECIFICATIONS, *PowerCassette*® PCG & TPCG SERIES FRONT ENDS

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

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max 370-450 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 300 S
 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 30A 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...EN60950, UL60950, CSA22.2 No.60950

ENVIRONMENTAL SPECIFICATIONS

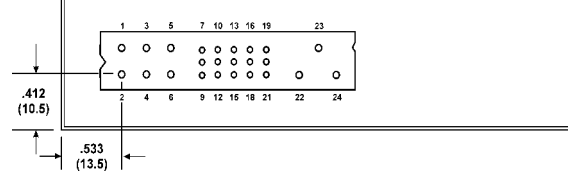
Operating Temperature 0°C to 70°C Ambient
 Derating 2.5% / °C, 50°C to 70°C
 Storage Temperature -40°C to +85°C
 Cooling Integral Ball Bearing Fans

PHYSICAL SPECIFICATIONS

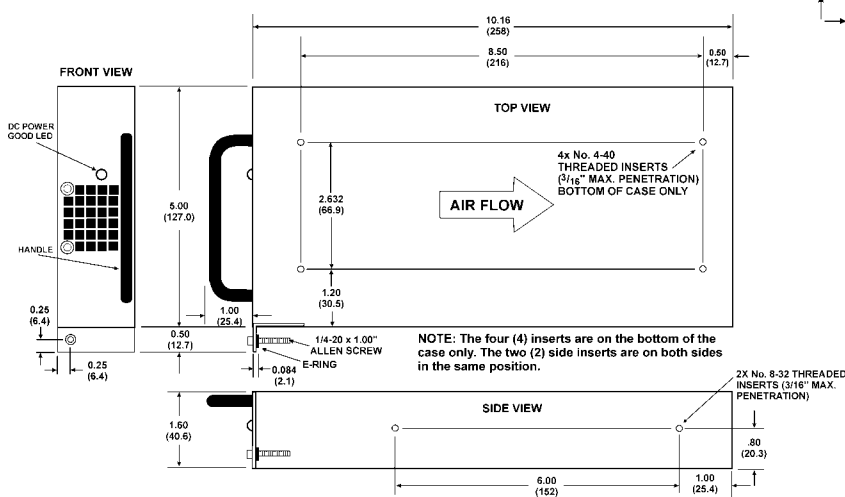
Case Material Aluminum
 Dimensions, Inches(mm) 1.6 H x 5.0 W x 10.16 D
 (40.6 x 127 x 258)
 Weight 2.75 lbs. (1.25 kg.)

- NOTES:**
1. No load to full load, including line regulation and load regulation.
 2. 20MHz bandwidth. Measure with 0.1 F ceramic and 10 F 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



CASE OUTLINE



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/SCL*	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.

MATING INTERFACE BOARD

Order Kit Number
 009-3850-0000

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

pcg-tpcg-revD-11-16-04