

## Series PCG / TPCG AC/DC Power Supply with PFC up to 450W



Includes Isolated 5V, ¼ 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  
UL, CSA, EN

\*TPCG Models



PCG Series  
(Chassis Mount)



TPCG Series  
(Hot-Swap)



### OUTPUT SPECIFICATIONS

Total Output Power,	
Continuous, Max	370-450 Watts
Voltage Adjustment Range, Min.	±5%
Total Regulation <sup>1</sup>	2.0%
Total Regulation,	
Standby Supply	5.0%
Ripple & Noise, Pk-Pk <sup>2</sup>	1%
Holdup Time	20mS
Dynamic Response <sup>3</sup>	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	30A 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 <sup>4</sup>	80-87% at Full Load
Switching Frequency,	
PFC Converter	48-110kHz
Output Converter	275kHz Nominal
Isolation, Class I, min. <sup>5</sup>	
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 0.1µF 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

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

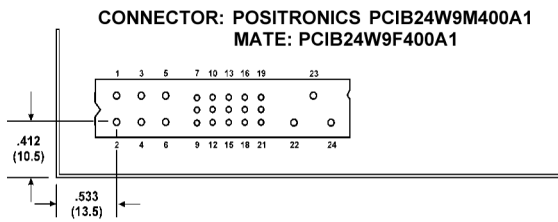
**NOTE:** The table does not show the independent 5V, ¼A standby output which is standard on both models.

## RACK MOUNT ORDERING GUIDE:

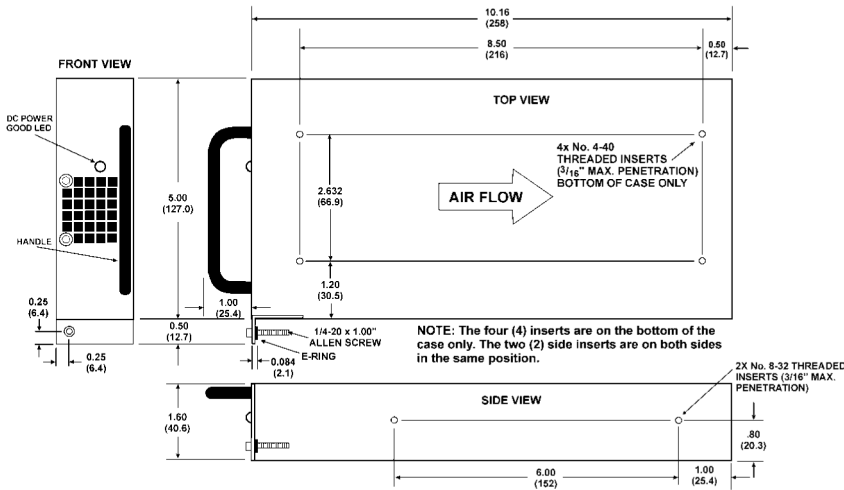
For 1U 19-inch rack holding three TPCG modules, order TPCMR1U3. See separate data sheet for this rack.

CODE	OPTION
Z	I <sup>2</sup> C Serial Data Bus

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



## CASE OUTLINE



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

**NOTE:** The TPCG Model is shown. The PCG 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/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 I<sup>2</sup>C outputs when that option is present.

MATING INTERFACE BOARD
Order Kit Number 009-3850-000