

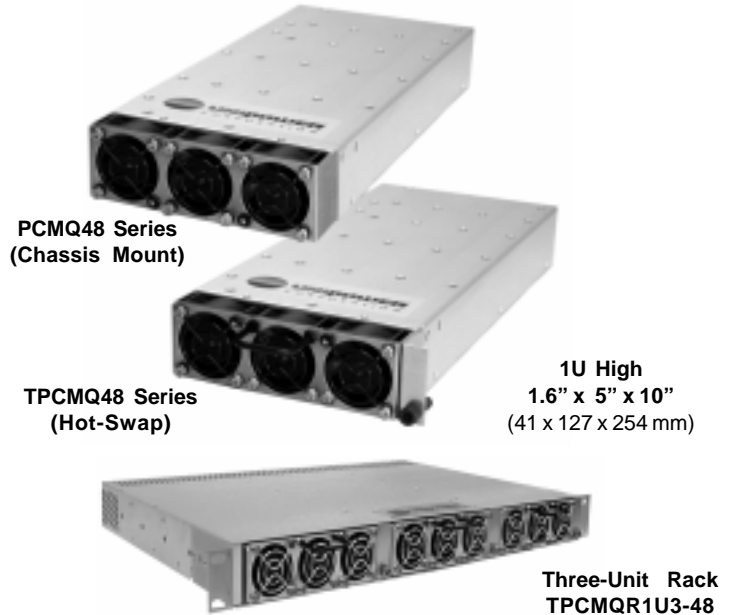
PowerCassette®: NEXT GENERATION DC/DC CONVERTERS

1U High, Up to 700 Watts with Integral Hot Swap Provision

FEATURES

- Includes Isolated 5V, ¼ A Standby Output
- Hot-Swap or Chassis Mount Versions
- 12 or 24 VDC Output
- Wide Range 40 to 60VDC Input
- Integral LED Status Indicators
- I²C Serial Data Bus Option
- Up to 8.8 Watts/Cubic Inch Power Density
- Low Profile: 1.6 Inches High
- Single Hot-Swappable Connector
- Reverse Air Flow Option
- Staged Pin Engagement
- ORing Diode on Output
- 1U, 19" Rack Holds 3 Units*
- Active Current Sharing
- Optimized Thermal Management
- No Minimum Load
- Control & Monitoring Features

*TPCMQ Models



LVD73/23/EEC

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	MODEL NUMBER
650W	12VDC	54.2A	40-60VDC	TPCMQ48-12/54
700W	24VDC	29.2A	40-60VDC	TPCMQ48-24/29

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

SYSTEM RACK

MODEL	WIDTH	HEIGHT	NO. OF MODULES
TPCMQR1U3-48	19" (483 mm)	1.72" (43.7 mm)	3

NOTE: System shelf and hot-swap modules must be ordered separately.

OPTIONS

CODE	DESCRIPTION	OUTPUT DERATING
R	Reverse Air Flow (Back to Front)	Contact Factory
Z	I ² C Serial Data Bus	N/A

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

Brackets are available for mounting the 19-inch rack in 23 inches. Order no. 775-1451-0000 (set of two).

SPECIFICATIONS, PCMQ48/TPCMQ48 SERIES DC/DC CONVERTERS

Typical at Nominal 48VDC Input, Full Load and 25°C Unless Otherwise Noted.

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max. 650-700 Watts
 Voltage Adjustment Range, Min. ±10%
 Total Regulation¹, 2.0%
 Total Regulation, Standby Supply 5.0%
 Ripple & Noise, Pk-Pk² 200mV
 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
 Output Power Good Signal Logic Low
 Input Power Fail Signal Logic High
 Global Inhibit Logic Low
 Enable Logic Low
 Thermal Warning Logic High

INPUT SPECIFICATIONS

Input Voltage Range 40-60VDC
 Inrush Current Limiting 10A Peak
 Input EMI Filter Standard

Input Immunity, Conducted

Fast Transients, Line-Line ±500V (EN61000-4-4)
 Surges, Line-Line ±500V (EN61000-4-5)
 Surges, Input Ground ±500V (EN61000-4-5)
 Input Protection Internal Fuse, 30A

GENERAL SPECIFICATIONS

Efficiency⁴ 82-88% at Full Load
 Switching Frequency, 210kHz Nominal
 Isolation, Class I, min.⁵
 Input-Output 1500VDC
 Input-Ground 1000VDC
 Output-Ground 100VDC
 MTBF (Bellcore) 200,000 Hours
 Safety Standards EN60950, UL1950, CSA22.2 No.950

ENVIRONMENTAL SPECIFICATIONS

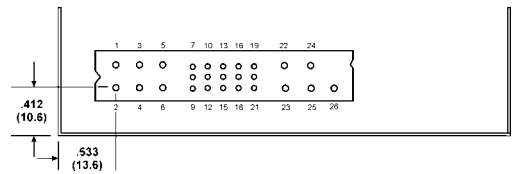
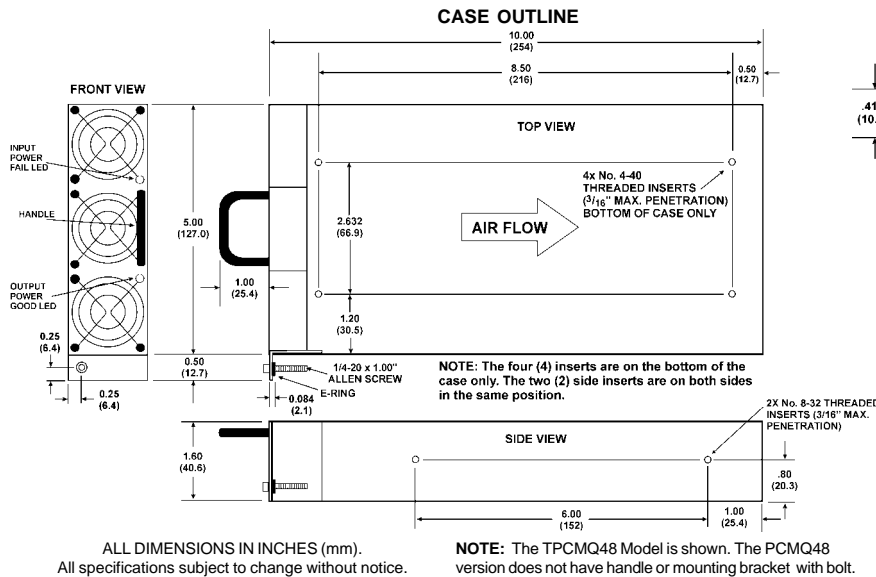
Operating Temperature 0°C to 70°C Ambient
 Derating 2.5% / °C, 50°C to 70°C
 Storage Temperature -40°C to +85°C
 Cooling Integral Ball Bearing Fans

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 2.9 lbs. (1.3 kg.)

- NOTES:**
1. No load to full load, including line regulation and load regulation.
 2. Whichever is greater. 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 24V output.
 5. Input-output isolation figure is for isolation components only. 100% production Hipot tested input to ground.

CONNECTOR: POSITRONICS PCIB26W11M400A1
MATE: PCIB26W11F400A1



PIN CONNECTIONS			
PIN	FUNCTION	PIN	FUNCTION
1	+V Out*	14	Output Power Good/ADD GA1*
2	+V Out*	15	Input Power Fail
3	+V Out*	16	V Trim
4	V Return*	17	Overtemp. Warning/ADD GA0*
5	V Return*	18	Current Share
6	V Return*	19	Current Monitor/ADD GA2*
7	Enable*	20	+5V Standby
8	+ Sense	21	Standby Return
9	- Sense	22	Chassis Ground
10	Inhibit	23	Chassis Ground
11	Spare/SDA*	24	-DC Input
12	Spare/SCL*	25	-DC Input
13	-Sense	26	+DC Input

*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 carry I²C functions when the I²C option is fitted.

TPCMQR1U3-48 RACK REAR VIEW



MATING INTERFACE
 Order Kit Number
 009-0280-0009