

## PowerCassette®: 1U HIGH RACK-MOUNT DC/DC CONVERTERS

### 24VDC to 48VDC at 1,000 Watts with Hot Swap

#### FEATURES

- Isolated 5V, ¼ A Standby Output
- Hot-Swap Operation
- 48 or 54.4 VDC Output
- Remote Output Adjustment
- 3,000 Watts System Output
- Wide Range 20 to 30VDC Input
- Integral LED Status Indicators
- -20°C to +70°C Operating
- I<sup>2</sup>C Serial Data Bus Option
- 12.5 Watts/Cubic Inch Power Density
- Low Profile: 1.6 Inches High
- Single Hot-Swappable Connector
- Staged Pin Engagement
- ORing Diode on Output
- 1U, 19" Rack/Shelf Holds 3 Units
- 19- or 23-Inch Rack Mounting
- Active Current Sharing
- Optimized Thermal Management
- No Minimum Load
- Control & Monitoring Features



TPCMQ24 Series

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



**Three-Unit Rack/Shelf**  
**TPCMQR1U3-24**



LVD73/23/EEC

**TWO-YEAR WARRANTY**  
**Patent Protected**

#### STANDARD MODULES

MAX. OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT VOLTAGE	MODEL NUMBER
1,000W	54.4VDC	18.4A	20-30VDC	TPCMQ24-54/18
1,000W	48VDC	20.8A	20-30VDC	TPCMQ24-48/20

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

#### SYSTEM RACK/SHELF (See page 3)

MODEL	WIDTH	HEIGHT	NO. OF MODULES
TPCMQR1U3-24	19" (483 mm)	1.72" (43.7 mm)	3

**NOTE:** System rack and hot-swap modules must be ordered separately. Brackets are available for mounting the 19-inch rack/shelf in 23 inches. Order no. 775-1451-0000 (set of two).

#### OPTIONS

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

**NOTE:** Add Option Code as suffix to model no. on both module and rack/shelf. Contact factory on availability of Option Z.

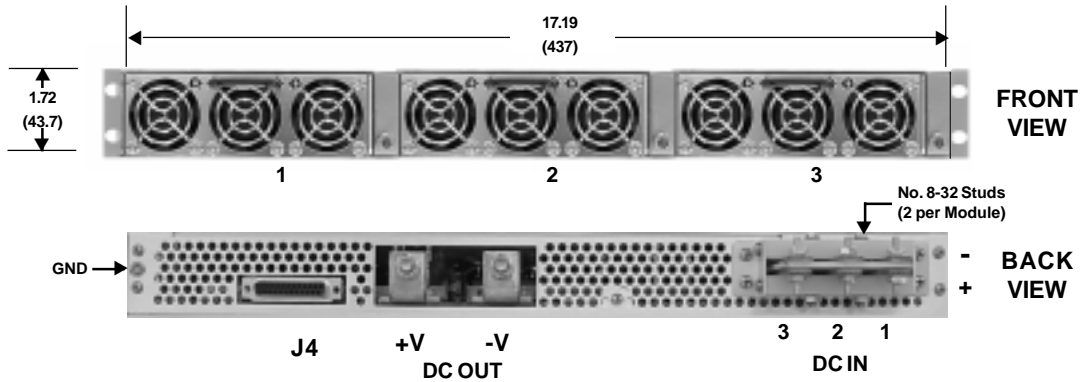
#### SAFETY CERTIFICATIONS

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

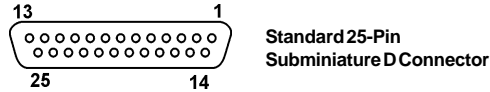
[www.unipowercorp.com](http://www.unipowercorp.com) or [www.powercassette.com](http://www.powercassette.com)



## SPECIFICATIONS, TPCMQR1U3-24 RACKS/SHELVES



### J4 SIGNAL CONNECTOR



J4 PIN CONNECTIONS			
PIN	FUNCTION	PIN	FUNCTION
1	Inhibit	14	Input Power Fail - 1
2	Overtemp. Warning - 1	15	Output Power Good - 1
3	Current Monitor - 1	16	Input Power Fail - 2
4	Overtemp. Warning - 2	17	Output Power Good - 2
5	Current Monitor - 2	18	Input Power Fail - 3
6	Overtemp. Warning - 3	19	Output Power Good - 3
7	Current Monitor - 3	20	Module Present - 1
8	+5V Standby	21	Module Present - 2
9	SDA	22	Module Present - 3
10	Current Share	23	- Sense
11	+Sense	24	Remote Adjust - 1
12	Remote Adjust - 2	25	Remote Adjust - 3
13	SCL		

**NOTE:** Standby return is connected to -Sense lead. Current rating of +5V standby is 250mA. All signals are referenced to -Sense lead. Pins 9 and 13 are I<sup>2</sup>C outputs when that option is present.

### MAXIMUM RATED OUTPUT FOR 3 MODULES

MODULES	NON-REDUNDANT	2+1 REDUNDANT
TPCMQ24-48/20	48VDC @ 62.4A	48VDC @ 41.6A
TPCMQ24-54/18	54.4VDC @ 55.2A	54.4VDC @ 36.8A

### NOTES:

- All connections are made to the rear of the rack/shelf. The modules are 1, 2, 3, from left to right as seen from the front of the rack/shelf.
- All module outputs are connected in parallel in the rack/shelf with active current sharing between them.
- There is a separate DC input for each module, but the inputs may be paralleled by means of two shorting bars. Order kit no. 775-1462-0000 for the two bars.
- The Module Present outputs (J4 pins 20, 21 & 22) are grounded (to -Sense) when the module is plugged in and open when the module is out.
- For details on the I<sup>2</sup>C function (option Z), contact the factory.