

## TCM-1000



### Featuring:

- Diode isolated output for hot swap
- “Zero wire” slope program current sharing
- High power density **6.5 Watt/cu. in.**
- Industry standard DIN connector
- 0.99 typical power factor
- DC power good and AC power fail signals
- True remote inhibit
- Monotonic turn-on and turn-off
- Extended temperature operation
- High efficiency 87% typical (48 V units)
- Operating temperature range -20°C to +60°C

### STANDARD TCM SERIES

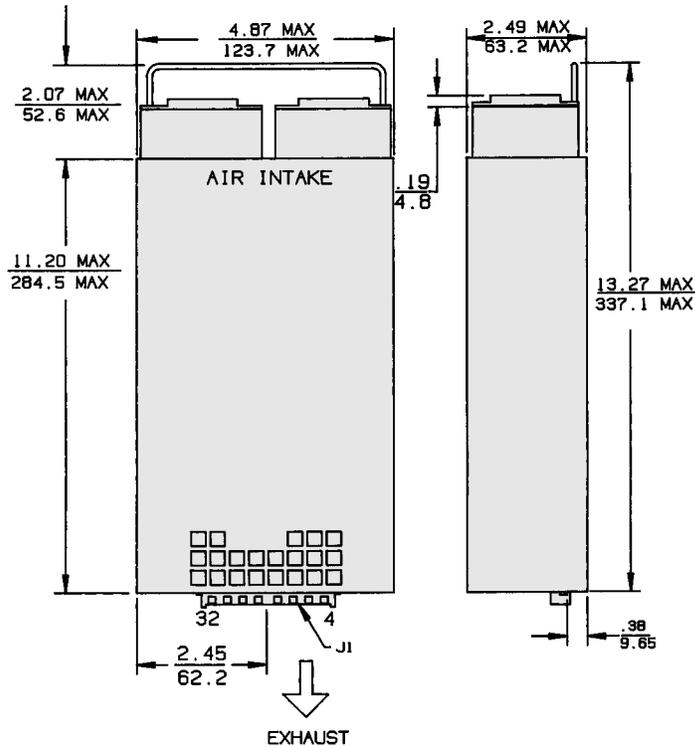
MODEL	OUTPUT RATING	PWR OUT
TCM-1000-24	24V @ 41.6A	1000
TCM-1000-28	28V @ 35.7A	1000
TCM-1000-48	48V @ 20.8A	1000

The 1000-watt TCM Series “hot swappable” power supplies deliver remarkable economy and reliability in applications that require redundancy over extended temperature ranges. These high-density, single-output supplies are available with a front panel and handle for use in sub-system racks or without handles for embedded applications.

Power factor correction, OR-ing diodes, and current sharing make the TCM Series an ideal choice for communications and data processing systems utilizing distributed power or redundant power architecture.



**TCM-1000**  
5.2 lbs - 2.6 kgs



Dimensions: Inches  
Millimeters

**SPECIFICATIONS: ALL MODELS**

**INPUT**

**AC Input:** 180-264 Vac, 47-63 Hz internally fused 10 A.  
**Power Factor:** 0.99 typical at full load. Meets EN61000-3.2.  
**Inrush:** Limited by thermistor, 40 Ampere maximum (8ms), cold start.  
**Hold Up Time:** 20 ms minimum after removal of power supply at full load.  
**Efficiency:** 87% typical @ full load.  
**AC Power Fail:** Provides TTL "0" 5 ms before output voltage goes out of regulation band upon loss of AC power.

**OUTPUT**

**Adjustability:** User adjustable  $\pm 5\%$  minimum.  
**Output:** 48 V @ 20.8 Amp. (1000 W max.).  
**Line Regulation:**  $\pm 0.2\%$   
**Load Regulation:**  $\pm 2\%$  (Slope Program) from 0 to 100% load changes.  
**Turn On Delay:** 1 second typical.  
**Ripple & Noise:** 0.5% p-p, measured at 20 MHz bandwidth.  
**Temperature Coefficient:** 0.02% per degree C.  
**Stability:** 0.1% over 8 hours, under constant line, load and ambient.  
**Transient Response:** Output voltage returns to within 1% in less than 500  $\mu$ s for a 50% load change. Peak transient does not exceed 3%.  
**Overload Protection:** Electronic current limit, 120% maximum.  
**Overvoltage Protection:** Protects load against power supply induced overvoltage. Trip point is factory set so that output voltage cannot exceed 136% of nominal. Requires AC input to be cycled to reset.  
**Remote Inhibit:** Contact closure or TTL "0" turns off output.  
**DC Power Good:** Provides a TTL "0" open collector when output is above 90% of nominal Maximum pull-up voltage 30 Vdc; maximum sink current, 10 mA.  
**Redundancy:** Built-in OR-ing diode, slope program current sharing, and DIN blade connector provide "hot swap" and "N+1" capabilities. Current sharing remains within 10% of the unit's full output rating given 0.2% initial accuracy in the output voltage setting.  
**Current Sharing:** As calibrated at factory, modules will share current within 10% of full rated load.  
**Reverse Voltage:** Protected against reverse voltage up to twice output voltage rating. (internal OR-ing diode.)

**ENVIRONMENTAL**

**Thermal Protection:** Shuts down power supply if overheated. Automatic recovery.  
**Temperature Range:** -20° to +60° C, full power, de-rate to 66% maximum power @ 71° C.  
**Safety Agencies:** Approved to UL1950; CSA 22.2 #950; IEC 950 and TUV EN60950, Class 1 SELV, CE 73/23/EEC/93/68/EEC (low voltage directive).  
**Conducted RFI:** Meets FCC Part 15, Subpart J, Class A; EN55022 Class B; and CISPR 22 Class B.  
**Output Isolation:** Isolated from ground 100 Vdc.  
**Cooling:** Self-cooled by internal ball-bearing fan.

**OPTIONS**

**Option "R" - Rack Mount Panel:** special panel that is required for rack mounting. Consult factory for other available options.

**AC INPUT (180-264 VAC Continuous Range)**

LOCATION	230 VAC	CONNECTOR
Z32	Line 1	Eurocard Connector - Male DIN 41 612 Level 1- Type H
D30	Line 2	
Z28	Safety Ground	

**DC OUTPUT**

FUNCTION	LOCATION	NOTES	CONNECTOR
Output	Z12 D14 Z16 D18	(+) Polarity	Eurocard Connector - Male DIN 41 612 Level 1- Type H
Voltage	Z4 D6 Z8 D10	(-) Polarity	

**STATUS AND CONTROL**

FUNCTION	LOCATION	NOTES	CONNECTOR
DC Power Good	Z20	Reference to Common	Eurocard Connector - Male DIN 41 612 Level 1- Type H
AC Power Fail	D22		
Inhibit	Z24		