

# TMX-350

## Multiple Output, 48 Vdc Hot Swap



### FEATURES:

- Diode isolated outputs for hot swap
- “Zero wire” slope program current sharing
- Self-aligning connector with solid metal, machined contacts
- Identical output performance as RMX-350 Series
- Dual converter design eliminates interaction between logic and auxiliary outputs
- Low ripple and noise on all outputs
- Dc power good signal
- True remote inhibit
- Monotonic turn-on and turn-off

### SPECIFICATIONS:

#### INPUT

**Dc Input:** 40-60 Vdc. Internally fused for 13 A.

**Efficiency:** 75% typical.

**Low Input** Provides TTL “0” when input is below 40 Vdc.

#### OUTPUT

**Adjustability:** Outputs #1 and 2, and 4 factory adjusted to nominal  $\pm 0.2\%$ . Output #3 tracks #2; initial accuracy  $\pm 3\%$ .

**Line & Load Reg:** Outputs #1, 2, and 4 hold  $\pm 2\%$  (with local sense) over dc input range and 0 to 100% load change (preprogrammed slope). Output #3 requires 20% minimum load on outputs #2 and 3 to hold  $\pm 5\%$ .

**Ripple & Noise:** 1% p-p or 100 mV, whichever is greater.

**Remote Sense (Output #1):** Compensates for 250 mV total line drop. Preprogrammed slope remains under  $\pm 3\%$  worst case.

Open sense lead protection.

**Temperature Coefficient (Outputs #1, 2, and 4):** 0.03% per degree C.

**Stability:** 0.1% over 8 hours after 30 minutes warm-up.

**Transient Response (Outputs #1, 2, and 4):** Output voltage returns to within 1% in less than 500  $\mu$ s for a 50% load change (measured with rise time and fall time of 200  $\mu$ s). Peak transient does not exceed 5%.

**Overload Protection:** All outputs are protected against overload and short circuit. Automatic recovery upon removal of fault.

**Overvoltage Protection (Outputs #1 and 2):** Protects load against power supply induced over voltage. Trip point is factory set so that output voltage cannot exceed 136% of nominal.

**Peak Output Current:** Dual current ratings define continuous and peak currents. The peak current shown can be delivered for a maximum period of 30 seconds.

**Remote Inhibit:** Contact closure to the negative sense line or a TTL level “0” turns off dc outputs.

**Redundancy:** Built-in OR-ing diodes, slope program current sharing on all outputs, and self aligning connector provide “hot swap” and “N+1” capabilities. Current sharing remains within 10% of the unit’s full output rating while units are in thermal equilibrium.

**Remote Enable:** Contact closure to common turns on dc outputs (recessed pin for “make last, break first” connection).

**Dc Power Good:** Provides a TTL “1” open collector when output #1 is above 4.6 V nominal.

**Reverse Voltage:** Protected against reverse voltage up to supply current rating.

#### ENVIRONMENTAL

**Thermal Protection:** Shuts down power supply if overheated. Automatic recovery.

**Holdup Time:** 20 ms minimum after removal of power at full load.

**Temperature Range:** 0° to 50°C at full ratings.

**Safety Agencies:** Most models are approved to UL1950; CSA 22.2 #234; IEC 950 and TÜV EN60950, Class 1 SELV., CE 72/23/EEC/93/68EEC (low voltage directive).

**Conducted RFI:** Meets FCC Part 15, Subpart J, Class A;

EN55022 Class B and CISPR 22 Class B.

**Cooling:** Self-cooled by internal ball-bearing fan.

**Output Isolation:** Isolated from ground 50 Vdc.

#### DC INPUT

FUNCTION	48 VDC	CONNECTOR
J1-22	+48 Vdc	See below
J1-24	-48 Vdc	
J1-11	Safety Ground	

#### DC OUTPUT

FUNCTION	LOCATION	NOTES	CONNECTOR
Output #1	J1-10,20,30	Main Output	Positronics #
	J1-9,19,29	Rtn (common)	PLC30M400A1-168.3
Output #2	J1-2		Mates with panel
	J1-3	Rtn (common)	mounted
Output #3	J1-4		PLC30F1000
	J1-3	Rtn (common)	connector using
Output #4	J1-5	(+) Floating Output	crimp contacts
	J1-6	(-) Floating Output	FC114N2 (14 to 16 AWG)

#### STATUS AND CONTROL

FUNCTION	LOCATION	NOTES	CONNECTOR
Remote Sense	J1-18	Output #1 Sense	See above
	J1-8	Output #1 Sense Rtn	
Dc Power Good	J1-7	Reference to common	
		when #1 Sense Rtn is	
		terminated	
Enable	J1-16	Reference to common	
Inhibit	J1-27		
Ac Power Fail	J1-17		
Aux Fan (+)	J3-1		



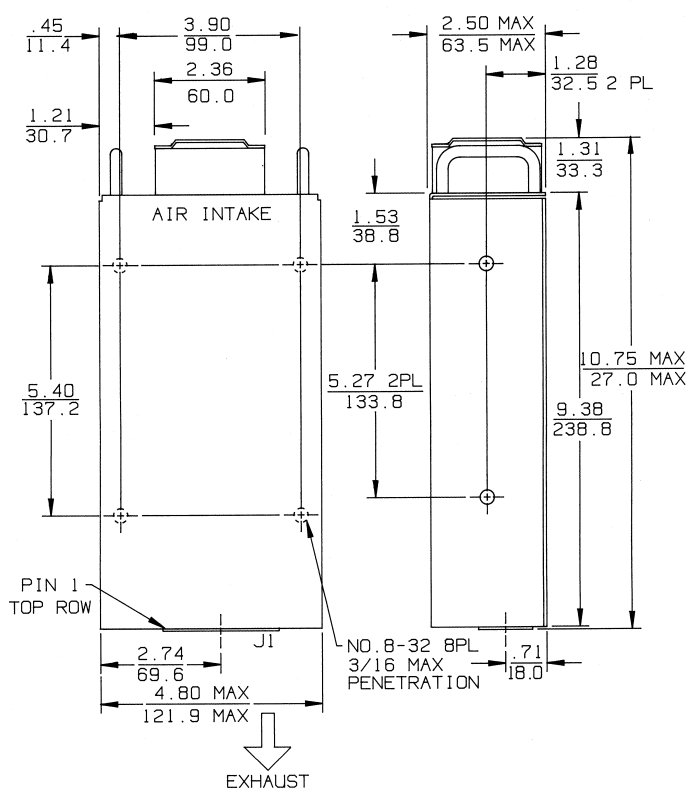
# TMX-350 Multiple Output, 48 Vdc Hot Swap

Commercial Model	Power Out	Output No.	Output	Current	Total Regulation (A)
TMX-354-1205	350	1	+5 V	50 A	±2%
		2	+12 V	8/12 A pk	±2%
		3	-12 V	4 A	±5%
		4	5.2 V	5 A	±2%
TMX-354-1224	350	1	+5 V	50 A	±2%
		2	+12 V	8/12 A pk	±2%
		3	-12 V	4 A	±5%
		4	24 V	3 A	±2%

## TMX-350 MECHANICAL SPECIFICATIONS:

### TMX-350

3.8 lb - 1.7 kg



Dimensions: Inches  
Millimeters



Condor D.C. Power Supplies, Inc., 2311 Statham Parkway, Oxnard, CA 93033  
800-235-5929 • 805-486-4565 • FAX 805-487-8911 • www.condorpower.com