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<u>SL Power Electronics - Manufacturer of Condor/Ault Brands NMX-504-1205G</u>

For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>

Datasheet of NMX-504-1205G - AC/DC CNVRTR 5V +/-12V 5.2V 500W

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## NMX-500, Power Factor Corrected **Multiple Output, Forced Current Sharing**



### **FEATURES:**

- Forced current sharing for N +1 redundancy
- Remote sense on outputs #1 and 2
- · Universal ac input
- · 0.99 typical power factor
- Dual converter design eliminates interaction between logic and auxiliary outputs
- · Low Ripple and noise on all outputs
- Dc power good and ac power fail signals
- True remote inhibit
- · Monotonic turn-on and turn-off

#### **SPECIFICATIONS:**

#### **INPUT**

Ac Input: 90-264 Vac continuous range, 47 to 63 Hz. Internally

fused for 10 A.

Power Factor: 0.99 typical at full load. Meets EN61000-3-2 Class A. Inrush: Cold start ac current is less than 30 A at 115 Vac and 60 A at 230 Vac. Limited by thermistor.

Brownout Protection: Holds regulation to 85 Vac.

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

**Efficiency:** 75% typical.

Ac Power Fail: Provides TTL "0" 5 ms before output voltage goes out of regulation band upon loss of ac power. OUTPUT

Adjustability: Outputs #1 and 2 user adjustable ±5% minimum. Output #3 tracks #2; initial accuracy ±4%. Output #4 user adjustable ±5% minimum, or +5% only if voltage is 5.2 V

Line & Load Reg: Outputs #1, 2, and 4 hold ±1% over ac input range and 0 to 100% load change. Output #3 requires 20% minimum load on outputs #2 and 3 to hold ±4%.

Ripple & Noise: Less than 1% p-p or 100 mV, whichever is greater. Remote Sense (Outputs #1 and 2): Compensates for 250 mV total line drop. Open sense lead protection. (See Redundancy, below.) Temperature Coefficient (Outputs #1, 2, and 4): 0.02% 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.

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 overvoltage. 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.

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

Redundancy: External OR-ing diodes and forced current sharing on output #1 provide "N+1" capability. Remote sense (+S) compensates for additional 0.6 V diode voltage drop. When the current sharing terminal is connected between units, current sharing remains within 10% of the unit's full output current rating. For hot swap applications see TMX 350.

Reverse Voltage: Protected against reverse voltage up to

supply current rating. **ENVIRONMENTAL** 

Thermal Protection: Shuts down power supply if overheated.

Automatic recovery.

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, Class A; EN55022 Class B.

Output Isolation: Isolated from ground 50 Vdc. Cooling: 30 cfm required to achieve full ratings.

Option "F", Fan/Cover Assembly: Cover with integral ballbearing fan provides proper cooling to achieve full ratings at 50°C ambient temperature. 2.05" dimension increases to 3.28". Option "V", Fan/Cover Assembly: Low profile, end venting

cover with integral ball-bearing fan. 2.05" dimension increases to 2.50", and 9.65" dimension increases to 11".

#### AC INPUT (90-264 VAC Continuous Range)

FUNCTION	115 VAC	230 VAC	CONNECTOR
TB1-(L)	Line	Line 1	Barrier strip
TB1-(N)	Neutral	Line 2	#6-32 screws
TB1-(GND)	Safety Ground	Safety Ground	0.325" Centers

#### DC OUTPUT

FUNCTION	LOCATION	NOTES	CONNECTOR
Output #1	Terminal marked +V	Main output	Bus bars
	Terminal marked -V	Rtn (common)	#6-32 screws
Output #2	J1-5, 10		AMP#770743-1 mates
	J1-4, 9	Rtn (common)	with connector 7705801
Output #3	J1-3, 8		with sockets #171639-1
	J1-4, 9	Rtn (common)	(AWG #20 to #16)
Output #4	J1-2, 7	(+) Floating Output	
	J1-1, 6	(-) Floating Output	

#### STATUS AND CONTROL

FUNCTION	LOCATION	NOTES	CONNECTOR
Remote Sense	J2-2	Output #1 Sense	AMP MTA type
	J2-1	Output #1 Sense Rtn	#640456-8 pin
	J2-8	Output #2 Sense	header (locking)
	J2-7	Output Sense Rtn	
Dc Power Good	J2-3	Reference to Common	
Ac Power Fail	J2-4	Reference to Common	
Inhibit	J2-5		
Current Share	J2-6		
Aux. Fan Voltage	J3-1	+12V @ 0.5 A Output	AMP MTA type
(Not available with "V "or	J3-2	Rtn (commom)	#640456-2 pin
"F" options)			header (locking)

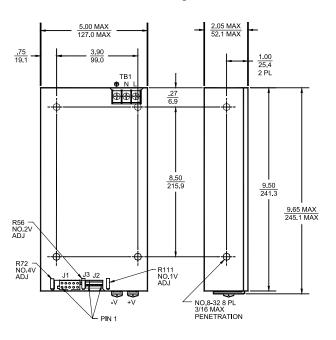
# NMX-500, Power Factor Corrected Multiple Output, Forced Current Sharing

Commercial Model	Power Out	Output No.	Output	Current	Total Regulation (A)
NMX-504-1205	500	1	+5 V	75 A	±1%
		2	+12 V	8/12 A pk	±1%
		3	-12 V	4 A	±4%
		4	5.2 V	5 A	±1%
NMX-504-1212	500	1	+5 V	75 A	±1%
		2	+12 V	8/12 A pk	±1%
		3	-12 V	4 A	±4%
		4	12 V	5 A	±1%
NMX-504-1224	500	1	+5 V	75 A	±1%
		2	+12 V	8/12 A pk	±1%
		3	-12 V	4 A	±4%
		4	24 V	3 A	±1%

#### NMX-500 MECHANICAL SPECIFICATIONS

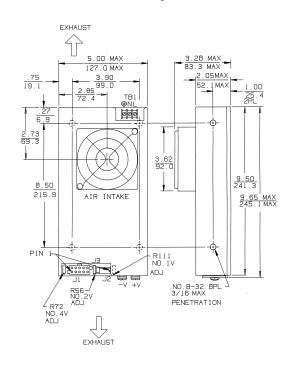
#### **NMX-500**

3.7 lb - 1.7 kg



#### NMX-500 with Option F

3.9 lb - 1.8 kg



Dimensions: Inches Millimeters