# **NMX-500**



# Featuring:

- 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



## STANDARD NMX SERIES

MODEL	PWR	OUTPUT #1	OUTPUT #2	OUTPUT #3	OUTPUT #4
NMX-503-0512	500	+5V @ 75A	+12V @ 8/12A pk	-12V @ 4A	
NMX-504-1205	500	+5V @ 75A	+12V @ 8/12A pk	-12V @ 4A	5.2V @ 5A
NMX-504-1212	500	+5V @ 75A	+12V @ 8/12A pk	-12V @ 4A	12V @ 5A
NMX-504-1224	500	+5V @ 75A	+12V @ 8/12A pk	-12V @ 4A	24V @ 3A
NMX-504-1512	500	+5V @ 75A	+15V @ 4A	-15V @ 4A	12V @ 5A
NMX-504-1524	500	+5V @ 75A	+15V @ 4A	-15V @ 4A	24V @ 3A

## MASS STORAGE NMX-502 SERIES\*

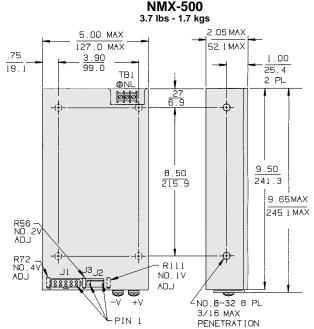
MODEL	PWR	OUTPUT #1	OUTPUT #2
NMX-502-0512V	500	+5V @ 30A	+12V @ 30/40Apk

\*Contact factory for detailed mechanical and electrical specifications. The drawings on opposite page do not represent this NMX product. The NMX-502 features dual bus-bar outputs and integrated "V" option.

# The smallest, most capable 500 W power supply of its kind.

Overload-, overvoltage-, thermal-protection and integral covers are standard. All NMX power supplies can be ordered self-cooled with internal ball-bearing fans. The NMX 350 and NMX 500 are available without fans for use with system air coolina.

All outputs are OEM-adjustable and 3 V main outputs are available. Integral RFI filters allow every NMX power supply to meet conducted emissions of EN55022 class B and FCC Class A. Compliance is also provided for international safety requirements including IEC 950 and the requirements of IEC 555-2 for harmonic line distortion.



### SPECIFICATIONS: ALL MODELS

#### **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.

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 μs 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.

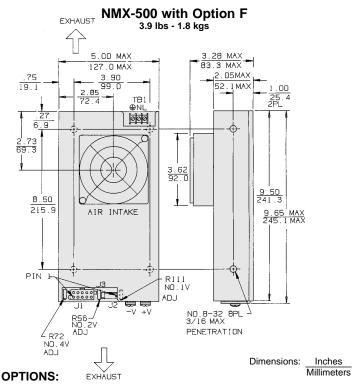
Temperature Range: 0° to 50°C at full ratings.

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, Subpart J, Class A; EN55022 Class B; CISPR 22 Class B.

**Conducted RFI:** Meets FCC Part 15, Subpart J, Class A; EN55022 Class B; CISPR 22 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 ball-bearing 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".

Consult factory for other available options.

# 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 3/8" centers	
TB1- (⊕)	Safety Ground	Safety Ground	5/0 Centers	

#### DC OUTPUT

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FUNCTION	LOCATION	NOTES	CONNECTOR	
Output #1	Terminal marked +V	Main Output	Bus bars	
	Terminal marked -V	Rtn (Common)	#8-32 screws	
Output #2	J1-5, 10			
	J1-4, 9	Rtn (Common)		
Output #3	J1-3, 8		AMP #770743-1	
	J1-4, 9	Rtn (Common)	mates with connector	
Output #4	J1-2, 7	(+) Floating Output	#770580-1 with sockets #171639-1	
	J1-1, 6	(-) Floating Output	(AWG #20 to #16)	

## STATUS AND CONTROL

FUNCTION	LOCATION	NOTES	CONNECTOR	
Remote Sense	J2-2	Output #1 Sense	AMBATAL	
	J2-1	Output #1 Sense Rtn	AMP MTA type #640456-8 pin	
	J2-8	Output #2 Sense	header (locking)	
	J2-7	Output #2 Sense Rtn	. 0,	
DC Power Good	J2-3	Reference to		
AC Power Fail	J2-4	Common		
Inhibit	J2-5			
Current Share	J2-6			
Aux. Fan Voltage	J3-1	+12V @ 0.5A Output	AMP MTA type	
(Not available with "V" or "F" options)	J3-2	Rtn (Common)	#640456-2 pin header (locking)	

# **Mouser Electronics**

**Authorized Distributor** 

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<u>SL Power:</u> NMX-503-0512