

MX SERIES POWER INVERTERS



MX SERIES FAMILY

EXELTECH manufactures the world's first truly **redundant, modular** inverter system; the **most reliable** inverter system available. No single malfunction will cause the inverter system to fail. **Modules are "hot" insertable.** Power levels are **expandable**, and modules can be added or replaced **without interruption in power** to your critical loads.

The MX system can be configured for **power levels from 1 to 20KW with 120 Vac** output. Up to 40KW at 240 Vac bi-phase or 60KW at 208 Vac 3 phase with many input and output voltages also available.

A control card and any number of additional 1000 Watt power modules combine to make a standard inverter. This type of system can be expanded as power requirements increase, and upgraded to be N+1 redundant as desired.

The MX system is **extremely compact and lightweight.** Power modules weigh only 7 lbs. Each.

Output voltage is precisely regulated, so that no measurable voltage change occurs on the output as input voltage fluctuates. Similarly, less than 0.5 volt change in output voltage will occur when the output load varies from 0 to 100% of rated power. With distortion of 2% maximum, this inverter offers **the cleanest sine wave power available.**

Models are available which cover all standard battery systems. Custom models can be designed to meet your specific input voltage requirements.

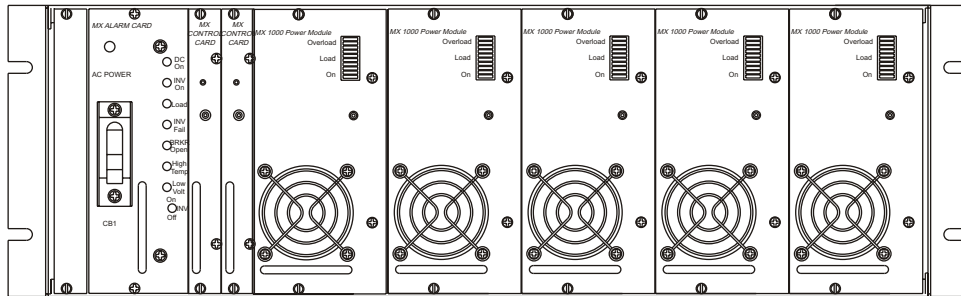
- **N+1 REDUNDANT**
- **EXPANDABLE**
- **REMOTE SWITCHING**
- **TRUE SINE WAVE**
- **"HOT" INSERTABLE**
- **1000 WATT MODULES**
- **REMOTE METERING**
- **ADJUSTABLE POWER**

MX SERIES SYSTEM DESCRIPTION

The *Exeltech MX* Series of inverters is available in three basic architectures; redundant, upgradable and expandable. Different options and sizes are available to fit varying applications. As a benefit of the *MX* series modular design, power levels are expandable in any system, as power requirements increase.

1.) **N+1 Redundant-Expandable Inverter System**: For applications where reliability and maintainability are paramount, the N+1 redundant system offers the most cost effective method of achieving redundancy and the ability to maintain the system while loads remain on line. All cards (except 12 Vdc) are "hot" insertable to allow maintenance without interrupting power to critical loads. Designing the power level with N+1 number of power modules, allows for redundancy without necessitating the purchase of a duplicate system. (An A/B Buss option is available, which adds to system reliability).

A redundant system consists of:



1 ea. Alarm Card
part # H (100 Vac)
A (120 Vac)
F (230 Vac)

2 ea. Control Cards
part # LL (100 Vac)
CC (120 Vac)
EE (230 Vac)

At least 3 Power Modules
part # P (100 Vac)
R (230 Vac)

1 ea. Cage assembly
part # 1A (19" cage)
2A (23" cage)

Options: 1 ea. X-fer switch
part # G (100 Vac)
X (120 Vac)
Z (230 Vac)

X-fer switch includes alarms and replaces the alarm card.

expansion rack
part # 1B (19" cage)
2B (23" cage)

...integrates with rack A for accommodating additional power modules, up to total rating of 20KW. Additional control cards and a larger X-fer switch may be required. Please call the factory for assistance.

2.) **Upgradable Inverter System**: The *Upgradable system* offers the flexibility to add a X-fer switch or alarm card and Full Redundancy for future requirements. A minimum system with as little as one control card and one power module can be upgraded in the future to include additional power modules, X-fer switch or alarm card and an additional control card for full redundancy (see figure II).

MX SERIES POWER INVERTER SPECIFICATIONS

OUTPUT POWER

CONTINUOUS POWER	SURGE POWER (3 seconds)	NO LOAD POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	WEIGHT LBS.
1000W	2200W	20W	230+/-6%	4.3	7.5
1000W	2200W	20W	117+/-6%	8.6	7.5
1000W	2200W	20W	100+/-6%	10.0	7.5

INPUT

MODEL VOLTAGE	MINIMUM (TYPICAL)	SYSTEM (TYPICAL)	MAXIMUM (TYPICAL)	TYPICAL EFFICIENCY @ FULL POWER	PEAK EFFICIENCY @ 1/3 POWER
12V	10.4/10.6*	13.8V	17V	85%	87%
24V	19/21V*	27.6V	34V	87%	89%
32V	26.5/28V*	36.8V	45V	87%	89%
48V	41.5/42.5V*	55.2V	62V	87%	89%
66V	57.5/58.5V*	75.9V	94V	88%	90%
108V	94/95V*	124V	149V	88%	90%

*indicates typical cut-off voltage/warning buzzer voltage

GENERAL

CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
WAVEFORM	-	SINUSOIDAL	-
LINE REGULATION	-	.1%	.5%
LOAD REGULATION	-	.3%	.5%
DISTORTION	-	1.5%	2%
FREQUENCY*	-.1%	NOMINAL	+.1%

*50, 60, 400Hz nominal

See www.exeltech.com for more data regarding MX Series inverters.

PROTECTION CIRCUITRY

Over Voltage:	Shutoff at maximum input voltage, per input conditions.
Under Voltage:	Shutoff at minimum input voltage, per input conditions.
Thermal:	105 C internal temperature. Warning buzz 5 C before shutoff.
Output Short:	Unit shuts off: Circuit breaker protected and electronically limited.

ENVIRONMENTAL

Temperature:	-25 to 40 C full power, derate 20% per 10 C. Above 40 C.
Humidity:	5 to 95% non-condensing
Altitude:	-200 to 10k feet full power, derated above 10k
Audible Noise:	Less than 45dba
Cooling:	1KW-Thermostatically controlled forced air
Finish:	Polyurethane base paint
Warranty:	Full year parts and labor.

MECHANICAL

Four case sizes are available; all are: 7" high X 15" deep.	
19 inch Wide:	(includes hardware for rack or shelf mounting)
23 inch Wide:	(includes hardware for rack or shelf mounting)
9.97 inch Wide:	(for 1 to 3KW applications: surface mounting only)
7 inch Wide:	(for 1 or 2KW applications; surface mounting only)
Available in other sizes including metric. Call factory for sizes.	



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