



PATENTS AND PATENTS PENDING

NOsparc® DATA SHEET

MMXAC (MMXAC1F277)

PRODUCT NOTES

Connect NOsparc® MMXAC across the power switching relay or contactor contacts only!

NOsparc® MMXAC capabilities will be fully effective even under mixed load conditions.

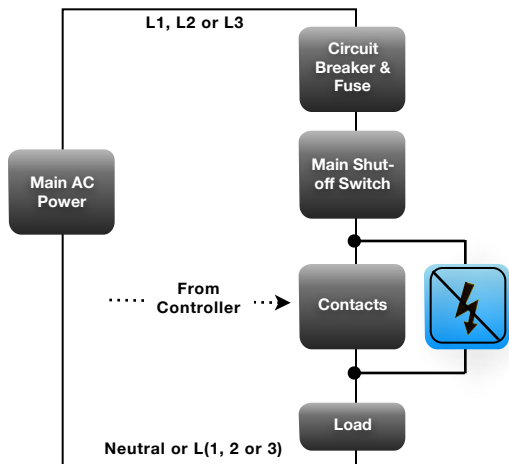
NOsparc® MMXAC has been designed to support the following AC power loads:

- General Purpose
- Inductive
- Ballast
- Resistive
- Motor
- Pilot Duty
- Capacitive
- Tungsten

Additional information and a full User's Manual for this product may be found on our website:

www.ArcSuppressionTechnologies.com

ABBREVIATED WIRING DIAGRAM NOsparc® ARC SUPPRESSOR

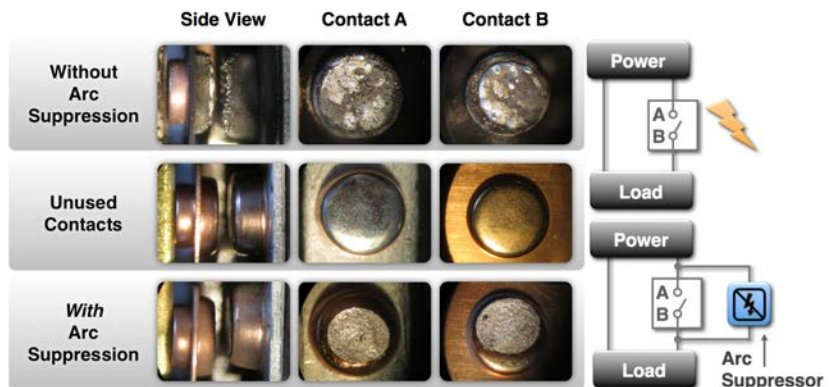


PRODUCT OVERVIEW

The NOsparc® MMXAC (AC power applications) is a two-terminal contact arc suppressor that attaches across the contact points of a power relay, contactor or snap action switch. The product is designed to protect the contact points from premature destruction due to contact current arcing.

NOsparc® MMXAC products have a simple, elegant and straightforward design that allow them to be connected across the two contact terminals on existing products and equipment with just two wires! The products are tolerant of harsh environments.

During normal operation, the NOsparc® MMXAC detects the nascent arc as it forms and suppresses its energy. The result is a low energy "arclet" with arc energy of only a few μJ as opposed to a full contact arc that is hundreds of mJ (or more).



The pictures above show how use of a NOsparc® MMXAC arc suppressor can keep contact points in nearly new condition. In fact, arc suppression both improves relay operation and extends the inevitable end-of-life of a standard relay, contactor or snap action switch by a factor of 100 times or more under normal, specified relay operating conditions (please refer to the relay or contactor specifications).

FEATURES	BENEFITS
Extends Contact Life 100X or More	<ul style="list-style-type: none"> • Reduced maintenance, repair and replacement costs • Dramatic reduction in total cost of ownership
Small Footprint	<ul style="list-style-type: none"> • Easy adaptation to existing infrastructure • Quick and simple retrofitting process • Minimal impact to design due to size of the hardware solution
Only 2 Wires	<ul style="list-style-type: none"> • No neutral connection needed • No external power required • No special or complicated assembly requirements or associated connections to auxiliary equipment • "Connect & Forget" operation
Low Power	<ul style="list-style-type: none"> • Negligible impact on energy costs • Increased reliability
Green	<ul style="list-style-type: none"> • RoHS compliant • Reduced Ozone and other pollutants
Lower EMI	15dB reduction of EMI over the range of 30MHz to 1GHz

INDUSTRIES

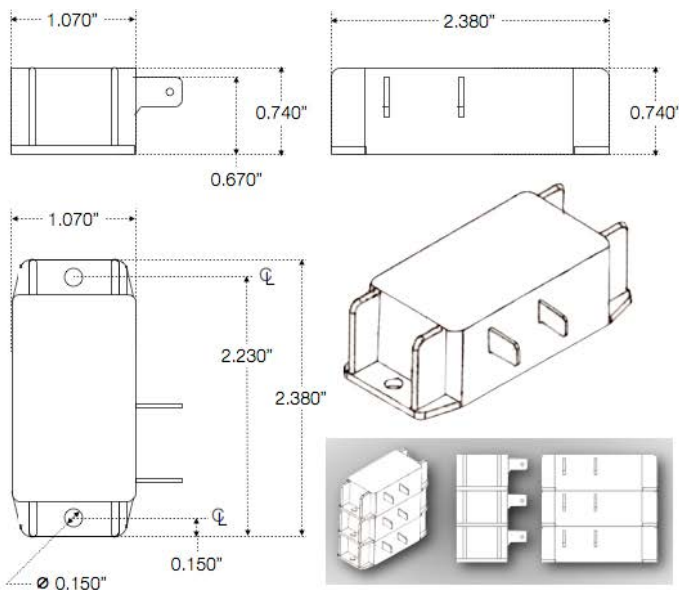
- COMMERCIAL
- INDUSTRIAL
- DEFENSE

NOsparc® DATA SHEET MMXAC (MMXAC1F277)

SPECIFICATIONS

NOsparc® MODEL	MMXAC (MMXAC1F277)
ARC SUPPRESSION	duration: ½ AC power cycle (maximum)
CIRCUITS (POLES)	one (1) unit per pole (multiple units required for multi-pole relays)
CIRCUIT BREAKER / FUSE	50A maximum: resistive, general purpose, and pilot duty loads 20A maximum: motor loads 15A maximum: tungsten, inductive, ballast, and capacitive loads
CLAMPING VOLTAGE	470V (typical at 1mA)
CONTACT CYCLING	maximum cycle time: per relay specifications (DO NOT EXCEED relay operating specifications)
DIMENSIONS	length: 2.380in (6.045cm) width: 1.070in (2.718cm) height: 0.740in (1.880cm)
ENVIRONMENTAL	operating temperature: -40°C to 85°C (-40°F to 185°F) storage temperature: -50°C to 125°C (-58°F to 257°F) humidity: 5% to 95% (non-condensing)
INTERFACE WIRES	across contacts: two (2) (W1/W2 non-polarized)
LEAKAGE CURRENT	10mA (nominal)
MOUNTING	orientation: any number of holes: two (2) hole diameter: 0.150in (#6 screw) (3.81mm)
OPERATING VOLTAGE	277Vac (nominal)
POWER FREQUENCIES	typical operating frequencies: 50Hz / 60Hz
POWER-ON	load current passthrough: ½ cycle (maximum)
POWER TYPE	AC (alternating current)
RELIABILITY	MTBF: 438,000 days (MIL-HDBK-217F)
TERMINATION	0.250in quick connect male terminals (non-insulated)
TERMINATION MATE	0.250in quick connect female terminals (fully insulated)
WEIGHT	net weight: 1oz (28g)
WIRE GAUGE	wire length 0in to 12in: #16AWG (wire length between Nosparc™ and contact terminals) wire length 12in to 24in: #14AWG (wire length between Nosparc™ and contact terminals) wire length 24in to 36in: #12AWG (wire length between Nosparc™ and contact terminals) (NOTE: Wire lengths over 3 feet are NOT recommended)

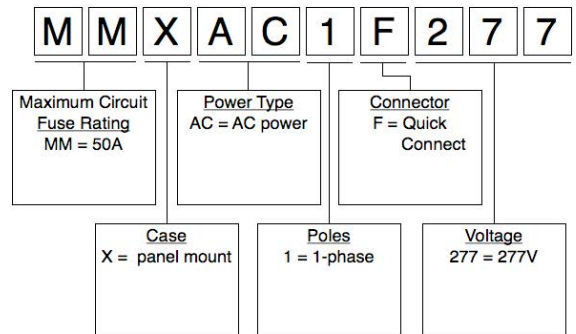
PANEL MOUNTING AND CASE DRAWINGS



NOTE: Units may be stacked up to three (3) units high by threading a #6 screw through the mounting holes in the flanges..

PART NUMBER AND PRODUCT DESCRIPTION

(Example shown: NOsparc® MMXAC1F277
("NOsparc® MMXAC"))



Underwriters Laboratories NKCR2
"Auxiliary Devices—Component"



File No:E346457

The adjacent mark indicates that Underwriters Laboratories, inc. has certified the NOsparc® MMXAC as a UL Recognized Component for both Canada and the United States.

