



PATENTS PENDING

NOsparc™ DATA SHEET

MMYAC (MMYAC1W277)

PRODUCT NOTES

Connect NOsparc™ MMYAC across the power switching relay or contactor contacts only!

NOsparc™ MMYAC capabilities will be fully effective even under mixed load conditions.

NOsparc™ MMYAC has been designed to support the following AC power loads:

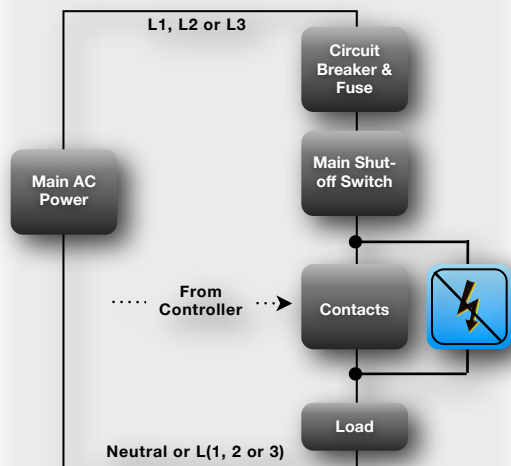
- General Purpose
- Inductive
- Ballast
- Resistive
- Motor
- Pilot Duty
- Capacitive
- Tungsten

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

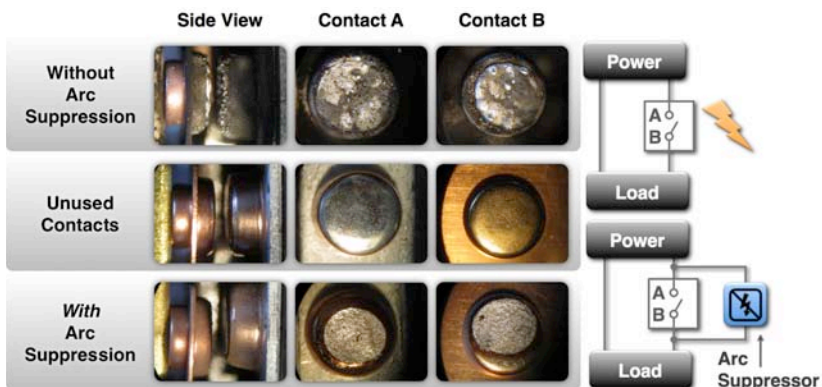


PRODUCT OVERVIEW

NOsparc™ MMYAC products (AC power applications) are two-terminal contact arc suppressors that attach 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™ MMYAC 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™ MMYAC 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™ MMYAC 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	<ul style="list-style-type: none"> • 15dB reduction of EMI over the range of 30MHz to 1GHz

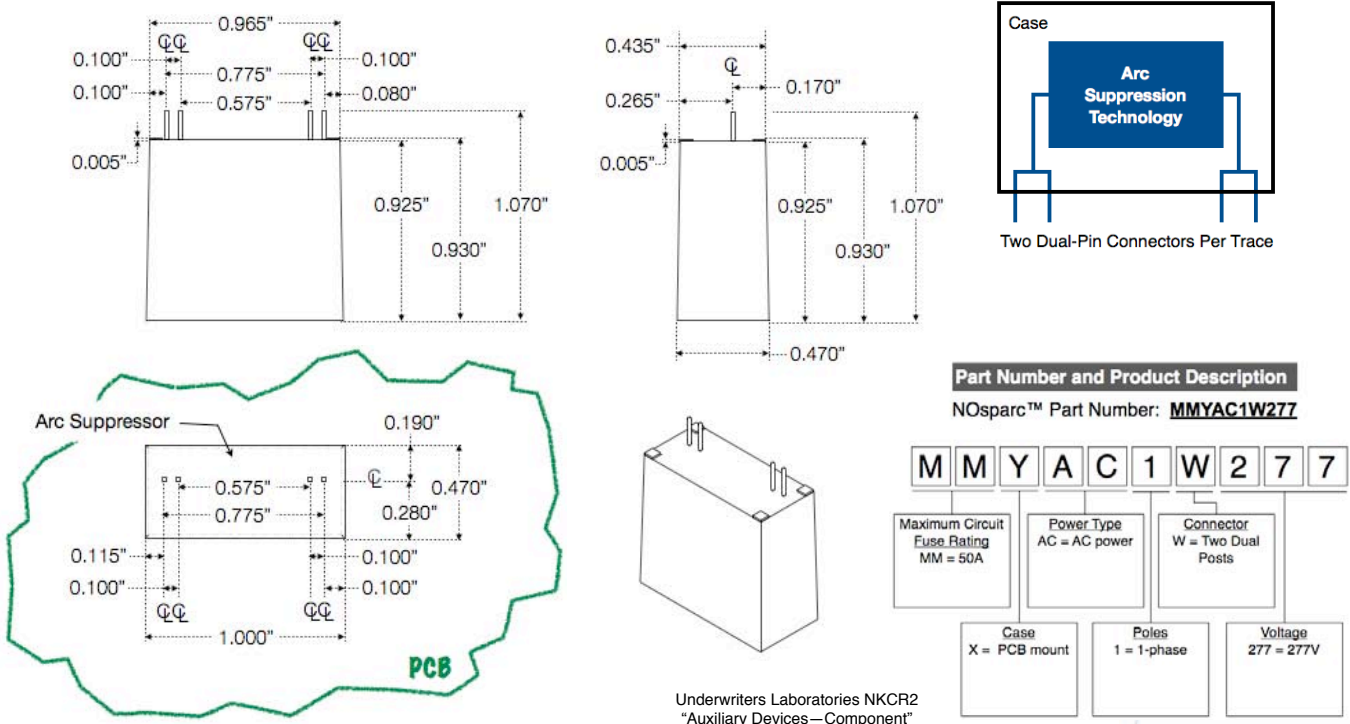
APPLICATIONS

- COMMERCIAL
- INDUSTRIAL
- DEFENSE

SPECIFICATIONS

NOsparc™ MODEL	MMYAC (MMYAC1W277)
ARC CURRENTS	break: "steady-state" make: "inrush"
ARC SUPPRESSION	duration: ½ AC power cycle (maximum)
CIRCUITS (POLES)	one (1) unit per pole (multiple units required for multi-pole relays)
CIRCUIT FUSE RATING	maximum: 50A (do not exceed fuse rating)
CLAMPING VOLTAGE	470V (typical at 1mA)
CONTACT CYCLING	maximum cycle time: per relay specifications (DO NOT EXCEED relay operating specifications)
DIMENSIONS	length: 1.000in (2.540cm) width: 0.470in (1.195cm) height: 0.920in (2.335cm)
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)
FREQUENCIES	typical operating frequencies: 50Hz / 60Hz
INTERFACE WIRES	across contacts: two (2) (W1/W2 non-polarized)
LEAKAGE CURRENT	10mA (nominal)
PRINTED CIRCUIT BOARD (PCB) MOUNTING	orientation: any (see "BOARD AFFIXATION" section of User Manual) four plated through holes: 0.038in diameter (on Printed Circuit Board (PCB))
OPERATING VOLTAGE	277Vac (nominal)
POWER-ON	load current passthrough: ½ cycle (maximum)
POWER TYPE	AC (alternating current)
RELIABILITY	MTBF: 50,000 years (MIL-HDBK-217F)
TERMINATION	two 0.025in square-post dual posts (0.1in center)
TERMINATION MATE	four plated through holes: 0.038in diameter (on Printed Circuit Board (PCB))
WEIGHT	net weight: 1oz (28g)

PANEL MOUNTING AND CASE DRAWINGS



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

UL
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