

# NOsparc® GGXAC1F480 DATA SHEET



## PRODUCT OVERVIEW

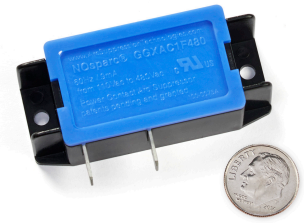
The NOsparc® GGXAC1F480 contact arc suppressor (AC power applications) protects, cleans, and restores the contact points of relays and contactors. This improves their overall performance and extends contact life to the mechanical life of the relay or contactor.

The NOsparc GGXAC1F480 arc suppressor is designed to suppress contact arcing from 110Vac to 277Vac and up to 480Vac when installed with an additional in-line fuse. NOsparc AC arc suppressors connect across the contact terminals on existing products and equipment using only two wires.

Connect NOsparc AC arc suppressor across contacts only! NOsparc AC arc suppressors will support the following AC power load categories:

- |                   |              |             |            |           |
|-------------------|--------------|-------------|------------|-----------|
| • General Purpose | • Capacitive | • Resistive | • Tungsten | • Ballast |
|                   | • Pilot Duty | • Inductive | • Heater   | • Motor   |

NOsparc is effective even under mixed load conditions.



## HVAC & Automation

Additional information and a full User Manual are available on our website:  
[www.ArcSuppressionTechnologies.com](http://www.ArcSuppressionTechnologies.com)

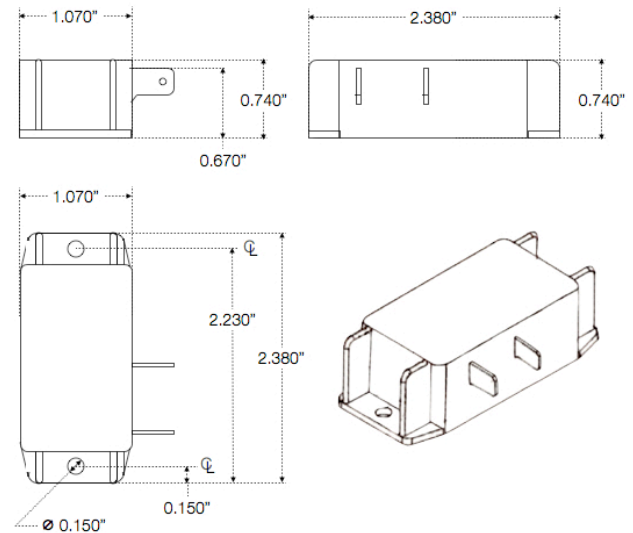
## FEATURES AND BENEFITS

- **EXTENDS CONTACT LIFE**
  - CONTACTS LAST TO MECHANICAL LIFE OF RELAY OR CONTACTOR
- **REDUCES MAINTENANCE, REPAIR, AND REPLACEMENT COSTS**
- **ROHS COMPLIANT**
- **REDUCES CARBON FOOTPRINT**
- **REDUCES GREENHOUSE GASSES**
- **EASY INSTALLATION**
  - ONLY 2 WIRES
  - NO EXTERNAL POWER REQUIRED
- **SMALL FOOTPRINT**
  - EASILY ADAPTED TO EXISTING INFRASTRUCTURE
  - QUICK AND SIMPLE PANEL MOUNT RETROFIT PROCESS
- **LOWER EMI**
  - AVERAGE 30dB REDUCTION OF EMI OVER 30MHz TO 1GHz RANGE

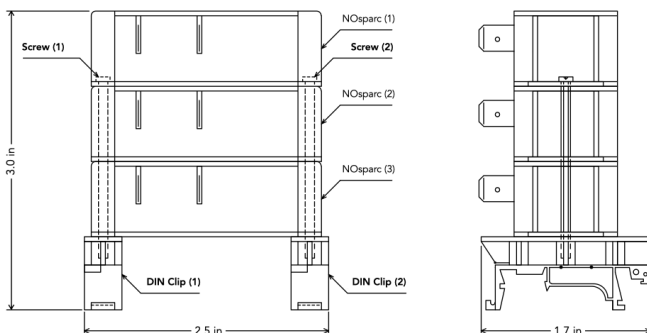
## DIMENSIONS AND MOUNTING

Panel mounting of an arc suppressor can be accomplished using a #6 screw through the two mounting holes.

Product dimensions:



Example of three (3) GGXAC1F480 products on DIN rail clips:



Optional DIN rail mounting (shown left) of up to three (3) stacked GGXAC1F480 products can be accomplished by adding a single DIN rail mounting adaptor (NOT PROVIDED), accepting up to a 1¼ inch #6 screw, to each side of the single arc suppressor or stacked arc suppressors.

This product is manufactured under the following patents: US 8,619,395; US 9,087,653; US 9,423,442; US 9,508,501; US 9,847,185; US 10,134,536; US 10,566,150; US 10,727,005; and US 10,727,010. Other patents pending.

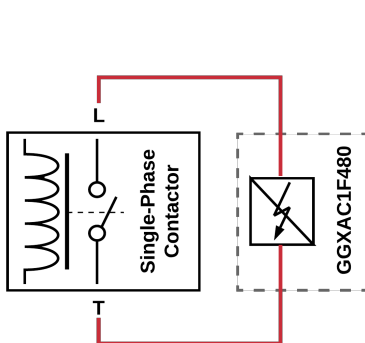
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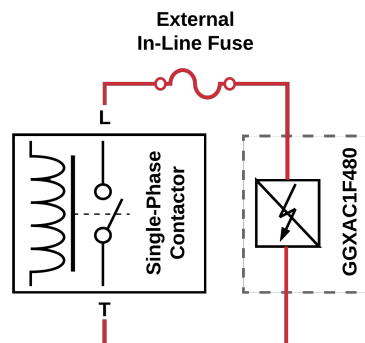
CONTACT Specifications	
ABSOLUTE MAXIMUM CURRENT RATING	175A(rms) at 60Hz / 145A(rms) at 50Hz — this absolute maximum current rating also represents the maximum allowable Locked Rotor Amperage (LRA) for motor loads and the cold filament inrush current for tungsten loads
ARC SUPPRESSION	duration: ½ AC power cycle (maximum)
CIRCUITS (CONTACTS)	one (1) NOsparc per contact (multiple NOsparc units required for multi-contact relays)
CIRCUIT BREAKER / FUSE (MAXIMUM)	100A for general purpose, heater, and resistive loads, 50A for inductive, motor, and pilot duty loads 20A for ballast, capacitive, and Tungsten loads
CLAMPING VOLTAGE	820V (typical at 1mA)
CYCLING	maximum cycle time: per relay specifications ( <b>DO NOT EXCEED</b> relay operating specs)
LEAKAGE CURRENT	9mA (nominal)
OPERATING VOLTAGE	110Vac to 277Vac (nominal +/-10%) up to 480Vac (nominal +/-10%) with in-line fuse added on Line side of contactor
TERMINATION	across contacts: two (2) 0.250" insulated quick connect terminals
GENERAL 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)
MOUNTING	orientation: any    number of holes: two (2)    hole diameter: 0.150in (#6 screw) (3.81mm)
MTBF / RELIABILITY	800,000 hours (MIL-HDBK-217F)
POWER FREQUENCIES	typical operating frequencies: 50 Hz / 60 Hz
POWER-ON	load current passthrough: ½ cycle (maximum)
POWER TYPE	AC (sinusoidal alternating current)
WEIGHT	0.8oz (22.7g)
WIRE GAUGE	wire length between Nosparc and contact terminals: up to 24in: #14AWG (minimum); 24in to 36in: #12AWG (minimum) NOTE: DO NOT use wire lengths over 3 feet

## SYSTEM WIRING

One NOsparc connects in parallel across each contact shown. Make sure installation uses accepted proper crimping standards and is compliant with all safety regulations.



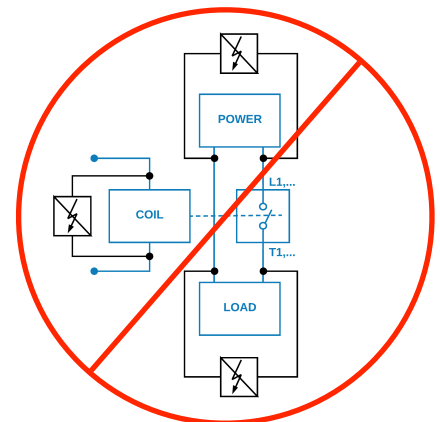
Above: wiring diagram for applications up to 277Vac.



Above: wiring diagram for applications from 277Vac through 480Vac.

## IMPORTANT NOTE

NOsparc will be damaged if connected across the following locations where there is **NO arcing**: LOAD, POWER, and/or COIL.



UL Recognized Component, certified as "Component - Auxiliary Devices" Industrial Control Equipment for both Canada and the United States, per UL 508 and CSA-C22.2 No 14.