ARC SUPPRESSION TECHNOLOGIES

NOsparc® DATA SHEET
GGXAC1F480 and 3P-GGXAC1F480

PATENTS GRANTED AND PENDING

PRODUCT OVERVIEW

The NOsparc® GGXAC1F480 AC contact arc suppressor (AC power applications) protects the contact points of relays, contactors, or snap action switches, which extends their life and improves their overall performance along with the equipment these switches control.

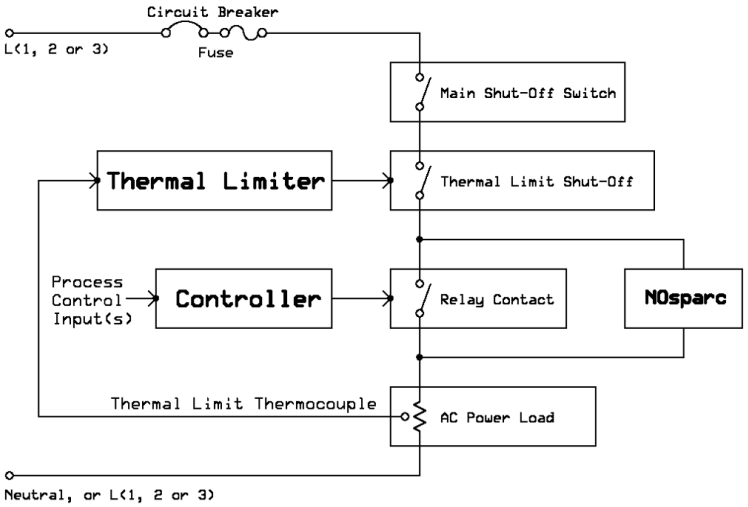
The NOsparc GGXAC1F480 arc suppressor is designed to suppress contact arcing from 110Vac to 480Vac. NOsparc AC arc suppressors connect across the contact terminals on existing products and equipment using only two wires.

Connect NOsparc AC arc suppressor across contacts only! NOsparc AC arc suppressors are effective even under mixed load conditions. NOsparc AC arc suppressors will support the following AC power load categories:

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

SYSTEM WIRING

For simplicity, only a single (one) AC contact shown



Please see our website for additional information and a full User's Manual: www.ArcSuppressionTechnologies.com

FEATURES	BENEFITS	FEATURES	BENEFITS
Extends Contact Life 10X or More	• Reduced maintenance, repair and replacement costs • Dramatic reduction in total cost of ownership	**Low Power**	• Improves contact switching transition efficiency 20x
Small Footprint	• Easily adapted to existing infrastructure • Quick and simple panel mount retrofit process • Minimal impact to design due to size of the hardware solution	**Only 2 Wires**	• No external power required • No special or complicated assembly requirements or associated connections to auxiliary equipment
Green	• RoHS compliant • Reduced carbon footprint and greenhouse gasses	**Lower EMI**	• Average 30dB reduction of EMI over 30MHz to 1GHz range

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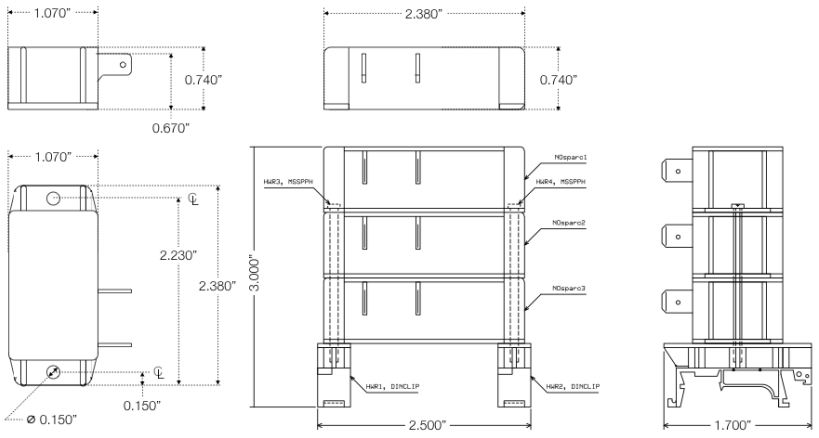
SPECIFICATIONS

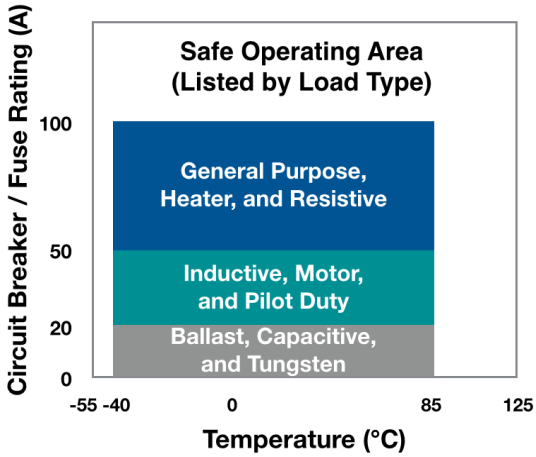
NOsparc Model:	GGXAC1F480 and 3P-GGXAC1F480
ABSOLUTE MAXIMUM CURRENT RATING	235A(rms) This absolute maximum current rating also represents the maximum allowable Locked Rotor Amperage (LRA) for motor loads and the cold filament inrush current for tungsten loads
ARC SUPPRESSION	Duration ½ AC power cycle (maximum)
CIRCUITS (CONTACTS)	One (1) NOsparc per contact (multiple NOsparc units required for multi-contact relays
CIRCUIT BREAKER / FUSE (MAXIMUM)	100A for resistive loads (see Safe Operating Area charts below for more detail)
CLAMPING VOLTAGE	820V (typical at 1mA)
CONTACT CYCLING	Maximum cycle time: per relay specifications (DO NOT EXCEED relay operating specs)
DIMENSIONS	SINGLE UNIT: length: 2.380in (6.045cm) width: 1.070in (2.718cm) height: 0.740in (1.880cm) 3-PHASE UNIT: length: 2.500in (6.350cm) width: 1.700in (4.318cm) height: 3.000in (7.620cm)
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	9 mA (nominal)
MOUNTING	orientation: any number of holes: two (2) hole diameter: 0.150in (#6 screw) (3.81mm)
MTBF / RELIABILITY	2.6 million hours (MIL-HDBK-217F)
OPERATING VOLTAGE (NOMINAL +/-15%)	110Vac to 480Vac
POWER FREQUENCIES	Typical operating frequencies: 50 Hz / 60 Hz
POWER-ON	load current passthrough: ½ cycle (maximum)
POWER TYPE	AC (sinusoidal alternating current)
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 between Nosparc and contact terminals: 0in to 12in: #16AWG 12in to 24in: #14AWG 24in to 36in: #12AWG NOTE: wire lengths over 3 feet are NOT recommended

PANEL MOUNTING AND CASE DRAWINGS



CIRCUIT BREAKER / CIRCUIT FUSE DE-RATING

The chart below depicts the circuit breaker / circuit fuse Safe Operating Areas (SOA).



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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.

This product is manufactured under the following patents: US 9,087,653; US 8,619,395 and other patents pending.