

4003

DIN-Rail Mount, Three Phase SCR Power Controller

- Three Phase Loads up to 60 Amps, 575 Vac
- 9-35 Vdc, 100-240Vac, 24Vac Input Signals
- Easy DIN-Rail or Sub-Panel Installation
- Size Compatible for Easy Replacement of Mercury Displacement Relays
- Zero-Crossover Switching to Minimize RFI and EMI
- Optional Integral Heatsink Thermostat
- LED Indication of SSR ON
- DV/DT Protection



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PRECISION HEAT AND CONTROL

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PDS 4003



Description

The 4003 solid state power controllers combine Chromalox's years of SCR technology experience with new packaging techniques to deliver reliable and easy to install components. The 4003 series solid state power controllers will switch up to 60 Amps 3 phase, 600Vac. The Vac input unit can easily replace any mercury or magnetic contactors. The Vdc input is compatible with existing SCRs and will work with a variety of process controllers.

Quick, Easy Installation

The 4003 series power controllers are compactly packaged to allow for fast and easy DIN-rail or sub-panel mounting, with wiring terminals easily accessible from the front.

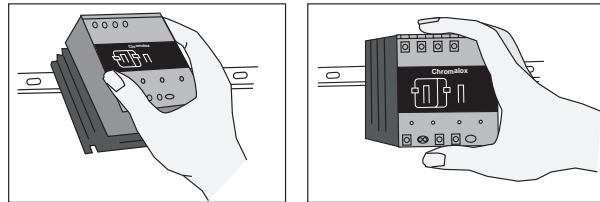
Electrical and Safety Features

- Ground Potential Heatsink
- SCR to Heatsink Isolation
- SCR resistant to Electrical Spikes, PIV up to 1600V

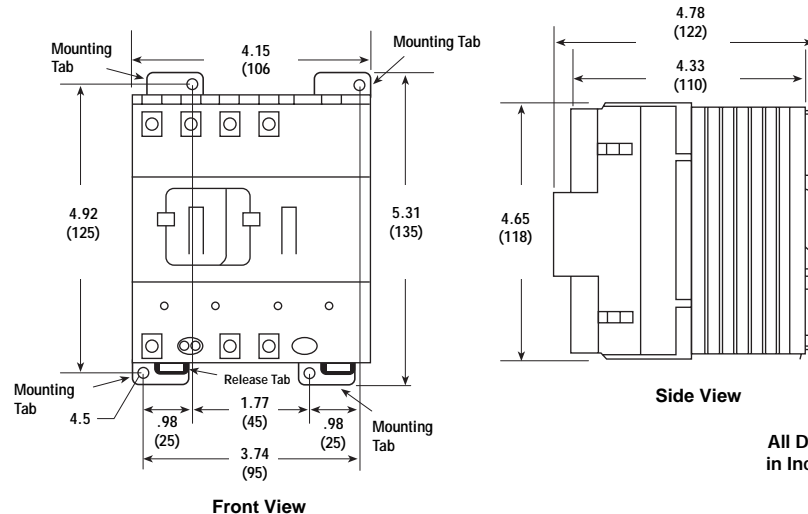
Minimal Electrical Noise

The dependable back to back SCRs fire at the zero-crossover (zero voltage) point in the sine wave. This minimizes both RFI and EMI that can create havoc for other electronic equipment in a plant.

Installation

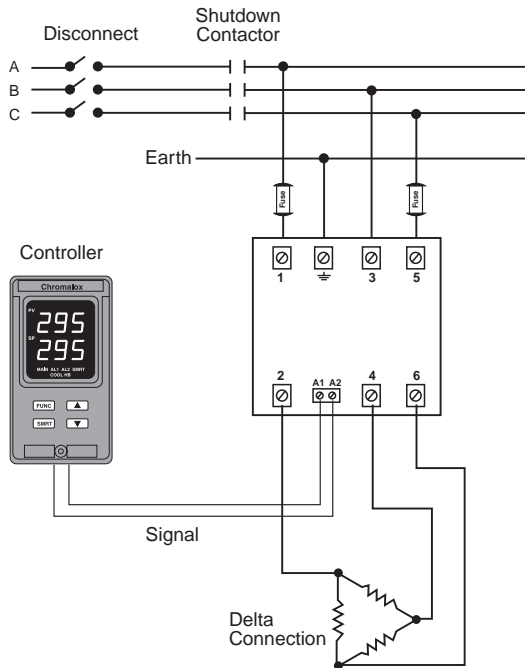


Dimensions



All Dimensions in Inches (mm)

Three Phase, 2-Leg Connection



Specifications

Mounting	Wall or DIN Rail
Terminals	Screw terminals with front access
Load Type	Resistive
Inputs	
Voltage dc	
Off State	0-4Vdc
On State	9 to 35Vdc (20ma continuous)
Voltage ac	
100-240Vac models	
Off State	0 to 10Vac
On State	100 to 240Vac (±10%)
24Vac models	
Off State	0 to 4Vac
On State	24Vac (±15%)
Min. Holding Current	50mA RMS
Voltage Drop on Power Semiconductor	1.2Vdc
Isolation	
Between Power Circuit and Earth	3000V rms
Between Electronics and Power Circuits	7500V pk
Operating Temperature	32° to 122°F (0°-50°C)
Humidity	20% to 85% RH Non-Condensing
Storage Temperature	-20° to 70°C

Ordering Information

Model Solid State Power Controller

4003 Three Phase, Two Leg, Zero-Crossover Fired Solid State Relay, DIN-Rail or Surface Mount

Code Max. Rated Current @ 50°C

20	20 Amps
40	40 Amps
60	60 Amps

Code Voltage PIV (Peak Inverse Voltage)

3	Up to 400 Vac	1200
6	Up to 600 Vac	1600

Code Input

1	100 to 240Vac*
2	24Vac*
7	9-35 Vdc (20 mA Continuous)

Code Heatsink Thermostat

0	None
1	Heatsink Thermostat for Thermal Protection**

4003 - 40 6 7 1 Typical Model Number

* UL Pending on Vac Input Units **Heatsink Thermostat not available on Vac Input Codes 1 and 2