

SSR3P Series Solid State Relay with Heat Sink

- 3-Phase solid state relay
- Phase angle switching
- Rated operational current: 15, 25 & 40
- Rated operational voltage: Up to 480 VACrms
- Supply voltage range: 10 to 32 VDC
- Control current range: 0 to 20 mA/4 to 20 mA
- LED-indication for line ON and load ON
- Varistor protection



Order Table

Model Three Phase, 3-Leg, Phase Fire Solid State Relay with Heat Sink

SSR3P The SSR3P series are industrial three-phase 3-leg relays mounted on heat sinks for switching high current resistive and inductive loads. Chromalox SSR3P series offers the following standard features: 40°C Ambient Rating, Phase-angle controlled soft-start, LED status indicator for line ON and load ON, two input ranges, varistor protection, DIN rail mount, CE mark and cUL Recognized.

Code Current @ 40°C (104°F) Ambient

15	15 Amp
25	25 Amp Fan Cooled
40	40 Amp Fan Cooled

Code Voltage

1	230 Vac
2	480 Vac

Code Input Control Voltage

1	4 - 20 / 0 - 20 mA
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SSR3P - 25 1 1 Typical Model Number

Specifications

Output Specifications

Switching Mode.....Phase Angle

Rated Operational Current

15 AACrms	SSR3P-15
25 AACrms	SSR3P-25
40 AACrms	SSR3P-40

Operational Voltage Range - Line to Line

SSR3P-230 VAC	150 to 250 VACrms
SSR3P-480 VAC	400 to 510 VACrms

Non-Rep. Voltage

SSR3P-230 VAC	1200 Vp
SSR3P-480 VAC	1200 Vp

Varistor Voltage

SSR3P-230 VAC	275 VAC
SSR3P-480 VAC	510 VAC

Approvals

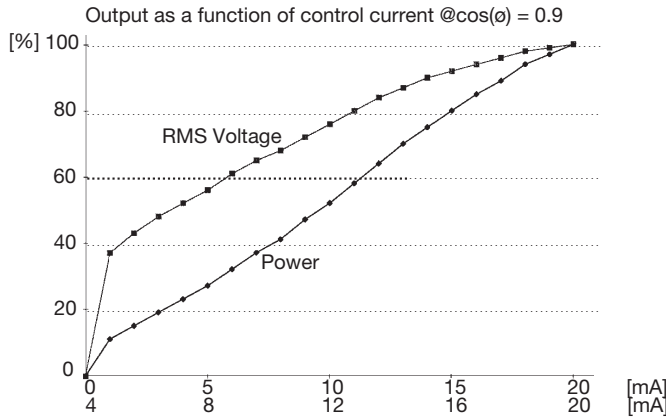
UL Recognized, CSA

CE-MarkingYes **

** Heatsink must be connected to ground

Specifications (cont'd.)

Operation Diagram



Input Specifications

Control Current
 A - Input0 - 2 mA
 B - Input4 - 20 mA

Input Impedance.....250 Ω

Response Time
 (input to trigger outputs)≤ 1 Cycle

Output Specifications, Output Module

	SSR3P 15A, 25A	SSR3P 40A
Rated Operational Current	25 Arms	50 Arms
Off-State Leakage Current	≤ 10 mArms	≤ 10 mArms
On-State Voltage Drop	≤ 1.6 Vrms	≤ 1.6 Vrms
I ² t for Fusing t=1-10 ms	≤ 310 A ² s	≤ 1800 A ² s
Critical di/dt	≥ 50 A/μs	≥ 50 A/μs
Non-Rep. Surge Current t=20 ms	250 A _p	600 A _p

Housing Specifications

Housing MaterialNoryl, Glass-Reinforced

ColorBlack

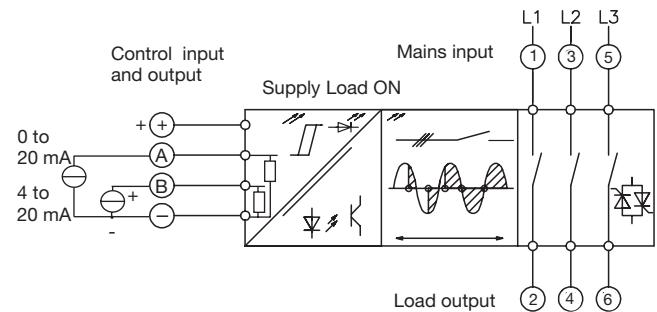
Control Terminal
 Mounting ScrewsM3
 Mounting Torque.....≤ 0.5 Nm

Power Terminal
 Mounting ScrewsM5 x 6
 Mounting Torque.....≤ 1.5 Nm

Thermal Specifications

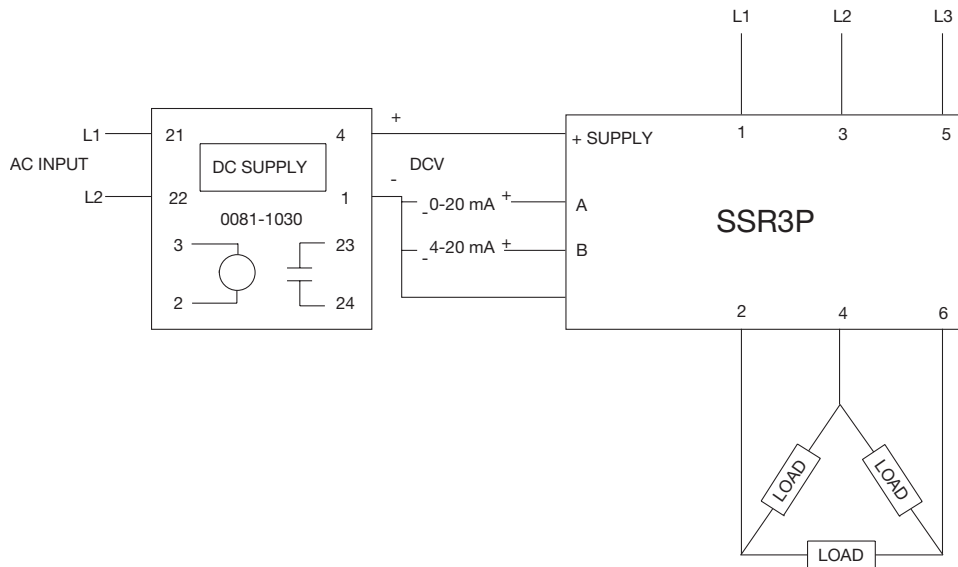
	15, 25 Amp	40 Amp
Storage Temperature	-40° to +100°C (-40° to +212°F)	-40° to +100°C (-40° to +212°F)
Junction Temperature	≤ 125°C	≤ 125°C
R _{th} Junction-Case	≤ 0.5 K/W	≤ 0.25 K/W

Functional Diagram



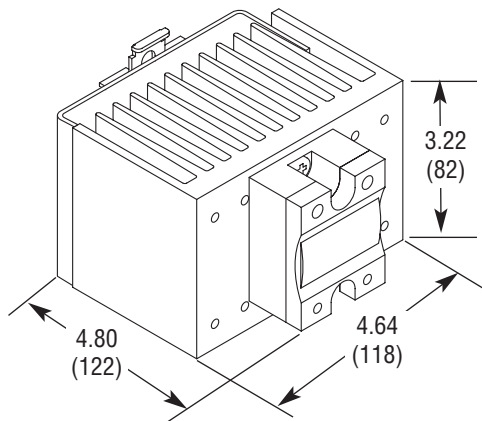
Specifications (cont'd.)

Wiring Diagram

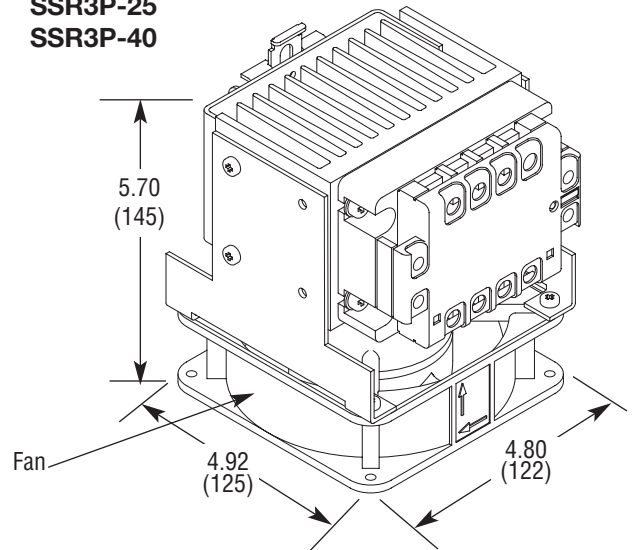


Dimensions

SSR3P-15



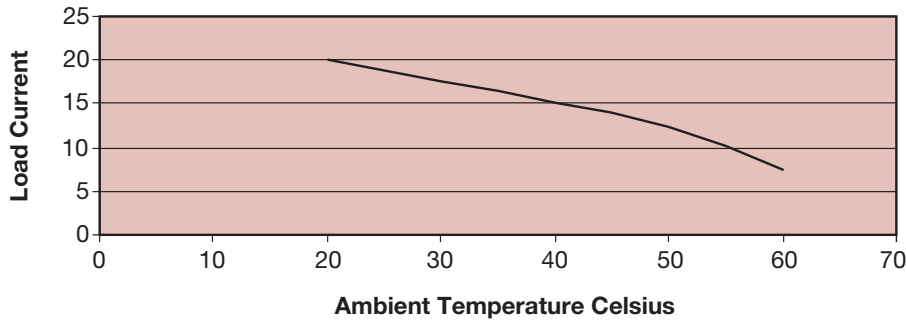
**SSR3P-25
SSR3P-40**



Dimensions in Inches (mm)

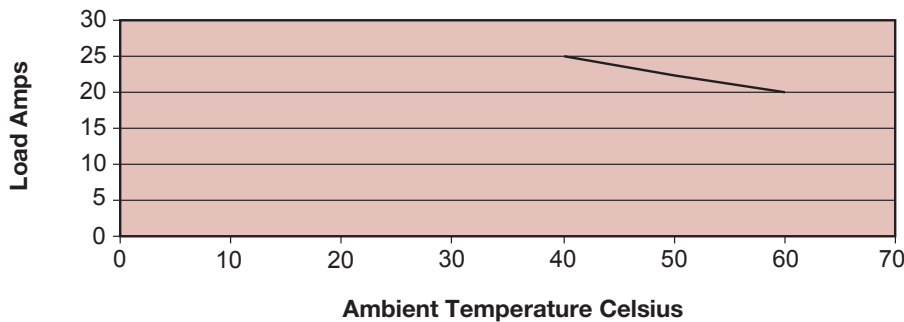
Specifications (cont'd.)

Heatsink (Load Current Versus Ambient Temperature)



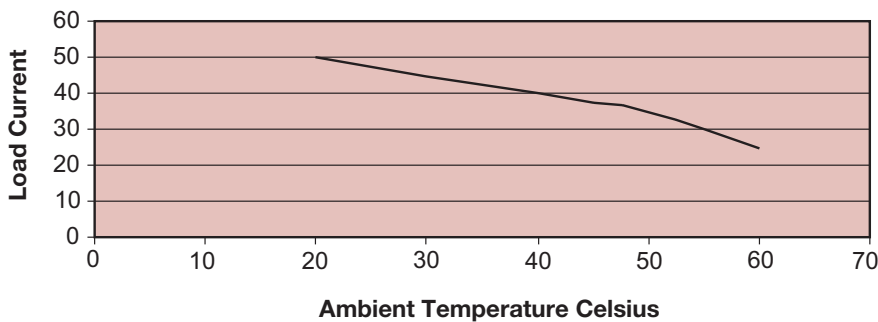
Ambient Temp. °C	Amps
20	20
30	17.5
40	15
50	12.5
60	7.5

Derating Curve SSR3P-15



Ambient Temp. °C	Amps
20	
30	
40	25
50	22.5
60	20

Derating Curve SSR3P-25



Ambient Temp. °C	Amps
20	50
30	45
40	40
50	35
60	25

Derating Curve SSR3P-40