

# SSR

## Series Power Controllers

SSR, SSR1, SSR1P,  
SSR2, SSR3 & SSR3P

### Features:

- Conservative Thermal Design
- 15 - 75 Amp Ratings
- 42-600Vac Operational Voltage
- Single and Three Phase Offering
- Zero Cross and Phase Angle Fired
- Control Inputs:  
4.5-32Vdc  
24-265Vac/24-190Vdc  
4-20/0-20mA
- DIN Rail Mount
- UL Recognized and CSA Approved
- CE Marked
- LED Status Indicator
- IP20 Touch Protection Cover

### Applications:

- Mercury Relay Replacement
- Electric Ovens
- Plastics Machinery
- Packaging Equipment
- Food and Beverage Processing Equipment
- Platen Heater
- Extruders
- Resistance Heating
- Contactor Replacement

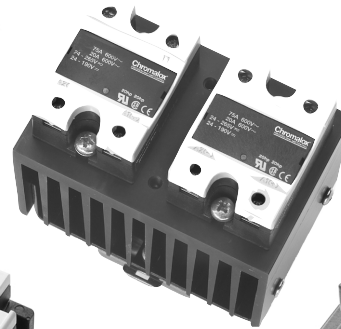


**Chromalox**<sup>®</sup>  
PRECISION HEAT AND CONTROL

### SSR PDS



SSR



SSR2



SSR1/SSR1P



SSR3



SSR3P

### Description

The Chromalox SSR family line of solid state relays are an ideal low cost power control solution for furnace/oven, heat treating, plastics, food, semiconductor, lighting, and drying applications just to name a few.

The SSR line of power controllers are a complete package. They feature a rugged design, touch safe exterior, back-to-back SCR design, ambient ratings of 40°C, and are DIN rail mount.

The benefits from the Chromalox SSR line are quick and low cost installation, reduced panel space, increased heater life due to fast cycling, and easy replacements for mechanical contactors.

### SSR Series

These units are rated for 25, 50 and 75 amps with operational voltages up to 600Vac. The series is zero-fired single phase control with control signals 4.5 - 32Vdc, (24 - 265Vac or 24 - 190Vdc).

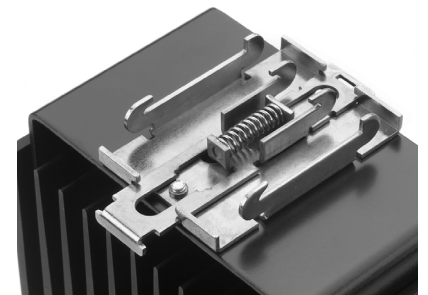
### SSR1, SSR2 and SSR3 Series

These units are rated for 10, 15, 25, 35, 40, 50, 70 and 75 amps with operational voltages up to 600Vac.

The series is zero-fired single phase, three-phase two leg and three-phase three leg control. The control signal can be 4.5 - 32Vdc, or 24 - 265Vac or 24 - 190Vdc.

### SSR1P and SSR3P Series

These units are rated for 15, 25, 35, 40, 50 and 70 amps with operational voltages up to 600Vac. The series is phase-angle fired single-phase and three-phase three leg design. The control signal can be 4 - 20mA or 0 - 20mA.



DIN Rail Mount

# SSR Series Power Controllers

## Heat Sink Mounting Dimensions

Heat Sink without Fan	Amps									
Compatible solid state relay	15	25	30	35	40	45	50	65	70	75
SSR1/SSR1P	-	Fig. B	-	Fig. A	-	-	Fig. A	-	Fig. C	Fig. C
SSR2	-	Fig. C	-	-	-	-	-	-	-	-
SSR3	Fig. C	Fig. C	Fig. C	-	-	-	-	-	-	-
SSR3P	Fig. C	-	-	-	-	-	-	-	-	-
Heat Sink with Fan	Amps									
Compatible solid state relay	15	25	30	35	40	45	50	65	70	75
SSR1/SSR1P	-	-	-	-	-	-	-	-	-	-
SSR2	-	-	-	-	-	-	Fig. D	-	-	Fig. D
SSR3	-	-	-	-	-	Fig. E	-	Fig. E	-	-
SSR3P	-	Fig. E	-	-	Fig. E	-	-	-	-	-

	Dimensions		
	H/In. (mm)	W/In. (mm)	D/In. (mm)
Fig. A	4.05 (103)	3.54 (90)	4.29 (109)
Fig. B	4.05 (103)	1.77 (45)	4.29 (109)
Fig. C	3.22 (82)	4.64 (118)	4.80 (122)
Fig. D	5.70 (145)	4.80 (122)	4.92 (125)
Fig. E	5.70 (145)	4.80 (122)	4.92 (125)

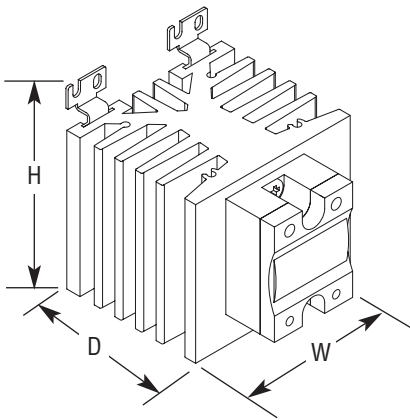


Fig. A

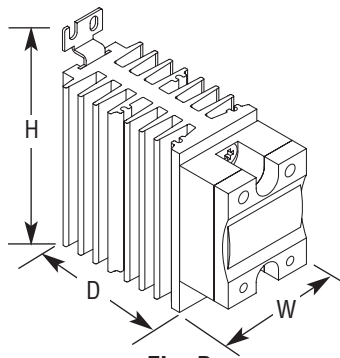


Fig. B

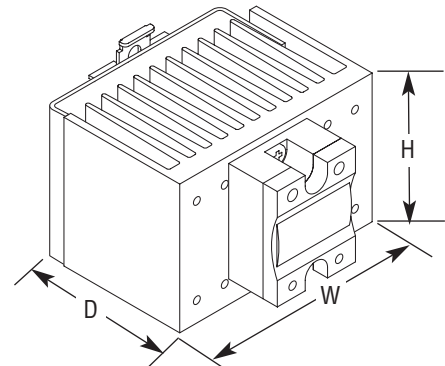


Fig. C

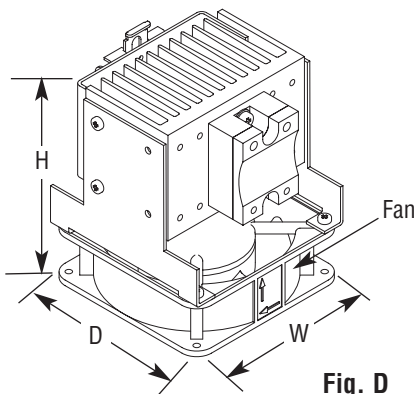


Fig. D

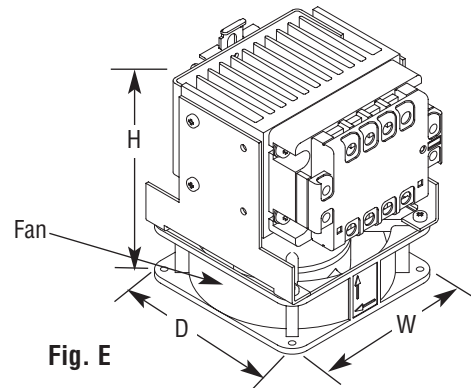


Fig. E

# SSR Series Power Controllers

## Ordering Information

### MODEL

#### SSR Solid State Relay Power Controller

The SSR series are industrial single-phase relays for switching resistive loads. Chromalox SSR series offers the following standard features: Zero-voltage turn-on, LED status indicator, IP20 touch protection clip-on cover, two input ranges, operational rating up to 600 Vac, self-lifting terminals, dv/dt protection, CE mark, UL and CSA approvals.

CODE	Current @ 25°C (77°F) Ambient, 42 - 600Vac	Minimum Heat Sink Required:
25	25 Amp	R $\theta$ = 2.5°C/Watt
50	50 Amp	R $\theta$ = 0.95°C/Watt
75	75 Amp	R $\theta$ = 0.80°C/Watt

CODE	Input Control Voltage
1	4.5 - 32Vdc
2	24 - 265Vac or 24 - 190Vdc

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**SSR 25 1 Typical Model Number**

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### MODEL

#### SSR1 Single Phase Solid State Relay with Heat Sink

The SSR1 series are industrial single-phase relays mounted on heat sinks for switching high current resistive loads. Chromalox SSR1 series offers the following standard features: 40°C Ambient Rating, Zero-voltage turn-on, LED status indicator, IP20 touch protection clip-on cover, two input ranges, operational rating up to 600 Vac, self-lifting terminals, dv/dt protection, DIN rail mount, CE mark, UL and CSA approvals.

CODE	Current @ 40°C (104°F) Ambient, 42 - 600Vac
25	25 Amp
35	35 Amp
50	50 Amp
75	75 Amp

CODE	Input Control Voltage
1	4.5 - 32Vdc
2	24 - 265Vac or 24 - 190Vdc

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**SSR1 25 1 Typical Model Number**

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# SSR Series Power Controllers

## Ordering Information

### MODEL

#### SSR1P Single-Phase, Phase Fired Solid State Relay with Heat Sink

The SSR1P series are industrial single-phase relays mounted on heat sinks for switching high current resistive and inductive loads. Chromalox SSR1P series offers the following standard features: 40°C Ambient Rating, Phase-Angle control, variable intensity LED-indication according to the input current, IP20 touch protection clip-on cover, self-lifting terminals, dv/dt protection, integral snubber network, DIN rail mount, CE mark, UL and CSA approvals.

CODE	Current @ 40°C (104°F) Ambient
25	25 Amp
35	35 Amp
50	50 Amp
70	70 Amp

CODE	Voltage
1	230Vac
2	600Vac

CODE	Input Control Signal
1	4 - 20mA

**SSR1P 25 1 1 Typical Model Number**

### MODEL

#### SSR2 Three Phase 2-Leg Solid State Relay with Heat Sink

The SSR2 series are industrial three-phase 2-leg relays mounted on heat sinks for switching high current resistive loads. Chromalox SSR2 series offers the following standard features: 40°C Ambient Rating, Zero-voltage turn-on, LED status indicator, IP20 touch protection clip-on cover, two input ranges, operational rating up to 600Vac, self-lifting terminals, dv/dt protection, DIN rail mount, CE mark, UL and CSA approvals.

CODE	Current @ 40°C (104°F) Ambient, 42 - 600Vac
25	25 Amp
50	50 Amp Fan Cooled
75	75 Amp Fan Cooled

CODE	Input Control Voltage
1	4.5 - 32Vdc
2	24 - 265Vac or 24 - 190Vdc

**SSR2 25 1 Typical Model Number**

# SSR Series Power Controllers

## Ordering Information

### MODEL

#### SSR3 Three-Phase 3-Leg Solid State Relay with Heat Sink

The SSR3 series are industrial three-phase 3-leg relays mounted on heat sinks for switching resistive loads. Chromalox SSR3 series offers the following standard features: 40°C Ambient Rating, Zero-voltage turn-on, LED status indicator, IP10 back-of-hand protection, 2 input ranges, operational rating up to 600 Vac, self-lifting terminals, dv/dt protection, DIN rail mount, CE mark, UL and CSA approvals.

CODE	Current @ 40°C (104°F) Ambient, 42 - 600Vac
15	15 Amp
25	25 Amp
30	30 Amp
45	45 Amp Fan Cooled
65	65 Amp Fan Cooled

CODE	Input Control Voltage
1	4 - 32Vdc
2	24 - 275Vac/24 - 50Vdc

**SSR3 25 1 Typical Model Number**

### MODEL

#### SSR3P Three-Phase, 3-Leg, Phase Fired Solid State Relay with Heat Sink

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, UL and CSA approvals.

CODE	Current @ 40°C (104°F) Ambient
15	15 Amp
25	25 Amp Fan Cooled
40	40 Amp Fan Cooled

CODE	Voltage
1	230Vac
2	480Vac

CODE	Input Control Voltage
1	4 - 20mA/0-20mA

**SSR3P 25 1 1 Typical Model Number**

#### Note:

SSR3P requires external power supply.

# SSR Series Power Controllers

PK308  
SSR PDS  
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