

Introduction to Silicon Controlled Rectifier (SCR) Power Controllers

Features and Benefits of SCRs

- * **High reliability**
Because the SCR power controller is a solid-state device, it provides virtually limitless, trouble-free operation with a minimum of maintenance.
- * **Infinite resolution**
Power, current or voltage can be controlled from zero to 100% with infinite resolution.
- * **Extremely fast response**
The SCR controller can toggle-load power on and off rapidly, providing the means to respond quickly to command, load and power supply changes.

The SCR

The SCR has two states, *On* and *Off*, and allows current to flow in only one direction. An SCR unit is composed of two SCRs arranged to control AC power. SCRs can remain in the off state even though the applied potential may be several thousand volts; in the on state, they can pass several thousand amperes. When a small signal is applied the SCR will turn on in 10-100 microseconds. Once turned on it will remain on until the current through it is reduced below a very low value called the holding current.

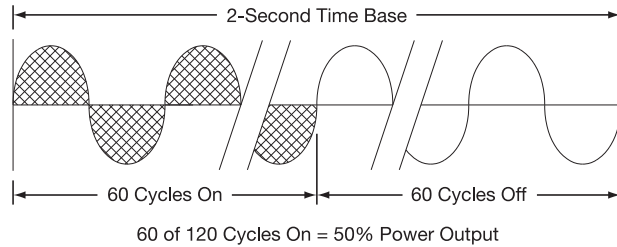
Basically, an SCR power controller consists of the following:

- Semiconductor power devices (SCRs and diodes)
- A control circuit normally referred to as the firing circuit
- A means to dissipate the generated heat
- Protective circuits (fuses and transient suppressors)

True Power Regulation / Current Limit It uses output voltage, current, conduction angle, phase shift, and power factor to monitor and regulate the output. It will provide output power that is constant, regulated and linear to the command signal. This option includes an RMS current limit (adjustable from 35 to 125% of the unit's rating) and has a 0-5 VDC output that is proportional to the load power.

Over-Current Trip Tempco's over-current trip is peak current sensing. The circuit will shut down the SCR within a half-cycle of AC current. It includes an automatic or manual reset that allows the user to select the reset mode after an alarm. A relay output is available for alarming or shutdown. Adjustable from 100 to 300% of the unit's rating.

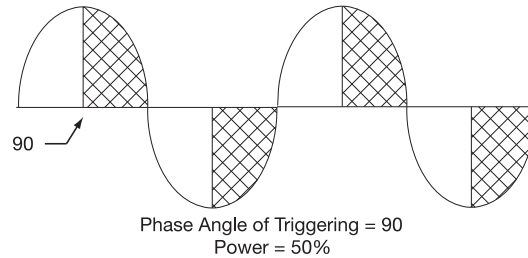
RMS Current Regulation / Over-Current Trip It will hold the output current constant regardless of the load resistance, based upon the command signal input. This option includes an RMS current trip adjustable from 35 to 125% of the unit's rating.



Distributive Zero-Cross Control

The term zero-cross or synchronous operation of SCRs is derived from the fact that the SCRs are turned on only when the instantaneous value of the AC sinusoidal waveform is zero. Zero-cross controllers can provide two rather distinctively different types of control: time proportioning control, and distributive control.

The Distributive Control Technique combines power pulses of short duration to obtain the exact power level proportional to the command signal or setpoint.



Phase-Angle Control

In phase-angle control the SCR unit is turned on at a certain phase angle of the AC power supply that provides the correct percentage of power. Power is regulated by advancing or delaying the point at which the SCR is turned on within each half cycle. Shown is an example of this for 50% power output.

Phase-angle control provides a very fine resolution of power and is used to control fast responding loads such as tungsten-filament lamps or loads in which the resistance changes as a function of temperature. Phase-angle control is required if the load is transformer-coupled or inductive.

Phase-angle controllers are typically more expensive than zero-cross controllers because the phase-angle circuit requires more sophistication than a zero-cross circuit. Phase-angle control of three-phase power requires SCRs in all three legs and is appreciably more expensive than zero-cross control, which only requires SCRs in two of the three legs.

Optional (SCR) Features

RMS Current Limit / Over-Current Trip The output current can be adjusted to automatically limit or clamp the maximum RMS current available from the SCR power control. It is settable from 35 to 125% of the unit's rating. This option includes an RMS current trip adjustable from 35 to 125% of the unit's rating.

Over-Temperature Thermostat These are bi-metal snap action thermostats that open or close when the heat sink's temperature exceeds its maximum operating temperature. Standard on all SCR power controls starting at 90 Amps. Specify NO or NC when ordering, or a NO thermostat will be included.

Load Unbalance Alarm The unbalance alarm monitors and compares the current in each of the three phases. If the current deviates more than the setpoint allows, an alarm relay is actuated.

SCR Module Failure Alarm This option monitors the voltage drop across each of the SCRs. Since most SCRs fail shorted (zero voltage drop) this is the most accurate method to detect a failed SCR module. A relay output is provided.



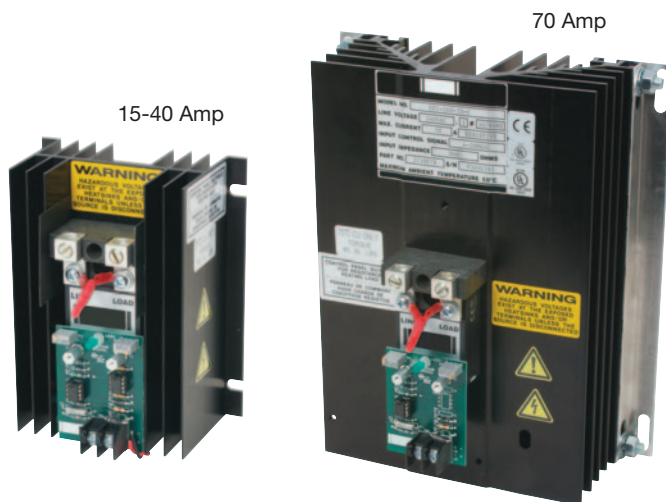
SCR Power Controller "A" Series — Single Phase 15 through 70 Amp

Design Features

- * Electrically Isolated Heat Sink
- * Conservative Thermal Design
- * Voltage Squared Linearity
- * Transient Voltage Protection
- * Multi-Turn Zero & Span Adjustments
- * UL, cUL, CE Compliant

The "A" Series SCR Power Controllers are a compact and economical power control solution for industrial applications that require high reliability and long life. The fast solid state switching provides superior performance over relays, contactors and other slower cycling controllers by reducing temperature variations associated with the longer on-off cycles of those devices. The result is a more precise control of the heating process and extended heater life.

- Fast Cycling Distributive Zero Cross or Phase Angle Firing Control Modes
- Line Voltage Compensation
- Compact Size; Diagnostic LED; Increased Heater Life



Specifications

Command Signals: 4-20mA; 0-5 VDC; 0-10 VDC; potentiometer

Control Mode: Distributive Zero Cross; Phase Angle Firing

Load Current: 15, 25, 40 or 70 Amps

Line Voltage: 120, 240, 480, or 575 VAC; +10% -20% 50/60 Hz

Zero and Span: Factory pre-set. User adjustable over a range of 20% of span.

Transient Voltage and dv/dt: 200 volts/microsecond minimum. Uses a dv/dt snubber and a metal oxide varistor. (MOV)

Control Range

Zero Cross: 0 to 100% of line voltage

Phase Angle Firing: 0 to 97% of line voltage

Linearity

Zero Cross: Linear with respect to the command signal

Phase Angle Firing: RMS load voltage is linear within 2% of the command signal.

Temperature

Operating: 32 to 122°F (0 to 50°C)

Storage: 14 to 198°F (-10 to 70°C)

Cooling: Convection

Mounting: Panel mount with heat sink fins vertical

Dimensions

15-40 Amp units—Overall: 4.75"W × 6.0"H × 3.1"D

Mounting Centers: 4.35"W × 4.5"H

70 Amp units—Overall: 8.5"W × 10"H × 5"D

Mounting Centers: 8.0"W × 8.75"H

Weight

15-40 Amp units: 1.2 lb.

70 Amp units: 3 lb

Notes: Fusing is not included. Class T fuses are recommended.

All control input configurations require 24 VAC power supply except zero cross with 4-20mA input.



"A" Series SCR Power Controllers are offered with the options listed in the worksheet below. Fill in the boxes with the appropriate number and/or letter designation for your requirements and a part number will be assigned.

Ordering Code: **SRSA** -

Control Mode BOX 1

Z: Distributive Zero Cross
P: Phase Angle Fire

Load Current BOX 2

xx: 15, 25, 40 or 70 Amps

Line Voltage BOX 3

1: 120 VAC
2: 240 VAC
3: 480 VAC
4: 575 VAC

Control Input BOX 4

A: 4 to 20 mA
B: 0 to 5 VDC
C: 0 to 10 VDC
D: Potentiometer

Note: All control input types require additional 24 VAC power input, except zero cross firing with 4-20mA.

Options (up to two) BOXES 5, 6

(for zero cross or phase angle fire models)
E: Over-Temperature Thermostat – N.O. Contacts
F: Over-Temperature Thermostat – N.C. Contacts
N: None
(for phase angle fire models only)
C: RMS Current Limit
J: Over-Current Trip

COMMON CONFIGURATIONS — "A" SERIES 240 VAC; 1-phase; 4-20 mA input

Load Current:	Zero Cross	Phase Angle	Part Number
15 Amp	SRS01101	SRS02101	
25 Amp	SRS01102	SRS02102	
40 Amp	SRS01103	SRS02103	
70 Amp	SRS01104	SRS02104	

Potentiometer Kit (ordered separately): 5KΩ potentiometer and knob
Part number: SRS99001

Multi-Tap Transformer **Input:** 120/240V, 400V, 480V or 575V
Output: 24VAC
Part number: SRS99002

Standard lead time is 2 to 3 weeks.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

(800) 323-6859 • Email: sales@tempco.com

Temperature Controllers



Single Phase SCR Power Controllers

SCR Power Controller "B" Series—Single Phase 60 through 1200 Amp

The "B" Series SCR Power Controllers are a compact and economical power control solution for industrial applications that require high reliability and long life. The fast solid state switching provides superior performance over relays, contactors and other slower cycling controllers by reducing temperature variations associated with the longer on-off cycles of those devices. The result is a more precise control of the heating process and extended heater life.

Design Features

- * Conservative Thermal Design
- * Compact Size
- * Voltage Squared Linearity
- * Line Voltage Protection
- * Includes Semiconductor I²T Fuses
- * Diagnostic Indicators
- * Multi-Turn Zero & Span Adjustments
- * UL, cUL Compliant



Specifications

Command Signals: 4-20mA; 0-5 VDC; 0-10 VDC; potentiometer

Control Mode: Distributive Zero Cross; Phase Angle Firing

Load current: Zero Cross or Phase Angle Fire Output

Amperage Ratings: 60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200

Line Voltage: 120, 240, 480, or 575 VAC; 10% to 20% 50/60 Hz

Zero and Span: Factory pre-set. User adjustable over a range of 20% of span.

Transient Voltage and dv/dt: 200 volts/microsecond minimum. Uses a dv/dt snubber and a metal oxide varistor (MOV).

Control Range

Zero Cross: 0 to 99.5% of line voltage

Phase Angle Firing: 0 to 97% of line voltage

Linearity

Zero Cross: Linear with respect to the command signal

Phase Angle Firing: RMS load voltage is linear within 2% of the command signal.

"B" Series SCR Power Controllers are offered with the options listed in the worksheet below. Fill in the boxes with the appropriate number and/or letter designation for your requirements and a part number will be assigned.

Temperature

Operating: 32 to 122°F (0 to 50°C)

Storage: 14 to 158°F (-10 to 70°C)

Cooling: 60 Amp convection; all others fan cooled

Mounting: Panel mount with heat sink fins vertical

Dimensions

60-225 Amp units—Overall: 9.5"W × 16.25"H × 9.25"D

Mounting Centers: 7.0"W × 15.69"H

350 and 500 Amp units—Overall: 14.75"W × 20.125"H × 8.5"D

Mounting Centers: 13.0"W × 18.375"H

650 Amp units—Overall: 16.75"W × 23.0"H × 11.5"D

Mounting Centers: 15.75"W × 22.0"H

800-1200 Amp units: Overall: 16.75"W × 29.0"H × 12.0"D

Mounting Centers: 15.75"W × 13.0" Top/15.0" Bottom

Weight

60-225 Amp units: 22 lbs

350-500 Amp units: 24 lbs

600 Amp units: 47 lbs

800-1200 Amp units: 71 lbs

Ordering Code: **SRSB** -

Control Mode BOX 1

Z: Distributive Zero Cross
P: Phase Angle Fire

Load Current BOX 2

xxxx: 60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200 Amps

Line Voltage BOX 3

1: 120 VAC
2: 240 VAC
3: 480 VAC
4: 575 VAC

Options (up to three) BOXES 5, 6, 7

(for zero cross models only)

E: Over Temperature Thermostat – Normally Open

F: Over Temperature Thermostat – Normally Closed

(for phase angle fire models only)

A: True Power Regulation / Current Limit

B: Over-Current Trip

C: RMS Current Regulation / Over-Current Trip

D: RMS Current Limit / Over-Current Trip

E: Over Temperature Thermostat – N.O. Contacts

F: Over Temperature Thermostat – N.C. Contacts

N: None

Control Input BOX 4

A: 4 to 20 mA
B: 0 to 5 VDC
C: 0 to 10 VDC
D: Potentiometer



Note: Over-temperature thermostat is standard on 90 Amp controls and over — Specify N.O or N.C. when ordering

COMMON CONFIGURATIONS — "B" SERIES

240 VAC; 1 phase; 4-20 mA control input; Includes Over Temperature Thermostat – N.O. for controls 90 Amp and over.

Part Number

Load Current:	Zero Cross	Phase Angle
60 Amp	SRS03101	SRS04101
90 Amp	SRS03102	SRS04102
120 Amp	SRS03103	SRS04103
180 Amp	SRS03104	SRS04104
225 Amp	SRS03105	SRS04105
350 Amp	SRS03106	SRS04106

Standard lead time is 3 to 4 weeks.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Potentiometer Kit (ordered separately): 5KΩ potentiometer and knob – Part Number: **SRS99001**

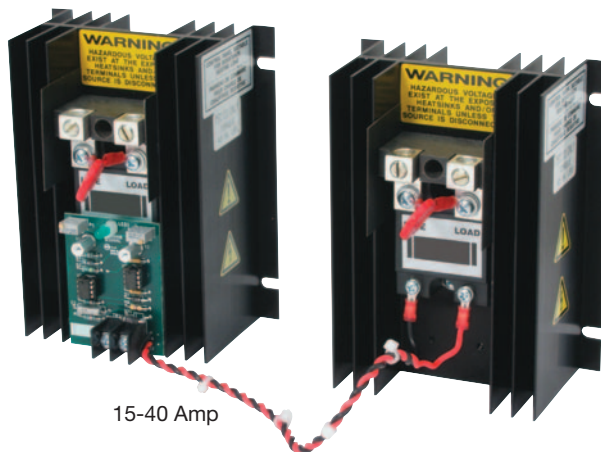


SCR Power Controller "C" Series — Three Phase 15 through 70 Amp (2-Leg – Zero Cross)

Design Features

- * Electrically Isolated Heat Sink
- * Conservative Thermal Design
- * Voltage Squared Linearity
- * Transient Voltage Protection
- * Multi-Turn Zero & Span Adjustments
- * UL, cUL, CE Compliant
- * Ideal for: Electric Ovens, Furnaces and Kilns, Environmental Chambers and Extruders

The "C" Series SCR Power Controllers are two-leg zero cross SCR power controllers that linearly control, proportional to the command signal, the power applied to a 3-phase electrical load. The controller consists of a master and slave assembly. Each assembly consists of a heat sink and an SCR module. The master assembly contains the control circuit card which controls the on-off cycles for both assemblies.



Specifications

- Command Signals:** 4-20mA; 0-5 VDC; 0-10 VDC; potentiometer
Control Mode: Distributive Zero Cross
Load Current: 15, 25, 40 or 70 Amps
Line Voltage: 208, 240, 277, 480 or 575 VAC; 10% to 20% 50/60 Hz
Zero and Span: Factory pre-set. User adjustable over a range of 20% of span.
Transient Voltage and dv/dt: 500 volts/microsecond minimum.
 Uses a dv/dt snubber and a metal oxide varistor (MOV).
Control Range: 0 to 100% of line voltage
Linearity: Average load voltage is linear within 1% of the command signal.

- Temperature**
Operating: 32 to 122°F (0 to 50°C)
Storage: 14 to 158°F (-10 to 70°C)
Cooling: Convection
Mounting: Panel mount with heat sink fins vertical
Dimensions
15-40 Amp units—Overall: 9.61"W × 6.0"H × 3.1"D
Mounting Centers: 4.35"W × 4.5"H (each heat sink)
70 Amp units—Overall: 17.25"W × 10"H × 5"D
Mounting Centers: 8.0"W × 8.75"H (each heat sink)

- Weight**
15-40 Amp units: 2.5 lbs **70 Amp units:** 5.7 lbs



Notes: Fusing is not included. Class T fuses are recommended. All control input configurations require 24 VAC power supply except zero cross with 4-20mA input.

"C" Series SCR Power Controllers are offered with the options listed in the worksheet below. Fill in the boxes with the appropriate number and/or letter designation for your requirements and a part number will be assigned.

Ordering Code: **SRTC** - 1 2 3 4 5

Control Input BOX 1

- A:** 4 to 20 mA
- B:** 0 to 5 VDC
- C:** 0 to 10 VDC
- D:** Potentiometer

Note: All control input types require additional 24 VAC power input, except 4-20mA.

Load Current BOX 2

xx: 15, 25, 40 or 70 Amps

Line Voltage BOX 3

- 1:** 120 VAC
- 2:** 240 VAC
- 3:** 480 VAC
- 4:** 575 VAC

Options (up to two) BOXES 4, 5

- E:** Over Temperature Thermostat – N.O. Contacts
- F:** Over Temperature Thermostat – N.C. Contacts
- G:** Load Unbalance Alarm
- H:** SCR Failure Alarm
- N:** None

COMMON CONFIGURATIONS — "C" SERIES

240 VAC; 3-phase; 2-leg; Zero cross firing; 4-20 mA input

Load Current:	Part Number
15 Amp	SRT01101
25 Amp	SRT01102
40 Amp	SRT01103
70 Amp	SRT01104

Potentiometer Kit (ordered separately): 5KΩ potentiometer and knob
 Part number: **SRS99001**

Multi-Tap Transformer **Input:** 120/240V, 400V, 480V or 575V
Output: 24V
 Part number: **SRS99002**

Standard lead time is 2 to 3 weeks.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

(800) 323-6859 • Email: sales@tempco.com

Temperature Controllers



Three Phase SCR Power Controllers

SCR Power Controller "D" Series — Three-Phase 60 through 1200 Amp (2-leg – Zero Cross)

The "D" Series SCR Power Controllers are two-leg zero cross SCR power controls that linearly control, proportional to the command signal, the power applied to a 3-phase electrical load.

The Series "D" controller features a compact design, a single plug-in circuit card for ease of operation and an electrically isolated heat sink. All three leads are fused.

Design Features

- * Back to Back SCRs
- * Includes 3 Semiconductor P²T fuses
- * Line Voltage Compensation
- * Diagnostic Indicators (Control Power, Command Signal, Blown Fuse)
- * Fan Cooled on 90 Amp and higher units
- * Transient Voltage Protection
- * Voltage Squared Linearity
- * Electrically Isolated Heat Sink
- * Multi-Turn Zero & Span Adjustments
- * UL, cUL, CE Compliant

Partial case shown for 60 to 225 Amp units. 350 Amp and up use a caseless, open panel mount design.



Specifications

Command Signals: 4-20 mA; 0-5 VDC; 0-10 VDC; potentiometer

Control Mode: Distributive Zero Cross

Load Current per Leg: 60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200 Amps

Line Voltage: 208, 240, 480 or 575 VAC; 10% to 20% 50/60 Hz

Zero and Span: Factory pre-set. User adjustable over a range of 20% of span.

Transient Voltage and dv/dt: 200 volts/microsecond minimum. Uses a dv/dt snubber and a metal oxide varistor (MOV).

Control Range: 0 to 99.5% of line voltage

Linearity: Average load voltage is linear within 2% of the command signal.

Temperature

Operating: 32 to 122°F (0 to 50°C)

Storage: 14 to 158°F (-10 to 70°C)

Cooling: 60A convection; all others fan cooled

Mounting: Panel mount with heat sink fins vertical

Dimensions

(60 to 225 Amp units use a partial case design. 350 Amp and up use a caseless, open panel mount design.)

60-225 Amp units—Overall: 12.5"W × 16.25"H × 9.25"D
Mounting Centers: 10.0"W × 15.69"H

350 and 500 Amp units—Overall: 19.0"W × 20.125"H × 8.5"D
Mounting Centers: 17.25"W × 18.375"H

650 Amp units—Overall: 24.0"W × 23.0"H × 11.5"D
Mounting Centers: 23.0"W × 22.0"H

800-1200 Amp units: Overall: 27.0"W × 29.0"H × 11.75"D
Mounting Centers: 26.0"W × 13.75" Top/14.25" Bottom

Weight

60-225 Amp units: 31 lbs

350-500 Amp units: 41 lbs

650 Amp units: 87 lbs

800-1200 Amp units: 180 lbs

Ordering Code: SRTD - 1 2 3 4 5

"D" Series SCR Power Controllers are offered with the options listed in the worksheet at right. Fill in the boxes with the appropriate number and/or letter designation for your requirements and a part number will be assigned.

Control Input BOX 1

- A:** 4-20 mA
- B:** 0-5 VDC
- C:** 0-10 VDC
- D:** Potentiometer

Line Voltage BOX 3

- 8:** 208 VAC
- 2:** 240 VAC
- 3:** 480 VAC
- 4:** 575 VAC

Load Current BOX 2

xxxx: **60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200** Amps

Options (up to two) BOX 4, 5

- E:** Over-Temperature Thermostat – N.O. Contacts
- F:** Over-Temperature Thermostat – N.C. Contacts
- G:** Load Unbalance Alarm
- H:** SCR Failure Alarm
- N:** None

COMMON CONFIGURATIONS – "D" SERIES

240 VAC; 3-phase; 2-leg; zero cross firing;

4-20 mA control input; Includes Over-

Temperature Thermostat – N.O. for controls 90 Amp and over

Load Current:	Part Number
60 Amp	SRT02101
90 Amp	SRT02102
120 Amp	SRT02103
180 Amp	SRT02104
225 Amp	SRT02105
350 Amp	SRT02106

Standard lead time is 3 to 4 weeks.



Note: Over-temperature thermostat is standard on 90 Amp controls and over — Specify N.O or N.C. when ordering

Potentiometer Kit (ordered separately):
5KΩ potentiometer and knob
Part number: **SRS99001**

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.



Temperature Controllers

Three Phase SCR Power Controllers

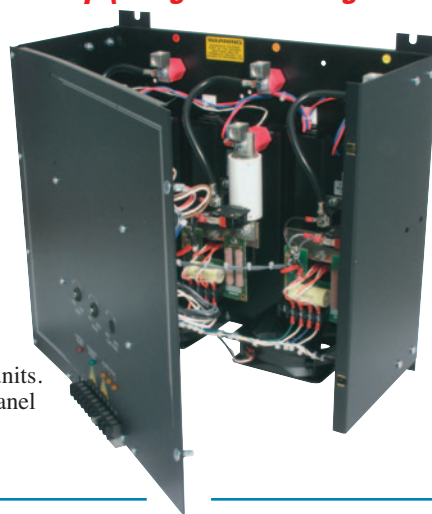
SCR Power Controller "E" Series — Three-Phase 60 through 1200 Amp (3-leg – Phase Angle Fire)

The "E" Series SCR Power Controllers are three-phase, six SCR, phase angle power controls. 5 LEDs monitor line, command signal, 3-line current. They are ideal for electric ovens, furnaces and kilns, silicone carbide, transformer coupled loads.

Design Features

- * Back to Back SCRs
- * Includes 3 Semiconductor I²T Fuses
- * Line Voltage Compensation
- * Diagnostic Indicators (Control Power, Command Signal, Blown Fuse)
- * Fan Cooled on 90 Amp and Higher Units
- * Transient Voltage Protection
- * Voltage Squared Linearity
- * Electrically Isolated Heat Sink
- * Multi-Turn Zero & Span Adjustments
- * UL, cUL, CE Compliant

Partial case shown for 60 to 225 Amp units. 350 Amp and up use a caseless, open panel mount design.



Specifications

- Command Signals:** 4-20 mA; 0-5 VDC; 0-10 VDC; potentiometer
- Control Mode:** 3-Leg – Phase Angle Fire
- Load Current:** 60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200 Amps
- Line Voltage:** 120, 208, 240, 380, 415, 480 or 575 VAC; 10 to 20% 50/60 Hz
- Zero and Span:** Factory pre-set. User adjustable over a range of 25% of span.
- Transient Voltage and dv/dt:** 200 volts/microsecond minimum. Uses a dv/dt snubber and a metal oxide varistor (MOV).
- Control Range:** 0 to 98% of line voltage
- Linearity:** Average load voltage is linear within 2% of the command signal.
- Options Available:** See Ordering Box
- Temperature**
Operating: 32 to 122°F (0 to 50°C)
Storage: 14 to 158°F (-9 to 70°C)
- Cooling:** 60A convection; All others fan cooled)

Mounting: Panel mount with heat sink fins vertical, or any position if fan cooled

Dimensions

(60 to 225 Amp units use a partial case design. 350 Amp and up use a caseless, open panel mount design.)

- 60-225 Amp units—Overall:** 17.5"W × 16.25"H × 9.25"D
Mounting Centers: 15.0"W × 15.69"H
- 350 and 500 Amp units—Overall:** 19.0"W × 31.0"H × 8.5"D
Mounting Centers: 17.25"W × 14.37" Top/14.37" Bottom
- 650 Amp units—Overall:** 24.0"W × 34.75"H × 11.25"D
Mounting Centers: 23.0"W × 16.25" Top/17.5" Bottom
- 800-1200 Amp units: Overall:** 27.0"W × 38.75"H × 11.75"D
Mounting Centers: 26.0"W × 17.25" Top/20.5" Bottom

Weight

- 60-225 Amp units:** 40 lbs **350-500 Amp units:** 60 lbs
650 Amp units: 126 lbs **800-1200 Amp units:** 231 lbs

Ordering Code: **SRTE** - 1 2 3 4 5 6

Series "E" SCR Power Controllers are offered with the options listed in the worksheet at right. Fill in the boxes with the appropriate number and/or letter designation for your requirements and a part number will be assigned.

COMMON CONFIGURATIONS – "E" SERIES

240 VAC; 3-phase; Phase Angle Firing;
4-20 mA control input; Includes
Over-Temperature Thermostat – N.O.
for controls 90 Amp and over.

Load Current:	Part Number
60 Amp	SRT03101
90 Amp	SRT03102
120 Amp	SRT03103
180 Amp	SRT03104
225 Amp	SRT03105
350 Amp	SRT03106

Control Input BOX 1

- A:** 4-20 mA
- B:** 0-5 VDC
- C:** 0-10 VDC
- D:** Potentiometer

Load Current BOX 2

xxxx: **60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200** Amps

Line Voltage BOX 3

- 1:** 120 VAC
- 8:** 208 VAC
- 2:** 240 VAC
- 3:** 480 VAC
- 4:** 575 VAC
- 5:** 415 VAC

Options (up to three) BOXES 4, 5, 6

- A:** True Power Regulation/Current Limit
- B:** Over-Current Trip
- C:** RMS Current Regulation/Over-Current Trip
- D:** RMS Current Limit/Over-Current Trip
- E:** Over-Temperature Thermostat – N.O. Contacts
- F:** Over-Temperature Thermostat – N.C. Contacts
- G:** Load Unbalance Alarm
- H:** SCR Failure Alarm
- N:** None



Note: Over-temperature thermostat is standard on 90 Amp controls and over. Specify N.O or N.C. when ordering.

Standard lead time is 3 to 4 weeks.

Potentiometer Kit (ordered separately):

5KΩ potentiometer and knob
Part number: **SRS99001**

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.