



# Temperature Controllers

## Three Phase SCR Power Controllers

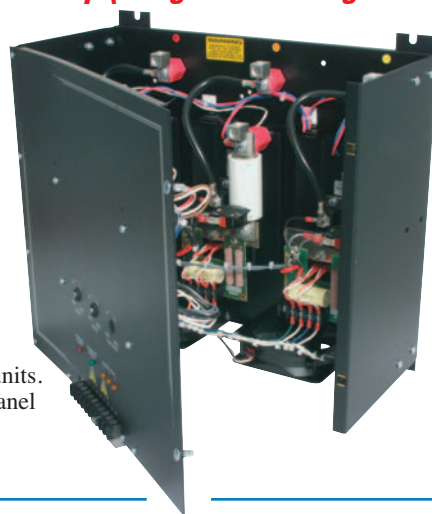
### SCR Power Controller "E" Series — Three-Phase 60 through 1200 Amp (3-leg – Phase Angle Fire)

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 I<sup>2</sup>T 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  
**650 Amp units:** 126 lbs  
**350-500 Amp units:** 60 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](http://www.P65Warnings.ca.gov).