

# RF1 SCR SERIES

## POWER CONTROLS

The RF1 SCR Series is designed to deliver maximum power control with all of the features normally found in much larger units. Utilizing only two frame sizes, these units are conservatively engineered for years of trouble free service while providing the benefits of precise, reliable control of for your electronic process.

The RF1 SCR Series accepts all standard voltage and current command signals or remote potentiometer input. The 4-20 mA command signal is optically isolated. Standard operating voltages are 120, 240, 400, 480 & 575 Vac, 50/60Hz.

Multi-turn Zero and span adjustments are provided for matching the SCR power control to the command signal. Control power, command signal and blown fuse indicators are provided as means for trouble shooting. The control power indicator (red) indicates power has been applied to the unit. The command signal indicators' (green) brilliance is proportional to the output voltage. The blown fuse indicator (yellow) light if the fuse is cleared.

### Applications:

Primarily used to control transformer coupled RF loads.

**30-225 Amperes  
Single-phase  
Phase-fired**



- 5 year "No Hassle" warranty
- Electrically Isolated Heatsink
- Compact Size
- Conservative Thermal Design
- Voltage Squared Linearity
- Line voltage compensation
- Transient voltage Protection (RC & MOV)
- 1400 PIV SCRs
- Semiconductor (I<sup>2</sup>T) Fuse
- Diagnostic Indicators
- Optically Isolated input Command Signal (4-20 mA)
- Multi-Turn Zero & Span Adjustments
- Over current trip included

## SPECIFICATIONS:

**Control Method:** Phase-firing of back-to-back SCRs

**Voltage Rating:** 120, 240, 400, 480, 575 Vac

**Line Frequency:** 50 / 60 Hz

**Current Ratings:** 30, 60, 90, 120, 225 Amperes

**Command Signal:** Most standard process signals

**Adjustments:** Zero and Span, multi-turn

**Linearity:** Output is linear within 2% of span over entire range of control

**Isolation:** 2500 volts rms from power circuit to command signal and to ground

**Overtemp Protection:** Heatsink thermostat provided on 90 A and higher models

**Ambient Temperature:** Operating: 0 °C to 50 °C

**Relative humidity:** 0 to 95% (non-condensing)

## HOW TO ORDER:

Make a selection from each of the tables below. Place the selection in the corresponding boxes to build your model.

RF1 -  -  -  -

VOLTAGE*		CURRENT		OPTIONS		COMMAND	
120 Vac	<input type="text" value="120"/>	30 A	<input type="text" value="30"/>	N.O. Thermostat ◊	<input type="text" value="NO"/>	4-20 mA	<input type="text" value="01"/>
240 Vac	<input type="text" value="240"/>	60 A	<input type="text" value="60"/>	N.C. Thermostat ◊	<input type="text" value="NC"/>	0-10 Vdc	<input type="text" value="02"/>
400 Vac	<input type="text" value="400"/>	90 A	<input type="text" value="90"/>	Lug Kit (< 225 A)	<input type="text" value="LG"/>	0-5 Vdc	<input type="text" value="03"/>
480 Vac	<input type="text" value="480"/>	120 A	<input type="text" value="120"/>	Fuse Kit	<input type="text" value="FK"/>	Auto/Manual	<input type="text" value="04"/>
575 Vac	<input type="text" value="575"/>	180 A	<input type="text" value="180"/>	Multiple options may be selected		Manual Pot Input <sup>^</sup>	<input type="text" value="05"/>
		225 A	<input type="text" value="225"/>			Others	<input type="text" value="06-99"/>

\* Other voltages available

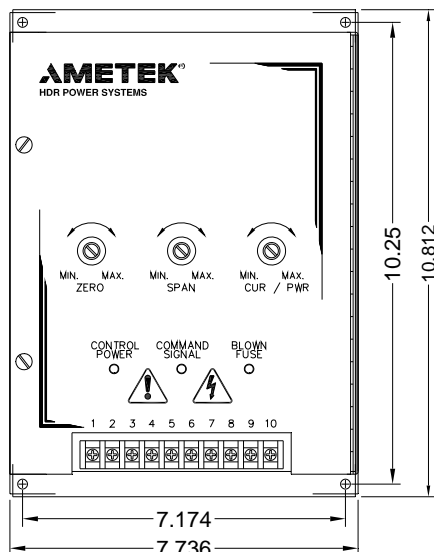
Consult Factory for other sizes

◊ Thermostat included above 60 A, specify N.O. or N.C.

<sup>^</sup> Manual Pot requires external potentiometer (5 kΩ)

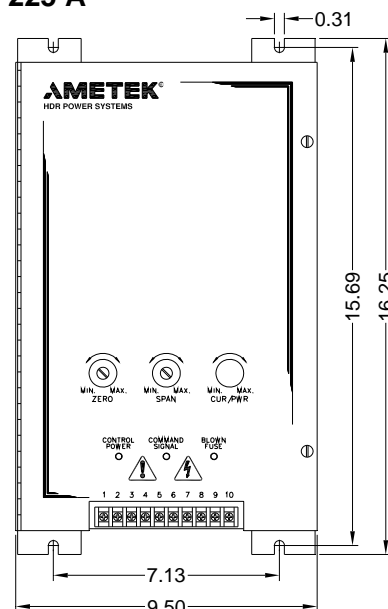
## OUTLINES:

### 30 thru 60 A



Depth: 6.279 in  
Weight: 6 lbs

### 90 thru 225 A



Depth: 9.25 in  
Weight: 18 lbs