

# SHZF1 SCR SERIES

## POWER CONTROLS

The SHZF1 SCR Series are single-phase, zero-fired SCR Power Controls 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 SHZF1 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) lights if the fuse is cleared (60-120 A).

### Applications:

Primarily used to control static resistive non-inductive loads.

- Small electric furnaces
- Electric ovens, kilns, heaters
- Extrusion or injection molding

**15-120 Amperes  
Single-phase  
Zero-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
- UL, cUL Listed, CE Compliant
- Fan Cooled (90 A and higher)



**100kA  
SCCR**



**AMETEK®**  
HDR POWER SYSTEMS

530 Lakeview Plaza Blvd Ste C  
Worthington, Ohio 43085  
Toll Free: 1-888-PWR-CNTR (797-2685)  
Phone: 614-308-5500  
Fax: 614-308-5506  
www.hdrpower.com

## SPECIFICATIONS:

**Control Method:** Zero-firing of six back-to-back SCRs

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

**Line Frequency:** 50 / 60 Hz

**Current Ratings:** 15, 30, 40, 60, 70, 90, 120, 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.

**SHZF3** -  -  -  -

VOLTAGE*		CURRENT		OPTIONS		COMMAND	
120 Vac	<input type="text" value="120"/>	15 A	<input type="text" value="15"/>	N.O. Thermostat ◇	<input type="text" value="NO"/>	4-20 mA	<input type="text" value="01"/>
240 Vac	<input type="text" value="240"/>	30 A	<input type="text" value="30"/>	N.C. Thermostat ◇	<input type="text" value="NC"/>	0-10 Vdc	<input type="text" value="02"/>
400 Vac	<input type="text" value="400"/>	40 A	<input type="text" value="40"/>			0-5 Vdc	<input type="text" value="03"/>
480 Vac	<input type="text" value="480"/>	60 A	<input type="text" value="60"/>			Auto/Manual	<input type="text" value="04"/>
575 Vac	<input type="text" value="575"/>	70 A	<input type="text" value="70"/>			Manual Pot Input^	<input type="text" value="05"/>
		90 A	<input type="text" value="90"/>			Others	<input type="text" value="06-99"/>
		120 A	<input type="text" value="120"/>				

\* Other voltages available

◇ Thermostat included above 70 A, specify N.O. or N.C.

^ Manual Pot requires external potentiometer (5 kΩ)

## OUTLINES:

15 thru 60 A

70 thru 120 A

