# MODEL **SHZF3** SERIES Power Controls

Three-Phase (3 & 4 Wire) Zero-Fired Models Rated 15 - 225 Amperes

The **SHZF3 Series** is designed to deliver maximum power control with all 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 for your electrical process.

The SHZF3 Series accepts all standard voltage and current command signals or a remote potentiometer input. The 4-20 mA command signal is optically isolated. Standard operating voltages are 120, 240, 400, 480 & 575 Vac, 3 Phase, 50/60 Hz. Other voltages are available.

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 a means for trouble shooting. The control power indicator (red) indicates power has been applied to the unit. The command signal indicator's (green) brilliance is proportional to the output voltage. The blown fuse indicators (3-yellow) light if the fuse is cleared (60-225A).



# **MODEL SHZF3**

- Electrically Isolated Heat Sinks
- Conservative Thermal Design
- Compact Size
- 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
- Silkscreen Printed Circuit Boards
- UL,cUL Listed, CE Compliant
- 5 year "No Hassle" warranty
- Fan Cooled (90A and higher)

#### **Applications:**

Primarily used to control static resistive, non-inductive 3 or 4 wire loads.

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

#### **SPECIFICATIONS:**

Control Method: Zero-firing of six

back-to-back SCRs

(3 leg Control)

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

3 phase, 50/60 Hz,

**Current Ratings:** 15, 25, 30, 60, 90, 120, 180,

225 Amperes

Command Signal: Most standard process

signals

**Isolation:** 2500 volts rms from power

circuit to command signal

and to ground

Adjustments: Zero and span, multi-turn

Ambient Temperature: Operating: 0° to 50° C

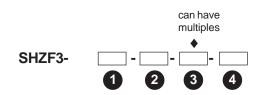
Storage: -10° to 70° C

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

**Weights:** 15, 25A 11 lbs. 30-225A 33 lbs.

#### **HOW TO ORDER:**

Make one selection from each of the tables shown. Place the selections in the corresponding boxes to build your model number.



#### 1 VOLTAGE TABLE\*

120 Vac	120	1
240 Vac	240	2
400 Vac	400	3
480 Vac	480	6
575 Vac	575	9
		12

\*Other voltages available

### 2 CURRENT TABLE

15	Amps	15
25	Amps	25
30	Amps	30
60	Amps	60
90	Amps	90
120	Amps	120
IBN	Amns	180

180 Amps 225 Amps

## 3 OPTION TABLE <sup>Δ</sup>

N.O. Thermostat
N.C. Thermostat
Load Unbalance Alarm
SCR Failure Alarm

NO
NC
UB
SF

 4-20 mA (Self Powered)
 01

 0-10 VDC
 02

 0-5 VDC
 03

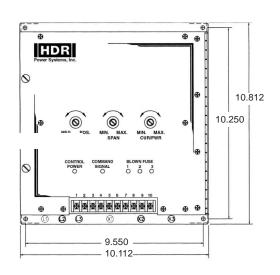
 Auto/Man
 04

 \*Manual Pot Input Others
 06-99

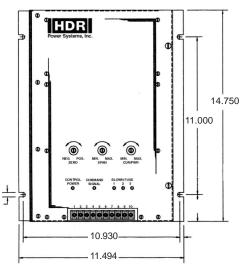
**COMMAND SIGNAL TABLE** 

#### **DIMENSIONS:**

15, 25 A



#### 30 thru 225 A



Depth 6.376

Specifications subject to change without notice

Depth 9.508

<sup>&</sup>lt;sup>∆</sup> Thermostat included above 60A Specify N.O. or N.C.

<sup>\*</sup>Requires external potentiometer (5k)