

# 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 (<sup>1</sup>/<sub>2</sub>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

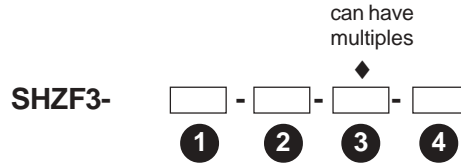
**Ambient Temperature:** Operating: 0° to 50° C  
Storage: -10° to 70° C

**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	<input type="text" value="120"/>
240 Vac	<input type="text" value="240"/>
400 Vac	<input type="text" value="400"/>
480 Vac	<input type="text" value="480"/>
575 Vac	<input type="text" value="575"/>

\*Other voltages available

## 2 CURRENT TABLE

15 Amps	<input type="text" value="15"/>
25 Amps	<input type="text" value="25"/>
30 Amps	<input type="text" value="30"/>
60 Amps	<input type="text" value="60"/>
90 Amps	<input type="text" value="90"/>
120 Amps	<input type="text" value="120"/>
180 Amps	<input type="text" value="180"/>
225 Amps	<input type="text" value="225"/>

## 3 OPTION TABLE <sup>Δ</sup>

N.O. Thermostat	<input type="text" value="NO"/>
N.C. Thermostat	<input type="text" value="NC"/>
Load Unbalance Alarm	<input type="text" value="UB"/>
SCR Failure Alarm	<input type="text" value="SF"/>

<sup>Δ</sup> Thermostat included above 60A  
Specify N.O. or N.C.

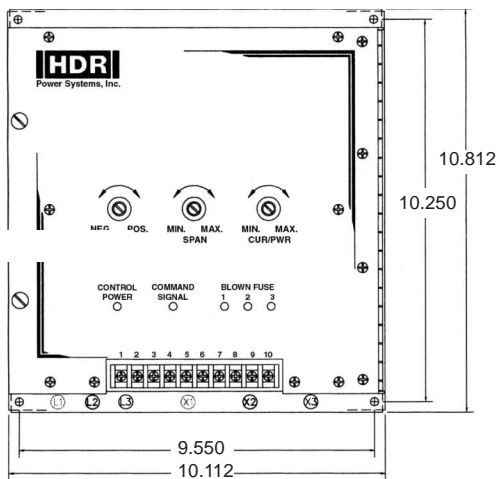
## 4 COMMAND SIGNAL TABLE

4-20 mA (Self Powered)	<input type="text" value="01"/>
0-10 VDC	<input type="text" value="02"/>
0-5 VDC	<input type="text" value="03"/>
Auto/Man	<input type="text" value="04"/>
*Manual Pot Input	<input type="text" value="05"/>
Others	<input type="text" value="06-99"/>

\*Requires external potentiometer (5k)

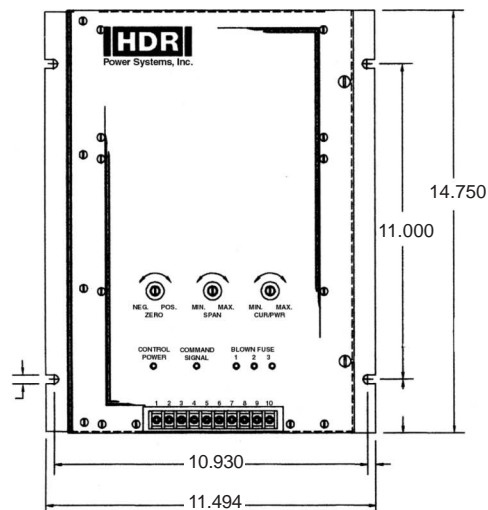
# DIMENSIONS:

15, 25 A



Depth 6.376

30 thru 225 A



Depth 9.508