

# MODEL PF3 SERIES

## Power Controls

Three-Phase (6 SCR) Phase-Fired  
Models Rated 60 - 1200 Amperes

The **PF3 Series** are three-phase (6 SCR), phase-fired SCR Power Controls designed to deliver maximum power control with all the features normally found in much larger units. Utilizing only four 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 PF3 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, 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 a fuse is cleared.



## MODEL PF3

- Electrically Isolated Heat Sinks (60-225A)
- 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
- Silkscreen Printed Circuit Boards
- UL,cUL Listed, CE Compliant
- 5 year "No Hassle" warranty
- Fan Cooled (90A and higher)
- DC Output Available

## Applications:

Primarily used to control static resistive or non-inductive loads.

- High temperature furnaces
- Large ovens, kilns & heaters
- IR Heating

**AMETEK**<sup>®</sup>  
HDR POWER SYSTEMS

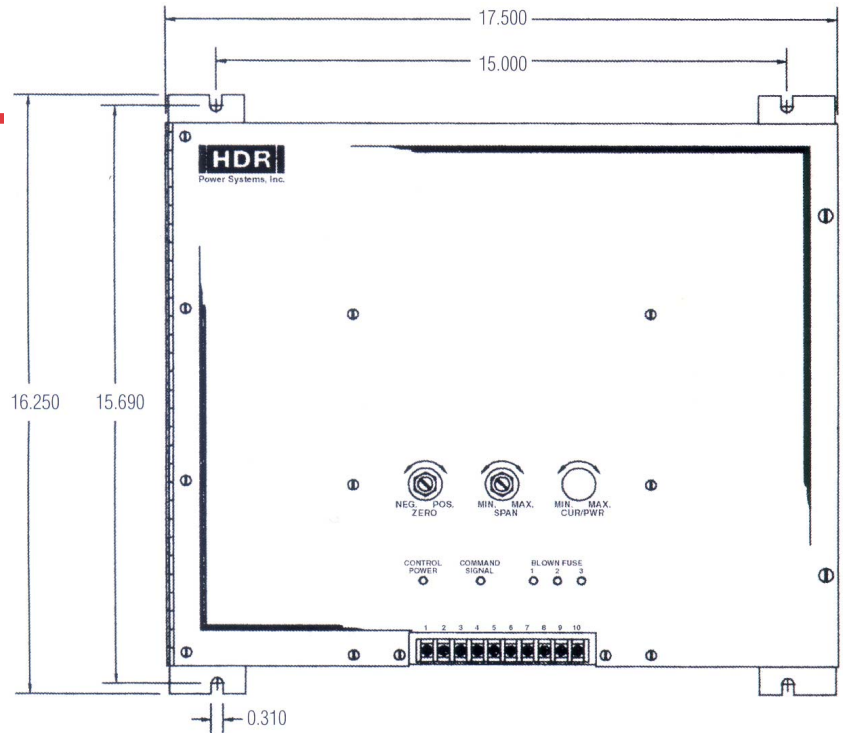
George R. Peters Associates ENGINEERING SALES REPRESENTATIVES

(248) 524-2211 • Fax (248) 524-1758

Web Site: [www.grpeters.com](http://www.grpeters.com)

## Model PF3 60-225A

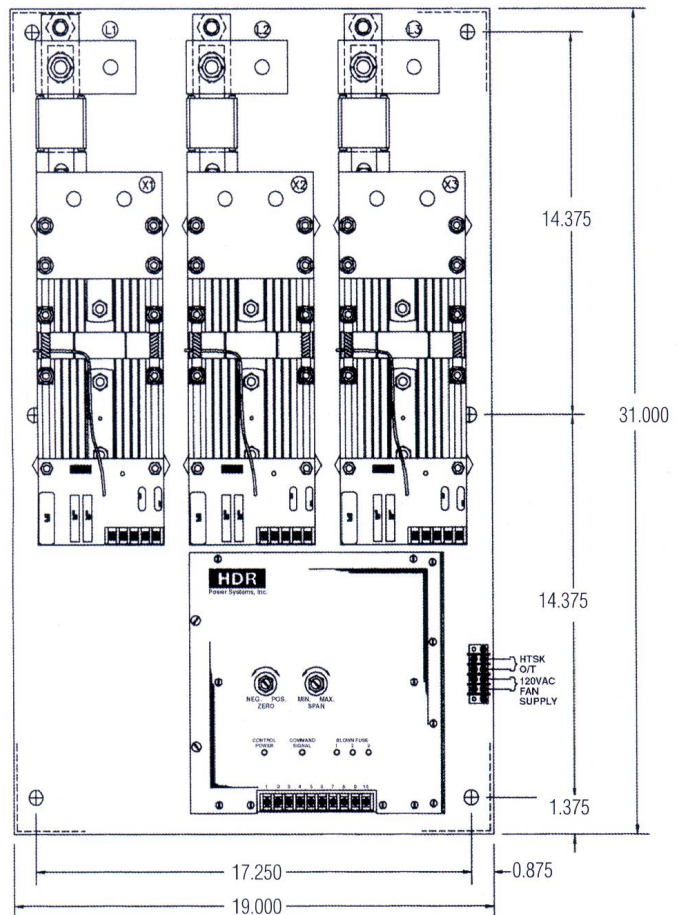
Depth: 9.250



NOTE: Refer to SHPF3 Dimensions for DC Output

## Model PF3 350-500A

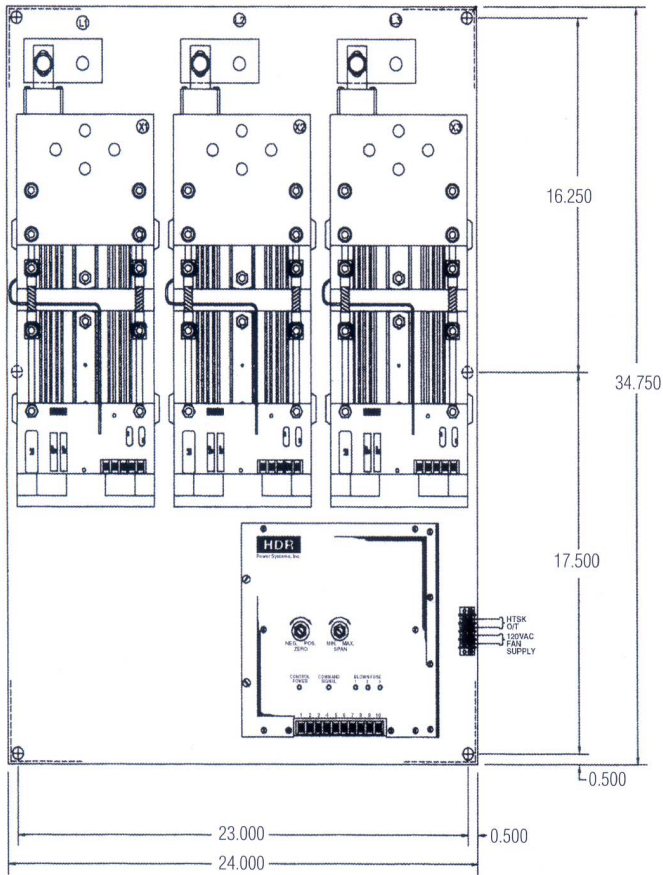
Depth: 8.500



## Model PF3 650A

---

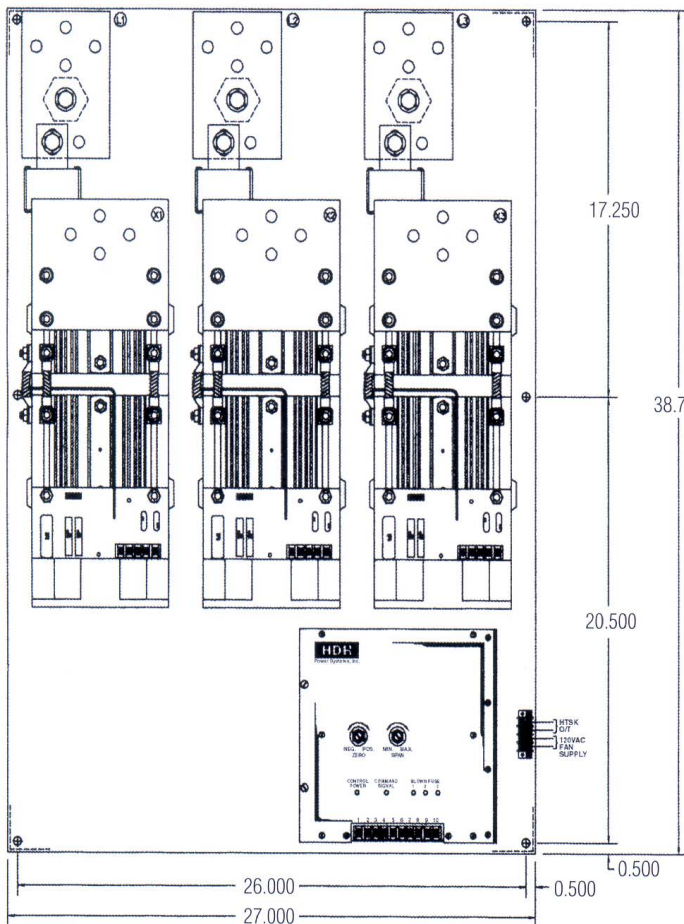
Depth: 11.250



## Model PF3 800-1200A

---

Depth: 11.750

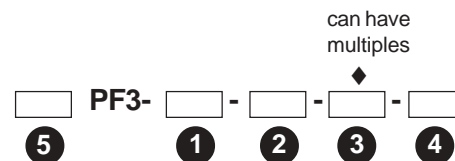


## SPECIFICATIONS:

<b>Control Method:</b>	Phase-firing of six (6) back-to-back SCRs (3-leg Control)	<b>Isolation:</b>	2500 volts rms from power circuit to command signal and to ground
<b>Voltage Rating:</b>	120, 240, 400, 480, 575 Vac, 50/60 Hz,	<b>Adjustments:</b>	Zero and span, multi-turn
<b>Current Ratings:</b>	60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200	<b>Ambient Temperature:</b>	Operating: 0° to 50° C Storage: -10° to 70° C
<b>Command Signal:</b>	Most standard process signals	<b>Relative Humidity:</b>	0 to 95% (non-condensing)
		<b>Weights:</b>	60-225A            40 lbs. 350-500A        60 lbs. 650A              126 lbs. 800-1200A       231 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

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"/>
350 Amps	<input type="text" value="350"/>
500 Amps	<input type="text" value="500"/>
650 Amps	<input type="text" value="650"/>
800 Amps	<input type="text" value="800"/>
1000 Amps	<input type="text" value="1000"/>
1200 Amps	<input type="text" value="1200"/>

### 3 OPTION TABLE <sup>Δ</sup>

N.O. Thermostat	<input type="text" value="NO"/>
N.C. Thermostat	<input type="text" value="NC"/>
RMS Current Limit/OC	<input type="text" value="CL"/>
RMS Current Reg/OC	<input type="text" value="CR"/>
Over Current Trip	<input type="text" value="OC"/>
True Power Reg/CL	<input type="text" value="PR"/>
Load Unbalance Alarm	<input type="text" value="UB"/>
SCR Failure Alarm	<input type="text" value="SF"/>
Lug Kit (greater than 225A)	<input type="text" value="LG"/>
■Phase Zero Adapter	<input type="text" value="PZA"/>

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

■Not UL,cUL Listed

### 4 COMMAND SIGNAL TABLE

4-20 mA	<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)

Specifications subject to change without notice

### 5 WATER COOLING

(Not UL, cUL, CE approv

DC OUTPUT