MODEL SHPF3 SERIES
POWER CONTROLS

Three-Phase (6 SCR) Phase-Fired Models
Rated 15 - 225 Amperes

The SHPF3 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 SHPF3 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's (green) brilliance is proportional to the output voltage. The blown fuse indicators (3-yellow) light if a fuse is cleared (60-225A).

Applications:
Primarily used to control dynamic resistive or transformer coupled loads.
- High temperature furnaces
- Large ovens, kilns & heaters
- IR Heating

- Electrically Isolated Heat Sink
- Compact Size
- Conservative Thermal Design
- Voltage Squared Linearity
- Line Voltage Compensation
- Transient Voltage Protection (RC & MOV)
- 1400 PIV SCRs
- Semiconductor (I²t) Fuse
- Diagnostic Indicators
- Optically Isolated Input
- Command Signal (4-20 mA)
- Multi-Turn Zero & Span Adjustments
- Silkscreened Printed Circuit Boards
- UL, cUL Listed, CE Compliant
- 5 year “No Hassle” warranty
- Fan Cooled (90A and higher)
**SPECIFICATIONS:**

**Control Method:** phase-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 thru 225A - 33 lbs.

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**HOW TO ORDER:**

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

1. **VOLTAGE TABLE**
   - 120 Vac
   - 240 Vac
   - 400 Vac
   - 480 Vac
   - 575 Vac

2. **CURRENT TABLE**
   - 15 Arms
   - 25 Arms
   - 30 Arms
   - 60 Arms
   - 90 Arms
   - 120 Arms
   - 180 Arms
   - 225 Arms

3. **OPTIONS TABLE**
   - N.O. Thermostat
   - N.C. Thermostat
   - RMS Current Limit/OC
   - RMS Current Reg/OC
   - Over Current Trip
   - True Power Reg/CL
   - Load Unbalance Alarm
   - SCR Failure Alarm
   - Phase Zero Adaptor

4. **COMMAND SIGNAL TABLE**
   - 4-20 mA
   - 0-10 Vdc
   - 0-5 Vdc
   - Auto/Man
   - Manual Pot Input
   - Others

**DIMENSIONS:**

- **15, 25 A**
  - Depth: 6.376

- **30 thru 225 A**
  - Depth: 9.508

*Other voltages available

*Not UL approved

*Requires external potentiometer (5k)