MODEL ZF1 SERIES
Power Controls
Single-Phase Zero-Fired Models
Rated 60 - 1200 Amperes

The ZF1 Series are single-phase zero-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 ZF1 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 a fuse is cleared.

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

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

ISE, Inc. - 10100 Royalton Rd. - Cleveland, OH 44133 USA - Tel: (440) 237-3200 - Fax (440) 237-1744 - http://iseinc.com
Model ZF1 60-225A

Depth: 9.25

Model ZF1 350-500A

Depth: 8.500
**SPECIFICATIONS:**

- **Control Method:** Zero-firing of back-to-back SCRs
- **Voltage Rating:** 120, 240, 400, 480, 575 Vac, 50/60 Hz
- **Current Ratings:** 60, 90, 120, 180, 225, 350, 500, 650, 800, 1000, 1200 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:**
  - 60-225A: 22 lbs.
  - 350-500A: 24 lbs.
  - 650A: 47 lbs.
  - 800-1200A: 71 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.

<table>
<thead>
<tr>
<th>1 VOLTAGE TABLE*</th>
<th>2 CURRENT TABLE</th>
<th>3 OPTION TABLE</th>
<th>4 COMMAND SIGNAL TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Vac</td>
<td>60 Amps</td>
<td>N.O. Thermostat</td>
<td>4-20 mA (Self Powered)</td>
</tr>
<tr>
<td>240 Vac</td>
<td>90 Amps</td>
<td>N.C. Thermostat</td>
<td>0-10 VDC</td>
</tr>
<tr>
<td>400 Vac</td>
<td>120 Amps</td>
<td>SCR Failure Alarm</td>
<td>0-5 VDC</td>
</tr>
<tr>
<td>480 Vac</td>
<td>180 Amps</td>
<td>Load Unbalance Alarm</td>
<td>Auto/Man</td>
</tr>
<tr>
<td>575 Vac</td>
<td>225 Amps</td>
<td>Lug Kit (greater than 225A)</td>
<td>*Manual Pot Input</td>
</tr>
<tr>
<td></td>
<td>350 Amps</td>
<td></td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>500 Amps</td>
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<td></td>
<td>650 Amps</td>
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<td>800 Amps</td>
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<td></td>
<td>1000 Amps</td>
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<tr>
<td></td>
<td>1200 Amps</td>
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</tbody>
</table>

*Other voltages available

5 WATER COOLING **W**

(Not UL, cUL, CE approved)

Specifications subject to change without notice