FL Series Flanged Heater

Durable, efficient chemical heater with a variety of options for use in most aqueous alkaline solutions, plating and phosphate tanks.

FEATURES

- Vapor resistant, flame retardant polypropylene terminal.
- Heavy wall metal sheaths available in 316 stainless steel, carbon steel, incoloy and titanium. 316 Stainless Steel standard with metal explosion resistant M2 terminal enclosure.
- Vapor-resistant, painted metal enclosures.
- Grounded construction and built-in P1 thermal protector for solutions up to 180°F (82°C).
- Temperature and level controls sized to match the heater.
- Lower watt densities for highly viscous solutions and long service life (up to 40 watts per square inch - 6.2w/cm²).
- 3” and 5” fluoropolymer flanged heaters.

OPTIONS

- Resettable thermal protectors.
- Custom configurations and lengths.
- Custom wire and conduit lengths.

Temperature: Up to 180°C

<table>
<thead>
<tr>
<th>Watts: 3000 to 72,000</th>
</tr>
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<td>240 to 600 volts</td>
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CE certified (except steel and 600 volts)

Data Sheet

Call 1-440-974-1300 • Visit processtechnology.com • Or contact your local representative for more information

DS_FL_03122020
FL Series Flanged Heater

**SPECIFICATIONS**

**Wattages**
3000 Watts to 72,000 Watts

**Voltages**
240 volts to 600 volts

**Temperature Range**
Up to 180ºC (82ºF)

**Options**
- Special configurations & lengths
- Resettable thermal protectors
- Metric flanges

**Safety Features**
- Grounded construction
- Thermal protector built in.
- Replaceable PI protector standard for solutions up to 180ºC (82ºF).

See chart below for options.

### 3”, 5” AND 6” FLANGE SIZES

<table>
<thead>
<tr>
<th>3” 150 LBS. SS FLANGE</th>
<th>5” 150 LBS. SS FLANGE</th>
<th>6” 150 LBS. SS FLANGE</th>
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<tbody>
<tr>
<td><strong>3 STAINLESS STEEL ELEMENTS</strong></td>
<td><strong>6 STAINLESS STEEL ELEMENTS</strong></td>
<td><strong>12 STAINLESS STEEL ELEMENTS</strong></td>
</tr>
<tr>
<td>WATTS</td>
<td>VOLS</td>
<td>OVERALL LENGTH in/(mm)</td>
</tr>
<tr>
<td>3000</td>
<td>240</td>
<td>3FLS3209-M2**</td>
</tr>
<tr>
<td>4500</td>
<td>240</td>
<td>3FLS4209-M2**</td>
</tr>
<tr>
<td>6000</td>
<td>240</td>
<td>3FLS6209-M2**</td>
</tr>
<tr>
<td>9000</td>
<td>240</td>
<td>3FLS9209-M2**</td>
</tr>
<tr>
<td>12000</td>
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<td>3FLS12209-M2**</td>
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<tr>
<td>18000</td>
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### MODEL NUMBER BREAKDOWN

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<tr>
<th>Flange Size</th>
<th>Series</th>
<th>Wattage</th>
<th>Voltage</th>
<th>09</th>
<th>M2</th>
<th>P4</th>
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<tbody>
<tr>
<td>3”</td>
<td>3FLS = 316 Stainless Steel</td>
<td>3000 - 72000</td>
<td>240</td>
<td>Consult model chart for length</td>
<td>M2 = Metal head</td>
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<td>5”</td>
<td>FLT = Titanium</td>
<td>3 = 380ºF</td>
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<td>4 = 480ºF</td>
<td>6 = 600ºF</td>
<td>7 = 400ºF</td>
<td>P2 = solutions up to 180ºF</td>
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NOTE: Gasket and bolts not provided. Intended for horizontal installation only.

**DIMENSIONS**

3” 150 LBS. SS FLANGE
3 STAINLESS STEEL ELEMENTS

5” 150 LBS. SS FLANGE
6 STAINLESS STEEL ELEMENTS

6” 150 LBS. SS FLANGE
12 STAINLESS STEEL ELEMENTS

3”, 5” AND 6” FLANGE SIZES

M3, 3/4", and 00-1/4" NPT optional. See page 2 for Gasket and bolts.

### 6” INCH FLANGE SIZES

- 6” in (150 mm)
- 6000 lbs (272 kg)
- 12 ELEMENTS

### 3” INCH FLANGE SIZES

- 3” in (76 mm)
- 3000 lbs (136 kg)
- 3 ELEMENTS

### 5” INCH FLANGE SIZES

- 5” in (127 mm)
- 6000 lbs (272 kg)
- 6 ELEMENTS

A change to the Type of Protector must be made before using the chart. See Type of Protector section. Specify variations from standard Ex: X84 = 84ºF

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