### Recommended Sizing Chart: Electric Motor Strip Heaters

<table>
<thead>
<tr>
<th>NEMA Frame Size</th>
<th>Horse Power</th>
<th>120-Volt Strip Heater</th>
<th>240-Volt Strip Heater</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>143T, 145T 182T, 184T</td>
<td>1 to 5</td>
<td>EFH-105-120</td>
<td>EFH-105-240</td>
<td>25</td>
</tr>
<tr>
<td>213T, 215T 213T, 215T</td>
<td>7.5 to 10</td>
<td>EFH-110-120</td>
<td>EFH-110-240</td>
<td>50</td>
</tr>
<tr>
<td>254T, 256T 254T, 256T</td>
<td>15 to 20</td>
<td>EFH-115-120</td>
<td>EFH-115-240</td>
<td>75</td>
</tr>
<tr>
<td>284T, 286T 284T, 286T</td>
<td>25 to 30</td>
<td>EFH-120-120</td>
<td>EFH-120-240</td>
<td>100</td>
</tr>
<tr>
<td>324T, 326T 324T, 326T</td>
<td>40 to 50</td>
<td>EFH-125-120</td>
<td>EFH-125-240</td>
<td>125</td>
</tr>
<tr>
<td>364TS, 365TS 364TS, 365TS</td>
<td>60 to 75</td>
<td>EFH-215-120</td>
<td>EFH-215-240</td>
<td>150</td>
</tr>
<tr>
<td>404TS, 405TS 404TS, 405TS</td>
<td>100 to 125</td>
<td>EFH-220-120</td>
<td>EFH-220-240</td>
<td>200</td>
</tr>
<tr>
<td>444TS, 445TS 444TS, 445TS</td>
<td>150 to 175</td>
<td>EFH-225-120</td>
<td>EFH-225-240</td>
<td>250</td>
</tr>
<tr>
<td>455TS 455TS</td>
<td>200 to 250</td>
<td>EFH-228-120</td>
<td>EFH-228-240</td>
<td>250</td>
</tr>
</tbody>
</table>

The appropriate size electric motor strip heater is determined by the frame size of the motor in which it is to be installed. For example a 213T NEMA frame motor will use either a 50 watt 120 volt heater or a 75 watt 240 volt heater. Heater selection is based upon the NEMA frame size such that the temperature within the motor housing is maintained at 5°F to 10°F above the outside ambient temperature.

Maintaining the internal temperature above the dew point during periods of motor shutdown prevents moisture condensation inside the motor. Strip heaters are recommended where motors are in damp locations, or while in storage, or in situations where the motor is cycled on and off regardless of climate. The heater should be connected to the starter so that it is energized as soon as the motor is de-energized and vice versa. Our strip heaters consist of a nickel alloy wire or thin-foil heating element encapsulated within a vulcanized, fiberglass-reinforced silicone rubber jacket connected to the ends of the winding.

**Operating Characteristics:**
- **Voltage:** 120V or 240V
- **Power Density:** 5 watts / square inch
- **Operating Temperature Range:** -70°F to 400°F
- **Resistance Tolerance:** ±10%
- **Thickness:** 0.045 inches to 0.070 inches
- **Testing Lab Approvals:** UL, CSA
- **Dielectric Withstand:** 1.25kV for 120 ; 2.5kV for 240V
NOTE: These heaters are not equipped with a temperature controller. If a motor heater is being applied in a temperature-sensitive environment, then a thermal device, such as a thermostat, should be used to control temperature. These heaters also do not have a grounding plane; therefore, they must be grounded to prevent electrical shock.

MOTOR HEATER
CONNECTION DIAGRAM

MOTOR HEATER LEAD WIRES MAY BE LOCATED IN EITHER THE MAIN OUTLET BOX OR, IF SO EQUIPPED, AN AUXILIARY BOX

MOTOR STARTER
AUX. CONTACT
(N.C.)

H

H

MOTOR ENCLOSURE
1 PHASE

CALIFORNIA
(800) 227-2136

TEXAS
(866) 945-0466

OKLAHOMA
(855) 720-5911

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