APPLICATION
The HT hopper heating module is a rugged, self-contained high performance heater designed for reliable operation on surfaces prone to vibration. Designed to provide heat outputs up to 3 watts per square inch (4,650 watts per square meter) depending on the application, the HT module distributes heat evenly over the entire panel surface. To ensure optimal performance, each system is engineered by Thermon based on the heating requirements of the application.

A parallel circuit design, based on a stamped high temperature INCONEL® heating element, provides the HT heating module with multiple flow paths for electrical current to pass. This design eliminates the burnout potential common with series wire-based designs. Protection of the heating element from vibration is achieved with a cushion layer of insulation that also directs the flow of heat from the module to the surface being heated.

The rugged construction of the module includes a tough 20-gauge aluminized steel that provides mechanical protection during handling, installation and operation. Weld splatter, rust or oil will not affect the integrity or performance of the heater. The low profile design of the panel permits rapid, trouble free installation with the template and mounting kit available from Thermon.

HT hopper heating modules are approved for use in ordinary (nonclassified) and hazardous (classified) areas.

RATINGS
Maximum watt density ...................... 3 w/in² (4,650 w/m²)
Supply voltages ................................. 120-600 Vac
Max. maintenance temperature .......... 800°F (427°C)
Max. continuous exposure temperature Power-off .................... 1,000°F (538°C)
Minimum installation temperature .......... -40°F (-40°C)

Note
1. Watt density and operating voltage are based on application-specific availability and requirements.

CONSTRUCTION
1 Fluoropolymer insulated high temperature 16 AWG lead wires (with stress relief at connection)
2 Parallel circuit high temperature alloy heating element
3 Temperature-rated insulation (directs energy towards surface to be heated)
4 20-Gauge aluminized steel protective enclosure
5 20-Gauge aluminized steel protective cover with reinforcing attachment channel

BASIC ACCESSORIES
Mounting Kit: All HT heating modules include a mounting kit comprised of spacers, attachment nuts and washers. Mounting studs, installation templates and other accessories are also available; refer to the back of this specification sheet for details.
CIRCUIT BREAKER SIZING AND TYPE
Multiple modules can be energized from the same circuit breaker based on operating voltage and current draw. The current draw and/or breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code.

AVAILABLE HT MODULE SIZES

<table>
<thead>
<tr>
<th>Catalog Number¹ Base Module</th>
<th>Module Dimensions in (cm)</th>
<th>Stud Spacing in (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>612</td>
<td>6 x 16.1 (15 x 40)</td>
<td>14.1 (36)</td>
</tr>
<tr>
<td>624</td>
<td>6 x 27.6 (15 x 70)</td>
<td>25.6 (65)</td>
</tr>
<tr>
<td>636</td>
<td>6 x 39.1 (15 x 99)</td>
<td>37.1 (94)</td>
</tr>
<tr>
<td>648</td>
<td>6 x 50.6 (15 x 129)</td>
<td>48.6 (123)</td>
</tr>
<tr>
<td>212</td>
<td>12 x 16.1 (30 x 40)</td>
<td>14.1 (36)</td>
</tr>
<tr>
<td>224</td>
<td>12 x 27.6 (30 x 70)</td>
<td>25.6 (65)</td>
</tr>
<tr>
<td>236</td>
<td>12 x 39.1 (30 x 99)</td>
<td>37.1 (94)</td>
</tr>
<tr>
<td>248</td>
<td>12 x 50.6 (30 x 129)</td>
<td>48.6 (123)</td>
</tr>
</tbody>
</table>

STANDARD MOUNTING EQUIPMENT
Each HT heating module is shipped with a reinforcing channel, spacers, 1/2” nuts and 1/2” washers. Mounting studs and installation templates are supplied separately to facilitate marking heater and mounting stud locations prior to installation of heaters.

ACCESSORIES

Lead Wire Routing Guide: Provides protective routing for heater wiring between heating module and junction box.

Junction Box: NEMA 4 enclosure with 600 volt terminal strips.

High Temperature Splice Kit: Temperature rated to 1,000°F (538°C), kit permits splicing of heating module lead wires (12 splices per kit).

Control Thermostats: Thermon offers a complete line of mechanical thermostats and electronic control and monitoring modules designed and approved specifically for electric heat tracing applications. For complete details, refer to the Controls and Monitoring section of the Electric Heat Tracing catalog or contact Thermon.

Mounting Studs: ½” x 2½” weld studs with ceramic ferrules (2 per heater).
Templates: To locate mounting studs on hopper wall.

CERTIFICATIONS/APPROVALS²

FM Approvals
Ordinary Locations
Hazardous (Classified) Locations
Class II, Division 2, Groups F and G

Canadian Standards Association
Ordinary Locations
Hazardous (Classified) Locations
Class II, Division 2, Groups E, F, and G

Note
1. Catalog numbers shown are partial numbers. Delivered product will have prefix and suffix designations to identify complete design parameters; contact Thermon for design assistance.
2. Contact Thermon for additional approvals and specific information. A heater controller with alarm annunciation or high limit switch may be required when used in hazardous areas.