

PRODUCT SPECIFICATIONS HT Module HOPPER HEATING MODULE

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 20gauge 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/in ² (4,650 w/m ²)
Supply voltages	120-600 Vac
Max. maintenance temperature	800°F (427°C)
Max. continuous exposure temperatu	ıre
Power-off	1,000°F (538°C)
Minimum installation temperature	-40°F (-40°C)

Note

 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.

THERMON The Heat Tracing Specialists®

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AVAILABLE HT MODULE SIZES

Catalog Number ¹ Base Module	Module Dimensions in (cm)	Stud Spacing in (cm)
612	6 x 16.1 (15 x 40)	14.1 (36)
624	6 x 27.6 (15 x 70)	25.6 (65)
636	6 x 39.1 (15 x 99)	37.1 (94)
648	6 x 50.6 (15 x 129)	48.6 (123)
212	12 x 16.1 (30 x 40)	14.1 (36)
224	12 x 27.6 (30 x 70)	25.6 (65)
236	12 x 39.1 (30 x 99)	37.1 (94)
248	12 x 50.6 (30 x 129)	48.6 (123)

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.

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: $\frac{1}{2}$ " x $2\frac{1}{2}$ " 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

- Catalog numbers shown are partial numbers. Delivered product will have prefix and suffix designations to identify complete design parameters; contact Thermon for design assistance.
- 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.