



PRODUCT SPECIFICATIONS

# FP PARALLEL CONSTANT WATT HEATING CABLE

### APPLICATION

FP parallel resistance constant watt heating cables are designed to provide freeze protection or process temperature maintenance to piping, tanks and equipment. The parallel resistance configuration allows the cable to be cut to length and terminated in the field with easy-to-use Thermon supplied kits.

FP cables provide consistent and reliable heat outputs regardless of circuit length. FP cables are not subject to the inrush current associated with self-regulating heating cables, therefore the need for over sizing power distribution equipment is eliminated.

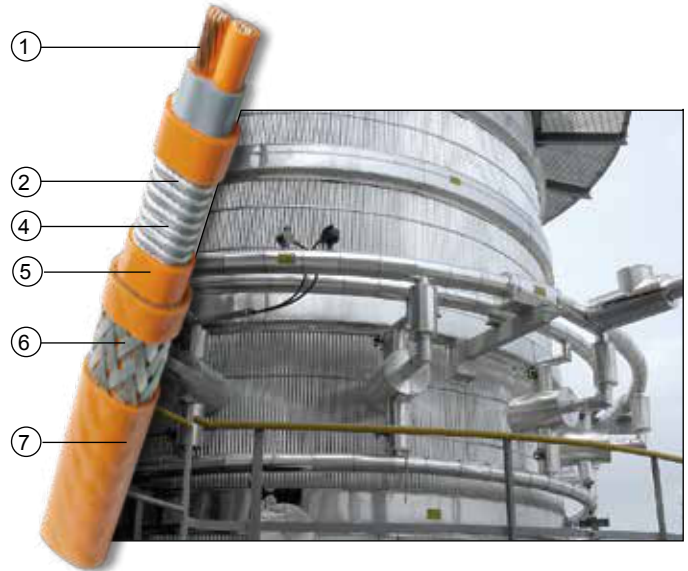
FP cables are approved for use in ordinary (nonclassified) areas, hazardous (classified) areas and Zone 2 classified areas.

### RATINGS

- Available watt densities ..... 2.5, 5, 10 w/ft  
(8, 16, 33 w/m)
- Supply voltages ..... 120/240 Vac nominal <sup>1</sup>
- Max. maintenance temperature.....150°F (65°C)
- Max. continuous exposure temperature
  - Power-off ..... 400°F (204°C)
- Minimum installation temperature ..... -76°F (-60°C)
- Minimum bend radius
  - @ 5°F (-15°C) ..... 0.38" (10 mm)
  - @ -76°F (-60°C) ..... .75" (19 mm)
- T-rating <sup>2</sup>
  - Based on stabilized design <sup>3</sup> ..... T3 to T6

#### Notes

- 1. Additional operating voltages are shown on page 2.
- 2. T-rating per internationally recognized testing agency guidelines.
- 3. Thermon heating cables are approved for the listed T-ratings using the stabilized design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact TC-E for design assistance.



### CONSTRUCTION

- 1 Copper bus wires (12 AWG)
- 2 Nichrome heating element
- 3 Heater bus connection (not shown)
- 4 Fiberglass overlay
- 5 Fluoropolymer dielectric Insulation
- 6 Tinned copper braid
- 7 Fluoropolymer overjacket provides additional protection for cable and braid where exposure to chemicals or corrosives is expected.

### BASIC ACCESSORIES

Thermon offers system accessories designed specifically for rapid, trouble-free installation of Thermon heating cables.

All cables require a connection kit to comply with approval requirements. Information on accessories to complete a heater circuit installation can be found in the "Heating Cable Systems Accessories" product specification sheet (Form TEP0010).



# FP PARALLEL CONSTANT WATT HEATING CABLE

## POWER OUTPUT

The rated power output of FP cables is shown in the table below for the voltages indicated. The heating zone length is the distance between bus connections and represents the minimum circuit length for this type of cable. For maximum possible circuit lengths, see Circuit Breaker Sizing to the right. Contact TC-E before connecting cable to voltages other than those shown in this chart.

Catalog Number	Service Voltage	Power Output w/ft (m)	Zone Length in (cm)
FP 2.5-1	120	2.5 (8)	30 (76)
FP 5-1	120	5 (16)	24 (61)
FP 10-1	120	10 (33)	24 (61)
FP 2.5-2	240	2.5 (8)	54 (137)
	277	3.3 (11)	54 (137)
FP 5-2	208	3.8 (12)	40 (102)
	240	5 (16)	40 (102)
	277	6.7 (22)	40 (102)
FP 10-2	208	7.5 (25)	30 (76)
	240	10 (33)	30 (76)
FP 10-4	480	10 (33)	54 (137)
FP 10-5	575	10 (33)	66 (168)

## CIRCUIT BREAKER SIZING

Maximum circuit lengths for FP cables at rated voltages are shown below. Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code.

The National Electrical Code and Canadian Electrical Code require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for specific ground-fault protection requirements.

Catalog Number	Service Voltage	Max. Circuit Length ft (m)	Current Draw Amps/ft (m)
FP 2.5-1	120	605 (184)	0.021 (0.069)
FP 5-1	120	410 (125)	0.042 (0.138)
FP 10-1	120	270 (82)	0.083 (0.272)
FP 2.5-2	240	1215 (370)	0.010 (0.033)
	277	1200 (366)	0.012 (0.039)
FP 5-2	208	840 (256)	0.018 (0.059)
	240	825 (251)	0.021 (0.069)
	277	805 (245)	0.024 (0.079)
FP 10-2	208	565 (172)	0.036 (0.118)
	240	545 (166)	0.042 (0.138)
FP 10-4	480	1090 (332)	0.021 (0.069)
FP 10-5	575	1310 (399)	0.017 (0.056)

## CERTIFICATIONS/APPROVALS



FM Approvals  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class I, Division 2, Groups A, B, C and D  
 Class II, Division 2, Groups and G  
 Class III, Divisions 1 and 2  
 Class I, Zones 1 and 2, AEx e II



Underwriters Laboratories Inc.  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class I, Division 2, Groups A, B, C and D  
 Class II, Division 2, Groups F and G  
 Class III, Divisions 1 and 2



Canadian Standards Association  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class I, Divisions 1 and 2, Groups A, B, C and D  
 Class II, Divisions 1 and 2, Groups E, F and G  
 Ex e II