



# **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

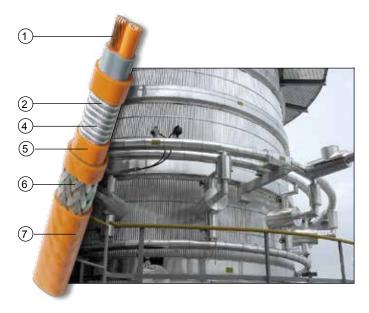
Available watt densities
Supply voltages 120/240 Vac nominal <sup>1</sup>
Max. maintenance temperature150°F (65°C)
Max. continuous exposure temperature
Power-off400°F (204°C)
Minimum installation temperature76°F (-60°C)
Minimum bend radius
@ 5°F (-15°C) 0.38" (10 mm)
@ -76°F (-60°C)
T-rating <sup>2</sup>
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 Thermon 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).

#### THERMON The Heat Tracing Specialists®

ISO 9001 Corporate Headquarters:100 Thermon Dr • PO Box 609 San Marcos, TX 78667-0609 • Phone: 512-396-5801 • 1-800-820-4328 For the Thermon office nearest you visit us at ... www.thermon.com

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# POWER OUTPUT CURVES

HERMO

The power outputs shown apply to cable installed on insulated metallic pipe (using the procedures outlined in IEEE 515) at the service voltages stated below. For use on other service voltages, contact Thermon.

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)
FF 2.3-2	277	3.3 (11)	54 (137)
	208	3.8 (12)	40 (102)
FP 5-2	240	5 (16)	40 (102)
	277	6.7 (22)	40 (102)
FP 10-2	208	7.5 (25)	30 (76)
FP 10-2	240	10 (33)	30 (76)
FP 10-4	480	10 (33)	54 (137)
FP 10-5	575	10 (33)	66 (168)

# **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

LISTED

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

#### **CIRCUIT BREAKER SIZING**

Maximum circuit lengths for various circuit breaker amperages 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 groundfault 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)
FF 2.3-2	277	1200 (366)	0.012 (0.039)
	208	840 (256)	0.018 (0.059)
FP 5.2	240	825 (251)	0.021 (0.069)
	277	805 (245)	0.024 (0.079)
	208	565 (172)	0.036 (0.118)
FP 10-2	240	545 (166)	0.042 (0.138)
FP 10-4	480	1090 (332)	0.021 (0.069)
FP 10-4	575	1310 (399)	0.017 (0.056)