PRODUCT SPECIFICATIONS

HTSX™ SELF-REGULATING HEATING CABLE

APPLICATION

HTSX self-regulating heating cables are designed specifically for process temperature maintenance or freeze protection where high temperature exposure capability is required. HTSX withstands the temperature exposures associated with steam purging.

The heat output of HTSX cable varies in response to the surrounding temperature. Variations in the ambient temperature or heat lost through the thermal insulation are compensated for automatically along the entire length of a heat-traced pipe.

HTSX cables are approved for use in ordinary (nonclassified) areas and hazardous (classified) areas.

RATINGS

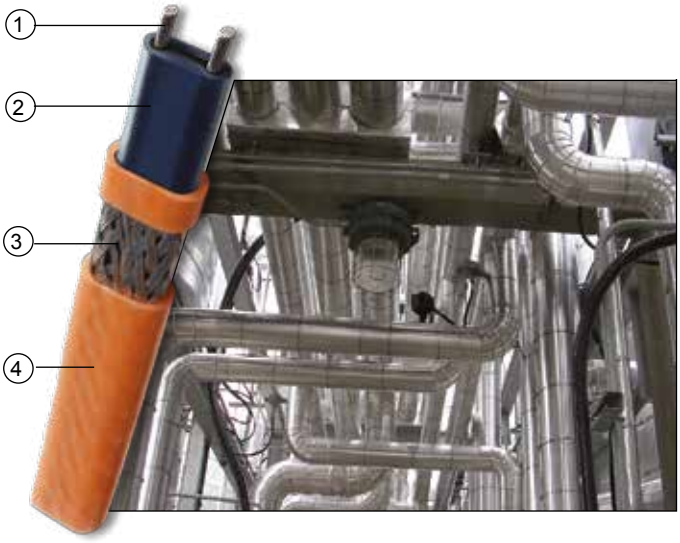
Available watt densities ... 3, 6, 9, 12, 15, 20 W/ft @ 50°F (10, 20, 30, 39, 49, 66 W/m @ 10°C)
Supply voltages .....110-120 or 208-277 Vac
Max. maintenance temperature.....250°F (121°C)
Max. exposure temperature
- Intermittent power-on .....420°F (215°C)
- Intermittent power-off .....482°F (250°C)
- Continuous power-off .....400°F (204°C)

Minimum installation temperature..... -76°F (-60°C)
Minimum bend radius
- @ 5°F (-15°C) ..... 0.38” (10mm)
- @ -76°F (-60°C) ..... 1.25” (32 mm)

T-rating [1] .....
- 3,6,9,12, 15-2 W/ft.....T3 392°F (200°C)
- 15-1 and 20-1 W/ft .....T2D 419°F (215°C)
- 20-2 W/ft .....T2C 446°F (230°C)
- Based on stabilized design [2] .....T3 to T6

Notes

1. T-rating per the National Electrical Code and Canadian Electrical Code.
2. 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 Nickel-plated copper bus wires (16 AWG)

2 Semiconductive heating matrix and fluoropolymer dielectric insulation

3 Tinned copper braid

4 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®**
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For the Thermon office nearest you visit us at . . . www.thermon.com

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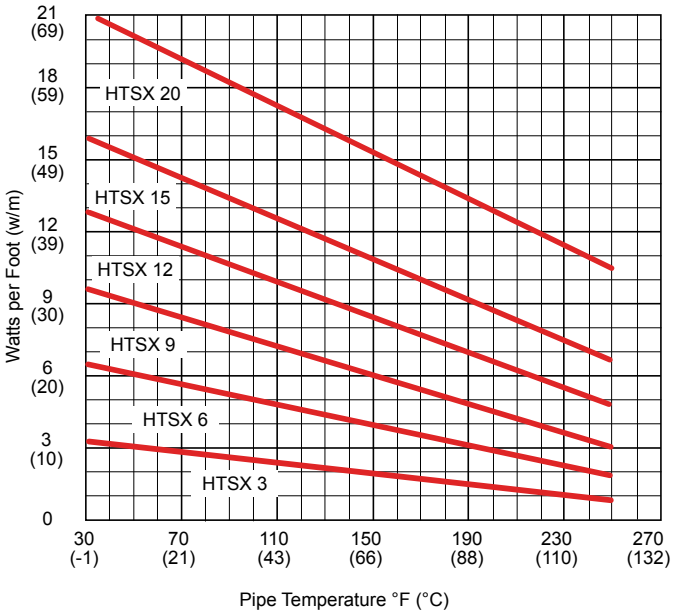
HTSX™ SELF-REGULATING HEATING CABLE

POWER OUTPUT CURVES [1]

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 120 Vac Nominal	Catalog Number 240 Vac Nominal	Power Output at 50°F (10°C) w/ft (m)
HTSX 3-1	HTSX 3-2	3 (10)
HTSX 6-1	HTSX 6-2	6 (20)
HTSX 9-1	HTSX 9-2	9 (30)
HTSX 12-1	HTSX 12-2	12 (39)
HTSX 15-1	HTSX 15-2	15 (49)
HTSX 20-1	HTSX 20-2	20 (66)



CERTIFICATIONS/APPROVALS

FM Approvals
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups B, C and D
Class II, Division 2, Groups F 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

Notes

1. For more precise power output values as a function of pipe temperature, refer to CompuTrace®.
2. Based on the trip current characteristic of Type QOB or Type QO equipment protection devices. For devices with other trip current characteristics, contact Thermon.
3. The maximum circuit length is for one continuous length of cable, not the sum of segments of cable. Refer to CompuTrace® design software or contact Thermon for current loading of segments.

CIRCUIT BREAKER SIZING [2]

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 ground-fault protection requirements.

120 Vac Service Voltage		Max. Circuit Length [3] vs. Breaker Size ft (m)		
Catalog Number	Start-Up Temp °F (°C)	20A	30A	40A
HTSX 3-1	50 (10)	360 (109)	360 (109)	360 (109)
	0 (-18)	360 (109)	360 (109)	360 (109)
	-20 (-29)	360 (109)	360 (109)	360 (109)
	-40 (-40)	360 (109)	360 (109)	360 (109)
HTSX 6-1	50 (10)	235 (71)	250 (77)	250 (77)
	0 (-18)	235 (71)	250 (77)	250 (77)
	-20 (-29)	235 (71)	250 (77)	250 (77)
	-40 (-40)	235 (71)	250 (77)	250 (77)
HTSX 9-1	50 (10)	170 (52)	205 (62)	205 (62)
	0 (-18)	170 (52)	205 (62)	205 (62)
	-20 (-29)	170 (52)	205 (62)	205 (62)
	-40 (-40)	165 (50)	205 (62)	205 (62)
HTSX 12-1	50 (10)	135 (41)	175 (54)	175 (54)
	0 (-18)	135 (41)	175 (54)	175 (54)
	-20 (-29)	135 (41)	175 (54)	175 (54)
	-40 (-40)	125 (38)	175 (54)	175 (54)
HTSX 15-1	50 (10)	100 (30)	160 (48)	160 (49)
	0 (-18)	95 (29)	150 (46)	160 (49)
	-20 (-29)	90 (27)	145 (44)	160 (49)
	-40 (-40)	85 (26)	135 (41)	160 (49)
HTSX 20-1	50 (10)	85 (26)	130 (40)	140 (42)
	0 (-18)	80 (24)	120 (37)	140 (42)
	-20 (-29)	75 (23)	115 (35)	140 (42)
	-40 (-40)	70 (21)	110 (33)	140 (42)

240 Vac Service Voltage		Max. Circuit Length [3] vs. Breaker Size ft (m)		
Catalog Number	Start-Up Temp °F (°C)	20A	30A	40A
HTSX 3-2	50 (10)	710 (217)	710 (217)	710 (217)
	0 (-18)	700 (214)	710 (217)	710 (217)
	-20 (-29)	615 (187)	710 (217)	710 (217)
	-40 (-40)	530 (162)	710 (217)	710 (217)
HTSX 6-2	50 (10)	470 (143)	505 (154)	505 (154)
	0 (-18)	435 (132)	505 (154)	505 (154)
	-20 (-29)	390 (120)	505 (154)	505 (154)
	-40 (-40)	355 (108)	505 (154)	505 (154)
HTSX 9-2	50 (10)	340 (104)	410 (125)	410 (125)
	0 (-18)	310 (95)	410 (125)	410 (125)
	-20 (-29)	290 (88)	410 (125)	410 (125)
	-40 (-40)	265 (81)	410 (125)	410 (125)
HTSX 12-2	50 (10)	270 (82)	355 (109)	355 (109)
	0 (-18)	245 (74)	355 (109)	355 (109)
	-20 (-29)	230 (70)	355 (109)	355 (109)
	-40 (-40)	215 (65)	340 (104)	355 (109)
HTSX 15-2	50 (10)	200 (61)	315 (96)	315 (96)
	0 (-18)	175 (53)	275 (84)	315 (96)
	-20 (-29)	165 (51)	260 (79)	315 (96)
	-40 (-40)	155 (48)	245 (74)	315 (96)
HTSX 20-2	50 (10)	155 (48)	245 (75)	275 (84)
	0 (-18)	140 (42)	215 (65)	275 (84)
	-20 (-29)	130 (40)	205 (62)	275 (84)
	-40 (-40)	125 (38)	190 (59)	265 (80)