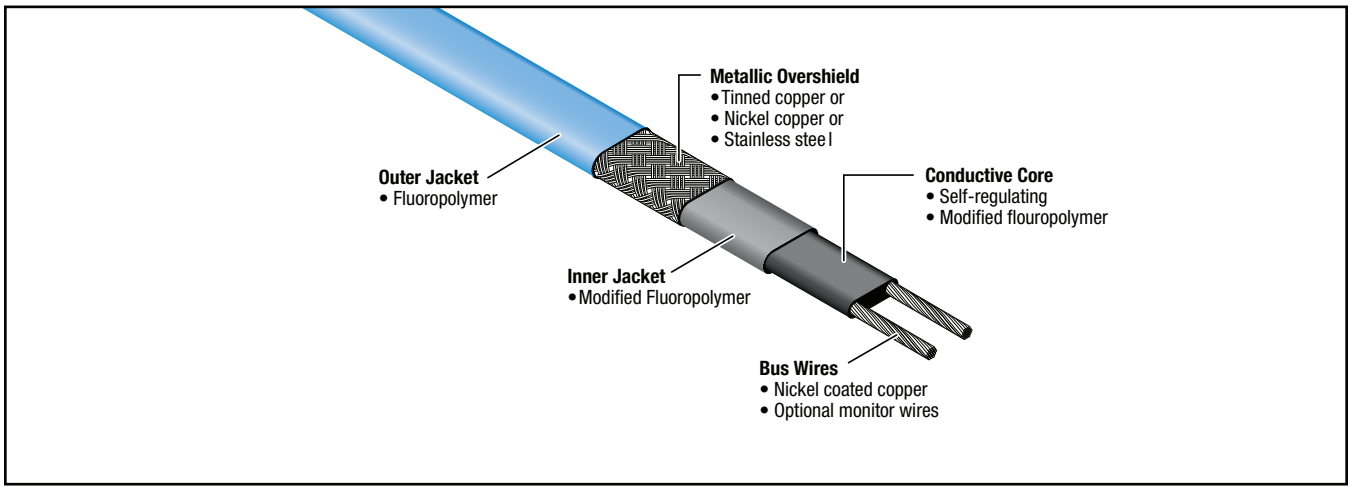
heat-line®
Freeze Protection Systems

2000 Series
Self-Regulating Heating Cable
High Temperature

Data Sheet



Description

The 2000 series of self-regulating heating cables are designed to supply a specified amount of heat at any point along their length in direct response to local temperature variations.

These cables can maintain temperatures up to 375°F (190°C) and will withstand 190 psig saturated steam purging and intermittent temperature excursions to 450°F (232°C) with power applied.

2000 series cables can be cut to length and terminated in the field, and will not overheat or burnout when overlapped..

Applications

The industrial grade 2000 cables provide freeze protection and process temperature maintenance for fluid transport and storage systems requiring very high levels of heat output or exposure to elevated temperatures.

The bus wires, jackets and metallic braids can be configured for both ordinary (non-classified) locations and hazardous (classified), including areas where exposure to corrosive or organic materials is possible.

Accessories

Heat-Line carries a full line of approved Dekoron accessories, including power connection kits, terminations, splices, end seals, and controls.

Performance Ratings

Output wattage	5 through 30w/ft @ 50°F (other wattages also available)
Supply voltages	110 – 120 Vac or 208 – 277 Vac
Continuous maintenance temp.	375°F (190°C) max
Intermittent exposure temp.	450°F (232°C) max
T Rating*	T-2C
Braid resistance	
Tinned copper	0.003 Ω/ft
Stainless steel	0.125 Ω/ft

*T-Rating per the 1999 NEC, Tables 500-5(d) and verified by FM and CSA.

Approvals / Certifications

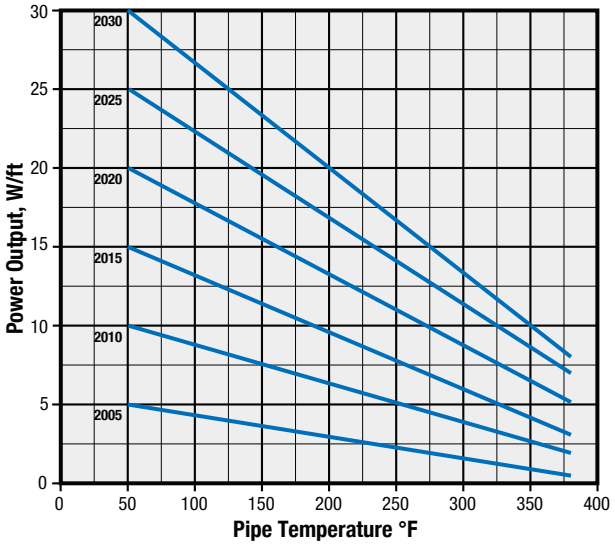
Ordinary locations
3(A,B,C), 5(A,B)
Hazardous locations
Class I, Div 1* / 2, Groups B, C, D
Class I, Div 2, Groups B, C, D
Class II, Div 2, Groups F, G

Ordinary locations
Hazardous locations
Class I, Div 1*, Groups B, C, D
Class I, Div 2, Groups A, B, C, D
Class II/III, Div 1*, Groups E, F, G
Class II/III, Div 2, Groups F, G
Class I, Zone 1*, Group IIB + H2,
Class I, Zone 2, Group IIC

SEMCO - (CE mark):

*Contact Heat-Line representative for information on Division 1 hazardous location systems.

Power Output Curves



Product Ordering Information

(*Example:*
5 watt, 120 volt, tinned copper braid) **2005 – 1 1 C 00**

Series
20 = 2000

Output
05 = 5w
10 = 10w
15 = 15w
20 = 20w
25 = 25w
30 = 30w

Voltage
1 = 120 Vac
2 = 240 Vac

Class
1 = Ordinary/Div. 2
3 = Ordinary/Div. 2 w/monitor wires
4 = Class I, Div. 1

Braid Option
C = Tinned copper
S = Stainless steel
K = Nickel copper
T = Tinned copper w/flouropolymer jacket
F = Stainless steel w/flouropolymer jacket
M = Nickel copper w/flouropolymer jacket

Reserved

Power Adjustment Factor

Part No.	208 Volts	277 Volts
2010-2	0.88	1.14
2020-2	0.94	1.08
2030-2	0.99	1.01

120 Volt Breaker Sizing vs. Max Circuit Length (ft)

			15A	20A	30A
2005-1 If started at:	50°F	(10°C)	180	240	335
	0°F	(–18°C)	165	220	330
	–50°F	(–45°C)	150	200	300
2010-1 If started at:	50°F	(10°C)	120	160	180
	0°F	(–18°C)	105	140	180
	–50°F	(–45°C)	90	120	180
2015-1 If started at:	50°F	(10°C)	80	105	135
	0°F	(–18°C)	70	90	135
	–50°F	(–45°C)	60	80	120
2020-1 If started at:	50°F	(10°C)	60	90	120
	0°F	(–18°C)	55	70	110
	–50°F	(–45°C)	50	65	100
2025-1 If started at:	50°F	(10°C)	45	60	85
	0°F	(–18°C)	40	50	80
	–50°F	(–45°C)	40	50	80
2030-1 If started at:	50°F	(10°C)	40	50	70
	0°F	(–18°C)	35	45	70
	–50°F	(–45°C)	35	45	70

240 Volt Breaker Sizing vs. Max Circuit Length (ft)

			15A	20A	30A
2005-2 If started at:	50°F	(10°C)	360	480	540
	0°F	(–18°C)	325	430	540
	–50°F	(–45°C)	290	385	540
2010-2 If started at:	50°F	(10°C)	240	320	360
	0°F	(–18°C)	230	305	360
	–50°F	(–45°C)	225	300	360
2015-2 If started at:	50°F	(10°C)	160	210	270
	0°F	(–18°C)	140	185	270
	–50°F	(–45°C)	120	160	240
2020-2 If started at:	50°F	(10°C)	115	150	230
	0°F	(–18°C)	110	145	220
	–50°F	(–45°C)	105	140	210
2025-2 If started at:	50°F	(10°C)	90	120	170
	0°F	(–18°C)	80	100	160
	–50°F	(–45°C)	80	100	160
2030-2 If started at:	50°F	(10°C)	80	100	140
	0°F	(–18°C)	70	90	140
	–50°F	(–45°C)	70	90	140

Note: Recommended circuit breakers to minimize the effect of transit start-up currents. Westinghouse: Types BA, EB, EHB, FB, HFB. General Electric: E100 Type TEB, E150, Types TED, THED. Square D: Types EH, FAIF. **The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.**

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