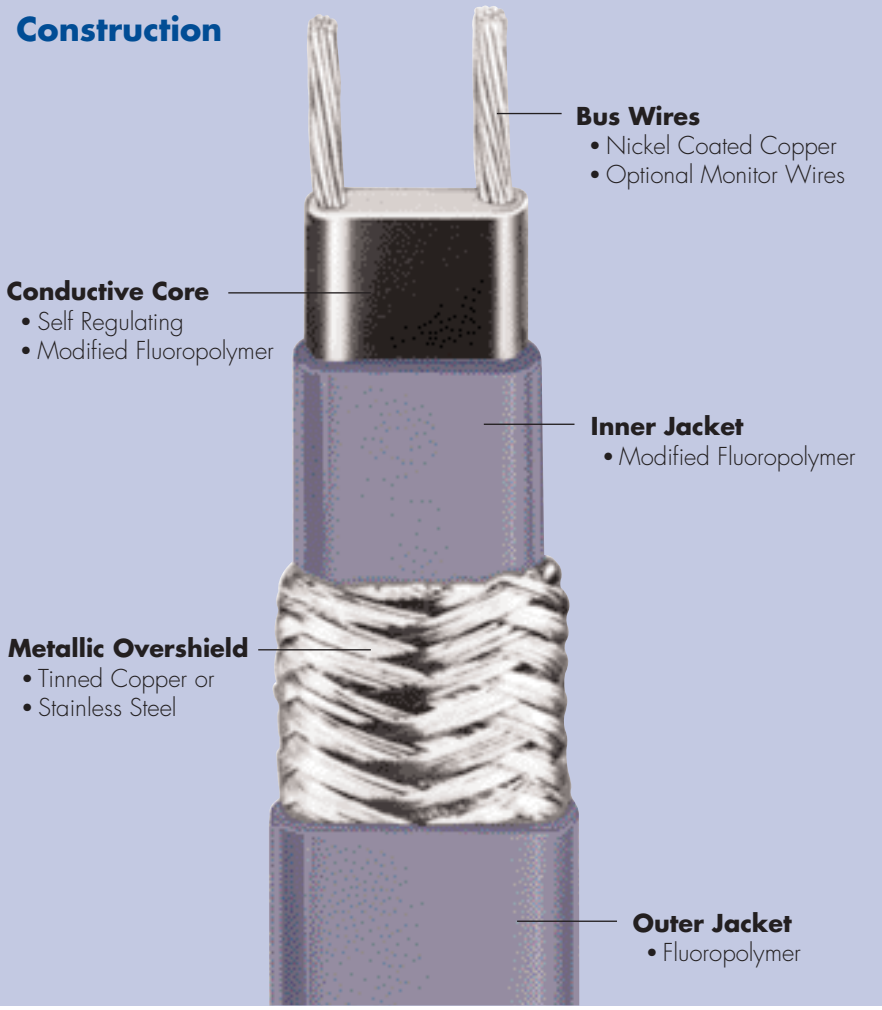
2300 Series

Self-Regulating Heating Cable

ISO 9001 REGISTERED

Construction



Description

The 2300 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 250°F (120°C) and will withstand 150 psig saturated steam purging and intermittent temperature excursions to 366°F (185°C).

2300 series cables can be cut to length and terminated in the field, and will not overheat or burnout when overlapped.

Applications

The industrial grade 2300 cables provide freeze protection and process temperature maintenance for fluid transport and storage systems requiring 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.

Performance Ratings

Output wattage:
5, 10, 15 w/ft @ 50°F

Supply voltages:
110 - 120 or 208V - 277Vac

Continuous maintenance temperature:
250°F (120°C) max

Maximum exposure temperature:
366°F (185°C)

T Rating*:
T-3

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

Factory Mutual:
Ordinary locations
Hazardous locations
Class I, Div 1*/2, Groups B, C, D
Class II, Div 2, Groups F, G
Class III, Div 2

CSA:
Ordinary locations STD-130-03-G,-W,-S
Hazardous locations
Class I, Div 1*/ 2, Groups A, B, C, D
Class II, Div 1*/ 2, Groups E, F, G
Class III, Div 1* and 2

SEMCO - (CE mark):

*Contact Heat Trace Products representative for information on Division1 hazardous location systems.

Accessories

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

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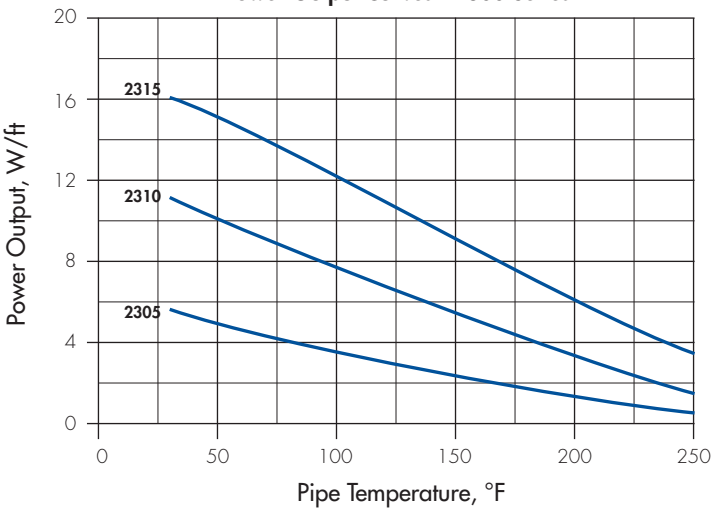
Power Output Curves - 2300 Series



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

Max. Circuit Length (Ft.)		15A	20A	30A
2305-1 If started at:	@ 50°F (10°C)	150	200	240
	@ 0°F (-20°C)	135	180	220
	@ -40°F (-40°C)	130	170	210
2310-1 If started at:	@ 50°F (10°C)	90	120	180
	@ 0°F (-20°C)	85	110	165
	@ -40°F (-40°C)	80	105	160
2315-1 If started at:	@ 50°F (10°C)	70	90	130
	@ 0°F (-20°C)	65	85	125
	@ -40°F (-40°C)	60	80	120

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

Max. Circuit Length (Ft.)		15A	20A	30A
2305-2 If started at:	@ 50°F (10°C)	250	330	480
	@ 0°F (-20°C)	230	305	440
	@ -40°F (-40°C)	220	295	420
2310-2 If started at:	@ 50°F (10°C)	140	190	280
	@ 0°F (-20°C)	130	175	260
	@ -40°F (-40°C)	125	170	250
2315-2 If started at:	@ 50°F (10°C)	100	135	200
	@ 0°F (-20°C)	95	125	185
	@ -40°F (-40°C)	90	120	180

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 National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.

Product Ordering Information

(Example Shown: 5 watt 120volt, tinned copper braid)

23 05 - 1 1 C 00

Series
23 = 2300

Output
05 = 5w
10 = 10w
15 = 15w

Voltage
1 = 120V
2 = 240V

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

Braid Option
C = Tinned Copper
S = Stainless Steel
T = Tinned Copper w/Fluoropolymer Jacket

Reserved

Power Adjustment Factor

Part No.	208 Volts	277 Volts
2305-2	.78	1.25
2310-2	.86	1.16
2315-2	.92	1.09

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