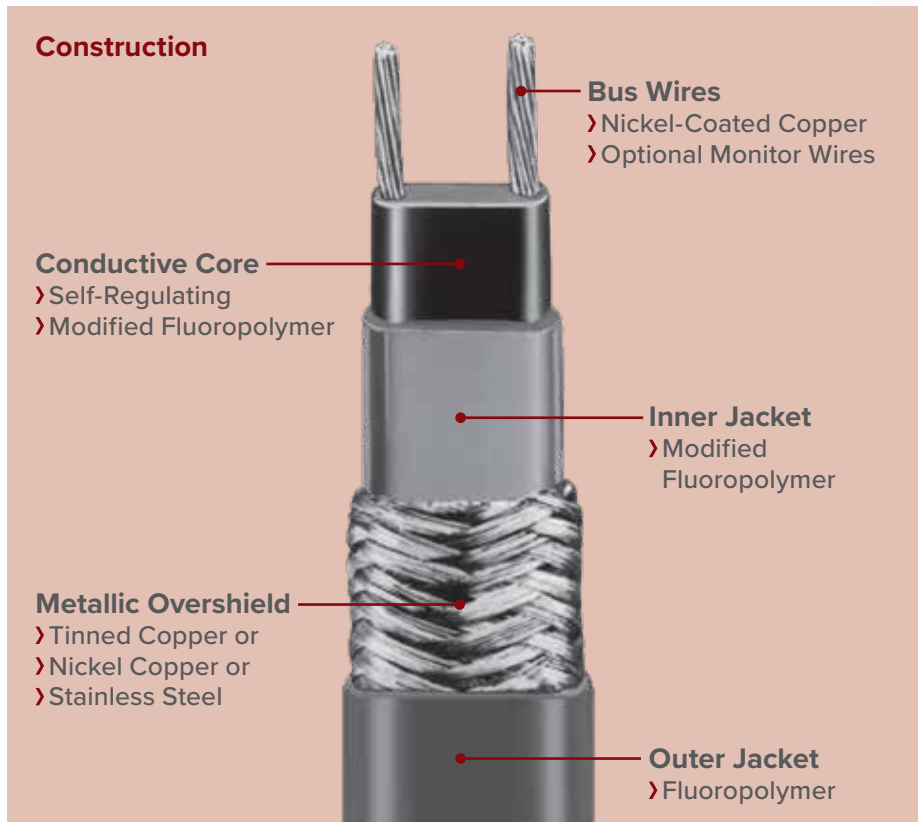


# 2000 Series

## Self-Regulating Heating Cable



### 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 burn out when overlapped.

### Applications

The industrial-grade 2000 series 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.

### Performance Ratings

#### Output wattage:

5 through 30 W/ft at 50°F (other wattages also available)

#### Supply voltages:

110-120 or 208-277VAC

#### Continuous maintenance temperature:

375°F (190°C) max

#### Intermittent exposure temperature:

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

#### Factory Mutual:

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

#### CSA:

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

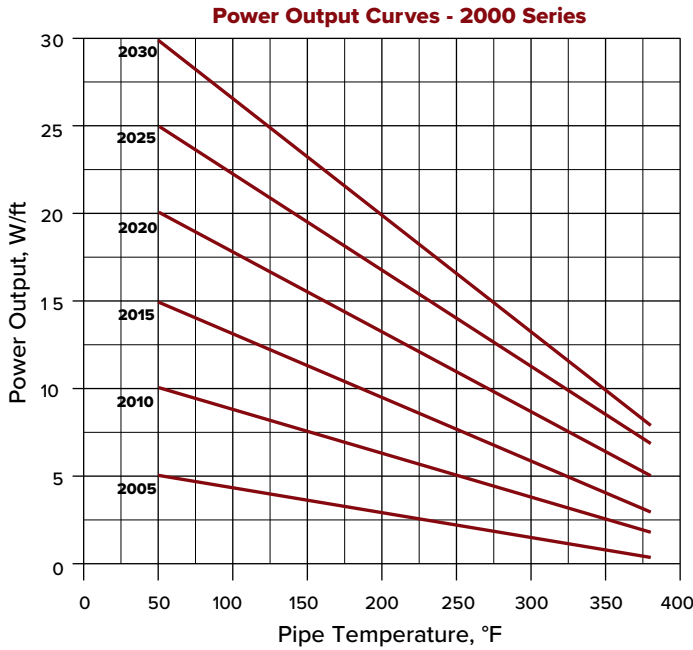
\*Contact a Diamond Thermal Systems representative for information on Division 1 hazardous location systems.

### Accessories

Diamond Thermal Systems carries a full line of approved accessories, including power connection kits, terminations, splices, end seals, and controls.

# 2000 Series

## Self-Regulating Heating Cable



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

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

### Power Adjustment Factor

Part No.	208 Volts	277 Volts
2010-2	.88	1.14
2020-2	.94	1.08
2030-2	.99	1.01

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

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

### Product Ordering Information

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

**20 05 - 1 1 C 00**

**Series**  
20 = 2000

**Output**  
05 = 05W    10 = 10W  
15 = 15W    20 = 20W  
25 = 25W    30 = 30W

**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    T = Tinned Copper w/ Fluoropolymer Jacket  
S = Stainless Steel    F = Stainless Steel w/ Fluoropolymer Jacket  
K = Nickel Copper    M = Nickel Copper w/ Fluoropolymer Jacket

**Reserved**

**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.

ISO 9001 REGISTERED

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**Diamond**  
THERMAL SYSTEMS™  
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