



PSB



All Purpose Self-Regulating Heating Cable PSB

Features

Outer jacket

- Polyolefin (CR) / Fluoropolymer (CT).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -55 °C (-67 °F).

Maximum operating temperature (power on)

- 65 °C (150 °F).

Maximum continuous exposure temperature (power off)

- 85 °C (185 °F).

Nominal voltage

- 120V, 240/208V, 277V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -55 °C (-67 °F).

Classification

- Class I, Division 2, Groups A, B, C, D

- Class II, Division 2, Groups E, F, G

- Class III

Certification

- CAN/CSA-C22.2 No. 130-03

- CSA C US 1862457;

Class: 2878-01, 2878-81

Class: 2872-01, 2872-81

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive, roof and gutter.

Models

Nominal output W/ft.	Product #		Outer jacket/Mechanical shield		Cable dimension approx. (mm)
	120V ^{1,3}	240V ^{1,2,3}	CR	CT	
3	3PSB1-XX	3PSB2-XX	✓	✓	11.6 x 5.8
5	5PSB1-XX	5PSB2-XX	✓	✓	11.6 x 5.8
8	8PSB1-XX	8PSB2-XX	✓	✓	11.6 x 5.8
10	10PSB1-XX	10PSB2-XX	✓	✓	11.6 x 5.8

¹ XX = Outer jacket/Mechanical shield.

CR Protective braid and a polyolefin outer jacket.

CT Protective braid and a fluoropolymer outer jacket.

² For operations at 208V or 277V, please consult Bartec correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

BARTEC



CR Model

CT Model





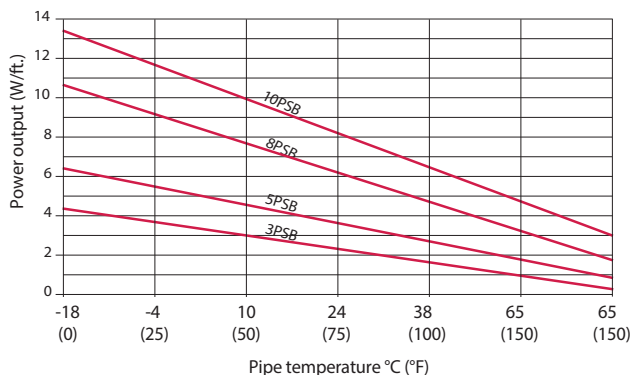
Heating circuit length

The following table shows the maximum circuit length in ft. for the different PSB trace heater types with standard circuit breaker amperages. Breaker sizes should be based on the National Electrical Code, Canadian Electrical Code or any other local or applicable code. Use only circuit breakers with type C tripping characteristics.

Start-up temperature	Circuit breaker capacity ¹ (A)	120V Maximum heating circuit (ft.) for				Start-up temperature	Circuit breaker capacity ¹ (A)	240V Maximum heating circuit (ft.) for			
		3PSB1	5PSB1	8PSB1	10PSB1			3PSB2	5PSB2	8PSB2	10PSB2
10 °C (50 °F)	10	197	138	95	75	10 °C (50 °F)	10	371	266	157	102
	15	295	210	141	115		15	554	397	240	151
	20	344	279	190	151		20	673	531	318	203
	25	344	282	217	164		25	673	551	397	253
	30	344	282	217	164		30	673	551	430	305
	35	344	282	217	164		35	673	551	430	328
0 °C (32 °F)	40	344	282	217	164	40	673	551	430	328	
	10	171	121	82	66	0 °C (32 °F)	10	325	233	141	89
	15	259	184	125	102		15	489	351	213	135
	20	344	243	167	135		20	653	466	282	180
	25	344	282	210	164		25	673	551	354	226
	30	344	282	217	164		30	673	551	427	269
35	344	282	217	164	35		673	551	430	315	
-10 °C (14 °F)	40	344	282	217	164	40	673	551	430	328	
	10	154	108	75	59	-10 °C (14 °F)	10	289	207	125	79
	15	230	164	112	92		15	436	312	190	121
	20	308	217	151	121		20	581	417	253	161
	25	344	272	190	151		25	673	518	318	203
	30	344	282	217	164		30	673	551	381	243
35	344	282	217	164	35		673	551	430	285	
-18 °C (0 °F)	40	344	282	217	164	40	673	551	430	325	
	10	141	98	69	56	-18 °C (0 °F)	10	266	190	118	75
	15	210	151	105	85		15	400	285	177	112
	20	282	200	141	112		20	535	381	236	151
	25	344	249	174	141		25	669	479	295	187
	30	344	282	210	164		30	673	551	354	226
35	344	282	217	164	35		673	551	413	262	
-29 °C (-20 °F)	40	344	282	217	164	40	673	551	430	302	
	10	128	89	62	49	-29 °C (-20 °F)	10	240	171	105	66
	15	190	135	95	75		15	361	256	161	102
	20	256	180	128	102		20	482	344	213	135
	25	318	226	157	128		25	604	430	266	171
	30	344	269	190	154		30	673	515	322	203
35	344	282	217	164	35		673	551	374	240	
-40 °C (-40 °F)	40	344	282	217	164	40	673	551	430	272	
	10	115	82	56	46	-40 °C (-40 °F)	10	220	154	95	62
	15	174	121	85	69		15	328	233	144	92
	20	233	164	115	92		20	440	312	194	125
	25	289	203	144	118		25	548	390	243	154
	30	344	246	174	141		30	659	469	292	187
35	344	282	203	164	35		673	548	341	220	
40	344	282	217	164	40	673	551	390	249		

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

Power output 120V/240V under nominal conditions (on insulated steel pipes)



Maximum heating circuit on the following conditions:

- 120/240 Voltage
- Single cable fed 1 end
- Voltage drop max. 10%
- MCB 80% utilization

Cable heat output depending on the environment

- In Snow and Ice** - 13W/ft. @ 32 °F (42W/m @ 0 °C)
- In Dry Air** - 8W/ft. @ 32 °F (26W/m @ 0 °C)

Bartec correction factors/multipliers for operation of heating cables in 208V and 277V

To calculate the corrected power output for operation in 208V or 277V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V or 277V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

Due to the cable's self-regulating properties, the power density can reach up to 11W/ft. (120V) and 13W/ft. (240V) when buried in snow or ice: "wet density".

Adjustment factors	Heating cable correction factors/ Multipliers	Nominal output	Heating circuit length
208V	3PSB2	0.90	0.96
	5PSB2	0.93	0.94
	8PSB2	0.95	0.92
	10PSB2	0.97	0.92
277V	3PSB2	1.23	1.09
	5PSB2	1.19	1.10
	8PSB2	1.11	1.14
	10PSB2	1.06	1.16

Accessories

See Accessories section.