

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

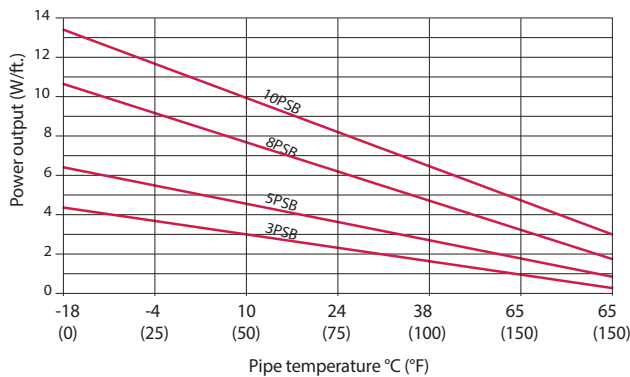
The following table shows the maximum circuit length in ft. for the different PSB trace heater types with standard circuit breaker amperages. Breaker sizes should be based on the National Electrical Code, Canadian Electrical Code or any other local or applicable code. Use only circuit breakers with type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

Start-up temperature	Circuit breaker capacity ¹ (A)	120V Maximum heating circuit (ft.) for				240V Maximum heating circuit (ft.) for				
		3PSB1	5PSB1	8PSB1	10PSB1	3PSB2	5PSB2	8PSB2	10PSB2	
10 °C (50 °F)	10	246	174	118	95	463	331	197	125	
	15	344	262	177	141	673	499	299	190	
	20	344	282	217	164	673	551	397	253	
	25	344	282	217	164	673	551	430	315	
	30	344	282	217	164	673	551	430	328	
	35	344	282	217	164	673	551	430	328	
0 °C (32 °F)	10	213	151	105	85	407	292	177	112	
	15	322	230	157	128	610	436	266	167	
	20	344	282	210	164	673	551	354	226	
	25	344	282	217	164	673	551	430	282	
	30	344	282	217	164	673	551	430	328	
	35	344	282	217	164	673	551	430	328	
-10 °C (14 °F)	10	190	135	95	75	361	259	157	102	
	15	289	203	141	115	545	390	240	151	
	20	344	272	190	151	673	518	318	203	
	25	344	282	217	164	673	551	397	253	
	30	344	282	217	164	673	551	430	305	
	35	344	282	217	164	673	551	430	328	
-18 °C (0 °F)	10	177	125	85	69	335	240	148	92	
	15	266	187	131	105	502	358	220	141	
	20	344	249	174	141	669	479	295	187	
	25	344	282	217	164	673	551	367	236	
	30	344	282	217	164	673	551	430	282	
	35	344	282	217	164	673	551	430	328	
-29 °C (-20 °F)	10	157	112	79	62	302	213	131	85	
	15	240	167	118	95	453	322	200	128	
	20	318	226	157	128	604	430	266	171	
	25	344	282	200	161	673	538	335	213	
	30	344	282	217	164	673	551	400	256	
	35	344	282	217	164	673	551	430	299	
-40 °C (-40 °F)	10	144	102	72	59	272	194	121	75	
	15	217	154	108	89	410	292	184	115	
	20	289	203	144	118	548	390	243	154	
	25	344	256	180	148	673	489	305	194	
	30	344	282	217	164	673	551	367	233	
	35	344	282	217	164	673	551	430	272	
40	344	282	217	164	673	551	430	312		

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 100% 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.