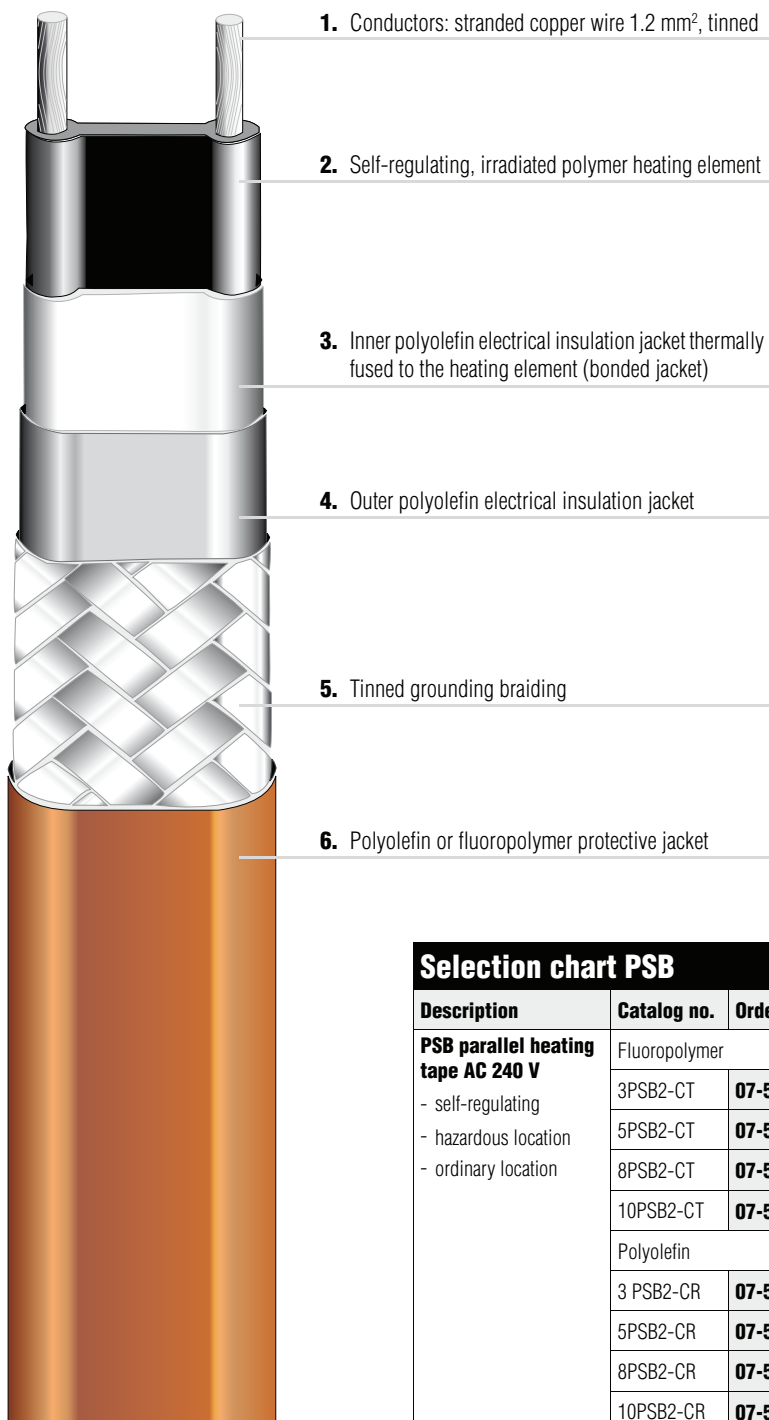




PSB system

powertrace
by powerblanket

BARTEC



Features

- Self-regulating
- Can be cut to length thanks to its parallel current supply
- Corrosion-proof and resistant to effects of chemicals thanks to its outer sheath
- Electrically and mechanically protected by a tinned copper braiding
- Simple installation thanks to its high flexibility and favourable dimensions

Description

A temperature-dependant resistive element between two parallel copper conductors regulates and limits the power output of the heating tape according to the ambient temperature. If the ambient temperature rises, the power output of the heating tape is reduced. This self-regulating property prevents overheating even when the tapes are overlapped.

Thanks to the parallel design the heating tape can be cut and installed to any required length. The self-regulating heating tape is available with different power outputs and protective jackets. The protective outer jacket of either fluoropolymer or polyolefin protects the copper braiding from corrosion and chemical impact. Two jackets under the protective braiding provide electrical insulation. The inner one of the two jackets is thermally fused to the heating element (bonded jacket).

The heating system must be designed to ensure that the maximum operating temperature of +65 °C (+150 °F) will not be exceeded when it is energized.

When it is switched off, the heating tape can be exposed to a temperature of +85 °C (+185 °F)

Selection chart PSB

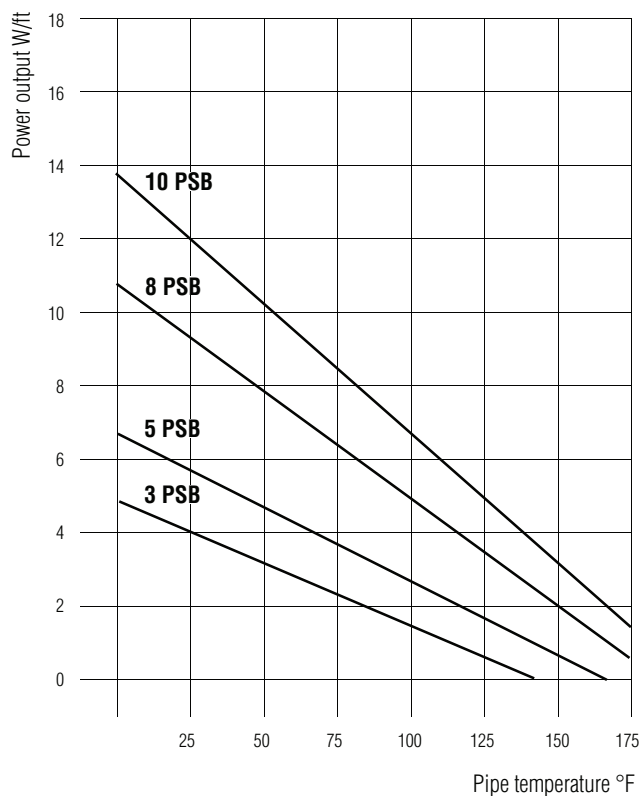
Description	Catalog no.	Order no.
PSB parallel heating tape AC 240 V - self-regulating - hazardous location - ordinary location	Fluoropolymer	
	3PSB2-CT	07-5801-2105
	5PSB2-CT	07-5801-2155
	8PSB2-CT	07-5801-2265
	10PSB2-CT	07-5801-2335
	Polyolefin	
	3 PSB2-CR	07-5801-2106
	5PSB2-CR	07-5801-2156
	8PSB2-CR	07-5801-2266
	10PSB2-CR	07-5801-2336

Selection chart PSB

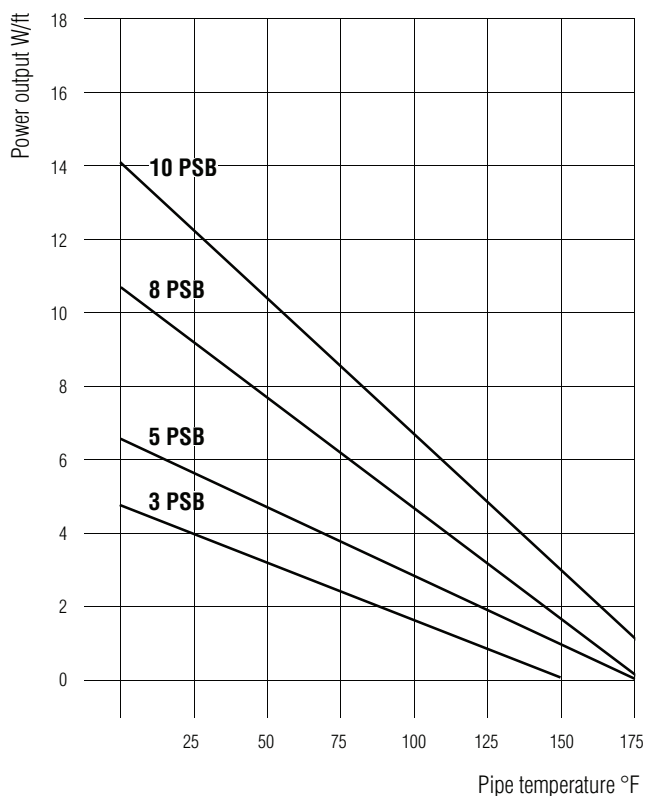
Description	Catalog no.	Order no.
PSB parallel heating tape AC 120 V - self-regulating - hazardous location - ordinary location	Fluoropolymer	
	3 PSB1-CT	07-5801-1105
	5PSB1-CT	07-5801-1155
	8PSB1-CT	07-5801-1265
	10PSB1-CT	07-5801-1335
	Polyolefin	
	3 PSB1-CR	07-5801-1106
	5PSB1-CR	07-5801-1156
	8PSB1-CR	07-5801-1266
	10PSB1-CR	07-5801-1336

PSB characteristics Power output on insulated steel pipes under nominal conditions

at 120 V



at 240 V



Explosion protection

Type

CSA Class I, Div. 2, Groups A, B, C, D
CSA Class II, Div. 2, Groups E, F, G
CSA Class III

Ex II 2G Ex e IIC T5, T6 Gb

Ex II 2D Ex tb IIIC T95 °C, T 80 °C Db

Certification

CSA 1862457

KEMA 02 ATEX 2326 U

IECEX KEM 07.0047 U

Technical data

Supply voltage

AC 120 V

AC 240 V

Max. exposure temperature

switched on +65 °C (+150 °F)

switched off +85 °C (+185 °F)

Min. installation temperature

-55 °C (-67 °F)

Min. start-up temperature

-40 °C (-40 °F)

Max. braid resistance

< 18.2 Ohm/km

Dimensions

with braiding and fluoropolymer jacket
0.46 in x 0.22 in (11.6 mm x 5.6 mm)

with braiding and polyolefin jacket
0.46 in x 0.23 in (11.8 mm x 5.8 mm)

Min. bending radius

0.98 in (25 mm)



PSB system Heating tape

POWERTRACE
by **powerblanket**

BARTEC

	Adjustment factors
Voltage	Power output
AC 208 V	0.90

Max. length of heating circuit at AC 120 V					
Circuit Breaker size ¹⁾		3 PSB	5 PSB	8 PSB	10 PSB
20 A, start-up temperature +10 °C (+50 °F)		312 ft	262 ft	190 ft	148 ft
20 A, start-up temperature -18 °C (0 °F)		295 ft	197 ft	125 ft	98 ft
20 A, start-up temperature -29 °C (-20 °F)		246 ft	161 ft	105 ft	85 ft
20 A, start-up temperature -40 °C (-40 °F)		240 ft	157 ft	98 ft	72 ft
30 A, start-up temperature +10 °C (+50 °F)		312 ft	262 ft	207 ft	167 ft
30 A, start-up temperature -18 °C (0 °F)		312 ft	262 ft	184 ft	138 ft
30 A, start-up temperature -29 °C (-20 °F)		312 ft	262 ft	177 ft	125 ft
30 A, start-up temperature -40 °C (-40 °F)		312 ft	256 ft	164 ft	115 ft
40 A, start-up temperature +10 °C (+50 °F)		312 ft	262 ft	207 ft	180 ft
40 A, start-up temperature -18 °C (0 °F)		312 ft	262 ft	207 ft	148 ft
40 A, start-up temperature -29 °C (-20 °F)		312 ft	262 ft	207 ft	131 ft
40 A, start-up temperature -40 °C (-40 °F)		312 ft	262 ft	207 ft	118 ft

Max. length of heating circuit at AC 208 V					
Circuit Breaker size ¹⁾		3 PSB	5 PSB	8 PSB	10 PSB
20 A, start-up temperature +10 °C (+50 °F)		591 ft	486 ft	344 ft	262 ft
20 A, start-up temperature -18 °C (0 °F)		551 ft	394 ft	246 ft	190 ft
20 A, start-up temperature -29 °C (-20 °F)		476 ft	328 ft	203 ft	164 ft
20 A, start-up temperature -40 °C (-40 °F)		420 ft	312 ft	190 ft	131 ft
30 A, start-up temperature +10 °C (+50 °F)		591 ft	492 ft	377 ft	312 ft
30 A, start-up temperature -18 °C (0 °F)		591 ft	492 ft	312 ft	256 ft
30 A, start-up temperature -29 °C (-20 °F)		591 ft	443 ft	289 ft	230 ft
30 A, start-up temperature -40 °C (-40 °F)		558 ft	394 ft	272 ft	180 ft
40 A, start-up temperature +10 °C (+50 °F)		591 ft	492 ft	377 ft	312 ft
40 A, start-up temperature -18 °C (0 °F)		591 ft	492 ft	344 ft	295 ft
40 A, start-up temperature -29 °C (-20 °F)		591 ft	476 ft	322 ft	269 ft
40 A, start-up temperature -40 °C (-40 °F)		591 ft	476 ft	302 ft	230 ft

Max. length of heating circuit at AC 240 V					
Circuit Breaker size ¹⁾		3 PSB	5 PSB	8 PSB	10 PSB
20 A, start-up temperature +10 °C (+50 °F)		673 ft	525 ft	381 ft	295 ft
20 A, start-up temperature -18 °C (0 °F)		597 ft	394 ft	246 ft	197 ft
20 A, start-up temperature -29 °C (-20 °F)		505 ft	328 ft	210 ft	171 ft
20 A, start-up temperature -40 °C (-40 °F)		479 ft	315 ft	197 ft	131 ft
30 A, start-up temperature +10 °C (+50 °F)		673 ft	525 ft	413 ft	335 ft
30 A, start-up temperature -18 °C (0 °F)		640 ft	525 ft	374 ft	276 ft
30 A, start-up temperature -29 °C (-20 °F)		623 ft	525 ft	348 ft	236 ft
30 A, start-up temperature -40 °C (-40 °F)		623 ft	512 ft	328 ft	197 ft
40 A, start-up temperature +10 °C (+50 °F)		673 ft	525 ft	413 ft	361 ft
40 A, start-up temperature -18 °C (0 °F)		640 ft	525 ft	413 ft	295 ft
40 A, start-up temperature -29 °C (-20 °F)		640 ft	525 ft	404 ft	262 ft
40 A, start-up temperature -40 °C (-40 °F)		640 ft	525 ft	387 ft	230 ft

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.