

# EasyHeat™ PSR Cable

Pipe Freeze Protection, Self-Regulating, Pre-Terminated. For Residential and Commercial Applications.

## Product Overview

- PSR is a parallel resistance, self-regulating cable provided in pre-terminated lengths with factory sealed connections.
- The self-regulating heating cable automatically varies its heat output as the surrounding temperature changes.

## Applications

- Commercial and residential metal or plastic water supply and drain pipes subject to freezing.
- Suitable for refrigeration/HVAC condensation lines that are subject to freezing temperatures.

## Features

- 120 Vac and 240 Vac models available.
  - 120 Vac models have an integral three-wire plug with a pilot light.
  - 240 Vac models and have a three wire pigtail.
- Cables are rated at 5 Watts per foot (0.30 m) at +50°F (+10°C).
- Pre-terminated lengths from 6 ft – 100 ft (1.83 m – 30.48 m).
- Manufactured with a waterproof TPE outer jacket.
- One year limited warranty.

## Heating Cable Control Options and Power Connection

- 120 Vac cables should be plugged into a ground fault protected electrical receptacle.
- 240 Vac cables are designed to be directly connected into an appropriate electrical outlet box supplied by ground fault protected circuit.

## Related Products

- It is recommended that a remote thermostat similar to EasyHeat™ model C3RC can be used for 240 Vac cables to reduce energy consumption and extend the life of the cable. See *EasyHeat™ Pipe Tracing Controls*.

## Accessories

- Installation tape and caution labels are available. See *EasyHeat™ Pipe Tracing Accessories*.



## Certifications

- UL Listed to Canadian Safety Standards and CSA Certified for ordinary locations.

### Notes

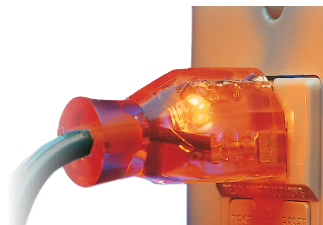
- Per NEC and CEC requirements ALWAYS use a ground fault protection device (GFEP) to reduce the danger of fire from a damaged or improperly installed heating cable. Electrical fault currents caused by damaged or improperly installed cable MAY NOT BE LARGE ENOUGH to trip a conventional circuit breaker.
- Heating cables must be installed in compliance with all national, state/provincial and local codes. Check with your local electrical inspector for specific details.
- Do not use thin 1/8 in (3.18 mm) foil-backed foam insulation.
- Before insulating, ensure that there is no damage to heating cables. Immediately cover the pipe, cables, connections, valves and spigots with 1/2 in (12.7 mm) to 1 in (25.4 mm) thick fiberglass insulation or equivalent.
- Do not alter the length of the heating cable – cable is factory sealed and alteration will result in risk of electrical fire or shock.
- Exposure to temperatures above +150°F (+66°C) will shorten the life of your cable. Before installing on hot water pipes, set the water heater thermostat below +150°F (+66°C).
- If more than one heating cable is used on a single electrical circuit please refer to the maximum heater length per circuit breaker size chart. Check to make sure the total heating cable length does not exceed the length specified in this table.
- Minimum installation temperature for the heating cable set is -22°F (-30°C).

PIPE TRACING

## Illustrated Features

### Pilot Light

120 Vac models have a pilot light in the PSR plug, confirms connection to a good power source.



### Three Wire Pigtail

240 Vac models have a three wire pigtail that should be directly connected into an appropriate electrical box supplied by ground fault protected circuit.



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## How To Determine The Length of Cable You Need

Select the appropriate cable length from one of the two charts below. Cable may be up to 2 ft (60.96 cm) shorter than the pipe. Lengths assume lowest ambient temperature is -20°F (-29°C), with a minimum of 1/2 in (12.7 mm) fiberglass insulation or equivalent. For protection to -40°F (-40°C), use 1 in (25.4 mm) fiberglass insulation.

Cable Length Selection Chart

Metal Pipe ft (m)										
Pipe Diameter in (mm)	3 (0.91)	4-6 (1.2-1.83)	7 (2.13)	8-12 (2.44-3.66)	13-14 (3.96-4.27)	15-18 (4.57-5.49)	19-25 (5.79-7.62)	26-50 (7.92- 15.24)	51-75 (15.54- 22.86)	76-100 (21.16-30.48)
0.5 (12.7)	—	A	A	B	B	C	C	E	F	G
1.0 (25.4)	A	A	A	B	B	C	C	E	F	G
1.5 (38.1)	A	A	A	B	B	C	D	E	F	G
2.0 (50.8)	A	B	B	C	C	D	E	F	G	H
2.5 (63.5)	A	B	B	C	C	D	E	F	G	H

Plastic Pipe ft (m)										
Pipe Diameter in (mm)	3 (0.91)	4-6 (1.2-1.83)	7 (2.13)	8-12 (2.44-3.66)	13-14 (3.96-4.27)	15-18 (4.57-5.49)	19-25 (5.79-7.62)	26-50 (7.92- 15.24)	51-75 (15.54- 22.86)	76-100 (21.16-30.48)
0.5 (12.7)	—	A	B	B	C	D	D	E	F	G
1.0 (25.4)	A	A	B	C	C	D	E	E	F	G
1.5 (38.1)	A	B	C	D	D	E	E	F	F	H
2.0 (50.8)	A	B	C	E	E	E	E	F	G	H
2.5 (63.5)	A	B	C	E	E	E	F	F	G	H

Maximum Cable Length per Circuit in ft (m)

Breaker Size	120 Vac Cable			240 Vac Cable		
	+20°F (-7°C)	0°F (-20°C)	-20°F (-30°C)	+20°F (-7°C)	0°F (-20°C)	-20°F (-30°C)
15 Amp	125 (38.1)	115 (35.1)	100 (30.5)	250 (76.2)	225 (68.6)	205 (62.5)
20 Amp	170 (51.8)	150 (45.7)	135 (41.1)	335 (102.1)	300 (91.4)	270 (82.3)

Selection Chart Key

	Model #	# of Cables
A	PSR (Ⓞ)006	1 Cable
B	PSR (Ⓞ)012	1 Cable
C	PSR (Ⓞ)018	1 Cable
D	PSR (Ⓞ)024	1 Cable
E	PSR (Ⓞ)050	1 Cable
F	PSR (Ⓞ)075	1 Cable
G	PSR (Ⓞ)100	1 Cable
H	PSR (Ⓞ)100	2 Cable

Replace Ⓞ with voltage code: 1 for 120 Vac; 2 for 240 Vac

Note: Allow an extra 1 ft (30.48 cm) of heating cable for each valve.

PIPE TRACING

## EasyHeat™ PSR Cable

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### Product Selection

Catalog Number	Description	Carton Quantity	Carton Weight lb (kg)	UPC
PSR1006	6 ft (1.83 m) length, 30 Watts, 120 Vac	5	4 (1.8)	01362706907
PSR1012	12 ft (3.66 m) length, 60 Watts, 120 Vac	5	7 (3.2)	01362706908
PSR1018	18 ft (5.49 m) length, 90 Watts, 120 Vac	5	8 (3.6)	01362706913
PSR1024	24 ft (7.32 m) length, 120 Watts, 120 Vac	5	10 (4.5)	01362706909
PSR1050	50 ft (15.24 m) length, 250 Watts, 120 Vac	5	17 (7.7)	01362706910
PSR1075	75 ft (22.86 m) length, 375 Watts, 120 Vac	2	10 (4.5)	01362706911
PSR1100	100 ft (30.48 m) length, 500 Watts, 120 Vac	2	13 (5.9)	01362706912
PSR2006	6 ft (1.83 m) length, 30 Watts, 240 Vac	5	4 (1.8)	01362706867
PSR2012	12 ft (3.66 m) length, 60 Watts, 240 Vac	5	7 (3.2)	01362706868
PSR2018	18 ft (5.49 m) length, 90 Watts, 240 Vac	5	9 (4.1)	01362706873
PSR2024	24 ft (7.32 m) length, 120 Watts, 240 Vac	5	10 (4.5)	01362706869
PSR2050	50 ft (15.24 m) length, 250 Watts, 240 Vac	5	16 (7.3)	01362706870
PSR2075	75 ft (22.86 m) length, 375 Watts, 240 Vac	2	9 (4.1)	01362706871
PSR2100	100 ft (30.48 m) length, 500 Watts, 240 Vac	2	13 (5.9)	01362706872

# EasyHeat™ PSR Cable

Roof and Gutter De-Icing, Self-Regulating, Pre-Terminated. For Residential and Commercial Applications.

## Product Overview

- PSR is a parallel resistance, self-regulating cable provided in pre-terminated lengths with factory sealed connections.
- These cables are a top-of-the line solution for abating roof, gutter and downspout ice dams.
- The self-regulating heating cable automatically varies its heat output as the surrounding temperature changes.

## Applications

- Suitable for shingle, slate, metal, wood and flat roofs with either plastic or metal gutters/downspouts.
- Commercial and residential roof and gutters prone to ice damming and dangerous icicles.
- Downspouts that freeze and clog.

## Features

- 120 Vac and 240 Vac models available.
  - 120 Vac models have an integral three-wire plug with a pilot light.
  - 240 Vac models have a three wire pigtail.
- Pre-terminated lengths from 6 ft to 100 ft (1.83 m to 30.48 m); 8 Watts/ft in ice.
- Manufactured with a water-resistant TPE outer jacket.
- Cables are rated at 5 Watts per foot (0.30 m) at +50°F (+10°C).
- One year limited warranty.

## Heating Cable Control Options and Power Connection

- 120 Vac cables should be plugged into a ground fault protected electrical receptacle.
- 240 Vac cables are designed to be directly connected into an appropriate electrical outlet box supplied by ground fault protected circuit.

## Accessories

- Hanger kits and roof clips are available.
  - DSH Downspout Hanger
  - ZH-C Roof Clips and Spacers



## Certifications

- UL Listed to Canadian Safety Standards and CSA Certified for ordinary locations.

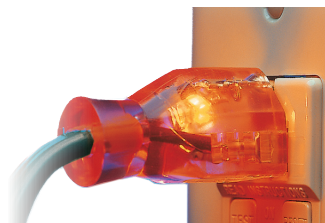
### Notes

- Per NEC and CEC requirements ALWAYS use a ground fault protection device (GFEP) to reduce the danger of fire from a damaged or improperly installed heating cable. Electrical fault currents caused by damaged or improperly installed cable MAY NOT BE LARGE ENOUGH to trip a conventional circuit breaker.
- Heating cables must be installed in compliance with all national, state/provincial and local codes. Check with your local electrical inspector for specific details.
- It is recommended that the circuit supplying the heating cable have ground fault protection; this is mandatory by electrical code for some applications in many regions. Consult an electrical inspector to determine the specific ground fault requirements for your application prior to installation.
- Do not alter the length of the heating cable — cable is factory sealed and alteration will result in risk of electrical fire or shock.
- If more than one heating cable is used on a single electrical circuit please refer to the maximum heater length per circuit breaker size chart. Make sure the total heating cable length does not exceed the length specified in this table.
- Minimum installation temperature for the heating cable set is -22°F (-30°C).

## Illustrated Features

### Pilot Light

120 Vac models have a pilot light in the PSR plug confirms connection to a good power source.



### Three Wire Pigtail

240 Vac models have a three wire pigtail that should be directly connected into an appropriate electrical box supplied by ground fault protected circuit.



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## How To Determine The Length of Cable You Need

The total heating cable length for de-icing is determined by including all elements of the roof system that need protection. Use Tables 1 and 2 to determine the total length of cable. Usually one cable will be sufficient for both roof and gutter areas. For larger installations, use separate cables for roof area and gutter/downspout area.

**Table 1: Determination of Total Cable Requirements**

Model Number	Number of Cables
Roof Edge	From Table 2 based on eave overhang
Gutter	1 ft (30.48 cm) of cable/foot of gutter (if gutter is wider than 6 in (15.24 cm), use 2 traces)
Downspout	2 ft (60.96 cm) of cable/foot of downspout—cable is looped down and back
Roof Valley	6 ft (1.83 m) of cable/valley - loop 3 ft (0.91 m) up valley and back
Dormer Perimeter	1 ft (30.48 cm) of cable/foot of dormer perimeter

**Table 2: Cable Length Factors vs. Eave Overhang**

Eave Overhang E	Loop Height H	Length Factor Shingle Roof ① with Sawtooth Pattern	Length Factor Metal Roof ② with Loop Pattern
12 in (30.48 cm)	18 in (45.72 cm)	1.9	2.5
24 in (60.96 cm)	30 in (76.20 cm)	2.7	3.5
36 in (0.91 m)	42 in (1.07 m)	3.6	4.5
48 in (1.22 m)	54 in (1.37 m)	4.6	5.5

*Cable length required = Length Factor × Roof Length (m/feet)*

Notes:

① Typical shingle roof with sawtooth pattern.

② Typical metal roof with loop pattern spaced 24 in (61 cm) for other spacing these factors will need to be adjusted accordingly.

For other designs, contact your local EasyHeat™ sales representative.

## Product Selection

Catalog Number	Description	Carton Quantity	Carton Weight lb (kg)	UPC
PSR1006	6 ft (1.83 m) length, 30 Watts, 120 Vac	5	4 (1.8)	0-13627-06907-7
PSR1012	12 ft (3.66 m) length, 60 Watts, 120 Vac	5	7 (3.2)	0-13627-06908-4
PSR1018	18 ft (5.49 m) length, 90 Watts, 120 Vac	5	8 (3.6)	0-13627-06913-8
PSR1024	24 ft (7.32 m) length, 120 Watts, 120 Vac	5	10 (4.5)	0-13627-06909-1
PSR1050	50 ft (15.24 m) length, 250 Watts, 120 Vac	5	17 (7.7)	0-13627-06910-7
PSR1075	75 ft (22.86 m) length, 375 Watts, 120 Vac	2	10 (4.5)	0-13627-06911-4
PSR1100	100 ft (30.48 m) length, 500 Watts, 120 Vac	2	13 (5.9)	0-13627-06912-1
PSR2006	6 ft (1.83 m) length, 30 Watts, 240 Vac	5	4 (1.8)	0-13627-06867-4
PSR2012	12 ft (3.66 m) length, 60 Watts, 240 Vac	5	7 (3.2)	0-13627-06868-1
PSR2018	18 ft (5.49 m) length, 90 Watts, 240 Vac	5	9 (4.1)	0-13627-06873-5
PSR2024	24 ft (7.32 m) length, 120 Watts, 240 Vac	5	10 (4.5)	0-13627-06869-8
PSR2050	50 ft (15.24 m) length, 250 Watts, 240 Vac	5	16 (7.3)	0-13627-06870-4
PSR2075	75 ft (22.86 m) length, 375 Watts, 240 Vac	2	9 (4.1)	0-13627-06871-1
PSR2100	100 ft (30.48 m) length, 500 Watts, 240 Vac	2	13 (5.9)	0-13627-06872-8