

# EasyHeat™ SR Trace™ Cable

## Roof and Gutter De-Icing, Self-Regulating, Cut-to-Length. For Residential and Commercial Applications.

### Product Overview

- SR Trace cable prevents costly damage to roofs caused by ice formation and snow accumulation in gutters, downspouts, and roof valleys.
- The self-regulating heating cable automatically varies its heat output as the surrounding temperature changes.

### Applications

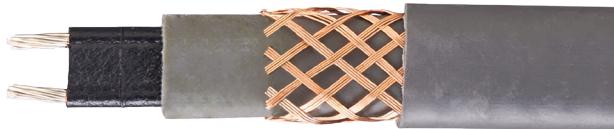
- Suitable for use on asphalt or wood shingles, metal roofing or "membrane" type roofing.
- Downspouts that freeze and clog.

### Features

- Available for 120 and 240 Vac applications.  
— 240 Vac can be used for 208 or 277 Vac applications.
- Power densities of 5 Watts per foot (0.30 m) at +50 °F (+10 °C); 8 Watts per foot in ice.
- Available in cut-to-order lengths, convenient 250 ft (76.20 m) self dispensing reel boxes and 750 ft (228.6 m) master supply reels.
- Manufactured with a waterproof TPE outer jacket.
- Can be installed in dry or wet environments.
- Can be wrapped over itself (overlapped) minimizing the risk of damaging temperature-sensitive roof coating.
- One year limited warranty.

### Related Products

- It is recommended that heating cables for roof and gutter deicing utilize controls that sense the presence of moisture and cold-temperature to optimize energy consumption. See *EasyHeat Roof and Gutter De-Icing Controls*.



### Accessories

- We offer specially designed kits that ease installation and connection of SR Trace products. See *EasyHeat SR Trace Connection Kits and Accessories*.

### Certifications

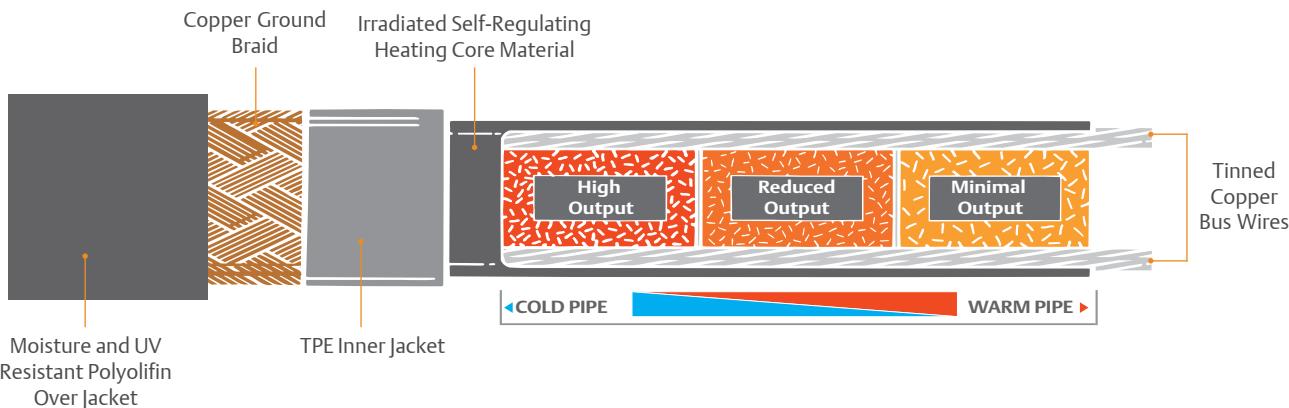
- UL Listed to US and Canadian Safety Standards and CSA Certified.

#### Notes

- Per NEC and CEC requirements **ALWAYS** use a ground fault protection device (GFPD) 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 twist the bus wires together at either end of the cable.
- All electrical connections in the system should be sealed against moisture.
- Do not expose heating cables to temperatures above their maximum ratings.
- Immediately replace any damaged heating cable or components.
- Classified areas (explosive dust or gas) require the use of special electrical components.

### Illustrated Features

A special self-regulating core is at the center of the SR Trace cable. This core is conductive and adjusts according to the surrounding temperatures. When it is cold, the cable's core has many conductive paths that generate enough heat to keep the water flowing from the roof to the ground. As the surrounding temperature warms, there are fewer conductive paths and less heat is generated.



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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 the following charts to determine the total length of cable.

Step 1: Measure the roof length and enter it in "1" in the Cable Length Calculation Chart, Table 3.

Step 2: Measure the overhang (shown in Figure 1) and determine the length multiplier for the type of roof, Table 2. Note: If the exact overhang is not listed, use the next larger size available in the chart.

Step 3: Enter the number of dormers and the length of cable required to go up, over and down in "2" of Table 3.

Step 4: Count the number of valleys and enter that number in "3" of Table 3.

Step 5: Measure the length of the gutters and enter that length in "4" of Table 3. Note: this length will usually be the same as the roof length.

Step 6: Count the number of downspouts and enter that in the first blank of "5" of Table 3.

Step 7: Measure the height of the downspouts. Multiply that number by 2 for the length of the cable required to go down into downspout and back up to the gutter. Enter that number in the second blank of "5" of Table 3.

Step 8: Determine the amount of cable needed for each type of roof feature by multiplying the two numbers on each line together and enter those numbers on the chart.

Step 9: Sum the amount of cable needed for each type of roof feature to determine the total cable length. If this length exceeds the maximum circuit length of the cable, multiple runs will be needed. Although SR cable is cut to length, the amount of cable needed can be lengthened or shortened by increasing or decreasing the loop height.

Table 1: Cable Length Requirements Summary

Item	Cable Length Required (ft)	Comment
Roof Edge	From Table 2	Select from cable length required
Dormer Perimeter	1 ft per ft	1 ft of cable/ft of dormer perimeter
Roof Valley	6 ft minimum	Per valley (3 ft loop)
Gutter	1 ft per ft	1 Trace/6 in of gutter width
Downspout	2 ft per ft	Cable is looped down and back

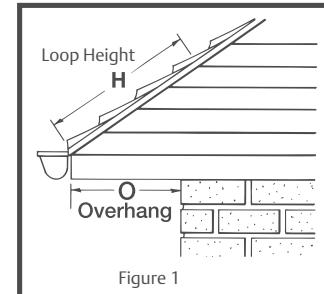


Table 2: Cable Length Factors vs. Roof Overhang

Eave Overhang "O"	Loop Height "H" = "O+6"	Multiplier	
		Length (ft) Factor Shingle Roof ①	Length (ft) Factor Metal Roof ②
12 in	18 in	1.9	2.5
24 in	30 in	2.7	3.5
36 in	42 in	3.6	4.5
48 in	54 in	4.6	5.5
Cable length required = Length Factor x Roof Length ③			

Notes:

① Standard shingle roof.

② Metal roof with two foot loop spacing.

③ Cable length calculated above does not include cable for gutter or downspout. For other designs, contact your local EasyHeat sales representative.

Table 3 Cable Length Calculation Chart

1 Roof	Length	x	Multiplier	=
2 Dormers	Number of	x	up, over and down	=
3 Valleys	Number of	x	6 ft 3 ft up and 3 ft down	=
4 Gutters	Length	x	1 ft 1 ft cable/1 ft gutter	=
5 Downspouts	Number of	x	2x height, up and down	=
			Total Cable Length	=
			Sum of 1 - 5	

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## Product Selection

Catalog Number	Description	Carton Quantity	Carton Weight lb (kg)	UPC
SR51J	5 Watts per foot (0.30 m), 120 Vac, cut-to-order	1	0.057 (0.026) per foot	01362700877
SR51J250	250 ft (76.20 m) self-dispensing reel	1	20 (9.1)	01362706921
SR51J750	750 ft (228.60 m) self-dispensing reel	1	72 (32.7)	01362706922
SR52J	5 Watts per foot (0.30 m), 240 Vac, cut-to-order	1	0.057 (0.026) per foot	01362701021
SR52J250	250 ft (76.20 m) self-dispensing reel	1	20 (9.1)	01362706919
SR52J750	750 ft (228.60 m) self-dispensing reel	1	72 (32.7)	01362706920

## Performance Information

### Performance and Rating Data

Catalog Number	SR51J	SR52J		
Voltage (Vac)	120	208	240	277
Nominal Power Output in Ice (W/ft)	8.0	7.0	8.0	10.0
Nominal Power Output @ +50 °F (+10 °C)	5.0	5.0		
Maximum Single Cable Length ft (m)	191 (58.2)	381 (116.1)		
Minimum Installation Temperature °F (°C)	-40 (-40)	-40 (-40)		
Current Load (Amp/ft)				
at 0 °F (-18 °C) start-up	0.132	0.066		
at -20 °F (-30 °C) start-up	0.147	0.073		

### Maximum Cable Length per Circuit in ft (m)

Breaker Size	SR51J			SR52J		
Start-up Temperature	+20 °F (-6 °C)	0 °F (-20 °C)	-20 °F (-30 °C)	+20 °F (-6 °C)	0 °F (-20 °C)	-20 °F (-30 °C)
15 Amp Breaker	125 (38.1)	115 (35.1)	100 (30.5)	250 (76.2)	225 (68.6)	205 (62.5)
20 Amp Breaker	170 (51.8)	150 (45.7)	135 (41.1)	335 (102.1)	300 (91.4)	270 (82.3)
30 Amp Breaker	250 (76.2)	225 (68.6)	205 (62.5)	500 (152.4)	455 (138.7)	405 (123.4)