

EasyHeat™ ADKS Cable

Roof and Gutter De-Icing, Constant Wattage, Pre-Terminated. For Residential Applications.

Product Overview

- ADKS roof and gutter de-icing cables prevent ice dam formation and promote the free flow of water through gutters and downspouts to ground level.

Applications

- Residential roof and gutter de-icing.

Features

- 120 Vac operating voltage.
- Rated at 5 Watts per foot (0.30 m).
- Pre-terminated lengths from 20 ft to 240 ft (6 m to 73 m).
- Includes a three wire grounded plug with a 6 ft (2 m) power cord.
- Roof and gutter de-icing kits include the roof clips and cable spacers.
- Two year limited warranty.

Related Products

- Use of a temperature and moisture sensing control, such as the Roof Sentry RS2, is highly recommended. See *EasyHeat™ Roof and Gutter De-Icing Controls*.

Certifications

- UL Listed to Canadian Safety Standards and CSA Certified.

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.
- This product is for the sole intended use of preventing ice dams from forming on inclined roofs with tab shingles, in gutters and in downspouts.
- Never install on a flat roof. Never install on combustible materials. Not suitable for use on metal roofs. For additional information, please refer to product Installation Instructions.
- This roof de-icing cable is not intended for use as a snow-melting system to clear roof of ice and snow.
- Do not use this cable to melt snow and ice that has already formed on your roof or in your gutters or downspouts.
- Do not modify the plug provided with the cable. If it will not fit the outlet, have a proper outlet installed by a licensed electrician.



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How To Determine The Length of Cable You Need

It is important to obtain an accurate estimate of the cable length you need because you cannot change the cable length in any way. Cable should be installed on roof areas where ice dams form. This can be the entire roof edge or specific areas such as beneath skylights, in valleys or around dormers. Cable should also be installed in any nearby gutters, downspouts and/or valleys.

- If you need to apply the cable on a roof with gutter, downspouts, valleys, and/or dormers, follow “For Typical Roof Applications”.
- If you need to install the cable in the gutters only, follow “For Problems in the Gutter Only”.
- If you need to install the cable on a roof with special roof areas such as a roof with skylights, follow “For Roofs with Special Roof Area Applications”.

For Typical Roof Application

- Step 1. For each area listed in Table 1, measure the required dimensions (see Figures 1 and 2) and calculate the length of cable needed. Add each “area” calculation to determine the total cable length needed.
- Step 2. Use the estimated cable length to select the proper de-icing cable from Table 3. Choose the longer cable if the length you need is between the sizes offered. If the difference is small, the shorter cable can be used. You cannot change the cable length by cutting, splicing or altering it in any way. If ice dams are occurring on roof areas that are a significant distance apart, you may want to use a separate cable for each location, instead of using one large cable. If roof areas are large, separate cables for the roof area and gutter should be used.

Table 1: Cable Length Estimation Formula for Typical Roof Applications

Area	What to Measure	How to Calculate
Along Roof	Overhang (A)	Length of roof (B) X overhang multiplier (see Table 2)
	Length along roof (B)	
Dormer	Distance around dormer (C)	Number of dormers X distance around dormer(s) (C)
Valley	Number of valleys (D)	Number of valleys (D) X 6 ft (1.8 m)
Downspouts	Number of downspouts	Number of downspouts X Length of downspout (E) X 2
	Length of downspouts (E)	

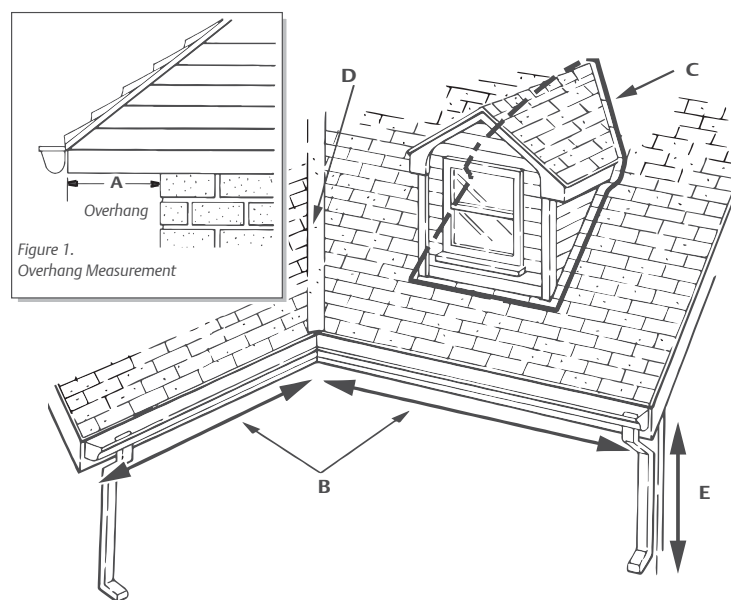


Figure 2. Roof Measurements

Table 2: Overhang Multiplier

Roof Overhang in (cm)	Multiplier For roof with gutter	Multiplier For roof without gutter
Less than 12 (30)	4.0	3.0
12 (30)	4.0	3.0
24 (60)	5.3	4.3
24 (90)	6.8	5.8
48 (120)	8.1	7.1
60 (150)	9.6	8.6
72 (180)	11.2	10.2

Note: For overhangs not listed, estimate multiplier. For example, for an 18 in (45.7 cm) overhang with a gutter, multiplier will be about 4.7.

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Table 3: De-Icing Kits

Catalog Number	Length ft (m)
ADKS100	20 (6)
ADKS150	30 (9)
ADKS300	60 (18)
ADKS400	80 (24)
ADKS500	100 (31)
ADKS600	120 (37)
ADKS800	160 (49)
ADKS1000	200 (61)
ADKS1200	240 (73)

For Problems in the Gutter Only

If ice dams are occurring in gutters only, measure the required dimensions (see Figure 2) and calculate the length of cable needed for each area listed in Table 4. Add each “area” calculation to determine the total cable length needed.

Table 4: Cable Needed for Gutter Only Ice Problems

Area	How to Calculate
Gutter	Length of gutter (B) X 2
Downspouts	Number of downspouts X Length of downspout (E) X 2

For Roofs with Special Roof Area Applications

Step 1. For each area listed in Table 5, measure the required dimensions (see Figure 1 on and Figure 3) and calculate the length of cable needed. Add each “area” calculation to determine the total cable length needed.

Step 2. Use the estimated cable length calculated above to select the proper de-icing cable from Table 3. Choose the longer cable if the length you need is between the sizes offered. If the difference is small, the shorter cable can be used. You cannot change the cable length by cutting, splicing or altering it in any way. If ice dams are occurring on roof areas that are a significant distance apart, you may want to use a separate cable for each location, rather than choosing one large cable. If roof areas are large, separate cables for the roof area and gutter should be used.

Table 5: Cable Length Estimation Formula for a Roof with Special Roof Areas

Area	What to Measure	How to Calculate
Along Roof	Overhang (A)	Length of roof (B) X overhang multiplier (see Table 2)
	Length along roof (B) ①	
Dormer	Distance around dormer (C)	Number of dormers X distance around dormer(s) (C)
Valley	Number of valleys (D)	Number of valleys (D) X 6 ft (1.8 m)
Downspouts	Number of downspouts	Number of downspouts X length of downspout (E) X 2
	Length of downspouts from roof to ground (E)	
Special roof areas (such as skylights)	Distance from roof edge to bottom of special roof area (F)	Distance from roof edge to bottom of special roof area (F) X width of ice dams that form along special roof area (G) X special roof area multiplier (see Table 6)
	Width of ice dams that form along special roof area (G)	

① Note: Do not include the width of special areas (G) in this measurement.

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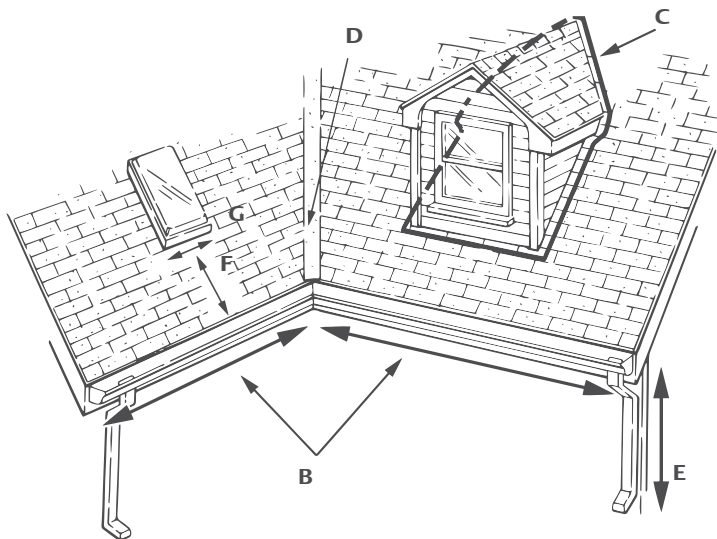


Figure B-3. Roof Measurements

Table 6: Special Roof Area Multiplier

Multiplier for roof with gutter	Multiplier for roof without gutter
2.6	1.6

Example 1: Example of Typical Estimation

If the roof section (See Figure 2) that you want to treat that has:

- 32 feet of roof
- An overhang of 12 inches with a gutter
- 1 dormer (30 feet around)
- 1 valley
- 2 downspouts (each 10 feet long)

From Table 2, the multiplier for a roof with a gutter and an overhang of 12 inches is 4.

Using Table 1, the cable length needed = $(32 \times 4) + (1 \times 30) + (1 \times 6) + (2 \times 10 \times 2) = 204$

Using Table 3, you would select the ADKS-1000 (200 feet of cable). You would select the smaller cable because the difference between the cable length and your calculation is less than 5 feet.

Example 2: Example of Special Roof Area Estimation

This example shows how to estimate the cable length needed for a limited problem roof area – a skylight (see Figure 3). For this roof, you would like to treat only the problem area underneath the skylight.

This roof section has:

- 1 downspout (10 feet long)
- 1 skylight (the distance from the bottom of the skylight to the roof edge is 12.5 feet, and the width of the ice dams that form beneath the skylight is about 6 feet)
- 1 gutter

From Table 6: Special Roof Area Multiplier, the special roof area multiplier for a roof with a gutter is 2.6.

Using Table 5, the cable length needed = $(1 \times 10 \times 2) + (12.5 \times 6 \times 2.6) = 215$

From Table 3, you would select the ADKS-1200 (240 feet of cable) to ensure complete coverage.

Note: If you are only treating one special roof area and the problem area is a significant distance from the downspout, you may wish to add extra cable to your estimation to account for the cable in the gutter.

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Product Selection

Catalog Number	Description	Carton Quantity	Carton Weight lb (kg)	UPC
ADKS100 ①	20 ft (6.1 m) length, 100 Watts	5	8 (3.6)	01362710969
ADKS150 ①	30 ft (9.1 m) length, 150 Watts	5	9 (4.1)	01362710970
ADKS300 ①	60 ft (18.3 m) length, 300 Watts	5	13 (5.9)	01362710971
ADKS400 ①	80 ft (24.4 m) length, 400 Watts	5	16 (7.3)	01362710972
ADKS500 ①	100 ft (30.5 m) length, 500 Watts	5	17 (7.7)	01362710973
ADKS600	120 ft (36.6 m) length, 600 Watts	2	10 (4.6)	01362710974
ADKS800	160 ft (48.8 m) length, 800 Watts	2	12 (5.4)	01362710975
ADKS1000	200 ft (61 m) length, 1000 Watts	2	15 (6.8)	01362710976
ADKS1200	240 ft (73.2 m) length, 1200 Watts	2	17 (7.7)	01362710977
RKCADKS	Starter assortment: one each of ①'s kits above	1 set	14 (6.4)	01362707042
RKFADKS	Assortment: two each of ①'s kits above; (1) RS2	1 set	27 (12.2)	01362707001
CSK12	Clips (19) and spacers (16)	10 bags	2 (0.9)	01362710814

ROOF AND GUTTER DE-ICING

① Individual cables are available as part of a kit, see RKCADKS or RKFADKS.