



# PRODUCT DATASHEET

## RGS™

### SELF-REGULATING HEAT TRACING

#### APPLICATION: SNOW AND ICE MELTING

RGS self-regulating trace heaters are part of the Thermon SnoTrace™ family of snow and ice melting systems. Designed and approved specifically for roof and gutter applications, RGS withstands direct exposure to harsh environmental conditions.

Due to its self-regulating feature, RGS will increase power when exposed to ice and snow. When the area has been cleared the power output will decrease to reduce energy consumption.

#### EASY TO DESIGN AND INSTALL

The layout of RGS for a roof and gutter snow and ice melting system is easy. The step-by-step design guide leads the reader through determining the heating requirements, selecting the trace heater spacing and establishing the number of heating circuits and accessories required to complete the SnoTrace RGS system (for more information, refer to the SnoTrace RGS Design Guide, Form CPD1037).

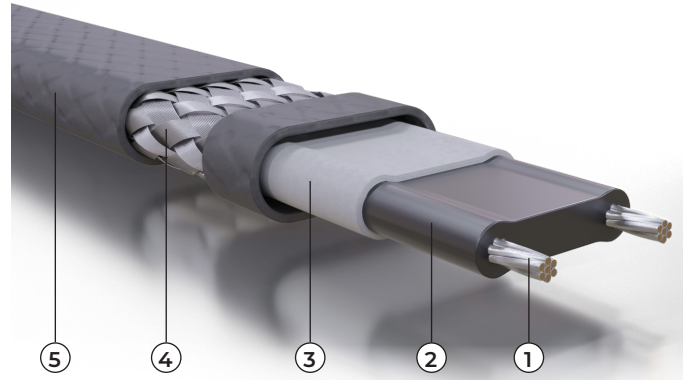
With cut-to-length parallel circuitry field dimensions of the areas requiring protection are not required.

RGS may be simply pulled from the supply reel, cut to length and terminated in the field with ordinary hand tools. Easy-to-use roof and gutter accessory materials, plus Thermon circuit fabrication kits, complete an installation.

#### RUGGED AND RELIABLE

RGS self-regulating trace heaters are protected by a tinned copper braid for grounding plus a thick, abrasion resistant, polyolefin outer jacket containing a UV inhibitor. These components maximize protection during installation and enable years of exposure to the elements.

RGS is inspected along its entire length to verify performance. Backed by the first North American heat tracing manufacturer with ISO 9001 registration, RGS trace heaters are designed and manufactured to meet the needs of the commercial construction industry.



#### CHARACTERISTICS

1. 1.3 mm<sup>2</sup> (16 AWG) Nickel-Plated Copper Bus Wire
2. E-Beam Cross-Linked Polyolefin Semiconductive Heating Matrix
3. E-Beam Cross-Linked Polyolefin Primary Dielectric Insulation
4. Tinned Copper Metallic Braid
5. Abrasion Resistant Polyolefin Outer Jacket with UV Inhibitor

#### RATINGS

Supply voltages.....	110-120 or 208-277 Vac
Minimum bend radius.....	32 mm (1.25")
Nominal power output @ 0°C (32°F)	
In snow and ice.....	39 W/m (12 W/ft)
In dry air.....	20 W/m (6 W/ft)
30 mA Ground-Fault Protection Required <sup>1</sup>	

#### CERTIFICATIONS/APPROVALS





**CABLE SELECTION**

Catalog Number	Start-Up Temperature	Operating Voltage <sup>2</sup>	Max. Circuit Length vs. Breaker Size <sup>2</sup>			
			15 A	20 A	30 A	40 A
RGS-1	-18°C (0°F)	120 Vac	24 m (80')	32 m (105')	47 m (155')	53 m (175')
RGS-1	-7°C (20°F)	120 Vac	30 m (100')	41 m (135')	53 m (175')	53 m (175')
RGS-2	-18°C (0°F)	208 Vac	44 m (145')	58 m (190')	88 m (290')	107 m (350')
RGS-2	-7°C (20°F)	208 Vac	56 m (185')	74 m (245')	107 m (350')	107 m (350')
RGS-2	-18°C (0°F)	240 Vac	45 m (150')	61 m (200')	90 m (295')	107 m (350')
RGS-2	-7°C (20°F)	240 Vac	58 m (190')	76 m (250')	107 m (350')	107 m (350')
RGS-2	-18°C (0°F)	277 Vac	47 m (155')	62 m (205')	95 m (310')	107 m (350')
RGS-2	-7°C (20°F)	277 Vac	59 m (195')	78 m (255')	107 m (350')	107 m (350')

**Notes:**

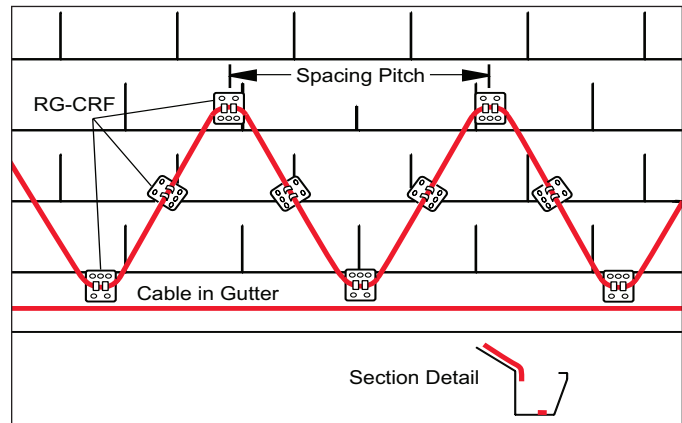
1. The National Electrical Code and the Canadian Electrical Code require ground-fault protection of equipment for each branch circuit supplying electric heating equipment.
2. Circuit lengths are based on start-up temperatures shown. Refer to the SnoTrace RGS Design Guide, Form CPD1037, or contact Thermon for design assistance.

**COMPONENTS**

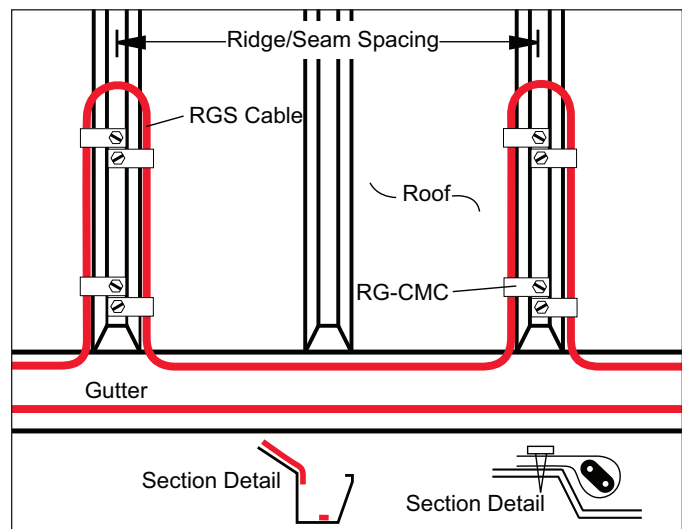
Thermon provides a full range of components for sealing and connecting these cables. Contact Thermon for full details.

**INSTALLATION INSTRUCTIONS**

Detailed installation instructions Form No. CPD1020 are available on request.



Typical Shingle Roof Installation



Typical Standing Seam Roof Installation