

Self-Regulating Heat-Trace Cables

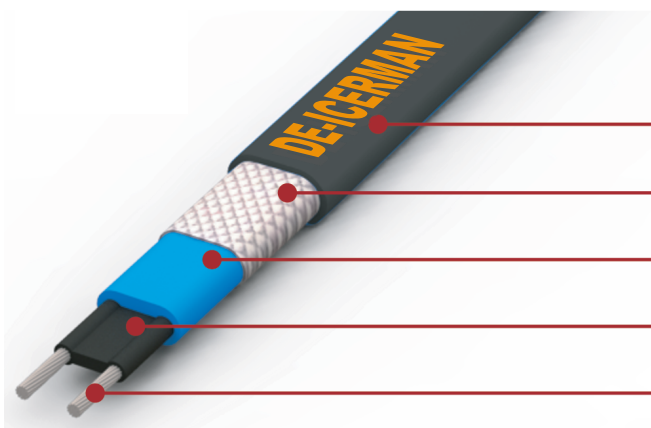
DESCRIPTION

De-Icerman self-regulating heat-trace cables are designed to automatically adjust its heat output in response to changes in ambient temperature along its length.

They consist of two parallel bus wires embedded in a semi-conductive polymer core whose electrical resistance varies with temperature decreasing in cold conditions to produce more heat and increasing in warmer conditions to reduce power output.

This self-modulating behavior prevents overheating and allows the cable to be safely overlapped or cut to length in the field.

The conductive core is typically surrounded by insulation, an optional tinned-copper braid for grounding, and an outer protective jacket made from **Thermoplastic elastomer** containing a UV inhibitor for increased UV protection.



Cable Construction

- Outer jacket (UV-Resistant)
- Tinned copper braid
- Radiation cross-linked polyolefin insulation
- Semi-conductive self-limiting matrix
- Bus wire





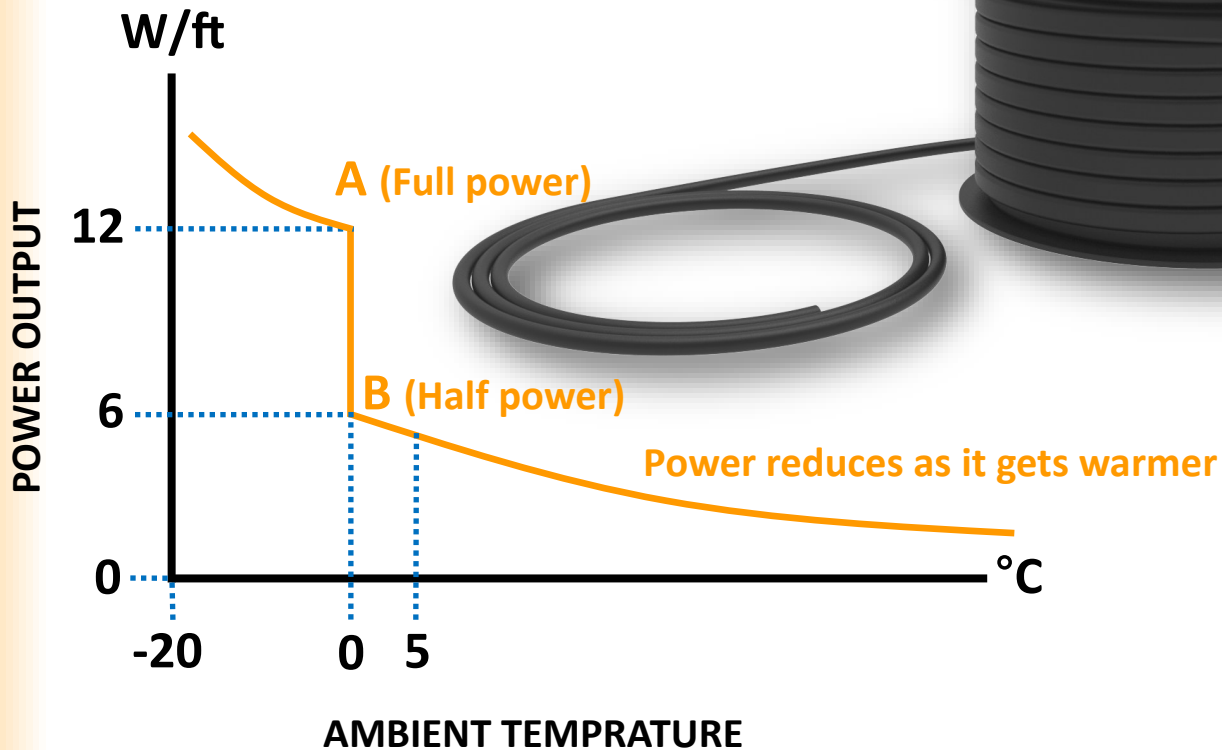
APPLICATIONS

Roof and gutter self-regulating heat-trace cables are used to prevent ice dams and icicle formation on building roofs and in gutter systems during freezing conditions. They automatically adjust their heat output based on ambient temperature, ensuring efficient melting of snow and ice only where needed. Typical applications include installation along roof edges, in valleys, inside gutters, and through downspouts to maintain continuous water flow and prevent blockages that can lead to roof leaks, structural damage, or safety hazards from falling ice. These cables are widely used in residential, commercial, and industrial buildings where reliable winter freeze protection is essential.

Specification	Supply Voltage	110 - 120V or 208 - 240V
	Bus Wires	16 AWG Tinned copper wires
	Normal Power Output	In Ice/Snow @ 0°C (32°F): 12 W/ft In Air @ 0°C (32°F): 10 W/ft
	Outer Jacket	Thermoplastic Elastomer
	Minimum Bend Radius	1 inch (25 mm) @ -20°C (-4°F)
	Max Exposure Temperature	85°C (185°F)
	Min Installation Temperature	-20°C (-4°F)

Max Cable Length per Circuit Breaker	Model	Voltage	Start-up Temperature	Maximum Cable Length (Ft.)			
				15A	20A	30A	40A
	DSR-RGS-12-1	120	10°C (50°F)	95	128	190	190
	DSR-RGS-12-1	120	0°C (32°F)	92	118	174	190
	DSR-RGS-12-1	120	-20°C (-4°F)	75	95	148	190
	DSR-RGS-12-2	208	10°C (50°F)	180	236	360	360
	DSR-RGS-12-2	208	0°C (32°F)	171	223	338	360
	DSR-RGS-12-2	208	-20°C (-4°F)	138	184	275	360
	DSR-RGS-12-2	240	10°C (50°F)	190	252	380	380
	DSR-RGS-12-2	240	0°C (32°F)	180	236	350	380
DSR-RGS-12-2	240	-20°C (-4°F)	148	193	288	380	

POWER OUTPUT DIAGRAM



RECOMENDATIONS

Self regulating cables do adjust their heat output automatically, however they do not shut down their power completely! It is strongly recommended to combine them with sensors and controllers to maximize power consumption efficiency and lifespan. We carry a variety of sensors and controllers suitable for any type of residential, commercial, and industrial applications. Please refer to our installation manuals or contact us directly for details.

INSTALLATION & ACCESSORIES

For further details on installation and required accessories please refer to our installation manuals published on our website. We carry a comprehensive collection of accessories and connection kits to address any type of installation.

WARRANTY

At DE-ICERMAN we closely monitor the quality of our productions and manufacturing process. We offer 2-year warranty (from the date of purchase) on all our cable products.