Pipes

Model: DSR-PFP

DE-ICERMAN

Self-Regulating Heat-Trace Cable Data Sheet

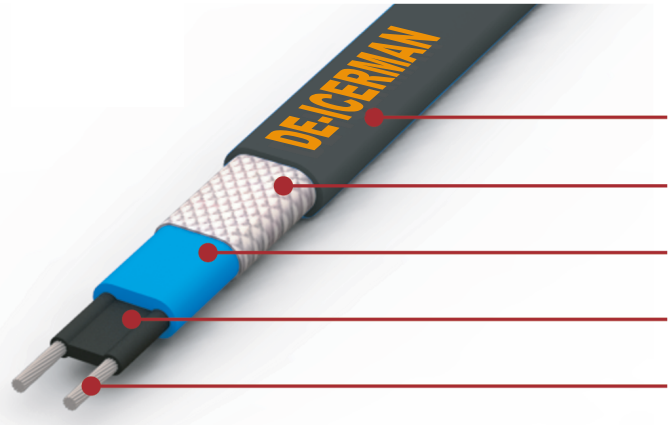
DESCRIPTION

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 **Modified polyolefin** for enhanced moisture and mechanical resistance.



Cable Construction

Outer jacket (Modified polyolefin)

Tinned copper braid

Radiation cross-linked polyolefin insulation

Semi-conductive self-limiting matrix

Bus wire

C SA® US

416-300-7838
info@deicerman.com
www.deicerman.com

Pipes

Model: DSR-PFP

DE-ICERMAN

APPLICATIONS

Pipe Freeze Protection self-regulating heat-trace cables are used to prevent water and other fluids inside pipes from freezing during cold weather, which can cause blockages, bursts, or system shutdowns. These cables are installed along the length of metal or plastic pipes and automatically adjust their heat output in response to temperature changes, delivering more heat when the pipe temperature drops and less when it rises. This energy-efficient, self-regulating behavior eliminates the risk of overheating and allows cables to be safely overlapped or cut to length in the field. They are commonly used in residential, commercial, and industrial settings to protect water supply lines, fire sprinkler systems, and process piping exposed to freezing conditions.

Specification	
Supply Voltage	110 - 120V or 208 - 240V
Bus Wires	16 AWG Tinned copper wires
Power Output	3, 5, 8, and 10 W/ft
Outer Jacket	Modified polyolefin
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)
Circuit Protection	30mA ground-fault protection required

Maximum Cable length per Circuit Breaker

Model (120 V)	Start-up Temperature	Maximum Cable Length (Ft.)			
		15A	20A	30A	40A
DSR-PFP-05-1	10°C (50°F)	279	279	279	279
	0°C (32°F)	276	279	279	279
	-20°C (-4°F)	199	249	279	279
DSR-PFP-08-1	10°C (50°F)	150	187	246	246
	0°C (32°F)	125	156	246	246
	-20°C (-4°F)	100	124	198	247

Model (240 V)	Start-up Temperature	Maximum Cable Length (Ft.)			
		15A	20A	30A	40A
DSR-PFP-05-2	10°C (50°F)	499	499	499	499
	0°C (32°F)	499	499	499	499
	-20°C (-4°F)	396	495	499	499
DSR-PFP-08-2	10°C (50°F)	429	463	463	463
	0°C (32°F)	372	463	463	463
	-20°C (-4°F)	273	341	463	463

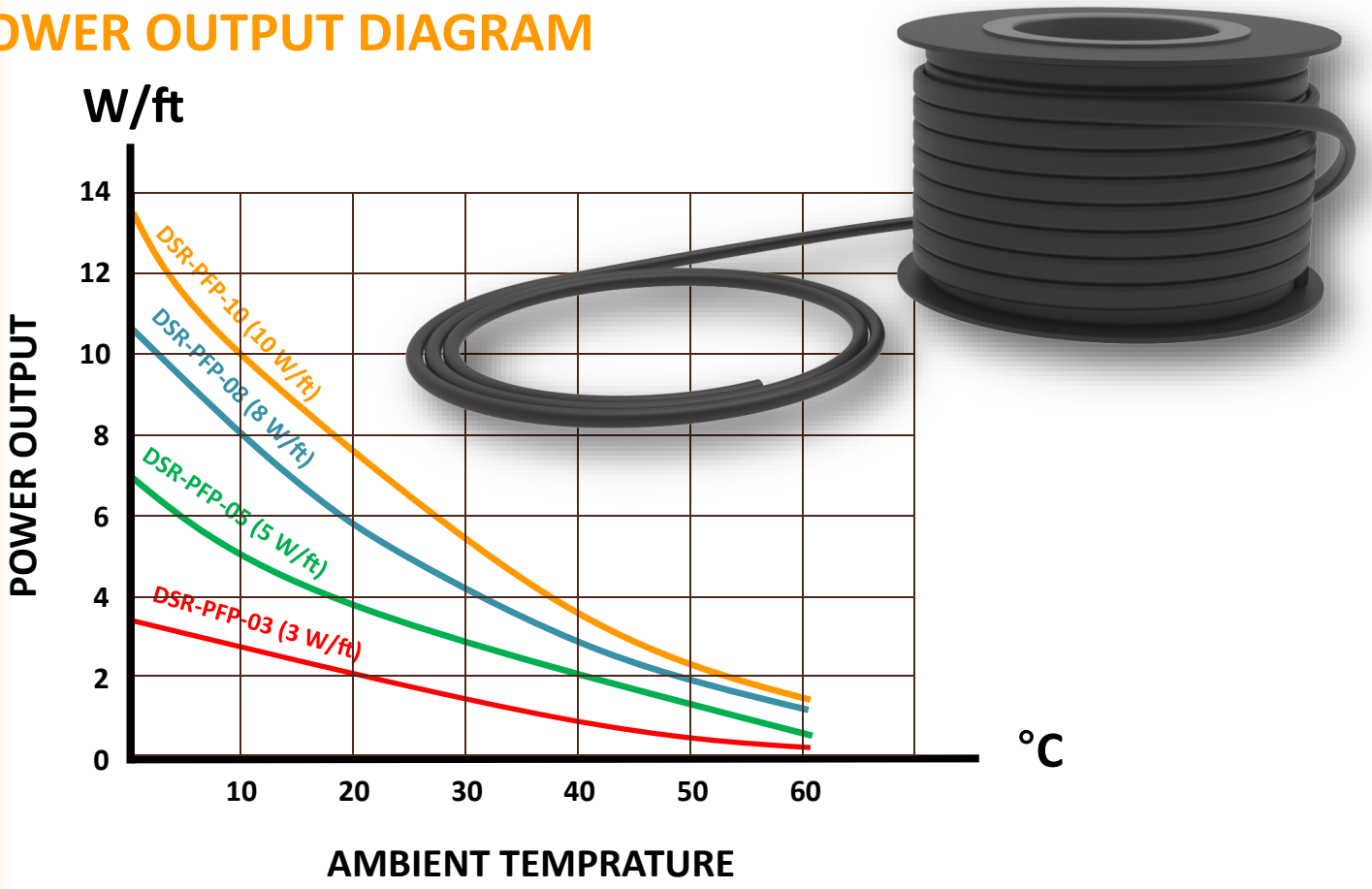
416-300-7838
info@deicerman.com
www.deicerman.com

Pipes

Model: DSR-PFP

DE-ICERMAN

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.

416-300-7838
info@deicerman.com
www.deicerman.com