



**PRODUCT DATASHEET**  
**KSR™**  
**SELF-REGULATING HEAT TRACING**

**APPLICATION: SNOW AND ICE MELTING**

KSR self-regulating heating trace heaters are an integral part of Thermon's SnoTrace™ snow and ice melting systems. Designed and approved specifically for direct burial, KSR withstands the harsh conditions encountered during concrete placement.

The self-regulating heat output of KSR varies in response to the surrounding concrete temperatures. When the concrete is at or below freezing temperatures, KSR will deliver the maximum power output. As the concrete warms up, the power output will decrease. Energy efficiency can be accomplished without special or sophisticated controls.

**EASY TO DESIGN**

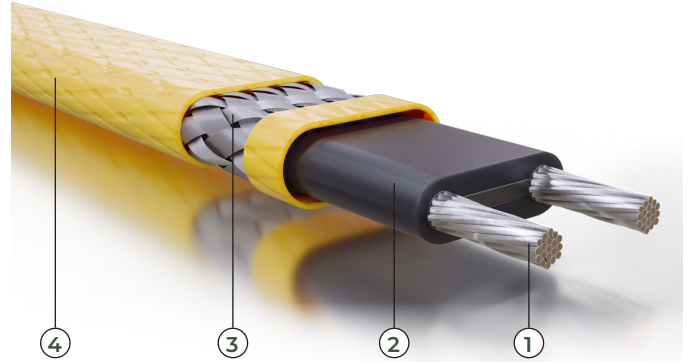
Determining the circuit layout of KSR for a snow and ice melting system is easy. The step-by-step design guide leads the reader through determining the heating requirements, selecting the trace heater spacing and establishing the number of heating circuits and accessories required to complete the SnoTrace system (for more information, refer to the SnoTrace KSR Design Guide, Form CPD1057).

With cut-to-length parallel circuitry, KSR easily adapts to variations in design found at the job site. This can reduce or eliminate the need to redesign circuits off-site without details or sufficient time to react.

**EASY TO INSTALL**

The demanding environment associated with forms, reinforcing steel and concrete placement requires that the trace heater be rugged. The fluoropolymer jacketed KSR with an additional silicone rubber outer jacket provides the needed durability. Yet it is flexible enough to adapt to steps, curved walkways, landings or other confined areas.

Installing and terminating KSR is easy. Simply unreel the amount of trace heater needed for the area/circuit and terminate with Thermon circuit fabrication kits and accessories. Power connection, splice kits, end termination and expansion joint kits are all designed specifically for the demanding application.



**CHARACTERISTICS**

1. 1.3 mm<sup>2</sup> (16 AWG) Nickel-Plated Copper Bus Wire
2. Semiconductive Heating Matrix and Fluoropolymer Dielectric Insulation
3. Tinned Copper Metallic Braid
4. Silicone Rubber Outer Jacket

**RATINGS**

Power Output.....	90 W/m (27 W/ft) @ 0 °C (32 °F) concrete surface temperature
Minimum bend radius.....	32 mm (1.25")
Supply voltage.....	208-277 Vac
Circuit protection .....	30 mA ground-fault protection required

**CERTIFICATIONS/APPROVALS**





**TRACE HEATER SELECTION<sup>1</sup>**

Catalog Number	Start-Up Temperature	Operating Voltage	Installation Method	Maximum Circuit Length vs. Breaker Size			
				15 A	20 A	30 A	40 A
KSR-2	-18°C (0°F)	208 Vac	Direct Burial	24 m (80')	32 m (105')	49 m (160')	64 m (210')
KSR-2	-18°C (0°F)	220 Vac	Direct Burial	24 m (80')	32 m (105')	50 m (165')	66 m (215')
KSR-2	-18°C (0°F)	240 Vac	Direct Burial	26 m (85')	34 m (110')	52 m (170')	69 m (225')
KSR-3	-18°C (0°F)	277 Vac	Direct Burial	30 m (100')	41 m (135')	62 m (205')	82 m (270')
KSR-2	-7°C (20°F)	208 Vac	Direct Burial	26 m (85')	34 m (110')	50 m (165')	67 m (220')
KSR-2	-7°C (20°F)	220 Vac	Direct Burial	26 m (85')	34 m (110')	52 m (170')	69 m (225')
KSR-2	-7°C (20°F)	240 Vac	Direct Burial	27 m (90')	37 m (120')	55 m (180')	69 m (225')
KSR-3	-7°C (20°F)	277 Vac	Direct Burial	34 m (150')	46 m (110')	69 m (225')	82 m (270')

**Notes**

1. For design and installation requirements, refer to SnoTrace KSR Design Guide, Form CPD1057, or contact Thermon for assistance.
2. For other approvals and certifications requirements, contact Thermon for assistance.

