



PRODUCT SPECIFICATIONS

# RSX™ 15-2 SELF-REGULATING HEATING CABLE

### APPLICATION

RSX 15-2 self-regulating heating cable is designed for applications where the Watt density requirements preclude the use of the standard range of winterization cables. The cable is ideally suited for freeze protection or process temperature maintenance applications that have higher heat losses but are not exposed to high temperatures (such as steam cleaning).

The heat output of RSX 15-2 cable varies in response to the surrounding conditions along the entire length of a circuit. Whenever the heat loss of the insulated pipe, tank or equipment increases (as ambient temperature drops), the heat output of the cable increases. Conversely, when the heat loss decreases (as the ambient temperature rises or product flows), the cable reacts by reducing its heat output. This self-regulating feature allows RSX 15-2 to be overlapped without temperature upset damage to the cable.

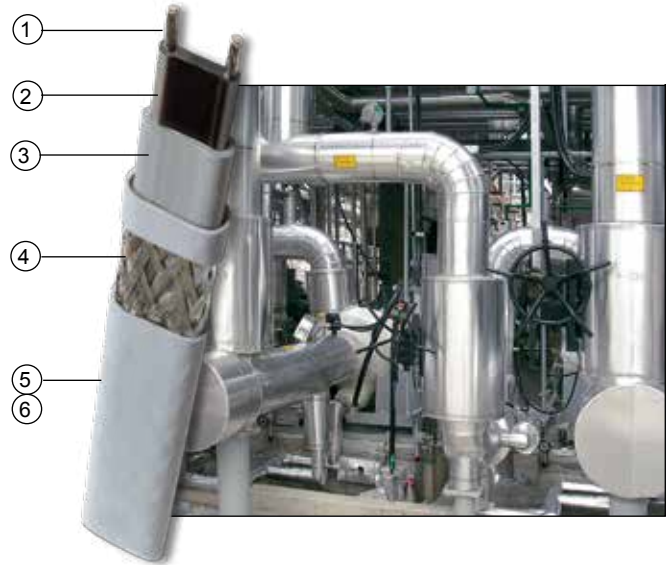
RSX 15-2 is approved for use in ordinary (nonclassified) areas and are certified to the ATEX directive for use in Category 2 and 3 (Zone 1 and 2) classified areas.

### RATINGS

Nominal Watt density.....	48 W/m at 10°C
Nominal supply voltage <sup>1</sup> .....	230 Vac
Maximum maintenance temperature .....	65°C
Maximum continuous exposure temperature	
Power-off.....	85°C
Minimum installation temperature	
RSX with OJ.....	-50°C
RSX with FOJ Option .....	-60°C
Minimum bend radius	
@ -15°C .....	10 mm
@ -50°C for OJ and @ -60°C for FOJ.....	32 mm
T-rating <sup>2</sup>	
RSX with OJ, based on stabilized design .....	T4-T5
RSX with FOJ Option .....	T5

### Notes

1. Cable may be energised at other voltages up to 277 Vac; contact Thermon for design assistance.
2. T-rating per internationally recognised testing agency guidelines. T-rating for OJ option based on stabilized design
3. Information on additional accessories to complete a heater circuit installation and to comply with approval requirements can be found in the "Self-Regulating Cables Systems Accessories" product specification sheet (Form TEP0010U).
4. For ATEX and IECEx certifications, the use of the Terminator Z series and/or the JB-K-EX/JB-0-EX junction box with XP Plus Expediter and PETK-1 and/or SCTK-1 kits are required..



### CONSTRUCTION

- 1 Nickel-plated copper bus wires (2.1 mm<sup>2</sup>)
- 2 Radiation cross-linked semi conductive heating matrix
- 3 Radiation cross-linked dielectric insulation
- 4 Tinned copper braid
- 5 Polyolefin overjacket provides additional protection to cable and braid where exposure to aqueous inorganic chemicals is expected.

### OPTIONS

- 6 FOJ Fluoropolymer overjacket over tinned copper braid provides additional protection to cable and braid where exposure to organic chemicals or corrosives is expected.

### BASIC ACCESSORIES

Thermon offers system accessories designed specifically for rapid, trouble-free installation of Thermon heating cables.

All cables require a connection kit to comply with approval requirements. Information on accessories to complete a heater circuit installation can be found in the "Heating Cable Systems Accessories" product specification sheet (Form TEP0010U).

### PRODUCT FEATURES

- Allows cable to be installed at temperatures to -50°C with OJ, and -60°C with FOJ option.
- Termination for system tested for ozone stability, UV stability and flammability testing according to ISO/IEC requirements

### THERMON The Heat Tracing Specialists®



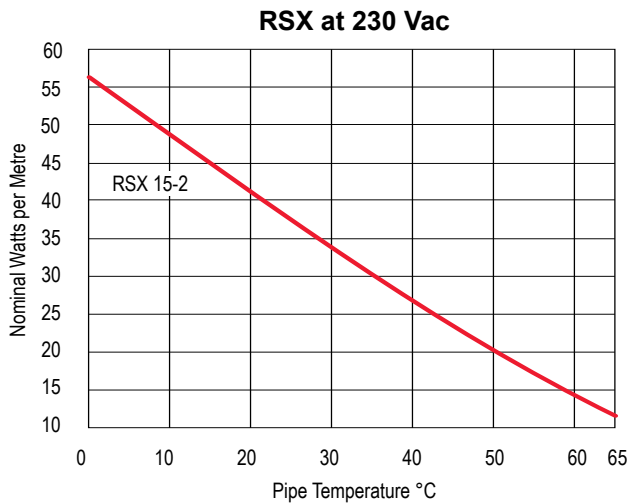
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**POWER OUTPUT CURVES**

The power outputs shown apply to overjacketed cable installed on insulated metallic pipe at the service voltage stated below.

Product Type 230 Vac Nominal	Power Output at 10°C W/m
RSX 15-2	48



**CIRCUIT BREAKER SIZING AND TYPE 1**

Maximum circuit lengths for various circuit breaker amperages are shown below. Circuit breaker sizing and earth-fault protection should be based on applicable local codes. For information on design and performance on other voltages, contact Thermon.

Earth-fault protection of equipment should be provided for each branch circuit supplying electric heating equipment

**Type B Circuit Breakers**

230 Vac Service Voltage Product Type	Start-Up Temperature <sup>2</sup> °C	Max. Circuit Length <sup>3</sup> vs. Breaker Size Metres			
		16 A	25 A	32 A	40 A
RSX 15-2	10	37	59	78	100
	0	33	52	68	88
	-20	26	41	54	69
	-40	21	34	44	56

**Type C Circuit Breakers**

230 Vac Service Voltage Product Type	Start-Up Temperature <sup>2</sup> °C	Max. Circuit Length <sup>3</sup> vs. Breaker Size Metres			
		16 A	25 A	32 A	40 A
RSX 15-2	10	58	96	112	112
	0	51	84	112	112
	-20	41	66	88	112
	-40	34	54	72	94

**CERTIFICATIONS/APPROVALS**

Certificate KEMA 07 ATEX0179 in accordance with the EU ATEX Directive 94/9/EC

International Electrotechnical Commission  
IEC Certification Scheme for Explosive Atmospheres  
KEM 07.0052

Factory Mutual Research  
Hazardous (Classified) Locations

Underwriters Laboratories Inc.  
Hazardous (Classified) Locations

RSX 15-2 has additional hazardous area approvals including:

- DNV • Lloyd's • TIIS • CSIR-CIMFR • TR TC • CQST

Contact Thermon for additional approvals and specific information.

**Notes**

1. Maximum circuit lengths shown are based on an instantaneous trip current characteristic per IEC 60898 at the referenced start-up temperature and a 10°C maintenance temperature. For maximum circuit lengths with other trip current characteristics contact Thermon.
2. While a heat tracing system is generally designed to keep the contents of a pipe at the desired maintain temperature, the cable may be energized at lower temperatures. For design data with lower start-up temperatures than represented above contact Thermon for design assistance.
3. The maximum circuit length is for one continuous length of cable, not the sum of segments of cable. Refer to CompuTrace® design software or contact Thermon for current loading of segments.