



Industrial heating & heat-tracing cables

Self-Regulating Heat Tracing Cable

110–277 Vac PTC conductive-polymer parallel trace heating tape, 10–60 W/m

IEC 60079-30-1 · IEEE 515

110–120 V & 208–277 V

10–60 W/m · Max +215 °C

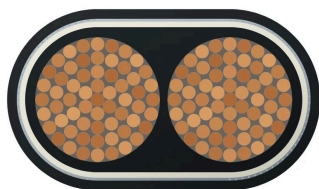


Application

Industrial parallel self-regulating PTC conductive-polymer heat tracing cable to IEC/IEEE 60079-30-1, IEC 62395-1 and IEEE 515 across LSR (+65 °C), MSR (+110 °C) and HSR (+150 °C) series with tinned copper bus wires, earth braid and.

Typical uses: Oil, gas & petrochemical process piping, Chemical storage tanks, valves & pumps, Power generation steam-purge & condensate lines, Water, wastewater & fire-sprinkler freeze protection, Food, edible-oil & pharmaceutical transfer lines, LNG terminals & offshore platform winterisation

Construction



Cross-section, not to scale

1	Parallel tinned-copper bus wires	IEC 60079-30-1 / ASTM B33
2	Self-regulating PTC conductive polymer core	IEC 60079-30-1 / IEEE 515
3	Primary dielectric insulation jacket	IEC 60079-30-1
4	Tinned-copper protective earthing braid	IEC 60079-30-1 Clause 4.4
5	Anti-corrosion outer overjacket	IEC 60079-30-1 / IEEE 515

Technical data

Typical values

Rated supply voltage	110–120 Vac (1-er) & 208–277 Vac (2-er)	Nominal linear power	10, 15, 20, 25, 30, 45 & 60 W/m at +10 °C
Dielectric withstand	2.5 kV AC for 1 min (core to earth braid)	Earth screen coverage	≥ 70 % tinned-copper braid (< 18.2 Ω/km)
Max. maintain temp.	LSR +65 °C · MSR +110 °C · HSR +150 °C	Max. exposure temp.	LSR +85 °C · MSR +135 °C · HSR +215 °C
Min. installation T	–40 °C (polyolefin) · –60 °C (fluoropolymer)	T-class rating	T6 (+85 °C), T4 (+135 °C) & T3 (+200 °C)
Bus wire cross-section	1.25 mm ² (LSR), 1.5 mm ² (MSR), 2.0 mm ² (HSR)	Min. bending radius	25 mm at +20 °C · 35 mm at –40 °C (flat)
Impact & crush class	2 J impact & 1,500 N crush per IEC 60079-30-1	Field overlapping	Safe for single-overlap on valves & flanges
Flame retardance	IEC 60332-1-2 & IEEE 515 vertical flame	Chemicals & oils	-CT fluoropolymer resists acids, bases & oils
Moisture & ingress	IP66/IP67 when terminated with approved kits	UV & weathering	UV-stabilised outer jacket per IEC 60079-30-1
Standards	IEC/IEEE 60079-30-1, IEC 62395-1 & IEEE 515		

Sizes

16 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Model designation	Rated Vac	Thermal series	Output @10°C W/m	Max maintain °C	Max exposure °C	T-class (IEC)	Bus wire mm ²	Width × Thick. mm	Mass ≈ kg/km
☐ 10LSR2-CT · 230 V	230 Vac	LSR (Low)	10	65	85	T6	1.25	10.5 × 5.2	115
☐ 15LSR2-CT · 230 V	230 Vac	LSR (Low)	15	65	85	T6	1.25	10.5 × 5.2	118
☐ 20LSR2-CT · 230 V	230 Vac	LSR (Low)	20	65	85	T6	1.25	11.2 × 5.4	124
☐ 25LSR2-CT · 230 V	230 Vac	LSR (Low)	25	65	85	T6	1.25	11.2 × 5.4	126
☐ 30LSR2-CT · 230 V	230 Vac	LSR (Low)	30	65	85	T6	1.25	11.6 × 5.5	132
☐ 15LSR1-CT · 120 V	120 Vac	LSR (Low)	15	65	85	T6	1.25	10.5 × 5.2	118
☐ 25LSR1-CT · 120 V	120 Vac	LSR (Low)	25	65	85	T6	1.25	11.2 × 5.4	126
☐ 15MSR2-CT · 230 V	230 Vac	MSR (Medium)	15	110	135	T4	1.50	11.8 × 5.6	138
☐ 30MSR2-CT · 230 V	230 Vac	MSR (Medium)	30	110	135	T4	1.50	11.8 × 5.6	142
☐ 45MSR2-CT · 230 V	230 Vac	MSR (Medium)	45	110	135	T4	1.50	12.2 × 5.8	148
☐ 30MSR1-CT · 120 V	120 Vac	MSR (Medium)	30	110	135	T4	1.50	11.8 × 5.6	142
☐ 15HSR2-CT · 230 V	230 Vac	HSR (High)	15	150	215	T3	2.00	12.4 × 6.0	162
☐ 30HSR2-CT · 230 V	230 Vac	HSR (High)	30	150	215	T3	2.00	12.4 × 6.0	165
☐ 45HSR2-CT · 230 V	230 Vac	HSR (High)	45	150	215	T3	2.00	12.8 × 6.2	172
☐ 60HSR2-CT · 230 V	230 Vac	HSR (High)	60	150	215	T3	2.00	12.8 × 6.2	176
☐ 30HSR1-CT · 120 V	120 Vac	HSR (High)	30	150	215	T3	2.00	12.4 × 6.0	165

– Suffix -CR denotes cross-linked polyolefin outer jacket; suffix -CT denotes fluoropolymer outer jacket for chemical and hydrocarbon resistance.

Max. circuit length & Type C breaker sizing

9 sizes

Model designation	Start-up T °C	16 A Type C max m	20 A Type C max m	25 A Type C max m	32 A Type C max m
10LSR2-CT (10 W/m)	+10 °C	150	185	200	200
10LSR2-CT (10 W/m)	–20 °C	102	128	158	182
20LSR2-CT (20 W/m)	+10 °C	92	115	135	135
20LSR2-CT (20 W/m)	–20 °C	62	78	98	122
30LSR2-CT (30 W/m)	+10 °C	64	80	100	110

Model designation	Start-up T °C	16 A Type C max m	20 A Type C max m	25 A Type C max m	32 A Type C max m
30MSR2-CT (30 W/m)	+10 °C	68	85	106	120
45MSR2-CT (45 W/m)	+10 °C	46	58	72	92
30HSR2-CT (30 W/m)	+10 °C	72	90	112	135
60HSR2-CT (60 W/m)	+10 °C	36	45	56	72

- Maximum circuit lengths account for cold-start inrush current and a maximum 10 % bus-wire voltage drop under IEC 60364 Type C circuit breakers with 30 mA ground-fault protection.

Standards and approvals

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/self-regulating-heat-tracing-cable



Typical values for this cable type, based on IEC/IEEE 60079-30-1 & IEEE 515. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.