

Self-Regulating Heating Cable BTC

BTC is an industrial-grade self-regulating heating cable (self-limiting parallel trace heater) that can be used for temperature maintenance or freeze protection of pipelines and vessels. It can be used in non-hazardous and ex-hazardous areas.

The power output adjusts automatically in response to the ambient temperature.

Due to its self-regulating characteristics it will not overheat even when the cable is overlapped. This guarantees maximum safety and reliability.

Installation of BTC heating cable is quick and simple and requires no special skills or tools. Thanks to its parallel construction the heating cable can be fitted on site to exact length without any complicated design calculations.

Features

- 8, 15, 24, 30, 37, 45 or 60 W/m
- For high temperatures
- Steam purging possible
- Ex-approved solution
- Self-regulating, automatically adjusts power output in response to ambient temperature
- Fluoropolymer outer jacket
- Easy to install
- Can be cut to required length on site without any complicated design calculations
- Will not overheat even when overlapped
- Can be used in explosive environments without temperature limiter
- Full range of accessories available
- UV- and chemical-resistant

Application

- Temperature maintenance or freeze protection of pipelines and vessels in non-hazardous and ex-hazardous areas



Construction

1. 1.25 mm² nickel-plated copper conductors
2. Semi-conductive self-regulating heating matrix
3. Matrix insulation
4. Tinned copper braid
5. Fluoropolymer outer jacket

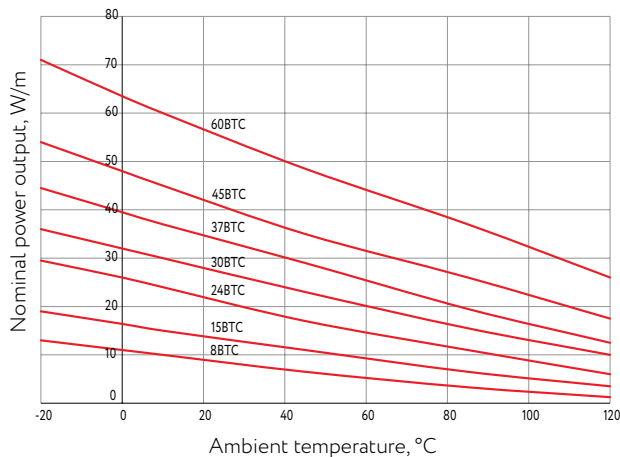
Self-Regulating Heating Cables

Technical Data

| | |
|---|----------------------|
| Rated voltage | 230 VAC |
| Maximum continuous operating temperature (trace heater energized) | +120 °C |
| Maximum continuous exposure temperature (trace heater de-energized) | +200 °C |
| Ambient temperature range | -60 ... +55 °C |
| Minimum installation temperature: Fluoropolymer outer jacket | -60 °C |
| Minimum bending radius | 25 mm |
| Maximum resistance – Braiding | 10 Ohm/km |
| Conductor cross-section | 1.25 mm ² |
| Dimension: Fluoropolymer outer jacket, braiding | 10.8×5.3 mm |
| Weight: Fluoropolymer outer jacket, braiding | 141 kg/km |

Power Output Curve

Nominal power output at rated voltage 230 VAC



Approvals



CETS 23 ATEX 030X
II 2 GD
Ex 60079-30-1 IIC T3 Gb
Ex 60079-30-1 IIIC T200°C Db



Maximum Heating Circuit Length

For use with type C circuit breakers according to IEC 60898-1:2015

| Type | Switch-on temperature, °C | Recommended maximum length depend on Type C circuit breaker, m | | | | |
|--------|---------------------------|--|------|------|------|------|
| | | 10 A | 16 A | 20 A | 25 A | 32 A |
| 8-BTC | 10 | 205 | 280 | 290 | 305 | 320 |
| | -20 | 140 | 190 | 200 | 210 | 225 |
| 15-BTC | 10 | 120 | 165 | 175 | 195 | 220 |
| | -20 | 100 | 145 | 150 | 170 | 200 |
| 24-BTC | 10 | 95 | 130 | 140 | 150 | 170 |
| | -20 | 80 | 115 | 120 | 140 | 160 |
| 30-BTC | 10 | 80 | 115 | 120 | 127 | 135 |
| | -20 | 70 | 100 | 105 | 115 | 125 |
| 37-BTC | 10 | 68 | 95 | 100 | 105 | 115 |
| | -20 | 65 | 95 | 100 | 102 | 105 |
| 45-BTC | 10 | 55 | 80 | 85 | 93 | 100 |
| | -20 | 45 | 75 | 77 | 85 | 95 |
| 60-BTC | 10 | 45 | 70 | 73 | 78 | 85 |
| | -20 | 39 | 63 | 65 | 71 | 78 |

Marking

Example: 15-BTC2-BP

① ② ③ ④ ⑤

1. Nominal power output, W/m at +10 °C
2. Cable type
3. Rated voltage: 2 – 230 VAC
4. Screen type: B – Tinned copper wire braiding
5. Outer jacket material: P – Fluoropolymer

Types

| Outer jacket type | Order code | Outer jacket color | Name | Power output, W/m |
|--------------------------------------|------------|--------------------|------------|-------------------|
| Fluoropolymer outer jacket, braiding | — | Red | 8-BTC2-BP | 8 |
| | 3201103000 | | 15-BTC2-BP | 15 |
| | 3201103005 | | 24-BTC2-BP | 24 |
| | 3201103001 | | 30-BTC2-BP | 30 |
| | 3201103006 | | 37-BTC2-BP | 37 |
| | 3201103002 | | 45-BTC2-BP | 45 |
| | 3201103003 | | 60-BTC2-BP | 60 |