

Self-Regulating Heating Cable BTCe

BTCe 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. Comply with the requirements of IEC/IEFF 60079-30-1-2017 and IEC 60079-0:2018.

BTCe series is an upgrade version of BTC heating cables but with a higher maximum continuous operation temperature – up to +150 °C.

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 BTCe 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

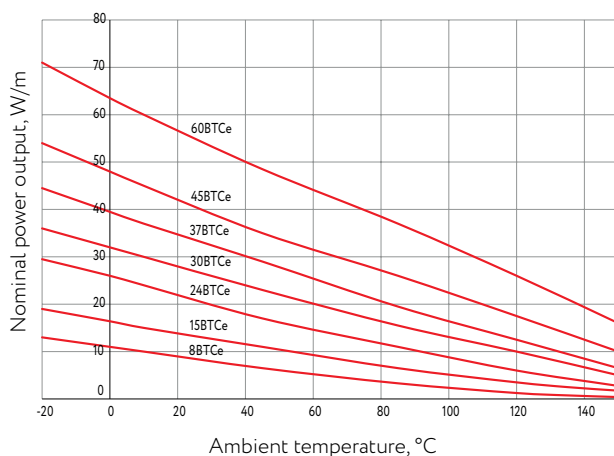
Self-Regulating Heating Cables

Technical Data

Rated voltage	230 VAC
Maximum continuous operating temperature (trace heater energized)	+150 °C
Maximum continuous exposure temperature (trace heater de-energized)	+250 °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-BTCe	10	205	280	290	305	320
	-20	140	190	200	210	225
15-BTCe	10	120	165	175	195	220
	-20	100	145	150	170	200
24-BTCe	10	95	130	140	150	170
	-20	80	115	120	140	160
30-BTCe	10	80	115	120	127	135
	-20	70	100	105	115	125
37-BTCe	10	68	95	100	105	115
	-20	65	95	100	102	105
45-BTCe	10	55	80	85	93	100
	-20	45	75	77	85	95
60-BTCe	10	45	70	73	78	85
	-20	39	63	65	71	78

Marking

Example: 15-BTCe2-BP

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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-BTCe2-BP	8
	—		15-BTCe2-BP	15
	—		24-BTCe2-BP	24
	—		30-BTCe2-BP	30
	—		37-BTCe2-BP	37
	—		45-BTCe2-BP	45
	—		60-BTCe2-BP	60