

ThermTrace® Super (TTS) Self-Regulating parallel heating tape

up to 200°C

Overjacket
Earth braiding
tinned copper
Insulation
Self-Regulating
heating element
1.25 mm² Buswires



THERMTRACE SUPER SELF-REGULATING H

Description of heating tape

- Self-regulating
- 7 power output ranges
- Cut to length

Applications:

ThermTrace Super is a construction and industrial grade self-regulating heating tape that may be used for freeze protection, or temperature maintenance of pipework and vessels.

Function:

Self-regulating heating tapes consist of two parallel buswires, embedded semi-conductive self-regulating matrix. This means that the heating cable automatically responds to changes in ambient conditions.

With increase in temperature, the synthetic material expands by molecular force, and the connections between the carbon particles diminish, reducing the load. Conversely, as the temperature decreases, so the load increases as the connections between the carbon particles increases accordingly.

Thus, the heating power varies according to the temperature of the surface the heating tape is applied to.

Self-regulating heating tapes will not overheat or burnout - even when overlapped.

Technical Data:

| | |
|--|-----------------------------------|
| Maximum exposure temperature (unpowered) | 200°C* |
| *maximal 1000 hours exposure time | |
| Maximum operating temperature (powered) | 120°C |
| Nominal voltage | 230V (120V available to order) |
| Minimum bending radius | 25mm |
| Minimum installation temperature | -30°C |
| Maximum resistance of braid | 18.2 Ohms/km |
| T-Rating | T3 |

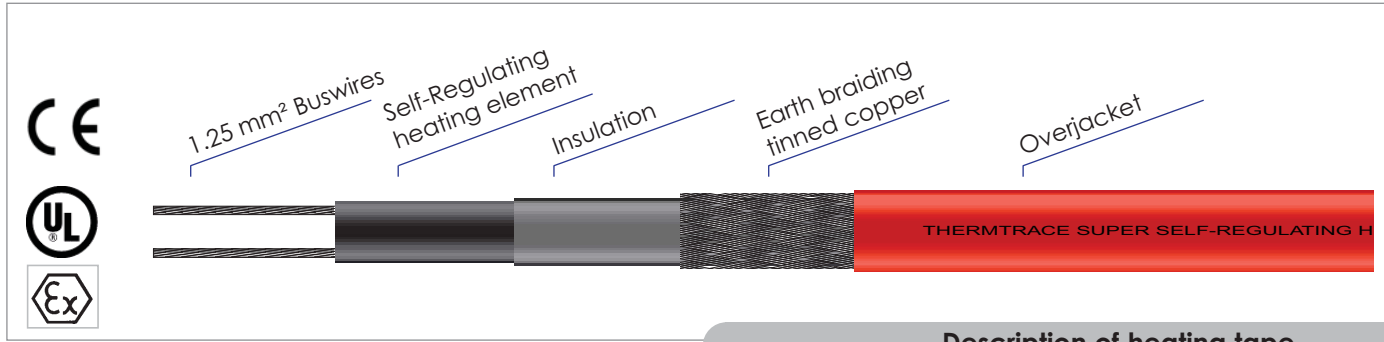
| Part Number | Power Output on Insulated Metal Pipes at 10°C (W/m) | Maximum Permissible Ambient Temperature energised (°C) | Maximum Permissible Ambient Temperature de-energised (°C) | Earth Braid Description | Nominal Dimensions (mm) | Nominal Weight kg/100m |
|-------------|---|--|---|-------------------------|-------------------------|------------------------|
| 10TTS-2-B | 10 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 10TTS-2-BOT | 10 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |
| 15TTS-2-B | 15 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 15TTS-2-BOT | 15 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |
| 20TTS-2-B | 20 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 20TTS-2-BOT | 20 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |
| 25TTS-2-B | 25 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 25TTS-2-BOT | 25 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |
| 30TTS-2-B | 30 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 30TTS-2-BOT | 30 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |

B: tinned copper braid
BOT: Braid and fluoropolymer overjacket



up to 200°C

ThermTrace[®] Super (TTS) Self-Regulating parallel heating tape



Description of heating tape

| Name | Power Output on Insulated Metal Pipes at 10°C (W/m) | Maximum Permissible Ambient Temperature energised (°C) | Maximum Permissible Ambient Temperature de-energised (°C) | Earth Braid Description | Nominal Dimensions (mm) | Nominal Weight (kg/100m) |
|-------------|---|--|---|-------------------------|-------------------------|--------------------------|
| 45TTS-2-B | 45 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 45TTS-2-BOT | 45 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |
| 60TTS-2-B | 60 | 120 | 200 | tinned copper | 9.5 x 4.0 | 12 |
| 60TTS-2-BOT | 60 | 120 | 200 | tinned copper | 10.5 x 5.0 | 12 |

B: tinned copper braid
BOT: Braid and fluoropolymer overjacket

TTS exposure up to 200°C (maximal 1000 hours exposure time)

| | Start-up temp. | 230V | | | 120V | | |
|--------|----------------|------|-----|-----|------|-----|-----|
| | | 16A | 20A | 30A | 16A | 20A | 30A |
| 10 TTS | +10 | 200 | 235 | | 100 | 120 | |
| | -25 | 175 | 235 | | 89 | 120 | |
| 15 TTS | +10 | 165 | 189 | | 80 | 95 | |
| | -25 | 117 | 152 | 189 | 56 | 75 | 95 |
| 20 TTS | +10 | 135 | 160 | | 67 | 80 | |
| | -25 | 100 | 130 | 160 | 50 | 65 | 80 |
| 25 TTS | +10 | 120 | 140 | | 60 | 69 | |
| | -25 | 88 | 120 | 140 | 44 | 59 | 69 |
| 30 TTS | +10 | 85 | 114 | | 44 | 58 | |
| | -25 | 69 | 92 | 114 | 35 | 45 | 58 |
| 45 TTS | +10 | 70 | 82 | | 35 | 41 | |
| | -25 | 49 | 66 | 82 | 24 | 33 | 41 |
| 60 TTS | +10 | 50 | 64 | | 25 | 32 | |
| | -25 | 38 | 52 | 64 | 20 | 25 | 32 |

Maximum recommended length of heating circuit at 230VAC using Type-C circuit breakers.

Product Ordering Information

Power output + TTS-Voltage-(Overjacket)

Example 60W/m@10°C with tinned copper braiding and fluoropolymer jacket (230V):

60 TTS-2-BOT

Example 15W/m@10°C with only insulation (120V):

15 TTS-1

B: tinned copper braid

BOT: Braid and fluoropolymer overjacket

Temperature/Loading diagram TTS

