HTS System AG

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Product Catalogue

Our products

SELF-REGULATING HEATING TAPES

CONSTANT POWER HEATING TAPES

Industrial

ThermTrace® Micro (TTM)
Maximum Exposure Temperature: 65°C

ThermTrace® Lite (TTL)
Maximum Exposure Temperature: 85°C

ThermTrace® Regular (TTR)
Maximum Exposure Temperature: 85°C

ThermTrace® Super (TTS)
Maximum Exposure Temperature: 210°C

ThermTrace® X (TTX)
Maximum Exposure Temperature: 250°C

ThermTrace® ConstantMini (TTCM)
Maximum Exposure Temperature: 225°C

ThermTrace® Constant (TTC)
Maximum Exposure Temperature: 225°C

ThermTrace® LongHeat (TTLH)
Maximum Exposure Temperature: 225°C

Construction

eHeat® Micro
Maximum Exposure Temperature: 65°C

eHeat® Water
Maximum Exposure Temperature: 65°C

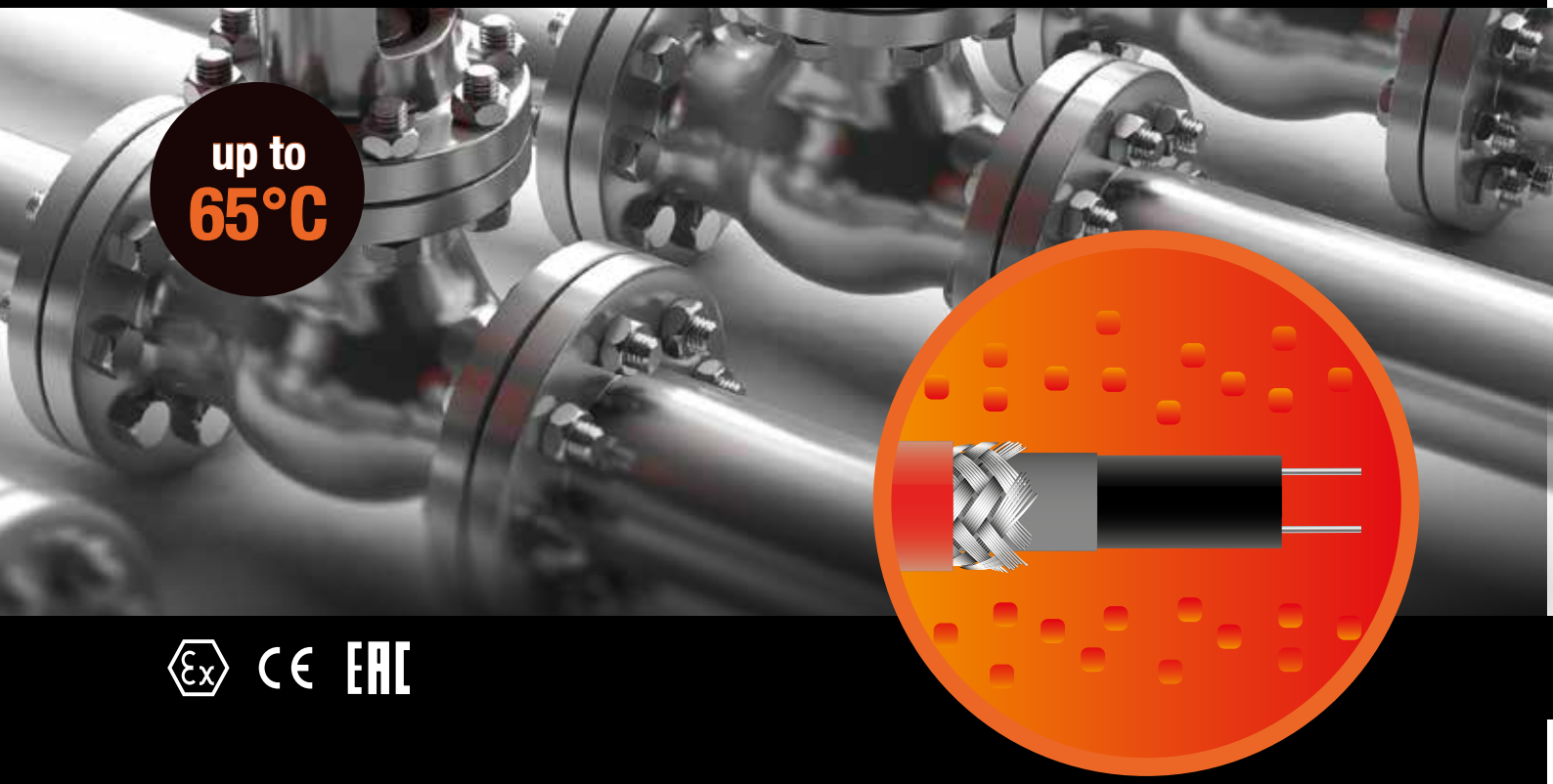
eHeat® Gutter
Maximum Exposure Temperature: 85°C

ThermTrace® WaterHeat (TTWH)
Maximum Exposure Temperature: 100°C

ThermTrace® RampTrace (TTRT)
Maximum Exposure Temperature: 100°C

ThermTrace® Micro (TTM)

SELF-REGULATING PARALLEL HEATING TAPE



Properties

- Self-regulating
- 3 power output ranges
- Cut-to-length
- Small dimensions

Applications

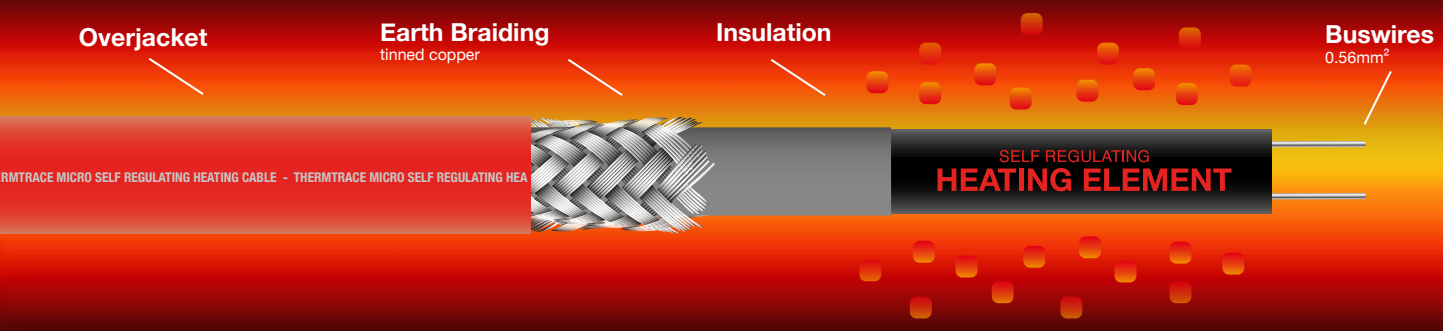
The ThermTrace Micro is a construction grade self-regulating heating tape that may be used for freeze protection or temperature maintenance of pipework and vessels up to 65°. With its flexible properties, it can be applied where installlation dimensions are small.

Technical data

Maximum exposure temperature (unpowered):	65°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	30mm
Min. installation temperature:	-45°C
Buswires:	nickel plated copper

ThermTrace® Micro (TTM)

Name	Power output on insulated metal pipes at 5°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
11 TTM-2	11	65	4.5 x 3.0
17 TTM-2	17	65	4.5 x 3.0
11 TTM-2-BO	11	65	8.4 x 5.6
17 TTM-2-BO	17	65	8.4 x 5.6
20 TTM-2-BO	20	65	8.4 x 5.6
17 TTM-2-BOT	11	65	8.4 x 5.6
17 TTM-2-BOT	17	65	8.4 x 5.6

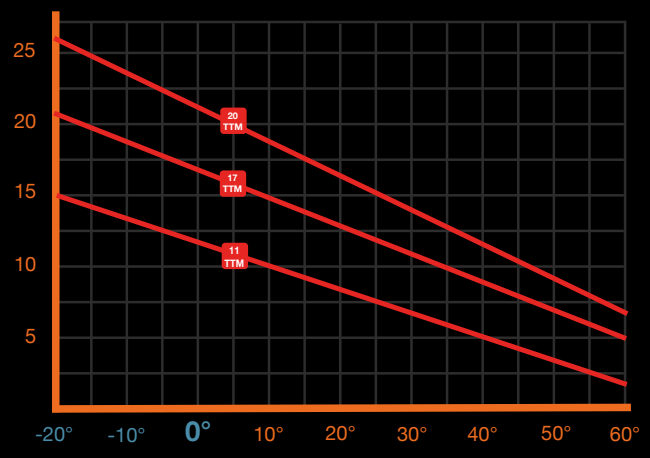


Maximum recommended length of heating circuit at 230 VAC using Type-C circuit breakers:

Product Reference	Circuit Breaker	+10°C	-10°C	-20°C
11TTM	10A	113m*	95m	85m
11TTM	16A	120m	105m	98m
17TTM	10A	85m	70m	60m
17TTM	16A	100m	90m	85m
20TTM	10A	60m	53m	50m
20TTM	16A	66m	56m	53m

* 70m maximum heating circuit for use inside drinking water pipelines (11TTM-2-BOT)

Temperature (°C) / Loading (W/m) diagram



ThermTrace® Lite (TTL)

SELF-REGULATING PARALLEL HEATING TAPE

Properties

- Self-regulating
- 4 power output ranges
- Cut-to-length
- UV-resistant

Applications

The ThermTrace Lite is a construction and industrial grade self-regulating heating tape designed for a wide range of applications. It may be used for freeze protection or low-temperature maintenance of pipes and vessels in hazardous areas as well for roof and gutter heating in the construction sector.

Technical data

Maximum exposure temperature (unpowered):	85°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-50°C
Buswires:	nickel plated copper

ThermTrace® Lite (TTL)

Name	Power output on insulated metal pipes at 5°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
12 TTL-2	12	85	8.0 x 3.0
17 TTL-2	17	85	8.0 x 3.0
23 TTL-2	23	85	8.0 x 3.0
28 TTL-2	28	85	8.0 x 3.0
12 TTL-2-BO	12	85	10.5 x 5.6
17 TTL-2-BO	17	85	10.5 x 5.6
23 TTL-2-BO	23	85	10.5 x 5.6
28 TTL-2-BO	28	85	10.5 x 5.6

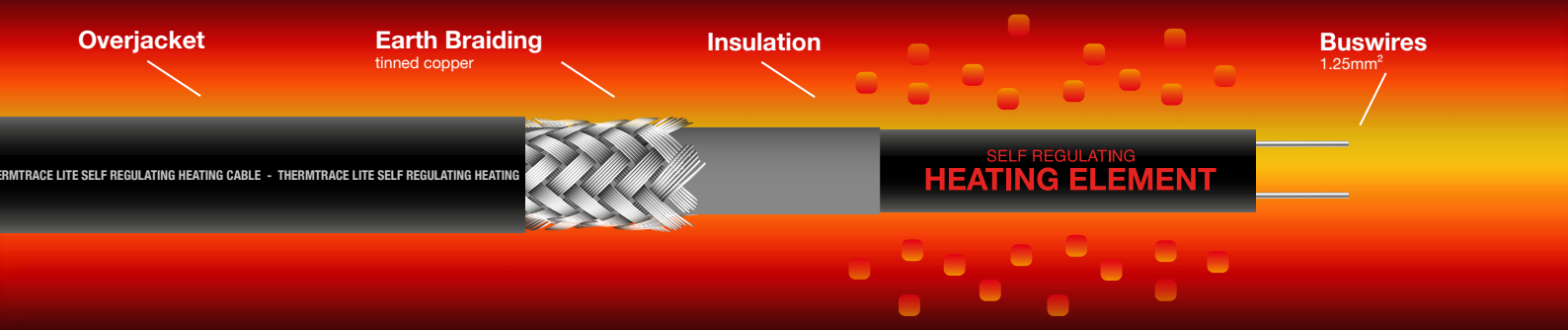
ThermTrace® GutterHeatLite (TTGHL)

The ThermTrace Lite 23TTL-2-BO is also available as Therm-Trace Gutter Heat Lite TTGHL-2-BO with the following technical specifications for applications in roof and gutter heating:

Name	Power ouput at 230VAC	Enviroment
TTGHL-2-BO	23	5°C on pipe
TTGHL-2-BO	25	0°C in air
TTGHL-2-BO	40	0°C in ice water

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

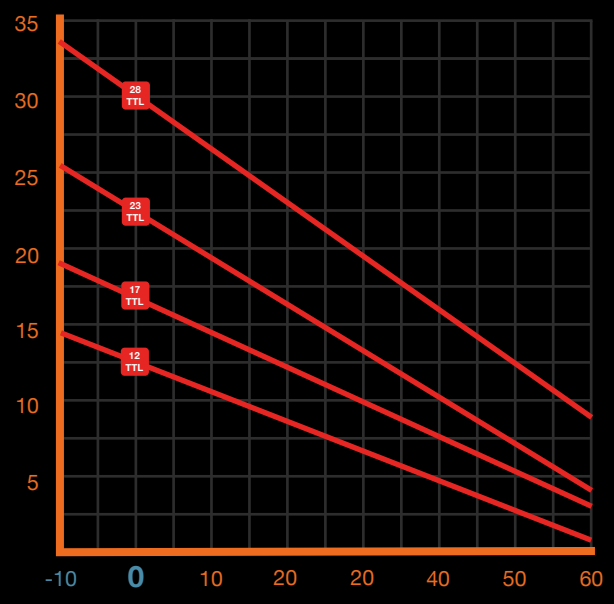
Name	16A	20A	25A
TTGHL-2-BO	104m	124m	127m
TTGHL-2-BO	90m	106m	108m
TTGHL-2-BO	50m	59m	62m



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

Product Reference	Circuit Breaker	+10°C	-10°C	-20°C
12TTL	10A	150m	115m	100m
12TTL	16A	191m	170m	158m
12TTL	20A	194m	172m	160m
12TTL	25A	197m	174m	162m
17TTL	10A	101m	70m	61m
17TTL	16A	159m	113m	98m
17TTL	20A	161m	130m	123m
17TTL	25A	162m	134m	125m
23TTL	10A	63m	46m	37m
23TTL	16A	104m	76m	62m
23TTL	20A	124m	95m	75m
23TTL	25A	127m	108m	95m
28TTL	10A	51m	39m	34m
28TTL	16A	80m	62m	55m
28TTL	20A	99m	77m	67m
28TTL	25A	115m	93m	85m

Temperature (°C) / Loading (W/m) diagram



ThermTrace® Regular (TTR)

SELF-REGULATING PARALLEL HEATING TAPE

Properties

- Self-regulating
- 4 power output ranges
- Cut-to-length
- Approved for use in hazardous areas

Applications

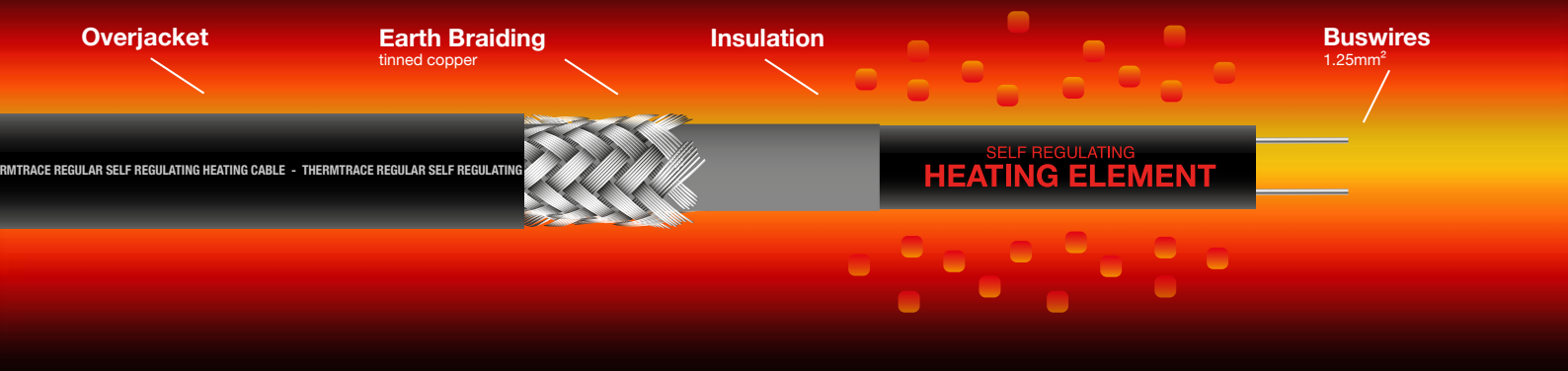
The ThermTrace Regular is a construction and indusrial grade self-regulating heating tape that may be used for freeze protection or low-temperature maintenance of pipes, vessels and tanks.

Technical data

Maximum exposure temperature (unpowered):	85°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-45°C
Buswires:	nickel plated copper

ThermTrace® Regular (TTR)

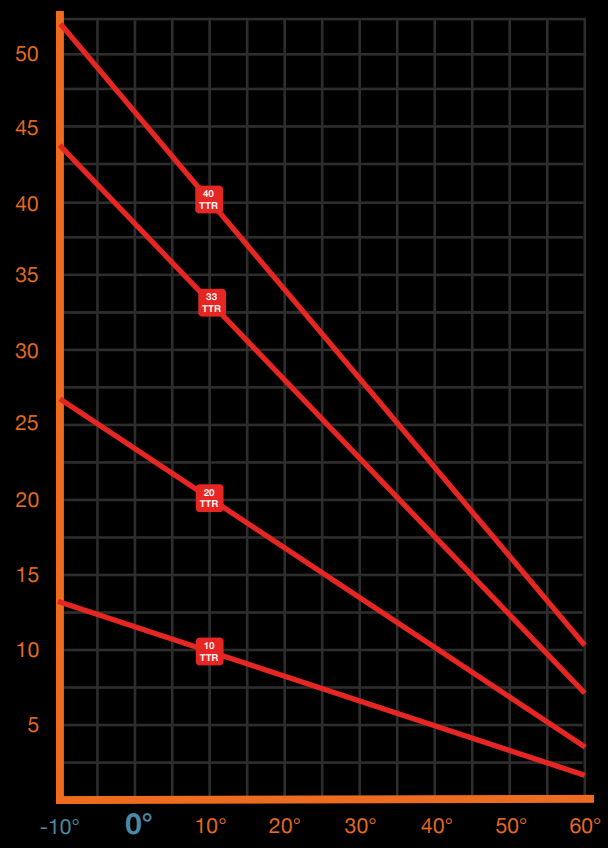
Name	Power output on insulated metal pipes at 10°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
10 TTR-2	10	85	12.5 x 4.0
20 TTR-2	20	85	12.5 x 4.0
33 TTR-2	33	85	12.5 x 4.0
40 TTR-2	40	85	12.5 x 4.0
10 TTR-2-BO	10	85	14.0 x 5.7
20 TTR-2-BO	20	85	14.0 x 5.7
33 TTR-2-BO	33	85	14.0 x 5.7
40 TTR-2-BO	40	85	14.0 x 5.7
10 TTR-2-BOT	10	85	14.0 x 5.7
20 TTR-2-BOT	20	85	14.0 x 5.7
33 TTR-2-BOT	33	85	14.0 x 5.7
40 TTR-2-BOT	40	85	14.0 x 5.7



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

Product Reference	Circuit Breaker	+10°C	-10°C	-40°C
10TTR	10A	130m	91m	60m
10TTR	16A	175m	143m	100m
10TTR	20A	177m	147m	123m
10TTR	32A	178m	150m	125m
20TTR	10A	69m	51m	35m
20TTM	16A	110m	77m	58m
20TTR	20A	125m	100m	70m
20TTR	32A	131m	112m	90m
33TTR	10A	53m	40m	27m
33TTR	16A	85m	62m	45m
33TTR	20A	105m	80m	55m
33TTR	32A	114m	100m	70m
40TTR	10A	37m	29m	20m
40TTR	16A	59m	46m	34m
40TTR	20A	70m	58m	44m
40TTR	32A	95m	85m	69m

Temperature (°C) / Loading (W/m) diagram



ThermTrace® Super (TTS)

SELF-REGULATING PARALLEL HEATING TAPE

Properties

- Self-regulating
- 7 power output ranges
- Cut-to-length
- High chemical resistance

Applications

The ThermTrace Super is an industrial grade self-regulating heating tape. Its application range from freeze protection and temperature maintenance of pipework and vessels in a large number of industrial applications and Ex-areas such as power plants or chemical, petrochemical or oil and gas industry.

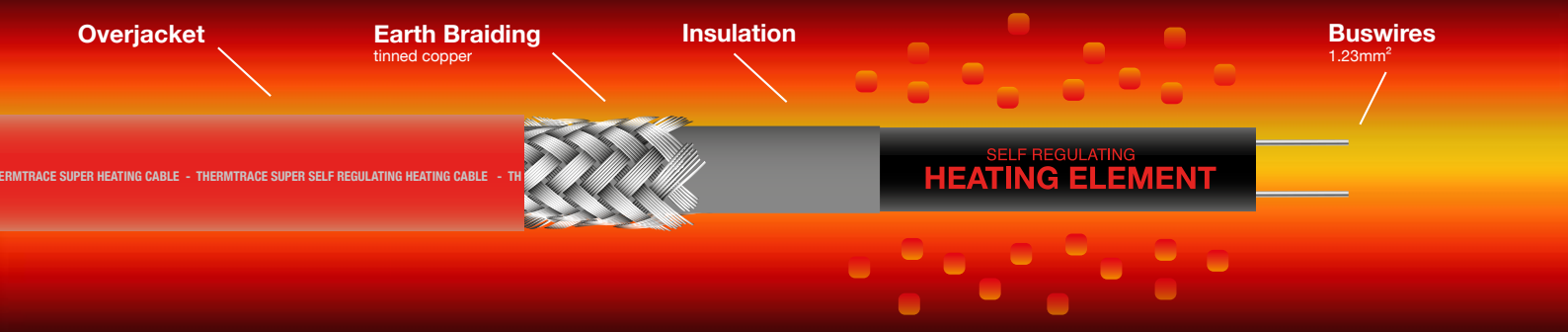
Technical data

Maximum exposure temperature (unpowered):	210°C
Maximum operating temperature:	120°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-45°C
Buswires:	nickel plated copper

ThermTrace® Super (TTR)

Name	Power output on insulated metal pipes at 10°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
10 TTS-2	10	210	10.5 x 4.0
15 TTS-2	15	210	10.5 x 4.0
20 TTS-2	20	210	10.5 x 4.0
30 TTS-2	30	210	10.5 x 4.0
45 TTS-2	45	210	10.5 x 4.0
60 TTS-2	60	210	10.5 x 5.0
75 TTS-2	75	210	12.5 x 5.0

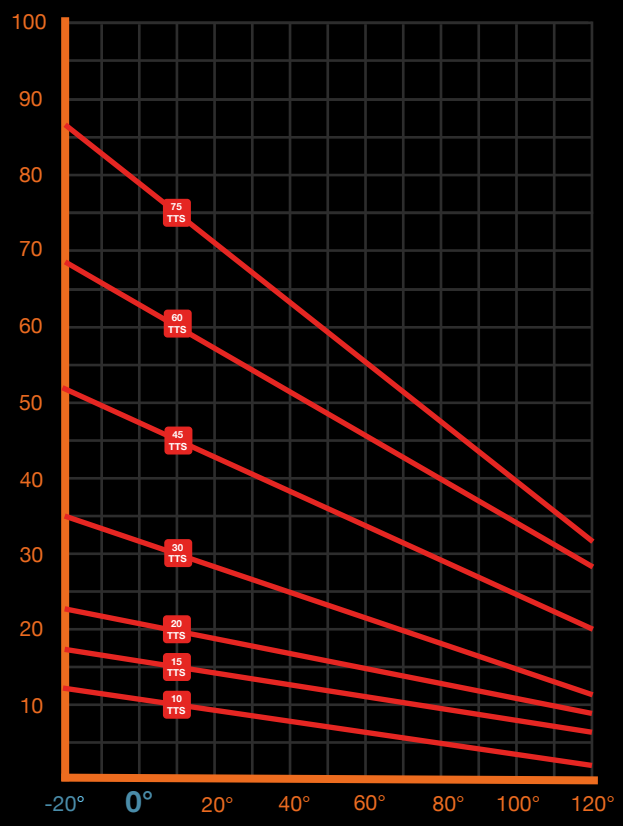
10 TTS-2-BOT	10	210	12.5 x 5.0
15 TTS-2-BOT	15	210	12.5 x 5.0
20 TTS-2-BOT	20	210	12.5 x 5.0
30 TTS-2-BOT	30	210	12.5 x 5.0
45 TTS-2-BOT	45	210	12.5 x 5.0
60 TTS-2-BOT	60	210	12.5 x 5.0
75 TTS-2-BOT	60	210	12.5 x 5.0



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

Product Reference	Circuit Breaker	+10°C	-10°C	-20°C
10TTS	16A	190m	182m	170m
10TTS	25A	193m	183m	171m
10TTS	32A	194m	185m	174m
15TTS	16A	155m	130m	119m
15TTS	25A	157m	147m	135m
15TTS	32A	159m	148m	135m
20TTS	16A	120m	109m	93m
20TTS	25A	137m	128m	119m
20TTS	32A	139m	130m	120m
30TTS	16A	81m	71m	65m
30TTS	25A	109m	104m	97m
30TTS	32A	113m	107m	99m
45TTS	16A	60m	58m	43m
45TTS	25A	84m	79m	69m
45TTS	32A	90m	85m	82m
60TTS	16A	175m	143m	100m
60TTS	25A	178m	150m	125m
60TTS	32A	80m	71m	60m
75TTS	16A	35m	31m	30m
75TTS	20A	43m	40m	37m
75TTS	25A	55m	48m	46m
75TTS	32A	67m	62m	60m

Temperature (°C) / Loading (W/m) diagram



ThermTrace® X (TTX)

SELF-REGULATING PARALLEL HEATING TAPE

Properties

- Self-regulating
- 3 power output ranges
- Cut-to-length
- Chemical resistant
- For extremely high temperaure

Applications

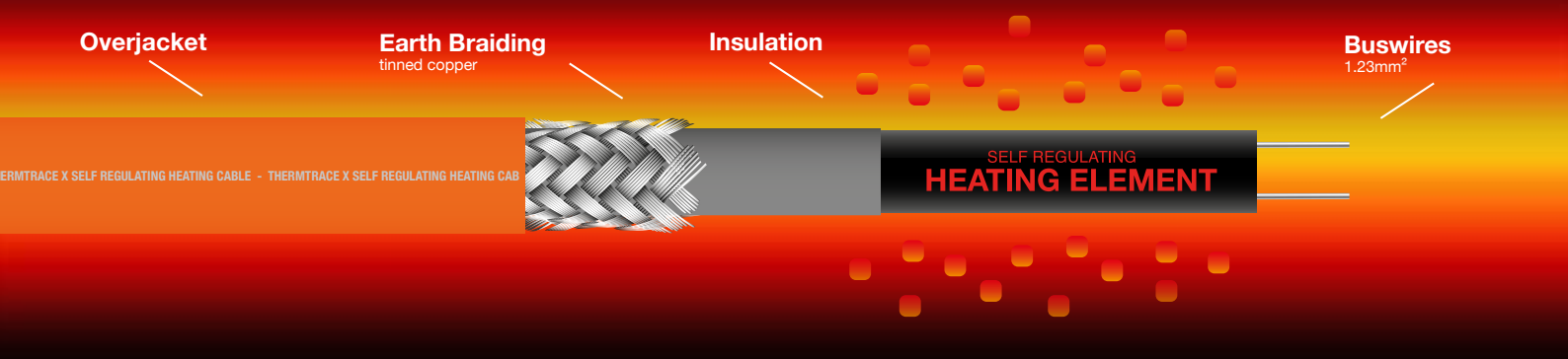
The ThermTrace X is an industrial grade self-regulating heating tape for extremly high temperatures. Its application range from freeze protection and temperature maintenance of pipework and vessels in a large number of industrial applications and Ex-areas such as power plants or chemical, petrochemical or oil and gas industry.

Technical data

Maximum exposure temperature (unpowered):	250°C
Maximum operating temperature:	165°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-60°C
Buswires:	nickel plated copper

ThermTrace® X (TTX)

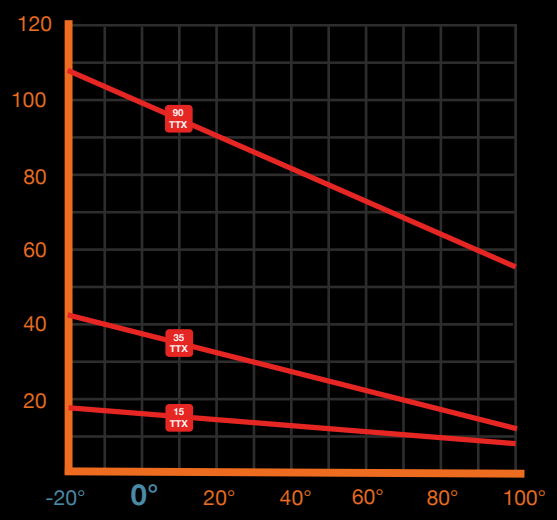
Name	Power output on insulated metal pipes at 10°C (W/m)	Maximun permissible temperature (°C)	Dimensions
15 TTX-2-BOT	15	250	14.0 x 5.5
35 TTX-2-BOT	35	250	14.0 x 5.5
90 TTX-2-BOT	90	250	14.0 x 5.5



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

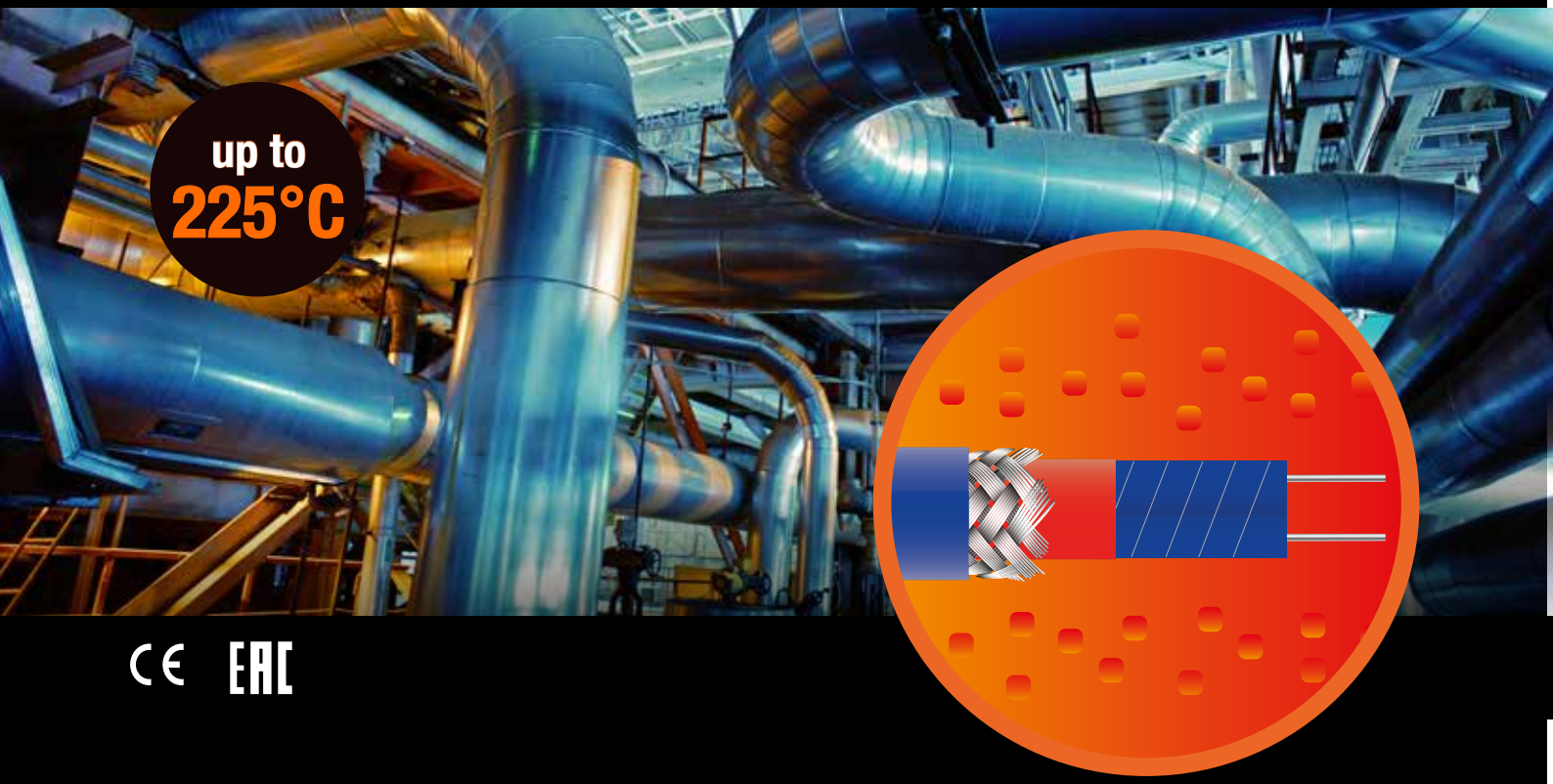
Product Reference	Circuit Breaker	-10°C	0°C	+10°C
15TTX	10A	118m	122m	128m
15TTX	20A	170m	170m	170m
15TTX	25A	171m	171m	171m
15TTX	32A	173m	173m	173m
15TTX	40A	173m	173m	173m
35TTX	10A	47m	51m	53m
35TTX	20A	95m	99m	105m
35TTX	25A	106m	106m	106m
35TTX	32A	107m	107m	107m
35TTX	40A	108m	108m	108m
90TTX	10A	16m	17m	18m
90TTX	20A	31m	33m	35m
90TTX	25A	40m	41m	43m
90TTX	32A	51m	52m	55m
90TTX	40A	61m	63m	64m

Temperature (°C) / Loading (W/m) diagram



ThermTrace® ConstantMini (TTCM)

PARALLEL CONSTANT POWER HEATING TAPE



CE EAC

Properties

- Connection at one end
- Cut-to-length
- Constant loading
- Highly flexible
- High temperature withstand

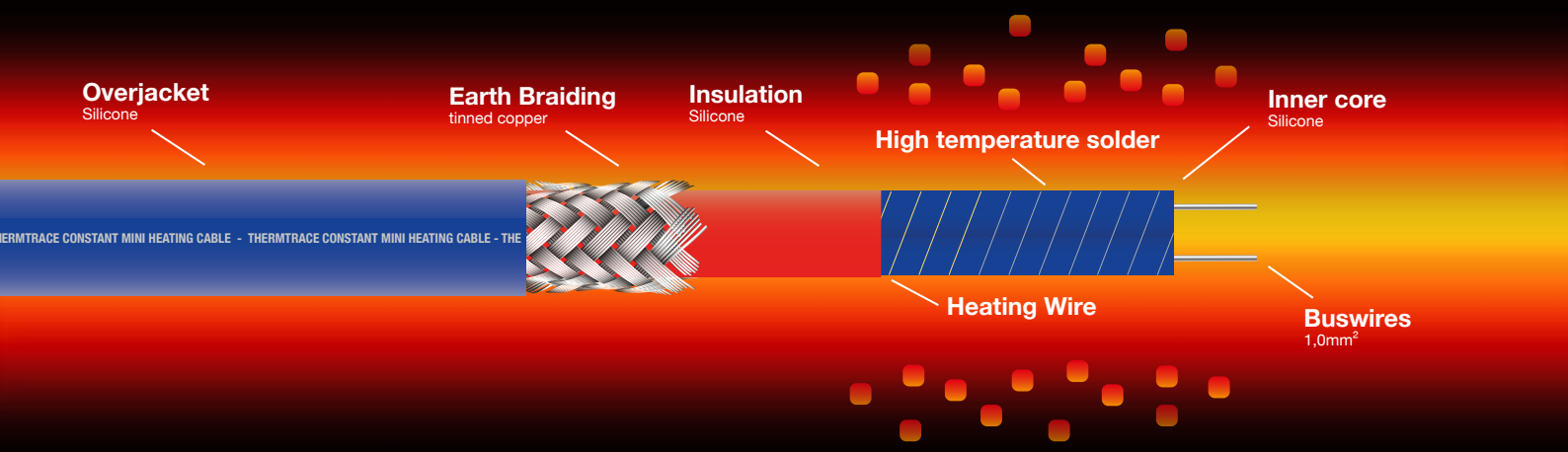
Applications

The ThermTrace ConstantMini is a construction, and industrial grade parallel constant wattage heating tape. It has especially been designed for frost protection and temperature maintenance of pipes, gutters and tanks as well as for use in refrigeration applications.

Technical data

Maximum exposure temperature (unpowered):	225°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-50°C
Buswires:	tinned copper

ThermTrace® ConstantMini (TTCM)



Name	Max. length	Zone length	Dimensions
10TTCM-2	145m	1m	8.7 x 4.8
15TTCM-2	110m	1m	8.7 x 4.8
20TTCM-2	95m	1m	8.7 x 4.8
30TTCM-2	78m	1m	8.7 x 4.8
40TTCM-2	65m	1m	8.7 x 4.8
10TTCM-2-BO	145m	1m	11.4 x 7.4
15TTCM-2-BO	110m	1m	11.4 x 7.4
20TTCM-2-BO	95m	1m	11.4 x 7.4
30TTCM-2-BO	78m	1m	11.4 x 7.4
40TTCM-2-BO	65m	1m	11.4 x 7.4

Other wattages and voltages can be manufactured to order

ThermTrace® Constant (TTC)

PARALLEL CONSTANT POWER HEATING TAPE

CE EAC

Properties

- Connection at one end
- Cut-to-length
- Constant loading
- Highly flexible
- High temperature withstand

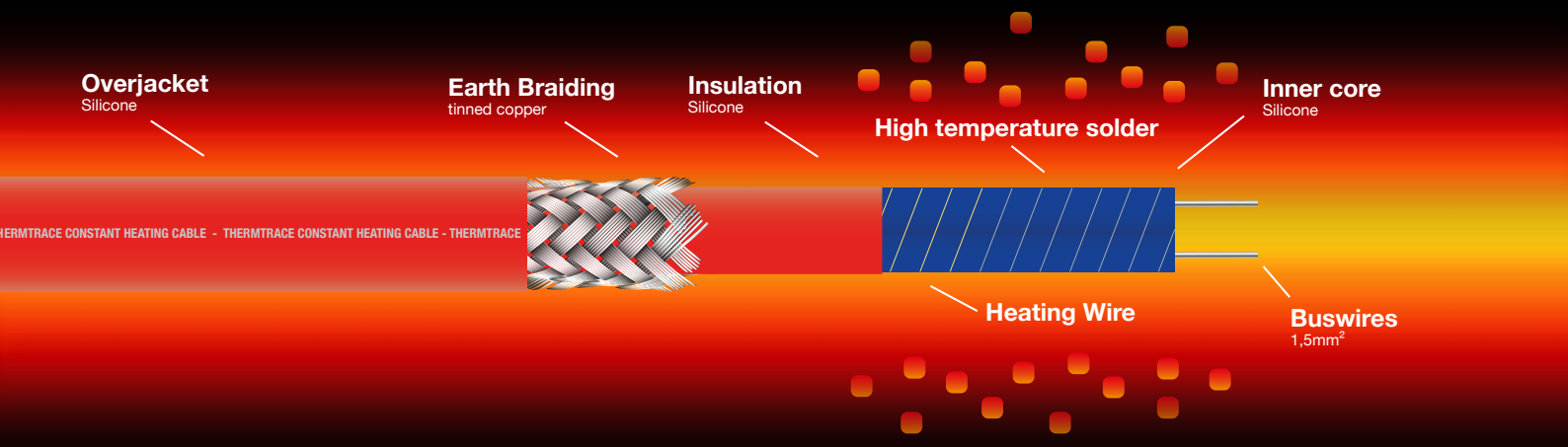
Applications

The ThermTrace Constant is a construction, and industrial grade parallel constant wattage heating tape. It has especially been designed for frost protection and temperature maintenance of pipes, gutters and tanks as well as for use in refrigeration applications.

Technical data

Maximum exposure temperature (unpowered):	225°C
Nominal voltage:	230V
Min. bending radius:	25mm
Min. installation temperature:	-50 °C
Buswires:	tinned copper

ThermTrace® Constant (TTC)

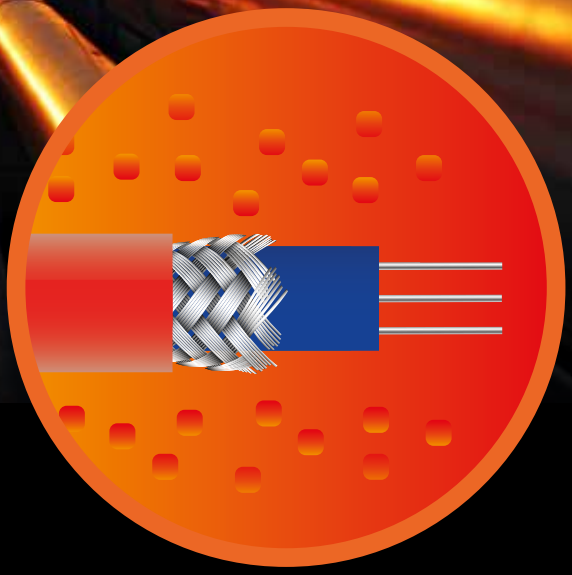


Name	Max. length	Zone length	Dimensions
10TTC-2	200m	1m	10.0 x 5.9
15TTC-2	150m	1m	10.0 x 5.9
20TTC-2	130m	1m	10.0 x 5.9
30TTC-2	115m	1m	10.0 x 5.9
40TTC-2	100m	1m	10.0 x 5.9
50TTC-2	85m	1m	10.0 x 5.9
60TTC-2	70m	1m	10.0 x 5.9
10TTC-2-BO	200m	1m	12.5 x 8.8
15TTC-2-BO	150m	1m	12.5 x 8.8
20TTC-2-BO	130m	1m	12.5 x 8.8
30TTC-2-BO	115m	1m	12.5 x 8.8
40TTC-2-BO	100m	1m	12.5 x 8.8
50TTC-2-BO	85m	1m	12.5 x 8.8
60TTC-2-BO	70m	1m	12.5 x 8.8

Other wattages and voltages can be manufactured to order

ThermTrace® LongHeat (TTLH)

SERIES RESISTANCE HEATING TAPE



CE EAC

Properties

- Long heating circuits up to 2km
- Moisture proof
- Flexible and solid
- Efficient and flat
- High temperature resistant

Applications

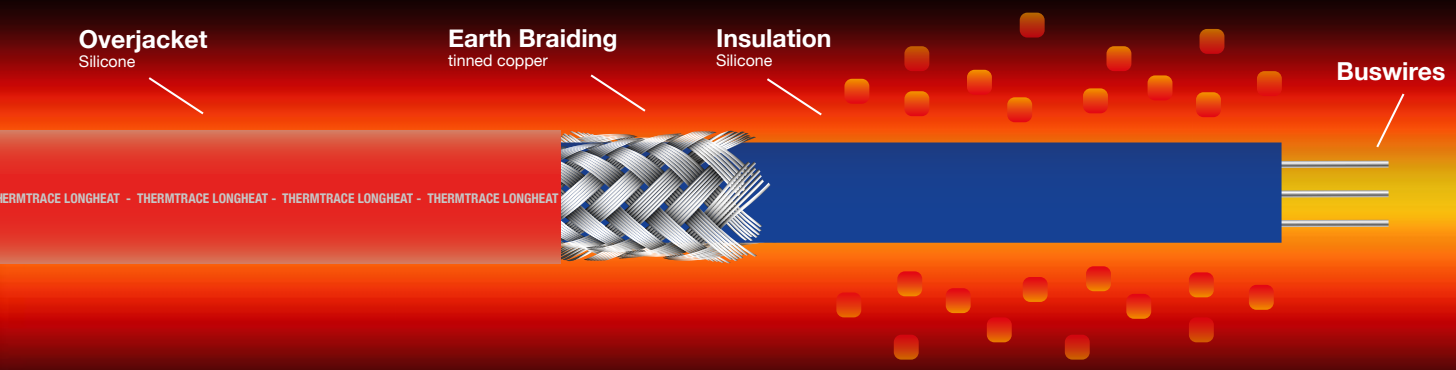
The ThermTrace LongHeat heating tape is a series resistance heating tape designed for longer circuit runs. TTLH can be connected in various ways to deliver multiple wattages and configurations.

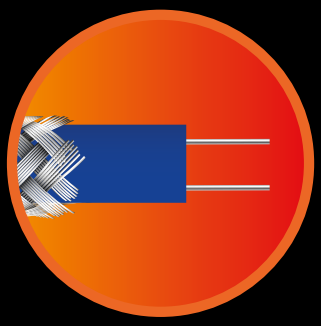
Technical data

Maximum exposure temperature (unpowered):	225°C
Nominal voltage:	up to 450V
Min. bending radius:	25mm
Min. installation temperature:	-50°C
Buswires:	tinned copper

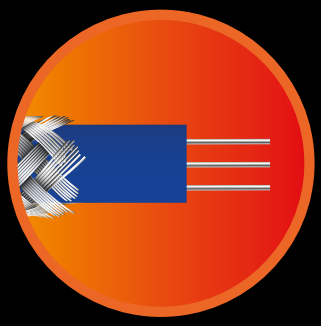
ThermTrace® LongHeat (TTLH)

Name	Resistance Ω/m
TTLH-2-A	0.0185 Ω/m
TTLH-3-A	0.0185 Ω/m
TTLH-4-A	0.0185 Ω/m
TTLH-2-B	0.0123 Ω/m
TTLH-3-B	0.0123 Ω/m
TTLH-4-B	0.0123 Ω/m
TTLH-2-C	0.0074 Ω/m
TTLH-3-C	0.0074 Ω/m
TTLH-4-C	0.0074 Ω/m

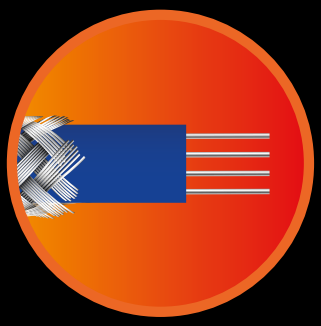




TTLH 2 - TWO BUSWIRES
Can be used on its own or in multiples on single or three phase electrical systems.



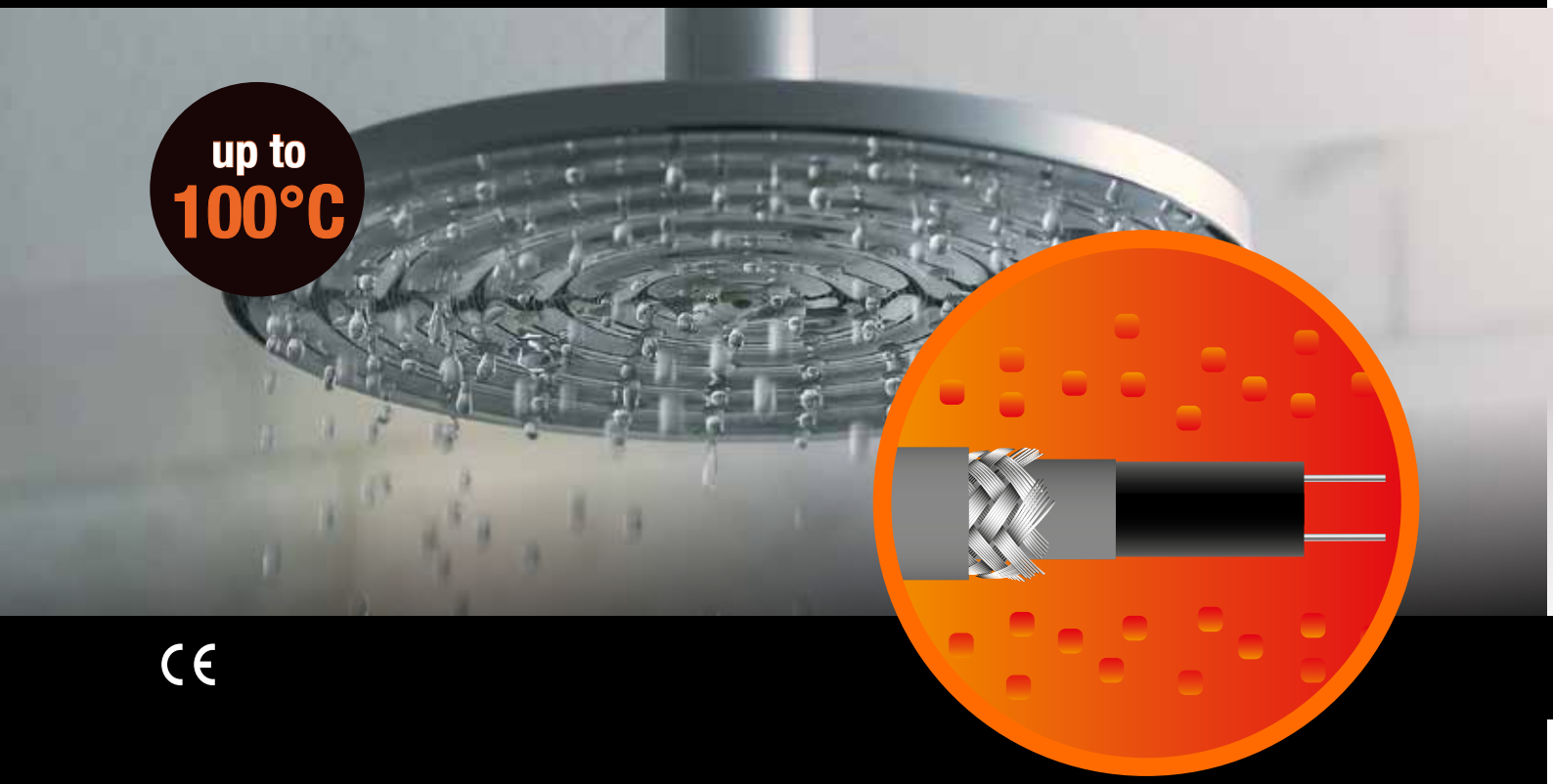
TTLH 3 - THREE BUSWIRES
Can be used on its own or in multiples on single or three phase electrical systems.



TTLH 4 - FOUR BUSWIRES
Can be used on three phase electrical systems in Multiple tapes configurations.

ThermTrace® WaterHeat (TTWH)

SELF-REGULATING PARALLEL HEATING TAPE



CE

Properties

- Self-regulating
- 2 power outputs
- Cut-to-length
- Moisture proof

Applications

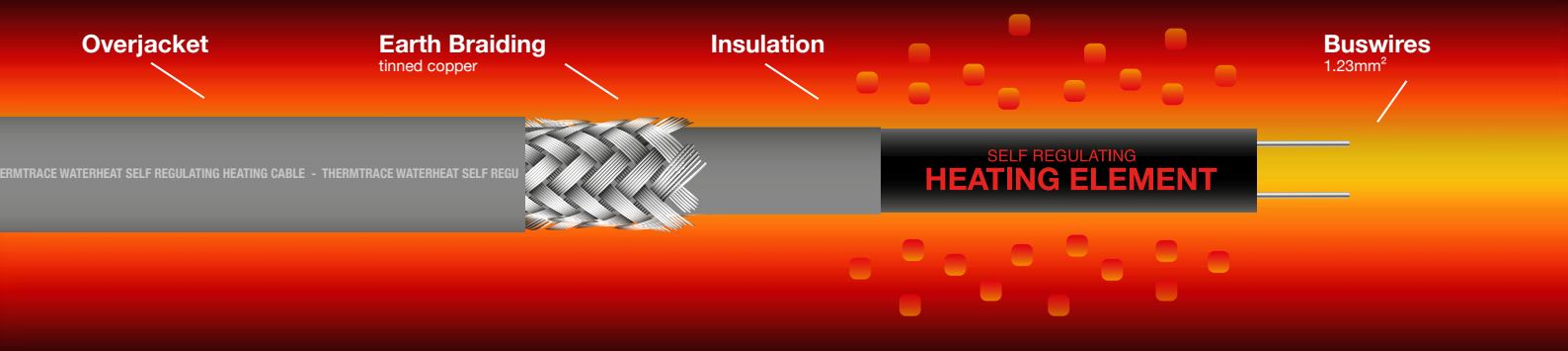
The ThermTrace WaterHeat is construction grade self-regulating heating tape that may be used for temperature maintenance of hot water systems including prevention of legionella formation.

Technical data

Maximum exposure temperature (unpowered):	100°C
Maximum operating temperature:	80°C
Nominal voltage:	230V
Min. bending radius:	20mm
Min. installation temperature:	-20°C
Buswires:	nickel plated copper

ThermTrace® WaterHeat (TTWH)

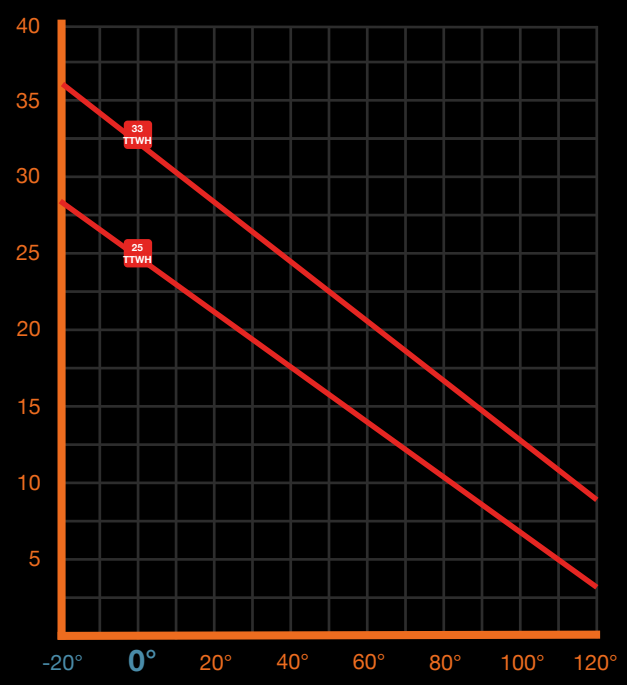
Name	Power output in typical application (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
25 TTWH-2-BO	9 W/m at 55°C	100	13.0 x 5.0
33 TTWH-2-BO	12 W/m at 60°C	100	13.0 x 5.0



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

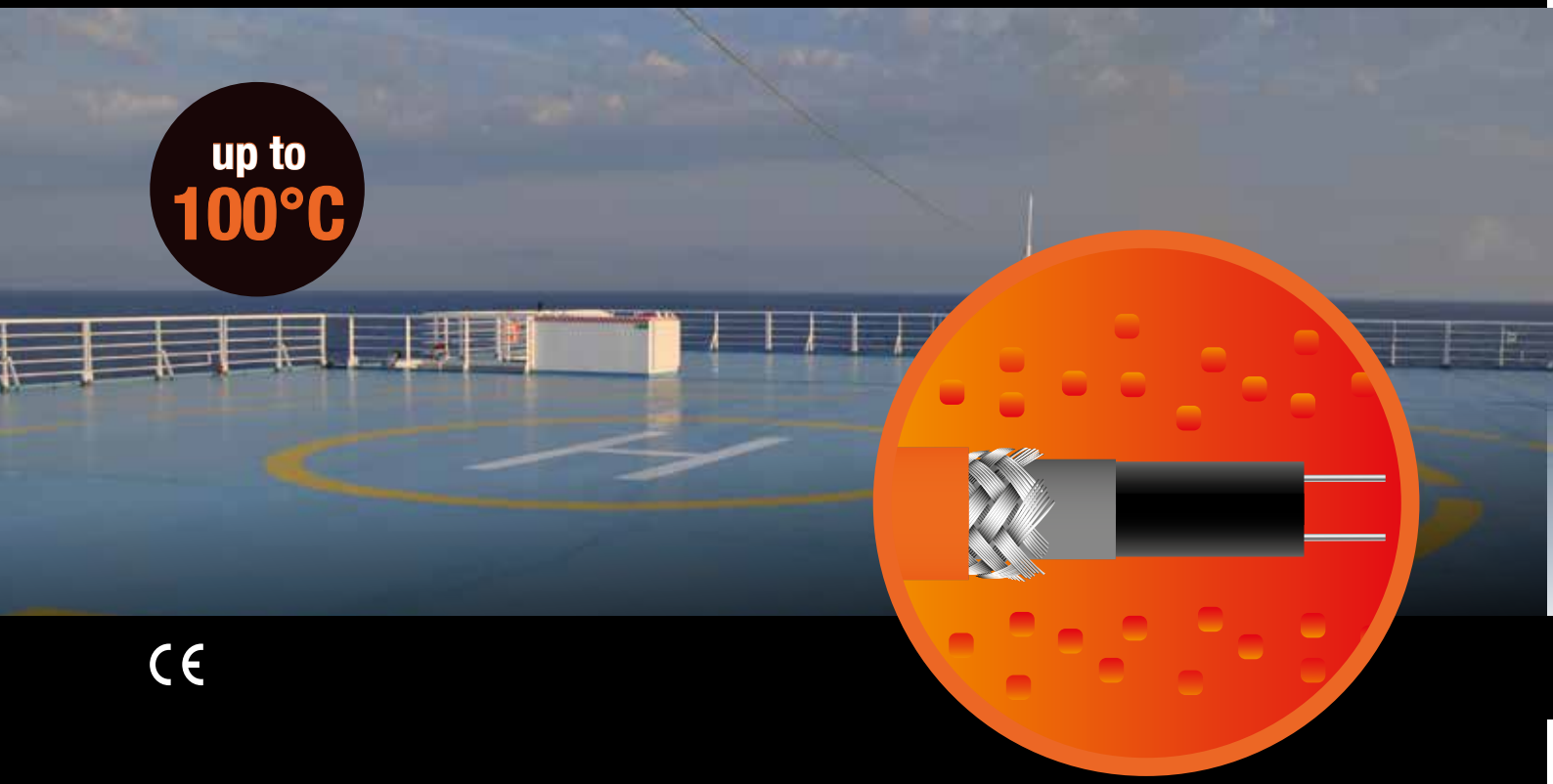
Product Reference	Circuit Breaker	+10°C	0°C	-10°C
25TTWH	10A	72m	61m	56m
25TTWH	16A	115m	98m	90m
25TTWH	20A	125m	120m	100m
25TTWH	25A	129m	123m	115m
25TTWH	32A	133m	125m	120m
33TTWH	10A	46m	40m	36m
33TTWH	16A	75m	68m	62m
33TTWH	20A	90m	82m	74m
33TTWH	25A	100m	95m	90m
33TTWH	32A	108m	101m	97m

Temperature (°C) / Loading (W/m) diagram



ThermTrace® RampTrace (TTRT)

SELF-REGULATING PARALLEL HEATING TAPE



CE

Properties

- Self-regulating
- Special designed for use in concrete
- Cut-to-length
- Highly robust

Applications

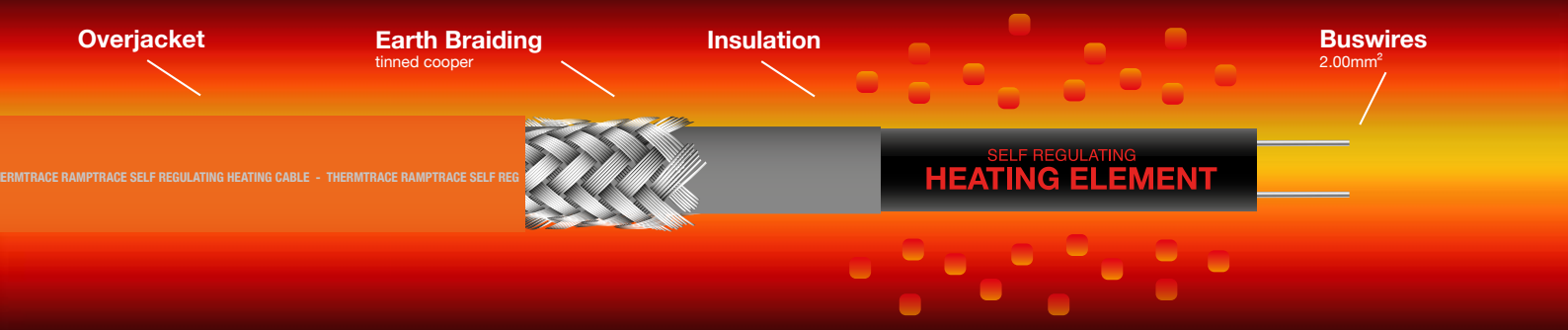
The ThermTrace RampTrace is a construction grade self-regulating heating tape applicable for snow and ice melting of ramps, stairs, walkways and helicopter landing platfoms.

Technical data

Maximum exposure temperature (unpowered):	100°C
Maximum operating temperature:	85°C
Nominal voltage:	230V
Min. bending radius:	40mm
Min. installation temperature:	-30°C
Power output at 0 °C in concrete:	80 W/m

ThermTrace® RampTrace (TTRT)

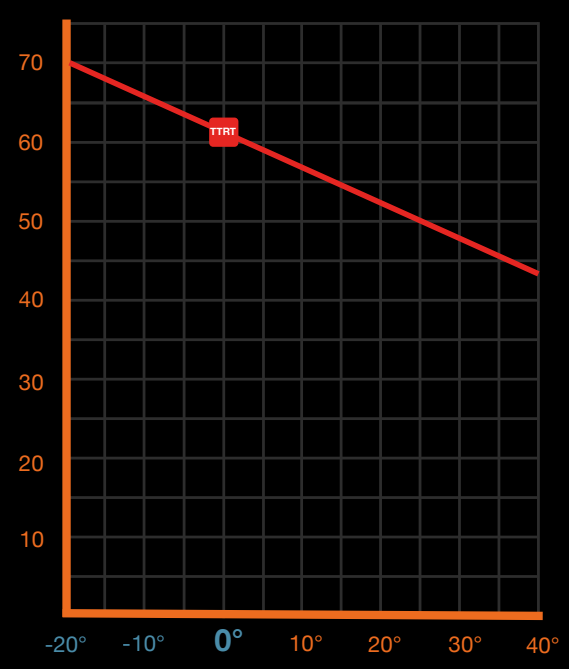
Name	Power output on insulated metal pipes at 10°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension (mm)
TTRT	55	100	17.3 x 9.1



Maximum recommended length of heating circuit at 230 VAC using Type-C circuit breakers for use in concrete:

Product Reference	Circuit Breaker	+10°C	0°C	-10°C	-20°C
TTRT	30A	43m	37m	32m	31m
TTRT	50A	60m	52m	42m	35m

Temperature (°C) / Loading (W/m) diagram



eHeat® Micro

SELF-REGULATING PARALLEL HEATING TAPE

CE

Properties

- Self-regulating
- 2 power output ranges
- Cut-to-length
- Economical solution for small pipes
- Small dimensions

Applications

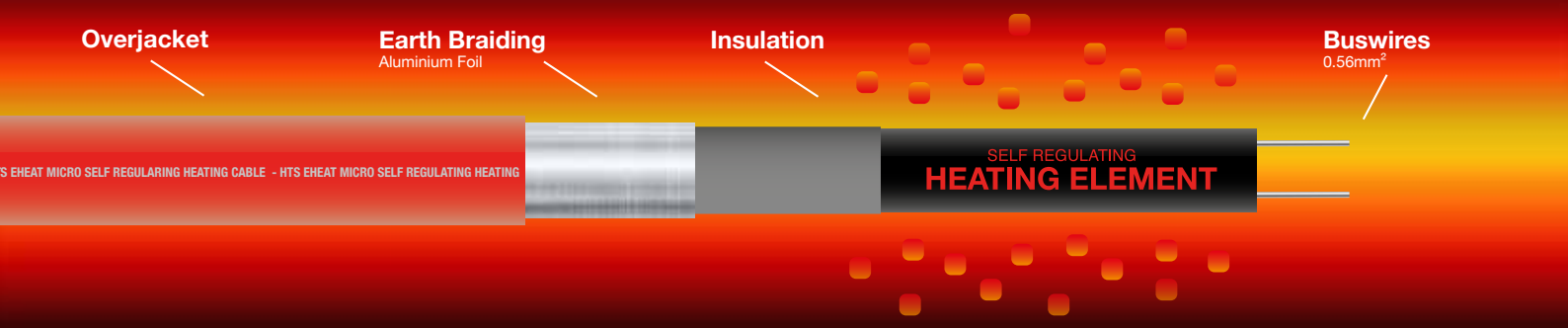
The eHeat Micro is a construction grade self-regulating heating tape applicable for freeze protection of temperature maintenance of pipeworks. With its flexible properties, it can be used where installation dimensions are small.

Technical data

Maximum exposure temperature (unpowered):	65°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	35mm
Min. installation temperature:	-30°C

eHeat® Micro

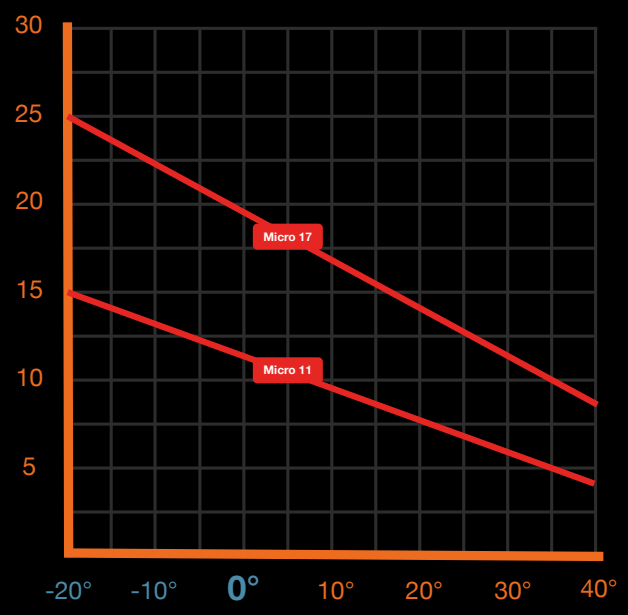
Name	Power output on insulated metal pipes at 5°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
eHeat Micro 11	11	65	8.0 x 5.0
eHeat Micro 17	17	65	8.0 x 5.0



Maximum recommended length of heating circuit at 230VAC using Type-C circuit breakers for use on a metal pipe:

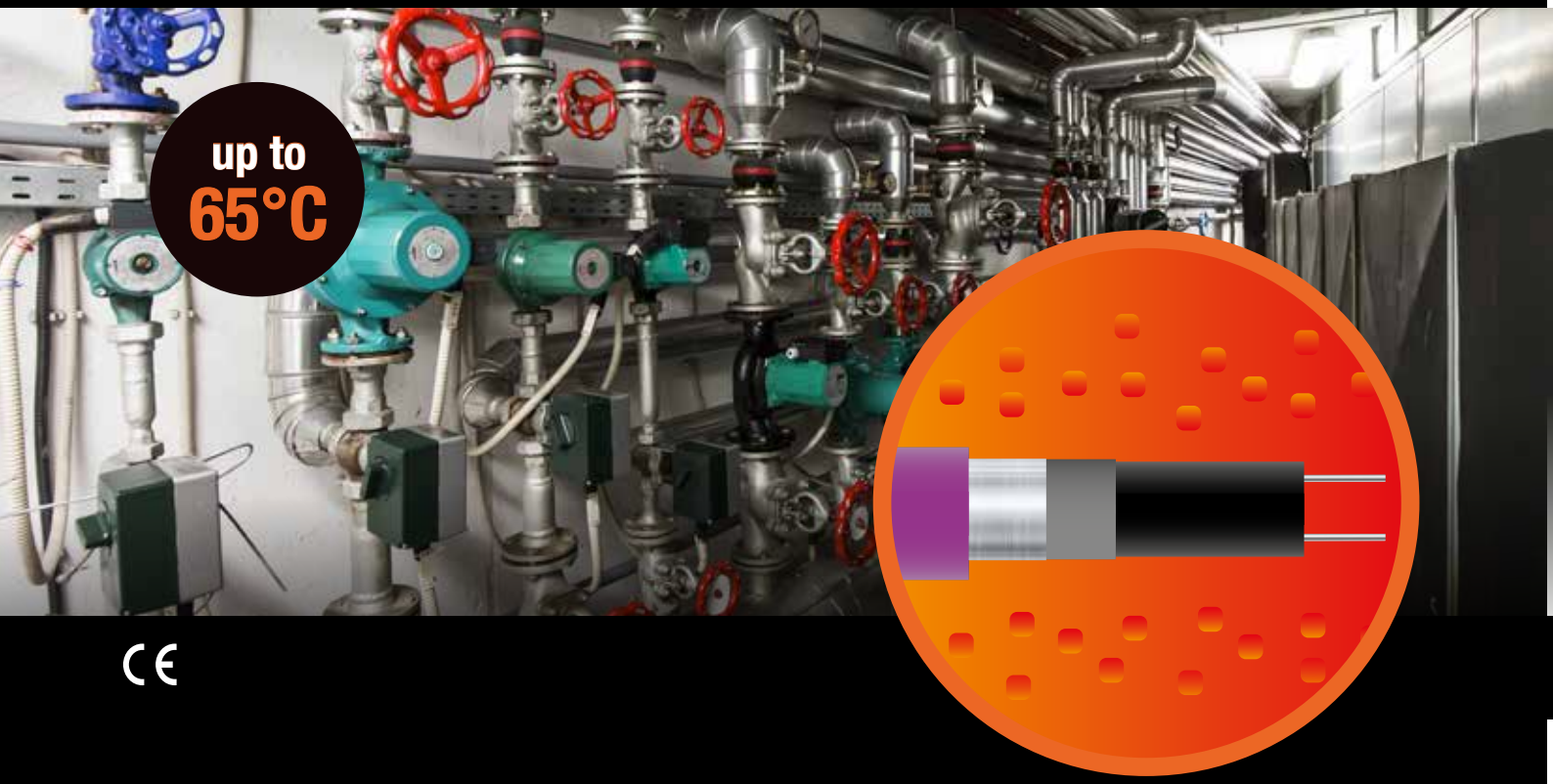
Product Reference	Circuit Breaker	+10°C	0°C	-10°C	-20°C
eHeat Micro 11	10A	89m	80m	77m	68m
eHeat Micro 11	16A	100m	90m	88m	79m
eHeat Micro 17	10A	68m	60m	53m	45m
eHeat Micro 17	16A	79m	70mm	61m	55m

Temperature (°C) / Loading (W/m) diagram



eHeat® Water

SELF-REGULATING PARALLEL HEATING TAPE



CE

Properties

- Self-regulating
- Cut-to-length
- Special food-safe outer jacket
- Small dimensions

Applications

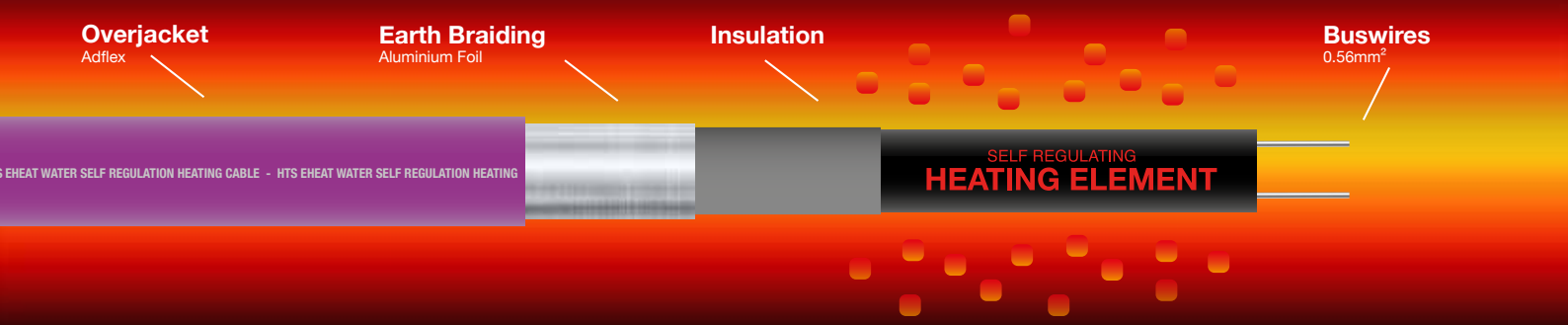
The eHeat Water is a construction grade self-regulating heating tape that is specially designed for use inside of drinking water pipes or portable waterlines.

Technical data

Maximum exposure temperature (unpowered):	65°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	35mm
Min. installation temperature:	-30°C

eHeat® Water

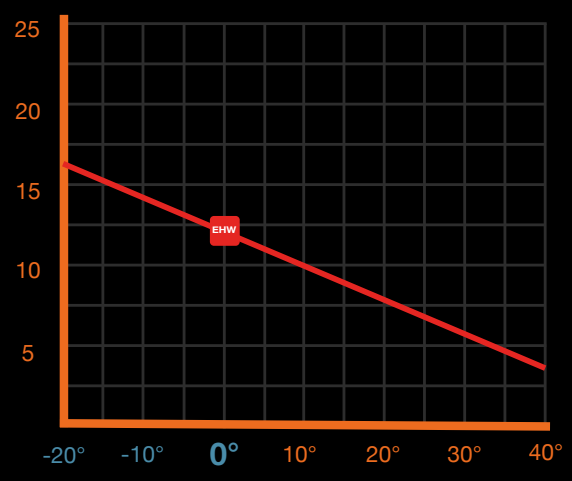
Name	Power output on insulated metal pipes at 5°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
eHeat Water	11	65	8.0 x 5.0



Maximum recommended length of heating circuit at 230VAC using Type-C circuit breakers for use inside drinking water pipes:

Product Reference	Circuit Breaker	+10°C	0°C	-20°C
eHeat Water	10A	52m	48m	40m
eHeat Water	16A	60m	54m	47m

Temperature (°C) / Loading (W/m) diagram



eHeat® Gutter

SELF-REGULATING PARALLEL HEATING TAPE

CE

Properties

- Self-regulating
- UV protected overjacket
- Moisture proof
- Cut-to-length

Applications

The eHeat Gutter is a construction grade self-regulating heating tape for roof and gutter heating. For this purpose, this tape comes with a UV protected outer jacket.

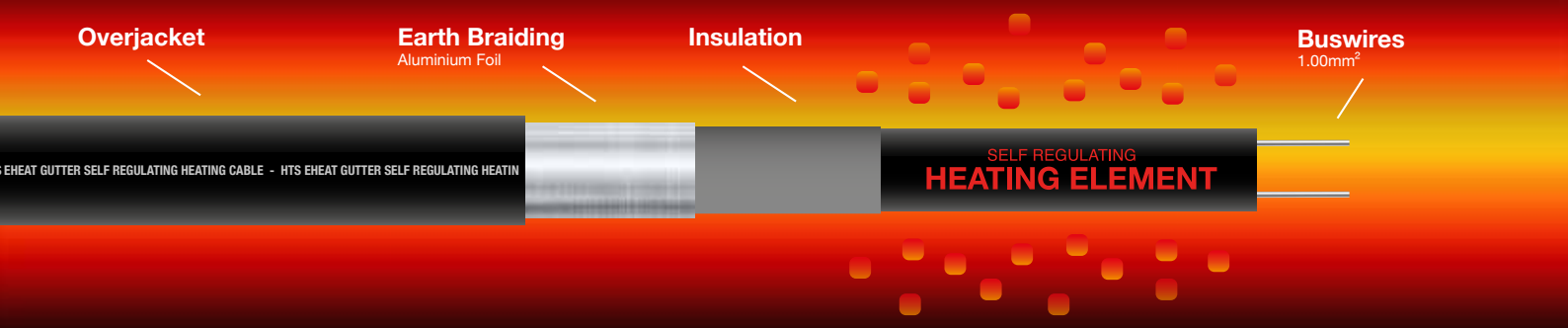
Technical data

Maximum exposure temperature (unpowered):	85°C
Maximum operating temperature:	65°C
Nominal voltage:	230V
Min. bending radius:	35mm
Min. installation temperature:	-30°C

eHeat® Gutter

Name	Power output on insulated metal pipes at 10°C (W/m)	Maximum permissible temperature (°C)	Nominal Dimension
eHeat Gutter	20*	85	10.5 x 5.9

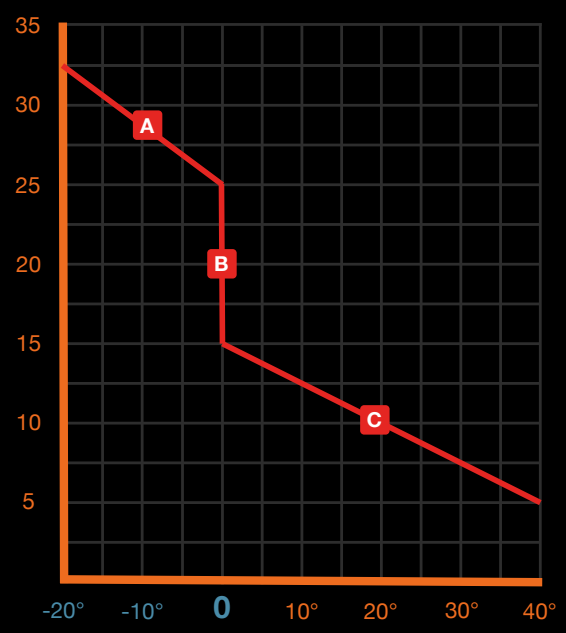
* 40W/m at 0°C in ice water



Maximum recommended length of heating circuit at 230 VAC using Type-C circuit breakers for use in ice water environment:

Product Reference	Circuit Breaker	0°C	-10°C	-20°C
eHeat Gutter	16A	44m	38m	33m
eHeat Gutter	20A	53m	46m	41m
eHeat Gutter	30A	58m	52m	45m

Temperature (°C) / Loading (W/m) diagram



A: In snow and ice water, the heating tape will operate at full power

B: As the snow melts and the water drains off, the heating tape self-regulates to half power while it dries

C: As it gets warmer, the heating tape reduces its power output further in correspondence to the outside temperature