Comfort
Heat

PRODUCT
CATALOG

2016

Comfort
Heat

Comfort Heat is a production and development company of heating cables, mats and control systems which offers the long-lasting and easy to install electric heating systems for:

• Heating and comfort of domestic and public buildings,
• Frost and ice protection of buildings, engineering and pipe systems;
• Frost prevention and temperature maintenance of technological pipes;
• Ice prevention of road and railway infrastructure.

The performance of Comfort Heat is focused on a continuous elaboration and innovations, interest in market demand and newest research works, cooperation with Kaunas University of Technology and leading European electronic manufacturers.

In 2011 Comfort Heat has been acknowledged by Business News for contribution to a better future of Lithuanian economy, as well as for its high solvency ratio which is achieved only by 2% of companies operating in Lithuania.

In 2013 the company introduced the quality management system according to ISO 9001 and ISO 14001 standards and is now taking the lead in implementing knowledge management system. The company has been increasing its productive capacity into R&D - leading advanced engineering solutions to ensure consistent satisfaction of high - demand customers and our partners, following the principles below:

• Reliability,
• Professionalism,
• Excellent design,
• Fast and qualified service.

The clients of Comfort Heat range from electric heating systems wholesalers, construction material dealers, petroleum and food companies to government and private railway and road infrastructure bodies. Comfort Heat exports its products to Latvia, Estonia, Finland, Norway, Poland, Hungary, Romania, Slovakia, Belarus, Russia and the United Kingdom, and it continues to expand its export markets.

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CTAE-160
twin conductor
heating mat

CTAE-160 is a twin conductor heating mat of 160 W/m² output, with extra aluminium foil braid (with memory), drainage wire and fiberglass mesh. It is self-adhesive on concrete base. Green line design, environmentally friendly heating mat has no lead.

Floor heating mat **CTAE-160** is designed for installation of new or renewable heated floor. It can be laid directly into tile adhesive/glue layer.

Installation:

It can be laid directly on concrete or on top of old tiles in a bathroom, kitchen, hall, bedroom and livingroom, or other living areas, predesigned to be installed under various tiles, marble, and granite flooring.

EAC CE

Technical data

Voltage	230 V
Output	160 W/m²
Thickness of mat	4,2 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CTAE-160	0,5×1	0,5	80	85541000
CTAE-160	0,5×2	1	160	85541002
CTAE-160	0,5×3	1,5	240	85541004
CTAE-160	0,5×4	2	320	85541006
CTAE-160	0,5×5	2,5	400	85541008
CTAE-160	0,5×6	3	480	85541010
CTAE-160	0,5×7	3,5	560	85541012
CTAE-160	0,5×8	4	640	85541014
CTAE-160	0,5×10	5	800	85541016
CTAE-160	0,5×12	6	960	85541018
CTAE-160	0,5×15	7,5	1210	85541020
CTAE-160	0,5×18	9	1400	85541022
CTAE-160	0,5×22	11	1800	85541024
CTAE-160	0,5×27	13,5	2150	85541026
CTAE-160	0,5×33	16,5	2600	85541028

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CTAE-100
twin conductor heating mat

Comfort Heat

CTAE-100 is a twin conductor heating mat of 100 W/m² output, with extra aluminium foil braid (with memory), drainage wire and fiberglass mesh. It is self-adhesive on concrete base. Green line design, environmentally friendly heating mat has no lead.

Floor heating mat **CTAE-100** is designed for lying under a new floor, and is compatible with renewable flooring materials. It can be laid directly into tile adhesive/glue layer.

Installation:

It can be laid directly on top of old tiles and under carpet flooring. The heating mat can also be laid under parquet, parquet boards and laminate. It is designed for installation in a kitchen, hall, bedroom and livingroom, and other indoor premises.

EAC CE

Technical data

Voltage	230 V
Output	100 W/m²
Thickness of mat	4,2 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CTAE-100	0,5×4	2	220	85541040
CTAE-100	0,5×6	3	290	85541042
CTAE-100	0,5×8	4	410	85541044
CTAE-100	0,5×12	6	560	85541046
CTAE-100	0,5×16	8	820	85541048
CTAE-100	0,5×20	10	1000	85541050
CTAE-100	0,5×24	12	1200	85541052
CTAE-100	0,5×36	18	1800	85541054

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CTAE-200
twin conductor heating mat
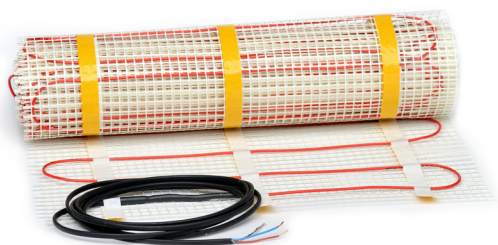
CTAE-200 is a twin conductor heating mat of 200 W/m^2 output with extra aluminium foil braid with memory. It is self-adhesive on concrete base. This heating mat is used for floor heating in bathrooms and other densely furnished rooms of little floor space. It is also suitable for floor heating in winter gardens and large conservatories. Green line design, environmentally friendly heating mat has no lead.

Floor heating mat **CTAE-200** is designed for easy installation for both, new and renewable floor. It can be laid directly into adhesive/glue tiles layer.

Installation:

It can be laid directly on concrete or old tiles in a bathroom, kitchen, hall, bedroom, livingroom, winter garden or other premises under tile, carpet, marble and granite flooring.

EAC CE

Technical data

Voltage	230 V
Output	200 W/m²
Thickness of mat	4,2 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Type	Width × Length (m)	Area(m²)	Output (W)	Order No.
CTAE-200	0,5×2	1	200	85541072
CTAE-200	0,5×3	1,5	300	85541074
CTAE-200	0,5×4	2	400	85541076
CTAE-200	0,5×5	2,5	500	85541078
CTAE-200	0,5×6	3	600	85541080
CTAE-200	0,5×7	3,5	700	85541082
CTAE-200	0,5×8	4	800	85541084
CTAE-200	0,5×10	5	1000	85541086
CTAE-200	0,5×12	6	1200	85541088
CTAE-200	0,5×14	7	1400	85541090
CTAE-200	0,5×16	8	1600	85541092
CTAE-200	0,5×20	10	2000	85541094

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CSCV-150
single conductor heating mat

Comfort Heat

CSCV-150 is a single conductor heating mat of 150 W/m² output, with extra aluminium foil braid, drainage wire and tinned cooper screen and fiberglass mesh. It is self-adhesive on concrete base.

Floor heating mat **CSCV-150** is designed for installation for both, new and renewable floor. It can be laid directly into adhesive/ glue tiles layer.

Installation:

It can be laid directly on old tiles in a bathroom, kitchen, hall, bedroom, livingroom or other premises under tiles, carpet, marble and granite flooring.

EAC CE

Technical data

Voltage	230 V
Output	150 W/m²
Thickness of mat	3,2 mm
Max temperature	+80 °C
Connection cable	2 x 3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

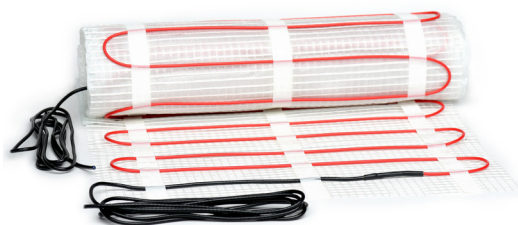| Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CSCV-150	0,5×2	1	150	83020024
CSCV-150	0,5×3	1,5	225	83020025
CSCV-150	0,5×4	2	300	83020026
CSCV-150	0,5×6	3	450	83020028
CSCV-150	0,5×7	3,5	525	83020029
CSCV-150	0,5×8	4	600	83020030
CSCV-150	0,5×10	5	750	83020032
CSCV-150	0,5×12	6	900	83020033
CSCV-150	0,5×14	7	1050	83020034
CSCV-150	0,5×16	8	1200	83020035
CSCV-150	0,5×18	9	1350	83020036
CSCV-150	0,5×20	10	1500	83020037

Comfort Heat
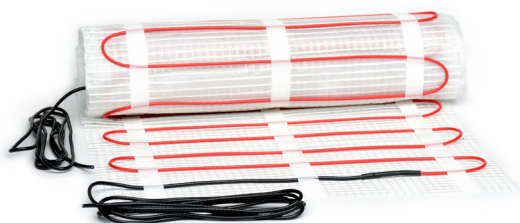
CSCV-100 is a single conductor heating mat of 100 W/m² output, with extra aluminium foil braid (with memory), drainage wire and fiberglass mesh. It is self-adhesive on concrete base.

Floor heating mat **CSCV-100** is suitable for installation of new or renewable heated floor. It can be laid directly into tile adhesive/ glue layer.

Installation:

It can be laid directly on old tiles in a kitchen, hall, room or other premises under tile, carpet, marble and granite flooring. It can be also laid under wood, parquet, parquet boards and laminated flooring.

EAC CE

Technical data

Voltage	230 V
Output	100 W/m²
Thickness of mat	3,2 mm
Max temperature	+80 °C
Connection cable	2 x 3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CSCV-100	0,5×4	2	220	83020008
CSCV-100	0,5×6	3	290	83020010
CSCV-100	0,5×8	4	410	83020012
CSCV-100	0,5×12	6	560	83020014
CSCV-100	0,5×16	8	820	83020015
CSCV-100	0,5×20	10	1000	83020016
CSCV-100	0,5×24	12	1200	83020017
CSCV-100	0,5×36	18	1800	83020018

CATE-80
aluminium heating mat

Comfort Heat

CATE-80 dis a twin conductor aluminium heating mat of 80 W/m² output for "dry" room heating. It is suitable for installation of new or renewable heated floor. It can be laid directly under laminate or parquet using "dry" method (without adhesive/ glue).

Installation:
It can be laid directly under parquet, parquet board or laminate in a kitchen, lounge, children's room or other premises.

CE

Technical data

Voltage	230 V
type	Double conductor
Output	80 W/m²
Thickness of mat	3 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CATE-80	0,5×7	3,5	280	83020059
CATE-80	0,5×8	4	320	83020060
CATE-80	0,5×9	4,5	360	83020061
CATE-80	0,5×10	5	400	83020062
CATE-80	0,5×12	6	480	83020063
CATE-80	0,5×14	7	560	83020064
CATE-80	0,5×16	8	640	83020065
CATE-80	0,5×18	9	720	83020066
CATE-80	0,5×20	10	800	83020067

Comfort Heat

CAHF-25/50/100
mirror heating foil
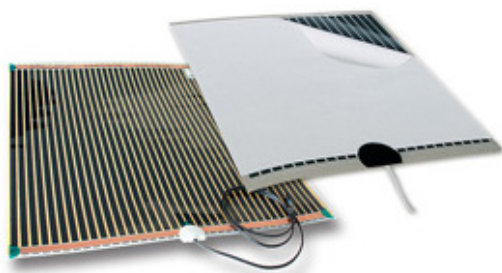
Mirror heating foil **CAHF-25/50/100** is used to prevent mirror steam. Whether it is a small or large bathroom, it is ideal solution to mirror steam in houses, apartments and hotels.

Installation:

It is quick and easily installed, applied on by simply sticking the adhesive foil on the back of a mirror. These products are low - cost and easily installed; designed for new and renewable bathrooms. The heating can be switched on/ off using a switch of a bathroom or mirror light.

CE

Technical data

Voltage	230 V
Output	25 W / 50 W / 100 W
Thickness of mat	1 mm
Connection cable	1 m
Max temperature	+90 °C
Protection class	IP44
Warranty	2 years

Product list

Type	Output	Dimensions (mm)	Order No.
CAHF-25	25	274x574	96651860
CAHF-50	50	524x519	96651870
CAHF-100	100	524x1004	96651880

Installation diagram

CTAE-160
mirror heating mat

Comfort Heat

CTAE-160 is a twin conductor heating mat. It is easily secured to the back side of a mirror and is the ideal solution to mirror steam in a new or renewable house, apartments and hotel bathrooms.

Installation:
It is installed by simply sticking an adhesive mat on the back of a mirror. Low-cost and easy installation. The heating can be switched on/off using a switch of a bathroom or mirror light.

EAC CE

Technical data

Voltage	230 V
Output	80 W / 160 W
Thickness of mat	4,2 mm
Connection cable	3 m
Max temperature	+80 °C
Protection class	IP67

Product list

Type	Output	Dimensions (m)	Area (m²)	Order No.
CTAE-160	80	0,47x1	0,5	96651820
CTAE-160	160	0,47x2	1,0	96651840

CFTAV-300
outdoor heating mat

CFTAV-300 double conductor heating mat of 300 W/m² output, made with double insulation (M2), an aluminium foil and tinned copper screen (with memory), conductor fluorpolymer insulation and polypropylene overjacket-The cable is UV resistant.

It is designed for stairs, pavements, driveways, entrances to car parks, bridges, landing of ramps, etc.), ice prevention, or unfreezing soil in winter (construction sites).

Installation: CFTAV-300 can be laid into concrete or stone dust layer, directly under tiles, with purpose of frost protection of entrances, driveways, car parks, ramps, pavements and bridges. It can be laid directly on frozen soil covering it with rockwool mats afterwards.

Technical data

Voltage	230 V
Type	Double conductor
Output	300 W/m²
Max temperature	+90 °C
Connection cables	2 x 5 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP) + (PEX)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Product list

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CFTAV-300	0,5×3	1,5	450	85510510
CFTAV-300	0,5×4	2	600	85510515
CFTAV-300	0,5×6	3	900	85510520
CFTAV-300	0,5×8	4	1200	85510525
CFTAV-300	0,5×10	5	1500	85510540
CFTAV-300	0,5×12	6	1800	85510545
CFTAV-300	0,5×14	7	2100	85510550
CFTAV-300	0,5×18	9	2700	85510555
CFTAV-300	0,5×20	10	3000	85510560

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CFSAV-300
outdoor heating mat

Comfort Heat

CFSAV-300 single conductor heating mat of 300 W/m² output, made with double insulation (M2), an aluminium foil and tinned copper screen (with memory), conductor fluorpolymer insulation and polypropylene overjacket. The cable is UV resistant.

It is designed for stairs, pavements, driveways, entrances to car parks, bridges, landing of ramps, etc.), ice prevention, or unfreezing soil in winter (construction sites).

Installation: CFSAV-300 can be laid into concrete or stone dust layer, directly under tiles, with purpose of frost protection of entrances, driveways, car parks, ramps, pavements and bridges. It can be laid directly on frozen soil covering it with rockwool mats afterwards.

EAC CE

Technical data

Voltage	400 V
Type	Single conductor
Output	300 W/m²
Max temperature	+90 °C
Connection cables	2 x 5 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP) + (PEX)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	10 years

Product list

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CFSAV-300	0,5×6	3	900	85517037
CFSAV-300	0,5×8	4	1200	85517038
CFSAV-300	0,5×12	6	1800	85517039
CFSAV-300	0,5×14	7	2100	85517040
CFSAV-300	0,5×18	9	2700	85517041
CFSAV-300	0,5×24	12	3600	85517044
CFSAV-300	0,5×28	14	4200	85517144
CFSAV-300	0,5×32	16	4800	85517147
CFSAV-300	0,5×36	18	5400	85517149
CFSAV-300	0,5×44	22	6600	85517151

CTAV-18
twin conductor heating cable

CTAV-18 is a twin conductor heating cable of 18 W/m output, with aluminium tape and tinned cooper screen. This thin cable "with memory" is used for installing heating system within thin or thick floor constructions and renewable floor (as main, additional or accumulation heating), as well as for cold zones heating next to large windows. Also, used for frost protection of outdoor steps under stone or tiles (within adhesive/ glue layer of tiles), for frost protection of water, sewerage and technological pipes in unheated premises.

Installation: It can be laid directly onto concrete or old tiles, under tiles, marble, granite, carpet, parquet boards and laminate flooring in a kitchen, hall, bedroom, livingroom and other premises. This cable can also be installed under stone or tile covering (in tile adhesive/ glue layer), in outdoor steps, as well as for pipe protection, installing it on pipes, under thermo-insulation layer

Technical data

Voltage	230 V AC
Output	18 W/m
Diameter	4,6 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	10 years

Product list

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTAV-18	230	8	160	82244200
CTAV-18	230	14	260	82244205
CTAV-18	230	24	420	82244210
CTAV-18	230	28	520	82244215
CTAV-18	230	34	600	82244220
CTAV-18	230	46	830	82244225
CTAV-18	230	57	1000	82244230
CTAV-18	230	69	1200	82244235
CTAV-18	230	83	1500	82244240
CTAV-18	230	100	1700	82244245
CTAV-18	230	123	2200	82244250

CTAV-10
twin conductor heating cable

Comfort Heat

CTAV-10 is a twin conductor heating cable of 10 W/m output, with aluminium tape and tinned cooper screen with memory. This thin cable with memory can be laid directly into concrete or directly into tile adhesive/ glue layer for installation of new or renewable floor. **CTAV-10** is accustomed to pipe frost protection whereby the cable is installed on pipe, under thermal insulation layer, compatible within cold stores.

Installation:

It can be laid directly on concrete or old tiles in a kitchen, hall, room or other premises under tile, as well as marble, granite, carpet, parquet, parquet boards and laminate flooring. **CTAV-10** can be also used for heating installation under wood flooring and for pipe frost protection, installing the cable on the pipe under thermal insulation layer or under thermal insulation layer in cold stores.

EAC CE

Technical data

Voltage	230 V AC
Output	10 W/m
Diameter	4,6 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	10 years

Product list

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTAV-10	230	10	120	82244300
CTAV-10	230	20	250	82244305
CTAV-10	230	30	320	82244306
CTAV-10	230	40	400	82244310
CTAV-10	230	50	520	82244315
CTAV-10	230	60	600	82244320
CTAV-10	230	70	750	82244325
CTAV-10	230	90	950	82244330
CTAV-10	230	120	1100	82244335
CTAV-10	230	130	1300	82244340
CTAV-10	230	160	1700	82244345
CTAV-10	230	195	2000	82244350

CTACV-20
twin conductor heating cable

CTACV-20 is a twin conductor heating cable of 20 W/m output, it has a double protection (M2), aluminium tape and tinned cooper screen with memory, fluorpolymer insulation and polypropylene overjacket. The heating cable is UV resistant.

It is designed for roof ice and snow melting systems (roof gutters and downpipes) and/ or the soil frost prevention (ramps, driveways, entrances to car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation:

It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil, whereby covering it with rockwool mats.

Technical data

Voltage	230 V
Output	20 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)+(XLPE)
Overjacket	Polypropylene (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	10 years

Product list

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-20	230	8	160	82000500
CTACV-20	230	14	270	82000505
CTACV-20	230	17	340	82000510
CTACV-20	230	22	450	82000515
CTACV-20	230	27	540	82000520
CTACV-20	230	32	640	82000525
CTACV-20	230	40	780	82000535
CTACV-20	230	44	870	82000540
CTACV-20	230	53	1070	82000550
CTACV-20	230	65	1290	82000555
CTACV-20	230	80	1580	82000560
CTACV-20	230	93	1850	82000565
CTACV-20	230	117	2300	82000570
CTACV-20	230	141	2750	82000575

CTACV-30
twin conductor heating cable

Comfort Heat

CTACV-30 is a twin conductor heating cable of 30 W/m output, it has double protection (M2), aluminium tape and tinned cooper screen with memory, fluorpolymer insulation and polypropylene overjacket. The heating cable is UV resistant.

It is designed for roof ice and snow melting systems (roof gutters and downpipes) and/ or ground frost protection of ground (ramps, driveways, entrances, car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation:

It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil whereby covering it with rockwool mats.

EAC CE

Technical data

Voltage	230 V
Output	30 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)+(XLPE)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	5 diameters
Protection class	IP67
Warranty	10 years

Product list

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-30	230	7	210	82253505
CTACV-30	230	11	330	82253510
CTACV-30	230	14	420	82253515
CTACV-30	230	18	540	82253520
CTACV-30	230	22	660	82253525
CTACV-30	230	26	780	82253530
CTACV-30	230	32	960	82253535
CTACV-30	230	36	1080	82253540
CTACV-30	230	44	1320	82253545
CTACV-30	230	52	1560	82253550
CTACV-30	230	65	1950	82253555
CTACV-30	230	76	2280	82253560
CTACV-30	230	96	2880	82253565
CTACV-30	230	114	3420	8225 3570

CTACV-30
twin conductor heating cable

CTACV-30 is a twin conductor heating cable of 30 W/m output, it has double protection (M2), aluminium tape and tinned cooper screen with memory, fluorpolymer insulation and polypropylene overjacket. The heating cable is UV resistant.

It is designed for roof ice and snow melting systems (roof gutters and downpipes) and/ or ground frost prevention (ramps, driveways, entrances to car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation:
It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil whereby covering it with rockwool mats.

Technical data

Voltage	400 V
Output	30 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluorpolymer (FEP)+(XPLE)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	10 years

Product list

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-30	400	12	360	82253605
CTACV-30	400	20	600	82253610
CTACV-30	400	24	720	82253615
CTACV-30	400	32	960	82253620
CTACV-30	400	39	1170	82253625
CTACV-30	400	46	1380	82253630
CTACV-30	400	56	1680	82253635
CTACV-30	400	63	1890	82253640
CTACV-30	400	76	2280	82253645
CTACV-30	400	92	2760	82253650
CTACV-30	400	114	3320	82253655
CTACV-30	400	132	3960	82253660
CTACV-30	400	163	4890	82253665
CTACV-30	400	196	5880	82253670

PIPEHEAT-10
self-limiting heating cable with plug

Comfort Heat

PIEPHEAT-10 is a self-limiting heating cable with a plug, of 10 W/m output, it has thermoplastic/ fluorpolymer overjacket.

It can be installed directly on surface of pipe whereby the cable is fixed alongside two layers of adhesive aluminium tape for covering or inserted into pipe through a metal fitting otherwise.

PipeHeat-10 is quick and straightforward to set up for connection: simply plug it into a socket, for example, when temperature drops below 3 °C, and plug it off when it is warm enough (air temperature above 3 °C), or you can set-up the cable together with a thermostat, saving your time and money. The wide range of PipeHeat-10 cables serves your choice for a proper length and power output that stops pipes from freezing.

EHC CE

Technical data

Voltage	230 V, +10/-15 %
Type	Self-limiting
Dimensions	10,8x6,3 mm / 7,9x5,6 mm
Connection cable	1,5m with plug
Max operational temperature	+65 °C (cable switched on)
Min installation temperature	+85 °C (cable switched off)
Min ambient temperature	-30 °C
Overjacket	Thermoplastic / polyethylene
Min bending radius	3-4 cm
Protection class	IP67
Warranty	2 years

Product list

Type	Cable length (m)	Output (W)	Order No.
PipeHeat-10	1	10	33761001
PipeHeat-10	2	20	33761002
PipeHeat-10	3	30	33761003
PipeHeat-10	4	40	33761004
PipeHeat-10	5	50	33761005
PipeHeat-10	6	60	33761006
PipeHeat-10	7	70	33761007
PipeHeat-10	8	80	33761008
PipeHeat-10	9	90	33761009
PipeHeat-10	10	100	33761010
PipeHeat-10	11	110	33761011
PipeHeat-10	12	120	33761012
PipeHeat-10	15	150	33761015
PipeHeat-10	17	170	33761017
PipeHeat-10	20	200	33761020
PipeHeat-10	22	220	33761022

Comfort Heat

GTe2
self-limiting heating cable with connection cable

GTe2 is a self-limiting cable with connection cable of 18/36 W/m output for ice protection of roof gutters and downpipes, and frost protection of roof systems. Self-limiting cable automatically adjusts its output to ambient temperature. **GTe2** is UV resistant and ensures durable frost protection of roof systems.

Technical data

Voltage	230 V, +10/-15 %
Type	Self-limiting
Dimensions	10,5x5,9 mm
Connection cable	5 m
Max operational temperature	+65 °C (cable switched on)
Min installation temperature	+85 °C (cable switched off)
Min ambient temperature	-30 °C
Overjacket	Thermoplastic
Jacket	UV resistant
Min bending radius	5-6 cm
Protection class	IP67
Warranty	2 years

Product list

Type	Cable length (m)	Voltage (V)	Order No.
GTe2-18/36	3	230	33762003
GTe2-18/36	5	230	33762005
GTe2-18/36	7	230	33762007
GTe2-18/36	9	230	33762009
GTe2-18/36	12	230	33762012
GTe2-18/36	15	230	33762015
GTe2-18/36	20	230	33762020
GTe2-18/36	22	230	33762022
GTe2-18/36	25	230	33762025

Accessories

Fixing bracket FB/GT	FC-GT fixing clip	Thermostat DTR-E 3102
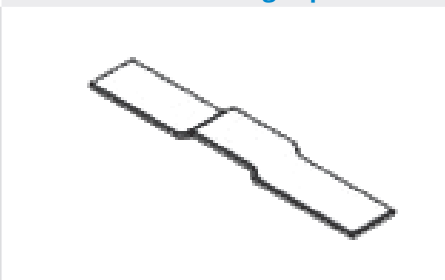
C101
electronic thermostat

he electronic thermostat **C101** with a floor temperature sensor has a setback temperature function.

C101 thermostat is designed for floor heating control, and is wall-mounted in all rooms.

It comes with 3 m length floor temperature sensor cable.

Comfort Heat

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16A / 3600 W
On / off switch	Unipolar
Temperature range	+5 °C ... +45 °C
Hysteresis	+/-0,4 °C
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / 20 °C
Light indicator	LED
Dimensions	84x84x28 mm
Protection class	IP20
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.	Model
C 101	+5 °C ... +45 °C	floor, 3 m	19111801	Elko

Wiring diagram

www.comfortheat.eu

Comfort Heat

C501
electronic thermostat
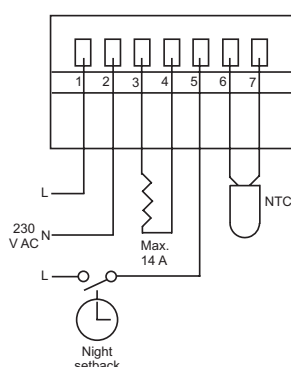
Electronic thermostat **C501** with a floor temperature sensor has a night setback option to slack off up to +5 °C. The thermostat is wall - mounted into a standard recessed box.

It comes with 3 m length floor temperature sensor cable.

EAC CE

Technical data

Voltage	230 V AC 50/60 Hz
Max load	14 A / 3200 W
On / off switch	Unipolar
Temperature range	+5 °C ... +40 °C
Hysteresis	+/-0,4 °C
Setting of temperature range	Min / max
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / 20 °C
Temperature setback	-5 °C
Light indicator	LED
Dimensions	80x80x50 mm
Protection class	IP21
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.	Model
C 501	+5 °C ... +45 °C	grindų, 3 m	19115952	Jussi
C 501	+5 °C ... +45 °C	grindų, 3 m	19115953	Elko

Wiring diagram

L

230 N
V AC

L

Max.
14 A

NTC

Night
setback
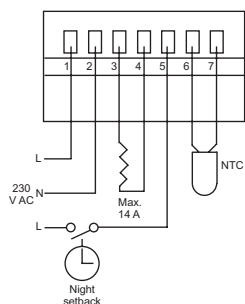
C510T
programmed clock thermostat

The electronic clock thermostat **C510T**, with fine LCD display comes with floor temperature sensor and energy consumption management system.

C510T thermostat has pre-programmed functions adjusted to Lithuanian climate and weekly mode. Factory settings and data are retrieved beyond power failure.

The thermostat is wall - mounted into a standard recessed box. Energy consumption management system informs of percentage consumption of adjusted temperature levels, what your monthly consumption is, and upcoming year's expenditure.

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Bipolar
Temperature range	+5 °C ... +45 °C
Hysteresis	+/-0,4 °C
Saved time	100 hours
Saved programming (ECU)	Unlimited time
Pre-programmed in factory	I-V, VI-VII mode
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / +20 °C
Energy consumption indicator (floor heating time %)	2 days, 30 days, 365 days
Dimensions	84x84x50 mm
Protection class	IP21
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.	Model
C 510T	+5 °C ... +45 °C	floor, 3 m	19115957	Jussi
C 510T	+5 °C ... +45 °C	floor, 3 m	19115960	Elko

Wiring diagram

C511T
programmed clock thermostat
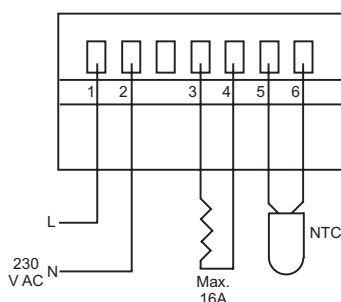
Modern, electronic clock thermostat **C511T** with fine LCD display designed for floor heating control. It comes with a floor temperature sensor, which undertakes an integral temperature adjustment control, a pre-set saving function, and includes energy consumption management system. Pre-programmed factory settings, are adjusted to Lithuanian climate, and weekly mode. Factory settings and data are retrieved beyond power failure.

The thermostat has an adaptive function for work with other producer's sensors.

C511T is wall - mounted into a standard recessed box.

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Bipolar
Temperature range	+5 °C ... +40 °C
Hysteresis	+/-0,4 °C
Saved time	100 hours
Saved programming (ECU)	Unlimited time
Pre-programmed in factory	I-V, VI-VII mode
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm at 20 °C
Energy consumption indicator (floor heating time %)	2 days, 30 days, 365 days
Dimensions	80x80x40 mm
Protection class	IP21
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.	Model
C511T	+5 °C ... +45 °C	floor, 3 m	19115966	Elko

Wiring diagram

ComfortTouch
thermostat
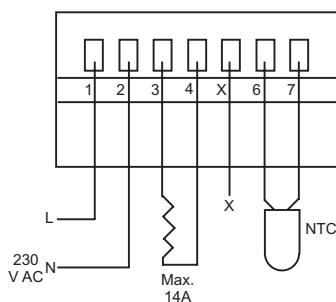
ComfortTouch is an electronic, user-friendly, touch screen thermostat used for electric heating systems control; has floor, room and built-in sensors, overall energy saving monitoring; compatible with other sensors, convenient to use a clearly setup device.

Factory-set weekly program takes climate conditions into account and is applicable to a 24-hour command; in turn, it makes programming individual preferences easy. In addition, you can set-up up to six different weekly/ daily scheduled temperatures. When you are away, lower setting will reduce energy consumption, whilst it ensures your comfort level. The thermostat incorporates a smart-clock which directs the supply of preferred temperature at the start of a set command.

ComfortTouch thermostat is flexible to correct mistakes and can be set-up to child safe mode; it has an electric counter, and 12 language choices. Data program retains information for an indefinite time.

Technical data

Voltage	100-240 V
Max load	16 A / 3600 W
Screen	2", 176x220 points, touch screen
On / off switch	Bipolar
Standby mode energy consumption	0,5 W
Temperature range	+5 °C ... +40 °C
Energy consumption and saved time memory	5 years
Saved programming	Unlimited time
Sensor type	Floor and room
Sensor resistance	NTC (12 kOhm) 3m
Dimensions	82x82x40 mm
Protection class	IP21
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.	Model
ComfortTouch	+5 °C ... +40 °C	floor and room	19115966	Elko

iComfortReg
thermostat

Innovative thermostat **iComfortReg** brings in new control parameters and manages heating systems operations of a livingroom, bedroom, kitchen, children's room and etc., or several residential properties (apartment, house, countryside house) at once. The iComfortReg thermostat has floor sensor, energy-saving mode, seven-day programming function. Connecting to Wi-Fi (home router) a smartphone application enables you to access control of up to 32 heating systems, all connected into one local network. With your smartphone, you can control the user-friendly heating system from anywhere you are- from home or other side of the world. All what you need is a Wi-Fi network.

This is a convenient solution to a fast-pace lifestyle of modern people, who value comfort and manage their time. The applet allows a user to control every room in real time- to identify and control temperature of heated floor within the scale of + 5 °C to + 45 °C. The **iComfortReg** thermostat is suited for installation in a standard wall mounting box, and it fits into well-known switch frames.

Technical data

Voltage	230 V AC
Max load	16 A / 3600 W
Temperature range	+5 °C ... +45 °C
Saved programming (ECU)	2 months
Max ambient temperature	28 °C
Pre-programmed in factory	I-VII, every hour
Sensor type	Floor (TST02)
Sensor resistance	7,0 kOhm at 20 °C
Dimensions	83x83x48 mm
Protection class	IP21
Warranty	2 years
Sensor cable length	2 m

Product list

Type	Temperature range	Sensor	Order No.	Model
iComfortReg	+5 °C ... +45 °C	grindų, 3 m	19115970	Elko

Wiring diagram

1 2 3 4 X 6 7

L
230 V AC N
Max. 14A
X
NTC

www.comforteat.eu

28

Comfort Heat Ltd.
Phone: + 370 5 2704596
info@comfortheat.eu
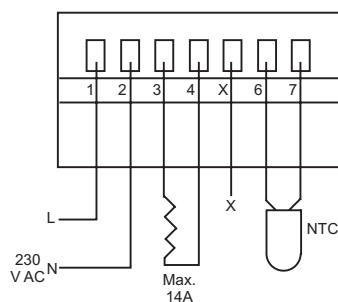
ETV-1991
thermostat (0 °C...+40 °C)

Comfort Heat

ETV-1991 is an electronic thermostat designed for the DIN rail mounting. It comes with ETF 144/99 temperature sensor.

The thermostat is produced for heating system control, industrial pipe line tracing and pipe frost protection. Thermostat has an option of temperature setback of up to 5 degrees (–5 °C), which can be activated with the help of an additional relay.

Technical data

Voltage	230 V
Max load	16 A / 3600 W
Temperature range	0 °C ... +40 °C
Hysteresis	+/-0,4 °C
Sensor type	NTC
Sensor resistance	14,8 kOhm at 20 °C
Setback mode	-5 °C
Heating off in case of sensor's defect	yes
Light indicator	LED
Dimensions	86x36x58 mm
Protection class	IP21
Warranty	2 years

Product list

Type	Temperature range	Jutiklis	Sensor
ETV 1991	0 °C ... +40 °C	External	19115966
Sensor ETF 144/99	-10 °C ... +50 °C	External	19115965
Sensor ETF 622*	-20 °C ... +120 °C	External	19121436

*the sensor is included; **the sensor is supplied additionally

Accessories

Sensor ETF 144/99*	Sensor ETF 622**

Comfort Heat

ETI-1221
thermostat (+10 °C...+110 °C)

ETI-1221 eis an electronic thermostat with variable temperature differentials, an independent control relay, and DIN rail - mounted contacts built in panel.

The thermostat is designed for pipe tracing of high temperature industrial lines temperature and other heating systems control. Sensor (*) **ETF 144/99** or **ETF-622** is applicable, depends on controlled temperature requirements. Both sensors can be prolonged with a 100 m cable.

Technical data

Voltage	230 V AC 50/60 Hz
Max load	10 A / 2200 W
Temperature range	+10 °C ... +110 °C
Hysteresis	+/-0,4 °C
Setback mode	0,5...10 °C
Sensor type (selected*)	NTC
Heating off in case of sensor's defect	Yes
Light indicator	LED
Dimensions	86x36x58 mm
Protection class	IP20
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.
ETI 1221	+10 °C ... +110 °C	External	19113680
SensorETF 144/99*	–10 °C ... +50 °C	External	19121438
Sensor ETF 622*	–20 °C ... +120 °C	External	19121436

*the sensor is supplied additionally

Accessories

Sensor ETF 144/99	Sensor ETF 622*

ETN4-1999
electronic thermostat with LCD screen (–19 °C...+70 °C)

Comfort Heat

ETN4-1999 is an electronic thermostat with LCD display, temperature differentials adjustment, independent control relay, and DIN rail - mounted contacts built in a panel. The thermostat is made to control both, heating or cooling systems, with support of one or two sensors. Thermostat comes with **ETF 144/99** sensor.

ETN4-1999 is designed to control temperature of room heating systems, pipe tracing, and is made for roof gutters and downpipes frost protection, soil frost protection and stores floor frost protection. Additionally, it comes with a night temperature control sensor (*) **ETF-622** and can be prolonged with a 100 m cable

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Bipolar
Hysteresis	+/-0,4 °C
Temperature range	-19,5 °C ... +70 °C
Sensor type	NTC
Sensor resistance	12 kOhm
Ambient temperature	-20 °C ... +55 °C
Setback mode range	-19,5 °C ... +30 °C
Setback mode	0-100 %
Frost protection	0 °C ... +10 °C
Protection class	IP20
LCD	25x38 mm
Dimensions	86x52,5x58 mm
Warranty	2 years

Product list

Type	Temperature range	Sensor	Order No.
ETN4-1999	–19,5 °C ... +70 °C	External	19113682
Sensor ETF 144/99*	–10 °C ... +50 °C	External	19121438
SensorETF 622*	–20 °C ... +120 °C	External	19121436

Accessories

Sensor ETF 144/99	Sensor ETF 622*

Comfort Heat

ETO2-4550
microprocessor based thermostat for snow melting system control

ETO2-4550 is a programmed microprocessor controller for ice and snow melting systems. It controls two independent zones according to the data from two separate sensors (one roof sensor **ETOR-55**, **ETF-744/99** and one ground sensor **ETOG-55**) or two similar sensors (2 roof sensors **ETOR-55, ETF-744/99** or 2 ground sensors **ETOG-55**). Optimal operation is ensured, thanks to output control which makes the system effective and economical. The thermostat is DIN rail - mounted in panel or wall - mounted with a cover box.

Additional functions: control of electric or water-based ice and snow melting systems, efficient control – minimising energy consumptions, alarm relay with external signal, time extension of residual heating and language options.

Remote control: ETO2 thermostat can be controlled from a distance via external signal: system: switch ON/ OFF, or heating period extension switch ON option.

Used for: frost protection on roof gutters and downpipes; frost protection of steps, entrances, driveways, parking lots, ramps, sideways and bridges.

Technical data

Voltage	115/230 V AC 50/60 Hz
Three outlet relays	3 × 16 A / 11 kW
Signal relay	Max 5 A
Control valve signal	0-10 V DC
Supply voltage (valve)	24 V AC/100 mA
Temperature range	-20 °C ... +10 °C
Hysteresis	+/-1 °C
Sensor type (selected*)	Ground or roof / temperatures
Ambient temperature	0 °C ... +50 °C
Extension of heating time	0–6 hours
Ambient humidity	10-95 %
Protection class	IP20
Dimensions	90x156x45 mm
Warranty	2 years

Product list

Type	Temperature range	Order No.
ETO2-4550	–20 °C ... +10 °C	19117900
Sensor ETOG-55*	–50 °C ... +70 °C	19122035
Sensor ETOR-55*	–50 °C ... +70 °C	19122045
Sensor ETF 744/99*	–50 °C ... +70 °C	19116054

*the sensor is supplied additionally

Accessories

Sensor ETOG-55*	Sensor ETOR-55*	Sensor ETF 744/99*

ETR2-1550
electronic thermostat for snow melting system control

Comfort Heat

ETR2-1550 is an electronic thermostat which comes with temperature and moisture sensors designed for ice and snow melting systems control. It controls one zone according to roof sensor data (**ETOR-55**, **ETF-744/99***) or ground sensor data (**ETOG-55***). It can reach up to 16A (ON / OFF up to 3600 W). Optimal operation function is linked to output control in different weather conditions, what makes the system effective and economical. The thermostat is DIN rail - mounted in panel.

Additional functions: indication of heating operation, temperature, humidity and period extension of residual heating.

Used for: frost protection of roof gutters and downpipes; ice and snow protection of steps, entrances, driveways, parking lots, ramps, pathways, bridges and small ground areas.

EAC CE

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
Hysteresis	+/–0,3 °C
Temperature range	0 °C … +10 °C
Sensor type (selected*)	Ground or roof / temperatures
Ambient temperature	-10 °C / +50 °C
Extension of heating time	0–5 hours
Ambient humidity	10–95 %
Protection class	IP20
Dimensions	86×52×59 mm
Warranty	2 years

Product list

Type	Temperature range	Order No.
ETR2-1550	–10 °C … +50 °C	19117909
Sensor ETOG-55*	–50 °C … +70 °C	19122035
Sensor ETOR-55*	–50 °C … +70 °C	19122045
Sensor ETF 744/99*	–50 °C … +70 °C	19116054

*the sensor is supplied additionally

Accessories

Sensor ETOG-55*	Sensor ETOR-55*	Sensor ETF 744/99*

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DTR-E 3102
thermostat for snow melting system control

DTR-E 3102 is a bimetallic thermostat with upper and lower temperature range. It is used for snow melting and frost protection systems control.

DTR-E 3102 thermostat is designed for frost protection system management of icicle formation on small roofs, gutters and downpipes. The systems are applied in residential houses on stairs, at entrances and on driveways.

CE

Technical data

Voltage	230 V AC 50/60 Hz
Max load	16 A
Hysteresis	+/-0,3 °C
Sensor type	Bimetal
Temperature range	-20 °C ... +25 °C
Aplinkos temperatūra	-25 °C ... +55 °C
Protection class	IP65
Dimensions	122x120x55 mm
Warranty	2 years

Product list

Type	Temperature range	Order No.
DTR-E 3102	-20 °C ... +35 °C	19113688

Installation accessories

Type		Order No.
Installation tape (5 m) Installation tape (20 m)		19808188 19808193
Aluminium tape (50 mm × 50 m), temperature resistant up to +180 °C		19805077
Roof gutter clip (25 pcs.)		19805191
Downpipe clip (25 pcs.)		19805258
Galvanized chain (4 mm, 1 m)		19805241
Stainless steel chain holder		19805243
Fixing bracket FB/GT		19805746
Self-limiting cable fixing clip FC/GT		19805754
Self-limiting cable junction seal (for connection with power cable)		19805761
Junction seal SF-P for connection of one self-limiting cable with electric cable. Junction seal SF-T for connection of three self-limiting cables		30376009 30376010
Metal fitting M20/25 (1" and 3/4") for self-limiting cable		19805368
Repair kit for heating cables and mats		18055228

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GTe / GTe-F
self-limiting heating cable
for downpipe protection

GTe2 is a self-limiting heating cable of **18/36 W/m** output for ice protection of roof gutters and downpipes, and frost protection of drain systems. It automatically adjusts its output in response to ambient temperature. The cable is UV resistant. The cable is produced with nanotechnologies, ensuring for long-lasting properties benefits of roof systems.

GTe2-F self-limiting heating cable with fluorpolymer overjacket can be installed in chemically hazardous zones, such as gutters and downpipes of bitumen roofs, car parking areas and sewerage systems. The cable is available in 200-300 m reel..

Technical data

W/m

Pipe temperature (°C)

Output	18 W/m (at 0 °C) 36 W/m (in ice at 0 °C)
Voltage	220/240 V AC
Dimensions	10,5x5,9 mm
Overjacket	UV resistant
GTe	Thermoplastic
GTe-F	Fluorpolymer (F)
Min bending radius	35 mm
Max temperature	+65 °C ON or OFF
Min install. temperature	-30 °C
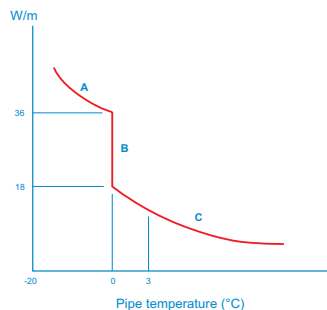
A – In snow and ice water the heating cable will operate at full power.
B – As snow begins to melt and water drains away, the heating cable self-regulates to half a power.
C – As it gets warmer, the heating cable will reduce its power output.

Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient temperature	230 V				
	6 A	10 A	16 A	20 A	32 A
+10 °C	26	42	68	84	90
0 °C	24	38	62	78	86
-20 °C	20	34	54	68	80

Product list

Type	Order No.
GTe2	30116020
GTe2-F	30116021

Accessories

| Self-limiting cable junction seal	FB/GT fixing bracket	FC/GT fixing bracket	ETO2-4550

www.comfortheat.eu

FSM-CT/CF self-limiting heating cable (Ex) up to +85 °C

Comfort Heat

FSM2-CT self-limiting heating cable of **11 W/m** and **17 W/m** output can be used for heating, temperature maintenance and frost protection of pipes. The cable is produced with nanotechnologies, ensuring durable benefits; it withstands the temperature of **up to +85 °C** (when turned off). It can be installed in residential, public and commercial buildings and within industrial hazardous (Ex) zones.

FSM2-CF cable can be installed within chemically hazardous zones, that of bitumen, oil products, food and industrial oils and other chemical products, because approved for use in both, safe and hazardous areas.

Installation: the cable is laid onto small diameter pipes under thermal insulation layer.
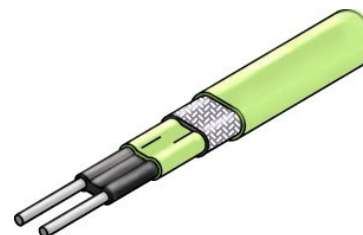
Technical data

Voltage	220/240 V AC
Output	11W/m ir 17 W/m (+10 °C)
Dimensions	10,5x5,9 mm
Overjacket	Thermoplastic(CT) Fluorpolymer (CF)
Min bending radius	20-25 mm
Max temperature:	
·Cable switched on	+65 °C
·Cable switched off	+85 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T6

W/m
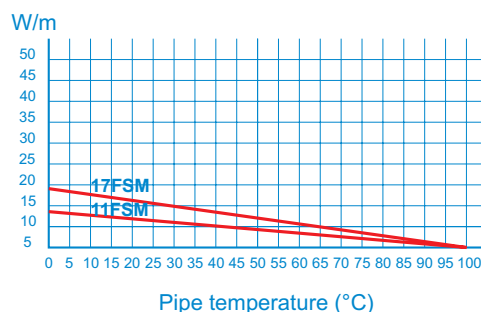
17FSM
11FSM

Pipe temperature (°C)

Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient temperature	11FSM				17FSM			
	230 V							
	6 A	10 A	16 A	20 A	6A	10 A	16 A	20 A
+5 °C	76	126	128	-	54	88	102	-
0 °C	70	118	128	-	50	84	102	-
-20 °C	46	78	124	128	34	56	88	102
-40 °C	36	60	96	120	26	42	68	86

Product list

Type	Order No.
11FSM2-CT	30111010
17FSM2-CT	30111020

Accessories

UTK 144	DESTU	DJB 9000/Ex	Aluminium tape

FSLe-CT/CF self-limiting heating cable (Ex) up to +85 °C
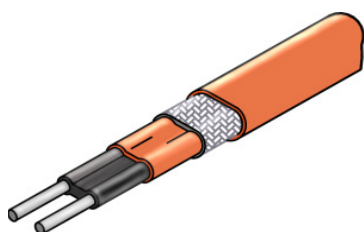
FSLe2-CT self-limiting heating cable of **17 W/m, 23 W/m, 31 W/m** output can be used for heating, temperature maintenance and frost protection of pipes. The cable is produced with nanotechnologies, ensuring durable benefits; it withstands the temperature of **up to +85 °C** (when ON or OFF). It can be installed in residential, public and commercial buildings and within industrial hazardous (Ex) zones.

FSLe-CF cable can be installed within chemically hazardous zones, that of bitumen, oil products, food and industrial oils and other chemical products, because approved for use in both, safe and hazardous areas.

Installation: the cable is laid onto medium diameter pipes under thermal insulation layer.

Technical data

Voltage	220/240 V
Output	17W/m, 23 W/m, 31 W/m (+10 °C)
Dimensions	10,5x5,9 mm
Overjacket	Thermoplastic (CT) Fluorpolymer (CF)
Min bending radius	20-25 mm
Max temperature:	
·Cable switched on	+65 °C
·Cable switched off	+85 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T6

W/m — Pipe temperature (°C)
31FSLe, 23FSLe, 17FSLe
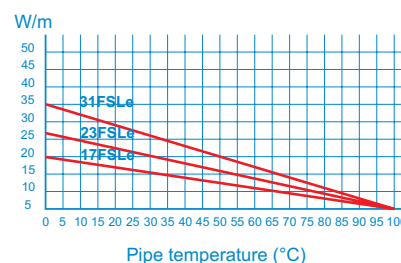
Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient temperature	17FSLe		23FSLe		31FSLe	
	230 V					
	16 A	20 A	6 A	10 A	16 A	20 A
+5 °C	146	-	46	76	92	102
0 °C	146	-	42	70	84	102
-20 °C	130	146	34	56	56	66
-40 °C	112	138	28	46	54	66

Product list

Type	Order No.
17FSLe2-CF	30112021
23FSLe2-CT	30112022
23FSLe2-CF	30112027
31FSLe2-CF	30112038
31FSLe2-CT	30112037

Accessories

UTK 144	DESTU	DJB 9000/Ex	CT-FL/2C/A (0 °C ... +40 °C)

www.comfortheat.eu

FSE-CF, FSEw-CF self-limiting heating cable (Ex) up to +100 °C

Comfort Heat

FSE2-CF, FSEw2-CF self-limiting heating cable, of **17 W/m, 31 W/m, 45 W/m** and **60 W/m** output for heating and frost protection of industrial pipes, can be installed in both, safe and hazardous (Ex) zones. The cable is produced with nanotechnologies, ensuring long-lasting benefits, withstands the temperature of up to **100 °C** (when switched ON or OFF).

FSE2-CF, FSE2w-CF cables are made with fluorpolymeric overjacket which is resistant to chemically hazardous environments (that of bitumen, oil products, food and industrial oils and other chemical products production).

Installation: the cable is used for installation of industrial technological pipes within chemically hazardous (Ex) zones.
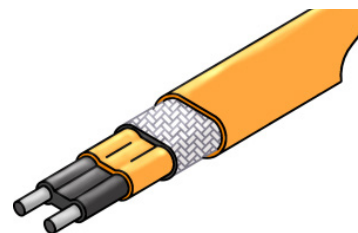
Technical data

Voltage	220/240 V
Output	17 W/m, 31 W/m, 45 W/m and 60W/m (+10 °C)
Dimensions	12,3x5,6 mm
Overjacket	Fluorpolymer (CF)
Min bending radius	30 mm
Max temperature: ·Cable switched off	+100 °C
Min install. temperature	-30 °C (CENELEC -20 °C)
Temperature class	T4
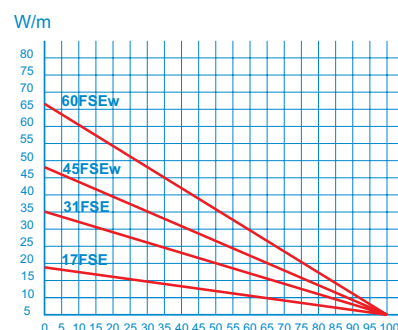
Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient temperature	17FSE		31FSE		45FSEw		60FSEw	
	230 V							
	16 A	20 A	16 A	20 A	16 A	20 A	16 A	20 A
+10 °C	120	148	82	104	62	76	52	66
0 °C	98	122	68	84	50	64	44	56
-20 °C	66	82	46	56	34	42	32	40
-40 °C	44	56	30	38	22	28	22	28

Product list

Type	Order No.
17FSE2-CF	312286906
31FSE2-CF	312286905
45FSEw2-CF	312286904
60FSEw2-CF	312286902

Accessories

UTK 144	DESTU	DJB 9000/Ex	CT-FL/2C/A (0 °C ... +40 °C)

FSS-CF self-limiting heating cable (Ex) up to +225 °C
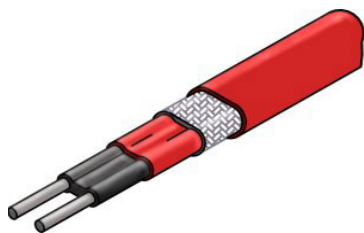
FSS-CF self-limiting heating cable, of **15 W/m, 30 W/m, 45 W/m, 60 W/m** and **75 W/m** output is made with fluorpolymer overjacket which is resistant to chemically hazardous environments (that of bitumen, oil products, food and industrial oils and other chemical products production). The cable is used for heating and frost protection of technological pipes, and can be installed within both, safe and hazardous (Ex) zones. The cable is produced with nanotechnologies, ensuring long-lasting benefits, withstands the temperature of **up to 225 °C** (when switched ON or OFF).

Installation: the cable is used for installation of industrial technological pipes within chemically hazardous and Ex zones. Available in 200-300 m reel.

Technical data

Voltage	220/277 V
Output	15 W/m, 30 W/m, 45 W/m, 60W/m , 75 W/m (+10 °C)
Dimensions	10,45x4,25 mm
Overjacket	Fluorpolymer (CF)
Min bending radius	30 mm
Max temperature: •Cable switched off	+225 °C
Min install. temperature	-30 °C (CENELEC -20 °C)
Temperature class	T3
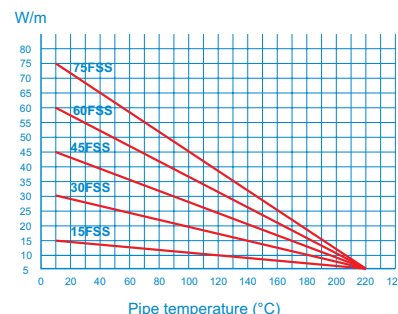
## Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient tempera-ture	15FSS		30FSS		45FSS		60FSS		75FSS	
	230 V									
	20 A	32 A	20 A	32 A	20 A	32 A	20 A	32 A	20 A	32 A
+10 °C	154	154	102	108	76	88	46	76	28	46
0 °C	140	146	92	104	66	84	36	58	22	36
-20 °C	122	138	82	98	46	76	26	42	16	24
-40 °C	102	126	62	88	28	46	16	24	10	14

Product list

Type	Order No.
15FSS2-CF	30115003
30FSS2-CF	30115004
45FSS2-CF	30115006
60FSS2-CF	30115005
75FSS2-CF	30115007

Accessories

UTK 344	DESTU	DJB 9000/Ex	CT-FL/2C/C (+20°C ...+300°C)

FSU-NF self-limiting heating cable (Ex) up to + 250 °C

Comfort Heat

FSU2-NF is a self-limiting heating cable of **15 W/m, 30 W/m, 45 W/m, 60 W/m, 75 W/m** and **100 W/m** output for heating and frost protection of high temperature industrial pipes. It can be installed in both, safe and hazardous (Ex) areas. The cable is produced with nanotechnologies, ensuring long-lasting benefits, withstands the temperature of **up to 250 °C** (when switched ON or OFF).

FSU2-NF cable is made with a fluorpolymer overjacket which is resistant to chemically hazardous environments (that of bitumen, oil products, food and industrial oils and other chemical products production).

Installation: for frost protection and temperature maintenance of industrial pipes, oil terminals and refinery, and food industry pipes.
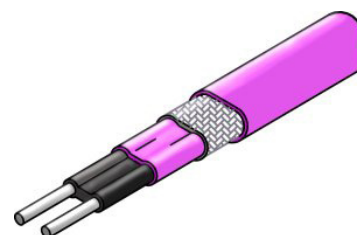
Technical data

Voltage	220/270 V
Output	15 W/m, 30 W/m, 45 W/m, 60W/m, 75 W/m, 100 W/m (+10 °C)
Dimensions	12,1x5,4 mm
Overjacket	Fluorpolymer (NF)
Min bending radius	50 mm
Max temperature:	
•Cable switched off	+250 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T3
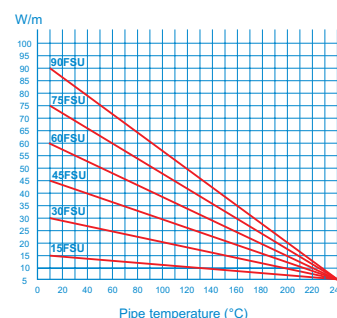
W/m graph: 90FSU, 75FSU, 60FSU, 45FSU, 30FSU, 15FSU
Pipe temperature (°C)

Maximum length of the cable (m) in one electrical circuit depends on the temperature:

Ambient tempera-ture	15FSU		30FSU		45FSU		60FSU		75FSU		100FSUw	
	230 V											
	16 A	20 A	16 A	20 A	16 A	20 A	16 A	20 A	20 A	32 A	20 A	32 A
+10 °C	122	154	82	102	62	76	38	46	24	28	28	46
0 °C	112	140	74	92	52	66	30	36	18	22	24	36
-20 °C	98	122	66	82	38	48	20	26	12	16	16	26
-40 °C	82	102	50	62	24	28	12	16	8	10	12	20

Product list

Type	Order No.
15FSU2-NF	30115019
30FSU2-NF	30115020
45FSU2-NF	30115021
60FSU2-NF	30115022
75FSU2-NF	30115023
100FSUw-NF	30115024

Accessories

UTK 144	DESTU	DJB 9000/Ex	CT-FL/2C/C (+20°C...+300°C)

MTF-CF constant power heating cable up to +200 °C
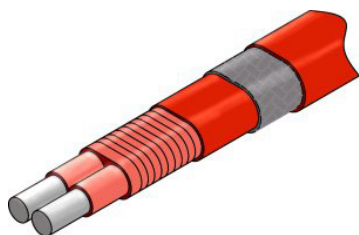
MTF2-CF2 is a parallel resistant, constant power, cut-to-length heating cable of **6,5 W/m, 13 W/m, 23 W/m, 33 W/m** and **50 W/m** output. It is used for frost protection or low-to-medium heating process of industrial pipes. Suitable for use within both, safe and hazardous areas, can withstand the temperature of **up to +200 °C** (when switched off).

MTF2-CF is made with fluorpolymer overjacket which is resistant to chemically hazardous environments (that of bitumen, oil products, food and industrial oils and other chemical products production). Available in 200-300 m reel.

Installation: the cable is designed for temperature maintenance of industrial pipes, oil terminals and refinery, and food industry pipes, installed under thermal insulation layer.

Technical data

Voltage	220/240 V AC
Output	6,5 W/m, 13 W/m, 23 W/m, 33 W/m, 50 W/m
Dimensions	10,0x7,0 mm
Overjacket	Fluorpolymer (CF)
Min bending radius	35 mm
Max temperature: • Cable switched off	+200 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T3
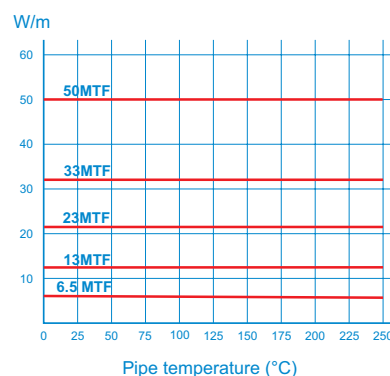
Maximum pipe operating temperature (°C)

Type	Classification of hazardous (Ex) zones						
	T6	T5	T4	T3	T2	T1	Safe zone
6,5MTF-CF	60	80	125	190	190	190	190
13MTF-CF	35	50	100	185	185	185	185
23MTF-CF	-	25	55	160	165	165	165
33MTF-CF	-	-	35	115	120	120	120
50MTF-CF	-	-	-	80	85	85	85

Product list

Type	Max. length of the cable (m) in an electric circuit	Order No.
6,5MTF2-CF	212 m	30122314
13MTF2-CF	150 m	30122315
23MTF2-CF	113 m	30122316
33MTF2-CF	94 m	30122312
50MTF2-CF	76 m	30122313

Accessories

UTK 144	DESTU	DJB 9000/Ex	CT-FL/2C/C (+20ºC...+300ºC)

MTFJ-CF constant power heating cable (Ex) up to +200 °C

Comfort Heat

**MTFJ2-CF** is a parallel circuit, constant power, cut-to-length heating cable of **6,5 W/m, 13 W/m, 23 W/m** and **33 W/m** output. It is designed for frost protection or low-to-medium heating process of industrial pipework. Suitable for use within both, safe and hazardous areas, can withstand the temperature of **up to +200 °C** (when switched off).

MTFJ2-CF cable is made with a fluorpolymer overjacket which is resistant to chemically hazardous environment (that of bitumen, oil products, food and industrial oils and other chemical products production). Available in 200-300 m reel.

Installation: the cable is designed for temperature maintenance of industrial technological pipes, oil terminals and refinery, and food industry pipes, installed under thermal insulation layer.
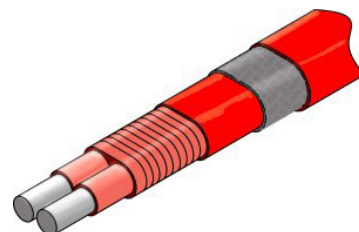
Technical data

Voltage	220/240 V
Output	6,5 W/m, 13 W/m, 23 W/m, 33 W/m
Dimensions	9,8x6,8 mm
Overjacket	Fluorpolymer (CF)
Min bending radius	30 mm
Max temperature:	
·Cable switched off	+200 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T3

W/m — Pipe temperature (°C)
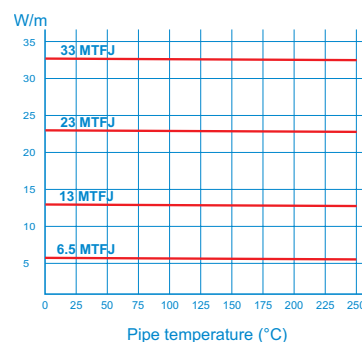
Maximum pipe operating temperature (°C)

Type	Classification of hazardous (Ex) zones						
	T6	T5	T4	T3	T2	T1	Safe zone
6,5MTFJ-CF	54	74	121	190	190	190	190
13MTFJ-CF	21	41	90	180	185	185	185
23MTFJ-CF	-	-	39	152	159	159	159
33MTFJ-CF	-	-	-	103	108	108	108

Product list

Type	Max. length of the cable (m) in an electric circuit	Order No.
6,5MTFJ2-CF	212 m	30122314
13MTFJ2-CF	150 m	30122315
23MTFJ2-CF	113 m	30122316
33MTFJ2-CF	94 m	30122312

Accessories

UTK 144	DESTU	DJB 9000/Ex	CT-FL/2C/C (+20°C...+300°C)

PHT-NF constant power heating cable up to +285 °C
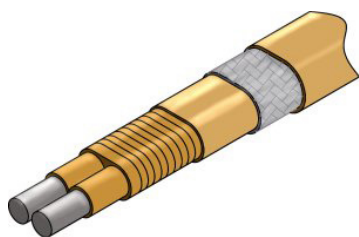
PHT-NF is a parallel circuit, mineral insulated, cut-to-length, constant power heating cable of **10 W/m, 30 W/m, 50 W/m** and **70 W/m** output. It is designed for frost protection and heating process of industrial pipes with high temperature. Suitable for use in both, safe and hazardous areas, can withstand the temperature of **up to +285 °C** (when switched off).

**PHT-NF** is a flexible and mechanically robust cable made with fluorpolymer overjacket which is resistant to chemically hazardous environments (that of bitumen, oil products, food and industrial oils and other chemical products production). Available in 200-300 m reel.

Installation: the cable is designed for temperature maintenance of industrial pipes, oil terminals and refinery, and food industry pipes.

Technical data

Voltage	220/240 V
Output	10 W/m, 30 W/m, 50 W/m, 70 W/m
Dimensions	10,3x7,5 mm
Overjacket	Fluorpolymer (NF)
Min bending radius	35 mm
Max temperature:	
·Cable switched off	+285 °C
Min install. temperature	-20 °C
Temperature class	T2
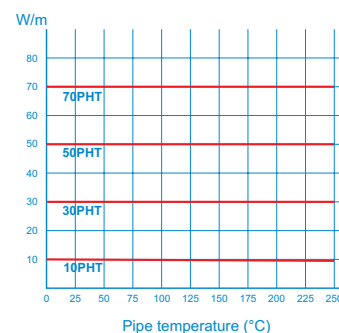
Maximum pipe operating temperature (°C)

Type	Classification of hazardous (Ex) zone						
	T6	T5	T4	T3	T2	T1	Safe zone
10PHT2-NF	40	60	105	186	275	275	275
30PHT2-NF	-	-	22	132	255	255	255
50PHT2-NF	-	-	-	63	215	215	215
70PHT2-NF	-	-	-	-	168	168	168

Product list

Type	Max. length of the cable (m) in an electric circuit	Order No.
10PHT2-NF	152 m	30123020
30PHT2-NF	88 m	30123021
50PHT2-NF	68 m	30123022
70PHT2-NF	56 m	30123023

Accessories

UTK 344	DESTU	DJB 9000/Ex	CT-FL/2C/C (+20°C...+300°C)

AHT constant power heating cable (Ex) up to +425 °C

Comfort Heat

AHT is a parallel circuit, mineral insulated, cut-to-length, constant power heating cable of **15 W/m, 30 W/m, 50 W/m, 70 W/m, 100 W/m** and **150 W/m** output. It is designed for frost protection and heating process of industrial pipes with high temperature. Suitable for use in both, safe and hazardous (Ex) areas, can withstand the temperature of **up to +425 °C** (when switched off).

AHT is a flexible and mechanically robust cable with an extruded aluminium overjacket which retains some flexibility and is resistant to high temperature. Available in 100-150 m reel. It is cut- to-length and can be easily connected to a power cable with support of junction boxes or connectors.

IEC EHC (SA Lloyd's Register CE Ex
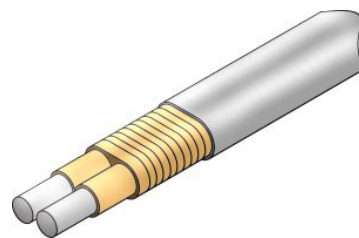
Technical data

|	
Voltage	220/277 V
Output	15 W/m, 30 W/m, 50 W/m, 70 W/m, 100 W/m, 150 W/m
Dimensions	10,0x7,0 mm
Overjacket	Aluminium
Min bending radius	25 mm
Max temperature: •Cable switched off	+350 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T1
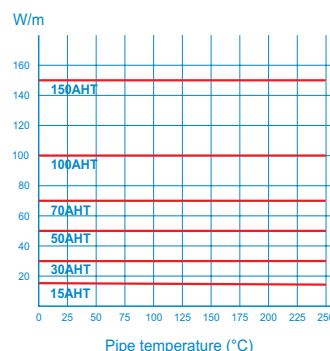
W/m chart: 150AHT, 100AHT, 70AHT, 50AHT, 30AHT, 15AHT vs Pipe temperature (°C)

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Maximum pipe operating temperature (°C)

Type	Classification of hazardous (Ex) zone						
	T6	T5	T4	T3	T2	T1	Safe zone
15AHT	-	36	71	160	289	350	350
30AHT	-	11	28	100	249	323	323
50AHT	-	-	-	39	178	276	276
70AHT	-	-	-	-	48	140	140
100AHT	-	-	-	-	48	140	140
150AHT	-	-	-	-	-	36	36

Product list

Type	Max. length of the cable (m) in an electric circuit	Order No.
10AHT2	118 m	30123008
30AHT2	83 m	30123009
50AHT2	64 m	30123010
70AHT2	54 m	30123011
100AHT2	46 m	30123013
150AHT2	37 m	30123014

Accessories

UTK 344	DESTU	DJB 9000/Ex	CT-FL/2C/A (+20°C...+300°C)

HTS1F-CS/CF
constant power heating cable (Ex) up to +230 °C
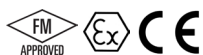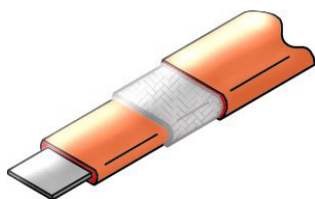
HTS1F is „LONGLINE" heating cable of **10 W/m, 20 W/m, 30 W/m, 40 W/m, 50 W/m** and **60 W/m** output, and is used for temperature process maintenance or frost protection of long pipelines. Suitable for use with both, safe and hazardous (Ex) areas, withstand the temperature of **up to +230 °C** (when switched off).

HTS1F cable is designed for heating of pipelines of up to 10 km between supply points.

The cables are made with silicone rubber and fluorpolymer overjacket which are resistant to chemical environmental hazards.

Installation: both cables are designed for temperature maintenance of long pipelines and frost protection of environmental treatment systems and reservoirs.

Technical data

Voltage	Up to 600 V
Output	10 W/m, 20 W/m, 30 W/m, 40 W/m, 50 W/m, 60W/m
Dimensions	23,0x9,0 mm (CS); 22,0x8,0 mm (CF)
Overjacket	Silicon rubber (CS) Fluorpolymer (CF)
Min bending radius	50-75 mm
Max temperature: · Cable switched off	+230 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T2
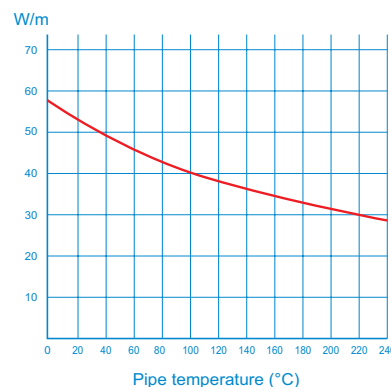
Pipe temperature (°C)

Maximum pipe operating temperature (°C)

Type	Cable overjacket		Order No.
	HTS1F-CS	HTS1F-CF	
10HTS1F-CS/CF	207	192	
20HTS1F-CS/CF	180	177	
30HTS1F-CS/CF	157	165	Order according to the project
40HTS1F-CS/CF	127	127	
50HTS1F-CS/CF	92	92	
60HTS1F-CS/CF	-	-	

Accessories

UTK 144	PB/S	AJB 9000/Ex	POWERMATCH

HTS3F-CS/CF
constant power heating cable (Ex) up to +230 °C

Comfort Heat

HTS3F is „LONGLINE" heating cable of **10 W/m, 20 W/m, 30 W/m, 40 W/m, 50 W/m** and **60 W/m** output, and is used for temperature process maintenance or frost protection of long pipelines. Suitable for use with both, safe and hazardous (Ex) areas, withstand the temperature of **up to +230 °C** (when switched off).

HTS3F cable is designed for heating of pipelines of up to 2 km between supply points.

The cables are made with silicone rubber and fluorpolymer overjacket which are resistant to chemical environmental hazards.

Naudojamas: both cables are designed for temperature maintenance of long pipelines and frost protection of environmental treatment systems and reservoirs.
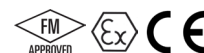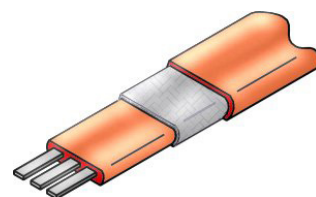
Technical data

|	
Voltage	up to 600 V 3rd phase
Output	10 W/m, 20 W/m, 30 W/m, 40 W/m, 50 W/m, 60W/m
Dimensions	23,0x9,0 mm (CS); 22,4x8,0 (CF)
Overjacket	Silicon rubber (CS) Fluorpolymer (CF)
Min bending radius	75 mm
Max temperature: ·Cable switched off	+230 °C
Min install. temperature	-40 °C (CENELEC -20 °C)
Temperature class	T2

W/m vs Pipe temperature (°C)
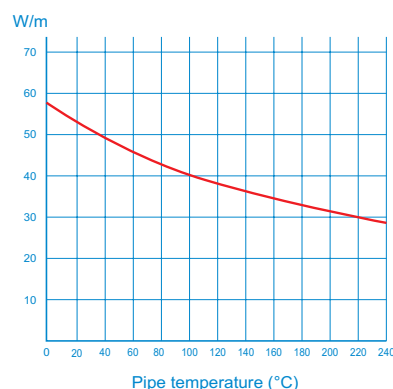
Maximum pipe operating temperature (°C)

Type	Classification of hazardous (Ex) zone							Order No.
	T6	T5	T4	T3	T2	T1	Safe zone	
10HTS3F-CS/CF	57	73	112	181	207/192	207/192	207/192	Order according to the project
20HTS3F-CS/CF	37	53	93	166	180/177	180/177	180/177	
30HTS3F-CS/CF	-	31	73	152	157/167	157/167	157/167	
40HTS3F-CS/CF	-	-	51	127	127	127	127	
50HTS3F-CS/CF	-	-	27	92	92	92	92	
60HTS3F-CS/CF	-	-	-	-	-	-	-	

Accessories

UTK 144	PB/S	AJB 9000/Ex	POWERMATCH

CT-FL/2C/A and **CT-FL/2C/C** are capillary thermostats which contain a liquid filled sensing bulb, connected to an electric switch via a capillary tube. At rise of a pipe surface temperature, the liquid in the bulb expands, enabling the switch to turn ON, and at drop down of set temperature level of a pipe surface, liquid contracts, so that the switch turns OFF. The sensing bulb which indicates line or reservoir surface temperature is positioned in between a surface and insulation layers, using valve or other pipeline fittings.

Installation: the thermostat is designed for frost protection and temperature maintenance control of industrial pipes within hazardous (Ex) zones.

Technical data

Voltage	230 V AC 50/60 Hz
Maximum load	16 A / 3600W
Sensor type	Capillary bulb
Temperature range: •CT-FL/2C/A •CT-FL/2C/C	0 °C ... +40 °C +20 °C ... +300 °C
Ambient temperature	-20 °C ... +120 °C
Safety class	EEx d IIA, IIB, IIC T6
Dimensions	137x137x70 mm

*extra set of the sensor

Product list

Type	Temperature scale	Order No.
CT-FL/2C/A	0 °C ... +40 °C	30376109
CT-FL/2C/A	+20 °C ... +300 °C	30376111

Accessories

Installation plate PB/S for thermostat CT-FL	Fixing strap PFS 25 Fixing strap PFS 100 Fixing strap PFS 200

POWERMATCH Micro
controller for pipe heating systems

POWERMATCH Micro is an electronic digital controller with fine LCD display, designed for pipe heating system control. The controller supported by two sensors (of air and pipe surface area), automatically indicates changes in air and pipe surface temperature, and directly adjusts the impulse ratio of periods at which the heating cable is energised and switched off, so that delivered heat matches heat losses.

Installation: the thermostat is designed for frost protection and temperature maintenance control of industrial technological pipes with safe and hazardous (Ex) zones.

CE
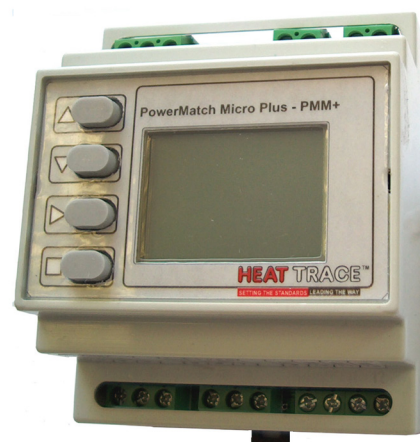
Technical data

Voltage	230 V AC 50/60 Hz
Maximum load	16 A
Hysteresis	+/-1 °C
Sensor type	Pt100
Temperature range:	-50 °C ... +500 °C
Ambient temperature	0 °C ... +50 °C
Safety class	IP20
Dimensions	68x85x57 mm

Product list

Type	Temperature scale	Order No.
POWERMATCH Micro	–50 °C ... +500 °C	Order acc. to the project
Sensor PMM + Air sensor Pt 100*	–60 °C ... +500 °C	Order acc. to the project
Sensor DRTD Pt 100*	–60 °C ... +500 °C	Order acc. to the project

Accessories

Sensor PMM+ Air sensor Pt 100*	Sensor DRTD Pt 100*

Type		Order No.
Termination kit for self-limiting cables in hazardous (Ex) zone: UTK 144 (FSM-CT/CF, FSLe-CT/CF, Gte2, MTFJ-CF) UTK 344 (FSE-CT/CF, FSS-CF, FSU-NF, MTF-CF, PHT-NF, AHT) UTK 555 (FSEw-CT/CF)		30301003 30301002 30301004
Junction box DJB 9000/EX		30302112
Junction box DJB 9000/RTD for temperature sensor		30302111
Temperature sensor DRTD (RDT Pt100 sensor for DESTU termination)		30302183
DESTU direct entry sealed termination unit for DJB 9000/EX		30302180
DESTU/T connection for additional heating cable with DJB 9000/EX		30302181
DESTU seal DS2 (MTFJ-CF, AHT) **DESTU seal DS3** (MTF-CF, PHT-NF) **DESTU seal DS5** (FSM-CT/CF, FSLe-CT/CF, FSE-CF, FSEw-CF, FSS-CF, FSU-NF)		30302188 30302187 30302185
Junction box AJB1/EX		30302100
Installation plate PB/S for junction box AJB1/Ex, for thermostat CT-FL		30302010
Lagging Entry Kit LEK/U		30376100
Ambient temperature sensor PMM + Air Sensor Pt100		30302186
Pipe temperature sensor PMM + Pipe Sensor Pt100		30302187
GEnd seal SF-E (red) for self-limiting cables FSM-CT/CF, FSLe-CT/CF, GTe-CT/CF		30376014
End seal SF-E (blue) for self-limiting cables FSE-CT/CF, FSS-CT/CF, FSU-NF, FSEw-CT/CF		30376013
Junction seal SF-P for connection of one self-limiting cable with electric cable **Junction seal SF-T for connection of three self-limiting cables**		30376009 30376010
Aluminium tape (50 mm × 50m), temperature resistant up to +180 ºC (5mm x 50m)		19805077
Glass tape (50 m) FT/HTS, temperature resistant up to +428 ºC (50 m)		30302002
Caution label (self-adhesive)		30376021
Fixing strap PFS 25 **Fixing strap PFS 100** **Fixing strap PFS 200**		30302020 30302022 30302023
Installation tape (20 m)		19808193

www.comfortheat.eu

Comfort Heat Ltd.
Phone: + 370 5 2704596
info@comfortheat.eu

Air curtains

Comprehensive range, electrically controlled **air curtains** maintain required temperature, avoid drafts and hot or cold air getting into a room when door or gate is open. A strong downward-facing blower helps to keep warm or cool air in room, prevents from insects flying in and outside air out through the opening. Air curtains reduce energy costs and ensure free traffic for customers and goods.

Usage: in cafes, restaurants, hotels, department stores, stands, warehouses, auto repair shops, workshops, given high volume of people, transport and goods in general. Air curtains can also be used in refrigerators and freezers, as well as where cold air should not get into warm rooms, and warm air should not get into refrigerated ones.

Technical data

Voltage	230/400 V AC 50/60 Hz
Type	Electric and water cooled
Output	3 kW…9 kW…12 kW…18 kW…24 kW
Regulation levels	3
Protection class	IPX4
Warranty	1year

Product list

	Description	Length (mm)	Height (mm)	Width (mm)	Voltage (V)	Output (kW)	Air circulation (m³/h)
Electric	**Max installation height (2,3 m)**						
	AC3N	605	135	200	230	1,5/3	212
	AC6N	905	135	200	230	3/6	446
	Max installation height (3,0 m)						
	CAB10E	1065	321	262	400	4,5/9	1200
	CAB15E	1569	321	262	400	6,75/13,5	1800
	C1000E NT	1137	198	275	400	4,5/9	1250
	C1500E NT	1669	198	275	400	6/12	1800
	C2000E NT	2200	198	275	400	9/18	2500
	Max installation height (3,75 m)						
	PHV1000E NT	1196	377	255	400	6/12	2880
	PHV1500E NT	1746	377	255	400	9/18	4020
	PHV2000E NT	2296	377	255	400	12/24	5760
Water cooled	**Max installation height (3,0 m)**						
	CAB10W	1065	321	262	230	9	1100
	CAB15W	1569	321	262	230	13,5	1700
	C1000W NT	1137	198	275	230	6	1180
	C1500W NT	1669	198	275	230	9	1700
	C2000W NT	2200	198	275	230	12	2360
	Remote control	For C-series					
	Connection kit	For C-series					
	Max installation height (3,75 m)						
	PHV1000W NT	1196	377	255	230	12	2630
	PHV1500W NT	1746	377	255	230	18	3670
	PHV2000W NT	2296	377	255	230	24	5260
	Unheated rooms (refrigerated rooms) (A)						
	PHV1000A NT	1196	377	255	230	-	2880
	PHV1500A NT	1746	377	255	230	-	4020
	PHV2000A NT	2296	377	255	230	-	5760

Comfort Heat

DELTA fan heater is robust, reliable, quickly and easily creates pleasant air conditions, whilst maintaining a required temperature level within premises. It is easily transportable and can be used as for permanent and local heating. The **DELTA** fan heater comes in two sizes: 3-9 kW, small, and 15-21 kW, large. The fan heater with timer T has a time delay function (24 hours).

Usage: heating large premises, warehouses, workshops, sports halls, factories or garages, construction sites and ships; DELTA fan heater can be used both, temporarily and permanently.

$C\epsilon$

Technical data

Voltage	400 V AC
Output	6 kW... 21 kW
Temperature range	0 °C...+40 °C
Max temperature	+80 °C
Regulation levels	5
Timer	24 hours
Dimensions	410x435x420 mm 505x540x510 mm
Protection class	IPX4
Garantija	2 years

DELTA fan heater program table (according to temperature and room size)

Description	ΔT = 5 °C	ΔT = 10 °C	ΔT = 15 °C	ΔT = 20 °C	ΔT = 25 °C	ΔT = 30 °C
DELTA 6000	1200/1680 m³	600/840 m³	400/560 m³	300/420 m³	240/360 m³	200/300 m³
DELTA 9000	2000/2800 m³	1000/1400 m³	680/940 m³	600/700 m³	400/600 m³	350/500 m³
DELTA 15000	3000/4200 m³	15000/2100 m³	1000/1400 m³	750/1050 m³	600/900 m³	500/750 m³
DELTA 21000	4200/5800 m³	2100/2900 m³	1400/1960 m³	1050/1460 m³	840/1260 m³	700/1050 m³

Product list

Description	Output (kW)	Air circulation (m³/h)	ΔT (°C)	Weight (kg)	Order No.
DELTA 6000	3/6	400/600	21/28	13,6	69820058
DELTA 9000	4,5/9	500/800	25/32	14,6	69820074
DELTA 15000	7,5/15	800/1400	26/30	23,6	69820090
DELTA 21000	10,5/21	800/1400	37/42	25,7	69820116

Infrared heater
SB

SB is an infrared heater used for heating of offices, sports halls, churches, industrial and agricultural structures.

The infrared heater transmits energy and warms up people and surfaces in a room.

Installed in: Churches, workshops, separate work spaces in office, department stores, farms and other premises. The heaters are installed onto ceiling or suspended at a required height, minimum 1m from the heated surface.

CE

Technical data

Voltage	230 V AC
Output	900 W... 3600 kW
Protection class	IPX4
Warranty	2 years

Product list

Description	Length (mm)	Width (mm)	Height (mm)	Voltage (V)	Output (W)	Order No.
S+09 SB	1500	150	60	230	900	95401609
S+12 SB	1500	150	60	230	1200	95401518
S+18 SB	1500	250	60	230	1800	95401618
S+24 SB	1500	250	60	230	2400	95401524
S+30 SB	1500	350	60	230	3000	95401530
S+36 SB	1500	350	60	230	3600	95401436

Calculations of cable output for pipe frost protection

Insulation thickness	Pipe diameter												
	1/2 "	3/4 "	1 "	1/4 "	1 1/2 "	2 "	2 1/2 "	3 "	4 "	5 "	6 "	8 "	10 "
	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm	125 mm	150 mm	200 mm	250 mm
10 mm	17 W/m	17 W/m	23W/m	23 W/m	31 W/m	31 W/m	45 W/m	45 W/m	60 W/m	60 W/m	75 W/m		
20 mm	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	23 W/m	23 W/m	31 W/m	31 W/m	45 W/m	45 W/m	60 W/m	75 W/m
30 mm	11W/m	11 W/m	11W/m	11 W/m	17 W/m	17 W/m	17 W/m	23 W/m	23 W/m	23 W/m	31 W/m	45 W/m	45 W/m
40 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	23 W/m	23 W/m	31 W/m	45 W/m
50 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	23 W/m	23 W/m	31 W/m
75 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	23 W/m	31 W/m

Interpolation calculations of pipe heat losses (W/m)

Insulation thickness	ΔT (°C)	" mm	1/2" 15	3/4" 20	1" 25	1/4" 32	1 1/2" 40	2" 50	2 1/2" 65	3" 80	4" 100	6" 150	8" 200	10" 250	12" 300	14" 350	16" 400	18" 450	20" 500
10 mm	20		7,2	8,4	10	12	13,4	16,2	19	23	29	41	52	64	74	81	92	103	115
	30		10,7	12,6	15	18	20,2	24,4	29	34	43	61	78	95	111	121	138	155	172
	40		14,3	16,8	20	24	26,8	32,5	38	45	57	81	104	127	148	162	184	207	229
	60		21,5	25,2	30	36	40,2	48,7	58	68	86	122	156	191	222	243	276	310	343
	80		28,6	33,7	40	48,1	53,6	65	77	90	114	163	208	255	295	323	368	413	458
	100		36	42,4	50,3	60,5	67,4	81,7	97	114	144	205	261	320	372	407	463	520	576
	120		44,5	52,3	62,2	74,8	83,4	101	119	140	177	253	322	395	459	502	572	641	711
20 mm	20		4,6	5,3	6,1	7,2	7,9	9,4	11	13	16	22	29	34	40	44	50	56	61
	30		6,8	7,9	9,1	10,8	11,9	14,2	16	19	24	33	42	51	60	66	75	83	92
	40		9,1	10,6	12,2	14,4	15,8	18,8	22	25	32	44	56	68	80	88	99	111	123
	60		13,6	15,7	18,2	21,6	23,9	28,2	33	38	48	67	84	103	120	131	149	167	184
	80		18,2	21	24,4	28,8	31,8	37,7	44	51	63	89	113	137	160	175	199	222	246
	100		23	26,4	30,7	36,2	40	47,4	55	64	80	112	142	172	202	220	250	280	310
	120		28,4	32,8	37,9	44,9	49,4	58,7	68	79	99	138	175	212	249	272	309	346	383
30 mm	20		3,6	4,1	4,7	5,5	6	7	8	9	11	16	20	24	28	31	34	38	43
	30		5,4	6,1	7,1	8,2	9	10,6	12	14	17	24	30	36	42	46	52	58	64
	40		7,3	8,3	9,5	10,9	12	14	16	19	23	31	40	48	56	61	69	77	85
	60		10,9	12,4	14,2	16,4	18	21	24	28	34	47	59	72	84	91	103	116	128
	80		14,5	16,4	18,8	21,8	24	28	32	37	46	63	79	96	112	122	138	154	170
	100		18,2	20,8	23,8	27,6	30,1	35,3	41	47	57	79	100	121	141	153	174	194	214
	120		22,7	25,7	29,4	34,1	37,3	43,6	50	58	71	98	123	149	174	190	215	240	265
40 mm	20		3,1	3,5	4	4,6	4,9	5,8	7	8	9	12	16	19	22	24	27	29	33
	30		4,7	5,3	6	6,8	7,4	8,6	10	11	14	19	23	28	33	35	40	44	49
	40		6,2	7,1	7,9	9,1	10	11,5	13	15	18	25	31	37	43	47	53	59	66
	60		9,4	10,6	12	13,7	14,9	17,3	20	22	27	37	46	56	65	71	80	89	98
	80		12,5	14	16	18,2	19,9	23	26	30	37	50	62	75	87	94	107	119	131
	100		15,7	17,6	20	23	25,1	28,9	33	38	46	63	78	94	109	119	134	150	165
	120		19,6	22	24,8	28,4	31	35,9	41	47	57	72	96	116	135	147	166	185	204
50 mm	20		2,8	3,1	3,5	4	4,3	5	6	7	8	10	13	16	18	19	22	24	27
	30		4,2	4,7	5,3	6	6,5	7,4	9	10	12	16	19	23	27	29	33	37	40
	40		5,6	6,2	7,1	8	8,6	10	11	13	16	21	26	31	36	39	44	49	66
	60		8,4	9,4	10,6	12	13,8	15	17	19	23	31	39	46	54	58	66	73	80
	80		11,3	12,5	14	16,1	17,4	19,9	23	26	31	42	51	62	72	78	88	97	107
	100		14,2	15,7	17,8	20,2	21,8	25,1	28	32	39	52	65	78	90	98	110	123	135
	120		17,5	19,6	22	25	27	31,1	35	40	48	65	80	96	112	121	136	152	167
75 mm	20		2,4	2,6	2,9	3,2	3,5	3,9	5	6	7	8	9	11	13	14	15	17	19
	30		3,5	3,8	4,3	4,8	5,2	5,9	6	7	9	11	14	17	19	21	23	26	28
	40		4,7	5,2	5,8	6,5	7	7,8	9	10	12	15	19	22	26	28	31	34	38
	60		7,1	7,8	8,6	9,7	10,4	11,8	13	15	17	23	28	33	38	41	46	51	56
	80		9,4	10,3	11,5	12,9	13,8	15,6	18	20	23	30	37	44	51	55	62	68	75
	100		11,9	13,1	14,5	16,2	17,4	19,7	22	25	29	38	47	56	64	69	78	88	94
	120		14,6	16,1	17,9	20	21,6	24,4	27	31	36	48	58	68	80	86	96	107	117
	130		16,1	17,8	19,7	22,1	23,8	26,8	30	34	40	52	64	76	87	95	106	117	129
100 mm	20		2	2,3	2,5	2,8	3	3,4	4	5	6	7	8	9	10	11	12	13	15
	30		3,1	3,5	3,7	4,2	4,4	4,8	5	6	7	9	11	13	15	16	18	20	22
	40		4,2	4,6	5	5,6	6	6,7	7	8	10	12	15	18	20	23	24	27	29
	60		6,2	6,8	7,6	8,4	8	10,1	11	12	15	19	23	27	30	33	36	40	44
	80		8,4	9,1	10,1	11,2	12	13,4	15	16	19	25	30	35	41	44	49	54	59
	100		10,5	11,5	12,7	14,2	15	16,8	19	21	24	31	38	45	51	55	61	68	74
	120		13,1	14,3	15,7	17,5	18,6	20,9	23	26	30	39	47	55	63	68	76	84	91
	130		14,4	15,7	17,3	19,2	20,5	22,9	25	28	33	43	51	61	69	75	83	92	101

Technical data specification for pipe tracing

Comfort Heat

Company:	

General project data	**Customer** ....
	Project location ....
	Installer .... Phone: .... Date: ....
	Supplier of heating cables: ....

Technical project data	**Purpose:**	☐ Frost protection ☐ Temperature maintenance
		☐ Heat up from _____ to _____ °C
		☐ Heat up _____ hours

Temperature	Required temperature	.... °C
	Ambient temperature:	Min............. °C Max............... °C
	Normal technological temperature*	.... °C
	Maximum technological temperature**	.... °C
	Maximum permissible product temperature	.... °C
	Maximum system start up temperature***	.... °C
	Evaporation ☐ yes ☐ no Vapour temperature .... °C	

Voltage	☐ 230 V	☐ 400 V	☐ Other V
Installation	☐ Outside	☐ Inside	
Thermal insulation	☐ Mineral wool (soft), ☐ Mineral wool (shell), ☐ Polyurethane ☐ Other, thermal conductivity rate λ (at 10 °C) ....W/m		
Zone	Ex hazardous: ☐ – 0 zone ☐ – 1 zone ☐ – 2 zone ☐ Not Ex hazardous		
Temperature class	☐ T1 ☐ T2 ☐ T3 ☐ T4 ☐ T5 ☐ T6		
Pipe (reservoir) material	☐ Carbon steel ☐ Stainless steel ☐ Plastic ☐ Other		
Heated product	....		

Pipelines

No.	Length of pipe, m	Diameter, mm	Thermo-insulation thickness, mm	Valves, pcs.	Rings, pcs.	Filters, pcs.	Pumps, pcs.	Supports pcs., dimensions
1								
2								
3								
4								
5								

* Product temperature under normal exploitation conditions
** The highest temporary pipeline temperature
*** The lowest temperature at which the system should switch on

Include: ☐ Constant power cables ☐ Self-limiting cables

Responsible person: _____ signature: _____ date: _____

Comfort Heat

Mon 16:15

21.0° 22:00

Manual   Other...

Comfort Heat   Touch

Innovative control
at your fingertips

Four different needs –one floor heating solution

Touch screen: easy, intuitive and animated touch menu navigation nd programming in 12 different languages

Smart device access: a smartphone allows system monitoring trough QR code scanning and online webpage

Programmable: easy scheduling and adaptive control ensures comfort temperature is set at the required time.

Always working: 5-year battery backup of clock and calendar so settings are still in place after power interruptions