

I•WARM
electrical heating systems

YOUR PARTNER
IN PROFESSIONAL HEATING



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INDOOR SOLUTIONS

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USING THE CATALOGUE

In the catalogue solutions for wide range of electrical heating applications for indoor and outdoor domestic heating systems, from cottages and garden plots to professional heating systems for large administration and commercial buildings and industrial facilities are presented.

Our complete catalogue is divided into four single parts all concerned with electrical heating solutions of various purposes:

- **Indoor heating solutions**
- **Private housing & Architecture**
- **Industry & Special solutions**
- **Control equipment**

In the section “Indoor heating solutions” different types of underfloor heating systems for all types of flooring and special indoor heating solutions such as glass radiators, towel heaters, heated carpets and mirror demister are presented.

The section “Private housing” will be interesting for country houses and cottages owners since there are presented ready-to-use systems for domestic pipelines, roofs and open areas heating. These systems are easy to use and can be installed by oneself. The freeze protection systems for domestic pipelines can be used for protection of tubes with potable water, sewerage pipes. We offer solutions for both external and internal heating of your pipes. The systems for internal heating of pipes use the special cable with outer jacket that enables to install this cable in pipes with potable water. These systems ensure the uninterrupted operation of water supply and sewage all the year.

For safe and comfort life in county house in winter, we offer protection systems against ice mound and icicles formation for roofs and drainpipes, and also the snow melting systems for pathways, steps, parking areas, driveways.

Heating systems presented in the section “Architecture” are important for countries with the pronounced snowy winter. De-icing systems for roofs and drainage system of buildings, as well as protection systems against snow accumulation and icing for open areas make urban environment comfort and safe. These systems save human's

health and life, prevent roofs and facades of buildings from damage, prolong service life of road surface.

Electrical heating systems with “smart” control devices operate autonomously thus ensuring protection against ice mound on its formation rate. Our systems save municipalities and owners of houses, office buildings, industrial facilities from trouble of mechanical cleaning and removing of snow and icicles.

In the “Industry” section, the elements of cable based heating systems for industrial applications are described. In these systems, the cables of various power output and design are used including high-temperature cables.

In the section you can find the products certified under the European Union Directive ATEX 94/9/EC denoted by the sign “Equipment and protective systems intended for use in potentially explosive atmospheres”. These products are mostly used in gas and oil producing and processing industry sectors.

Special solutions of our company in the field of outdoor and industrial electrical heating are presented in the section “Special solutions”. We offer unique products that operate to the best advantage of the largest facilities of gas and oil producing complex. One of such unique developments is the electrical heating system IRHS or SKIN-SYSTEM that is purposed for the product temperature maintenance, protection against freezing and start heating of mainline pipelines of large length. The SKIN-SYSTEM is an exclusive system which allows to heat the pipeline arm up to 30 km long with one-end powering, without accompanying supply line.

The other unique electrical heating system is represented by LLS cable. This is a high-end engineering product that has no parallel. Longline LLS is a three-phase series resistance heating tape of a constant power for freezing prevention or temperature maintenance in pipelines of medium length, up to 3 km, in safe and explosion hazardous areas.

The use of these systems minimizes the number of required power supply points and thereby reduces expenses.





SPECIAL SYSTEMS & TECHNOLOGIES

“Special Systems and Technologies” LLC is the leading Russian producer of electric heating cable systems: warm floors, de-icing, heat-tracing systems and thermal insulation.

SST is a full-service company and offers its customers services on design, delivery, installation, warranty and service maintenance for heating systems.

SST with a working area of 25.000 sq. m. is one of the largest manufacturers of heating cables and thermal control devices in Europe. SST is a modern high-technology complex and functioning is designed for high-quality production targets. The plant is provided with the latest equipment of world-known manufacturers including Nokia, Rosendahl, Spirka, Kühne, and Dunst. Due to this excellent technical equipment the company produces more than 30 million meters of cable each year, as well as more than 300,000 devices and control boards. At the moment the product range exceeds 500 items of unique systems. The designing capabilities and equipment resources are meant for the release of new high technology products including unique systems for heating of branched and extra long pipelines, pipelines with highly maintained temperatures, and tank heating systems.

The quality management system of SST is certified according to the international standard ISO 9001:2008. The products are awarded with Russian certificates of conformity, fire and hygiene safety certificates as well as international certificates i.e. CE, VDE, TÜV, DEMKO and CB.

The high level of full service and wide range of heating systems increase the demand for products and service of the company in Moscow as well as in other regions of Russia, countries of CIS, Europe and Asia. The SST dealer network functions in 400 cities of Russia and 40 countries in the world. Its products are exported to the United Kingdom, Germany, Portugal, France, Spain, Greece, China and Brazil. Industrial heating systems from SST are installed on objects of the greatest companies such as RAO “Gasprom”, “NK LUKOIL” and Total.

Due to continuous monitoring of the clients’ needs the company designs new products in accordance with this requirements and therefore enjoys confidence among the buyers. SST possesses a developed network of representatives throughout Russia, neighboring and far-abroad countries.

I-WARM GmbH

i-warm GmbH was founded in the spring of 2008 in Germany as a distribution and marketing company of SST.

With the distribution center in Germany i-warm is able to provide an European wide 48h delivery service. A team of well-educated and highly motivated specialists will provide professional support to you with electrical heating systems at all times.

In addition to producing and distributing neutrally marked high quality products, SST and i-warm GmbH focus on the production of customized private brand products for European customers.

It is our goal to provide full satisfaction to you with the maximum quality of our products and service, combined with competitive prices.





CABLE HEATING SYSTEMS FOR UNDERFLOOR WARMING

Underfloor heating is an economic and highly practical way of adding a «warm feeling» into the beautiful but cold floor covering of your dwelling. These systems provide thermal comfort and maintain even heat distribution throughout the room. Besides, these systems have low installation costs and may be easily installed in a short period of time. Underfloor heating brings warm and cozy ambient to your apartments.

Premium comfort

Underfloor heating systems are a perfect way to create thermal comfort conditions in premises. Those heating systems are placed close to the floor surface. Due to the even heat distribution from below you are getting the optimum heating climate in your room. Underfloor heating can be used both as a central heating unit and as a supplemental system.

Eco-friendly heating

Electrical underfloor heating systems are the most eco-friendly way of heating premises and the best way of thermal comfort creation. Just imagine... Your floor is always dry and warm. There are no intensive convective air and

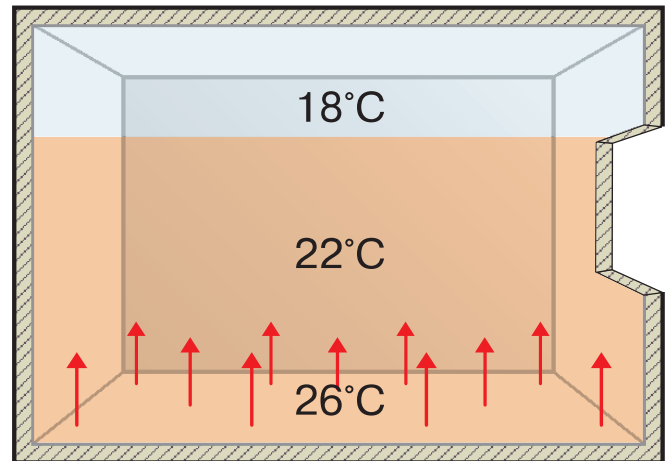
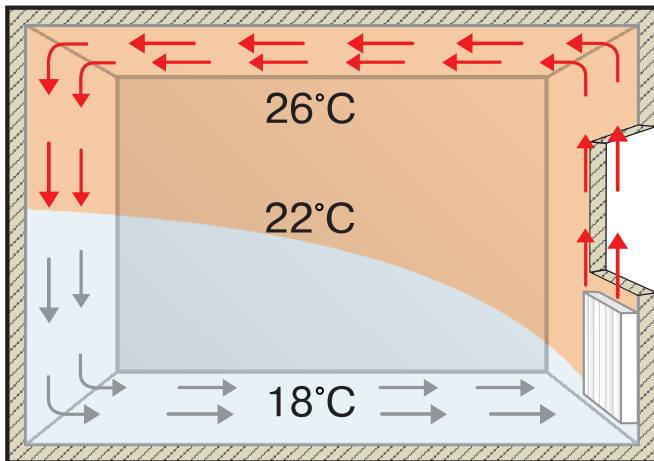
dust flows. On the one hand the air is not dry and on the other hand there is no humidity and cold air accumulation near the floor surface (which usually causes cold). Underfloor heating takes care of your health and do not forget about your children: they will enjoy playing on the warm floor surface.

Aesthetic qualities and flight of imagination in design

In comparison to traditional heating sources underfloor heating systems are completely invisible. They are placed inside the floor construction, providing freespace and giving you freedom to be a designer. Get rid of that bunching of heating devices around you! Be free to create your own scenery!

Easy installation

Underfloor heating systems can be installed in quite an easy way, including installation on the existing ground. They are suitable for all types of premises: rooms, bathrooms, children's rooms and offices. This heating system is compatible with a full scope of floor coverings. The best solution for such «cold-type» coverings as ceramic tile, marble and granite is the underfloor heating system installation.



Low costs

Underfloor heating systems enable you to reduce your heating costs. The underfloor installation of the heating system provides an enhanced surface of heat emission and the close placement to the floor surface ensures quick and optimum warming-up. Meanwhile, an electronic smart thermostat maintains a comfortable temperature in the room, by automatically turning the heating system «on» and «off» up to your desire. When you are out this smart device will be working in an energy-saving mode, but the premises will be warm enough on your return. Underfloor heating systems work only when you need them. It means your heating costs can be reduced remarkably.

Long-life performance. Safety. Warranties.

Durability is a hallmark of underfloor heating systems. It is ensured not only due to their protection from environmental influence, but also due to the highest production quality of components and innovative technologies. Warm floors are absolutely safe. They are produced in full conformity with European Quality Standards. Being the manufacturer — we secure the highest factory warranties for our products.

SOLUTIONS FOR ANY IDEAS

Product type	Linear power output, W/m	Power output, W/m ²	Single-core cable	Double-core cable	Protection class	Direct heating	Comfort heating	Maximum temperature, °C
Heating mat MHH (100)	12	100		+	IP67		+	80
Heating mat MHH (150)	12	150		+	IP67		+	80
Heating mat MHH (200)	13-16	200		+	IP67	+	+	80
Heating mat MHH-N (100)	7-9	100		+	IP67		+	80
Heating mat MHH-N (160)	9-11	160		+	IP67		+	80
Heating mat MHH-N (200)	13-16	200		+	IP67	+	+	80
Heating mat MDIR (100)	7-9	100		+	IP67		+	80
Heating mat MDIR (160)	9-11	160		+	IP67		+	80
Heating mat MDIR (200)	13-16	200		+	IP67	+	+	80
Heating mat FMD (150)	7-8	150		+	IP67		+	80
Heating mat MH (100)	9-10	100	+		IP67		+	80
Heating mat MH (150)	9-10	150	+		IP67		+	80
Heating cable section GB	12-14	130-150		+	IP67		+	80
Heating cable section TLBE	16-18	130-150		+	IP67	+		80
Heating cable section TLOE	14-16	130-150	+		IP67	+		80
Heatfoil-floor (80)	—	80			IP67		+	80
Heatfoil-floor (150)	—	150			IP67		+	80

FEATURES

- ✓ The best solution for premises with low ceilings
- ✓ Cost and energy saving system
- ✓ Wide range of power outputs
- ✓ Approved long-life performance
- ✓ Self-adhesive mats
- ✓ Easy installation

DESCRIPTION

Application

The MHH heating mat is applied as a supplementary system for comfortable floor heating. The system can be easily laid into a thin tile adhesive layer (8–10mm). The system can be used under any covering of your choice: tile, marble or carpet. It is applicable for all types of premises and can be easily installed both on a new surface or on the existing floor in case of repair works, especially when it is highly important to keep a low thickness of the floor construction.

Construction

The double-core heating mat MHH is made of a shielded double-core cable, fixed on a fiber mesh. The MHH heating mat is fitted up with a cold lead, a reliable coupling and end termination.

Thanks to the cable fixation on the self-adhesive mesh – there is no need to adjust the wire spacings and to fix the cable on the floor surface. Due to only one connection wire, the double-core mat construction makes the process of installation easier and reduces installation cost.

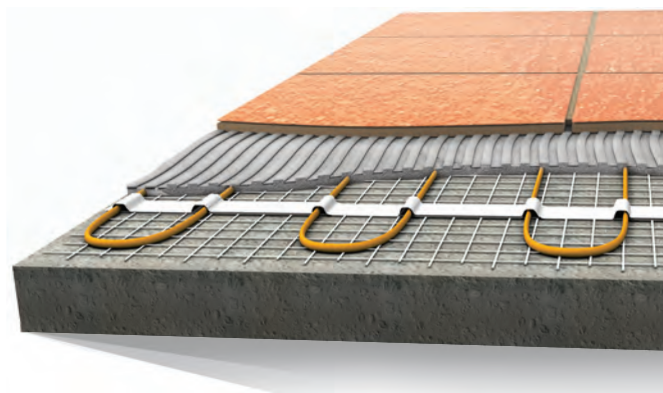
APPLICATION

Application	Installation
Direct heating	<input type="checkbox"/> Mortar <input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/> Tile adhesive layer <input checked="" type="checkbox"/>

CONTENT OF DELIVERY

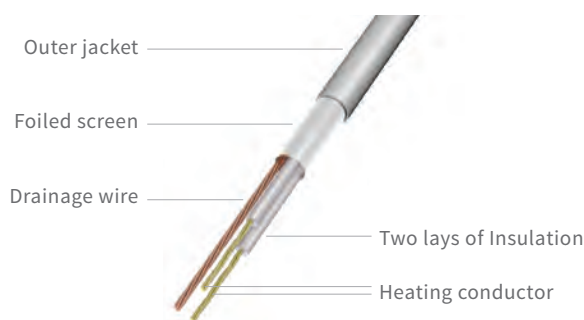


Double-core heating mat MHH



CABLE DESIGN

Double-core heating cable MHH



TECHNICAL DATA

Rated voltage	230 VAC
Power	100, 150, 200 W/m ²
Maximum operation temperature	90 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Installation width	0,5 m
Cold lead length	for 100 & 150 W/m ² 2 m
Cold lead length	for 200 W/m ² 4 m
Cable diameter	approx. 3,5–5,0 mm

ORDERING INFORMATION

Heating mat

MHH-220-1,60

Product reference: type of the heating mat _____

Power, W _____

Area, m² _____

PRODUCT REFERENCES

Double-core heating mat MHH 100 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-75-0,75	0,75	75	10,0
MHH-135-1,30	1,3	135	11,0
MHH-220-2,10	2,1	220	18,0
MHH-300-3,00	3,0	300	25,0
MHH-380-3,80	3,8	380	32,0
MHH-470-4,60	4,6	470	39,0
MHH-545-5,30	5,3	545	45,0
MHH-650-6,40	6,4	650	54,0
MHH-815-7,80	7,8	815	66,0
MHH-930-9,10	9,1	930	77,0
MHH-1040-10,10	10,1	1040	86,0
MHH-1225-12,00	12,0	1225	102,0
MHH-1515-14,70	14,7	1515	125,0

Double-core heating mat MHH 150 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-95-0,65	0,65	95	8,0
MHH-135-1,00	1,0	135	11,0
MHH-220-1,60	1,6	220	18,0
MHH-300-2,10	2,1	300	25,0
MHH-380-2,70	2,7	380	32,0
MHH-470-3,40	3,4	470	39,0
MHH-545-3,80	3,8	545	45,0
MHH-650-4,80	4,8	650	54,0
MHH-815-5,70	5,7	815	66,0
MHH-930-6,80	6,8	930	77,0
MHH-1040-7,80	7,8	1040	86,0
MHH-1225-9,00	9,0	1225	102,0
MHH-1515-11,00	11,0	1515	117,0
MHH-1690-12,70	12,7	1690	132,0
MHH-2000-14,00	14,0	2000	156,0
MHH-2250-15,00	14,9	2250	172,0
MHH-2400-16,00	16,0	2400	185,0
MHH-2550-17,00	17,0	2550	202,0
MHH-2700-18,00	18,0	2700	212,0
MHH-2850-19,00	19,0	2850	227,0
MHH-3000-20,00	20,0	3000	240,0

JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

Double-core heating mat MHH 200 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-100-0,5	0,5	100	7,5
MHH-200-1,0	1,0	200	14,0
MHH-300-1,5	1,5	300	24,0
MHH-400-2,0	2,0	400	31,0
MHH-500-2,5	2,5	500	37,0
MHH-600-3,0	3,0	600	41,0
MHH-700-3,5	3,5	700	49,0
MHH-800-4,0	4,0	800	55,0
MHH-900-4,5	4,5	900	59,0
MHH-1000-5,0	5,0	1000	71,0
MHH-1200-6,0	6,0	1200	76,0
MHH-1400-7,0	7,0	1400	90,0
MHH-1600-8,0	8,0	1600	107,0
MHH-1800-9,0	9,0	1800	119,0
MHH-2000-10,0	10,0	2000	128,0
MHH-2200-11,0	11,0	2200	137,0
MHH-2400-12,0	12,0	2400	150,0
MHH-3000-15,0	15,0	3000	187,0

INSTALLATION

For the installation of the heating mat a thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



RoHS

FEATURES

- ✓ The best solution for premises with low ceilings
- ✓ Cost and energy saving system
- ✓ Wide range of power outputs
- ✓ Self-adhesive mats
- ✓ Easy installation
- ✓ Uniform laying

DESCRIPTION

Application

The MHH-N heating mat is applied as a supplementary system for comfortable floor heating. The system can be easily laid into a thin tile adhesive layer (8–10 mm). The system can be used under any covering of your choice: tile, marble or carpet. It is applicable for all types of premises and can be easily installed both on a new surface or on the existing floor in case of repair works, especially when it is highly important to keep a low thickness of the floor construction.

Construction

The double-core heating mat MHH-N is made of a shielded double-core thin cable, stiched on to a fiber mesh. The MHH-N heating mat is fitted up with a cold lead, a reliable coupling and end termination.

Thanks to the cable fixation on the self-adhesive mesh – there is no need to adjust the wire spacings and to fix the cable on the thin floor surface. Due to only one connection wire, the double-core mat construction makes the process of installation easier and reduces installation cost.

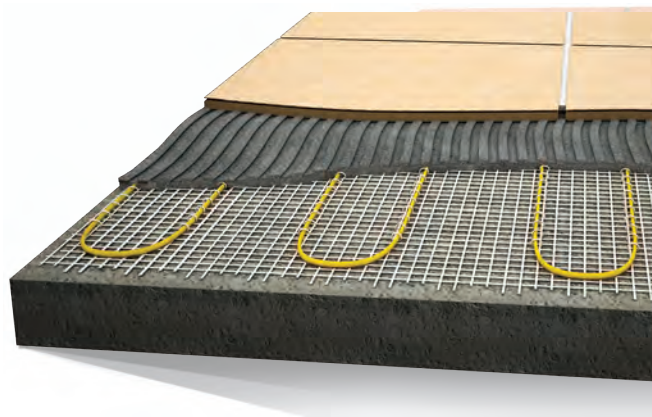
APPLICATION

Application	Installation
Direct heating	<input type="checkbox"/> Mortar <input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/> Tile adhesive layer <input checked="" type="checkbox"/>

CONTENT OF DELIVERY

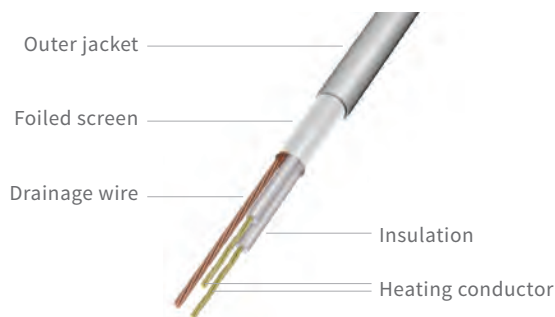


Double-core heating mat MHH-N



CABLE DESIGN

Double-core heating cable CIRS



TECHNICAL DATA

Rated voltage	230 VAC
Power	100, 160, 200 W/m ²
Maximum operation temperature	90 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Installation width	0,5 m
Cold lead length	5 m
Cable diameter	approx. 3,0–3,5 mm

ORDERING INFORMATION

Heating mat **MHH-N-100-1,00**

Product reference: type of the heating mat _____
 Power, W _____
 Area, m² _____

PRODUCT REFERENCES

Double-core heating mat MHH-N 100 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-N-100-1,00	1,00	100	11,5
MHH-N-150-1,50	1,50	150	18,0
MHH-N-200-2,00	2,00	200	28,0
MHH-N-250-2,50	2,50	250	29,5
MHH-N-300-3,00	3,00	300	40,0
MHH-N-350-3,50	3,50	350	49,0
MHH-N-400-4,00	4,00	400	47,0
MHH-N-500-5,00	5,00	500	62,0
MHH-N-600-6,00	6,00	600	75,0
MHH-N-700-7,00	7,00	700	86,0
MHH-N-800-8,00	8,00	800	110,0
MHH-N-900-9,00	9,00	900	110,0
MHH-N-1000-10,00	10,00	1000	123,0
MHH-N-1200-12,00	12,00	1200	165,0
MHH-N-1500-15,00	15,00	1500	192,0

Double-core heating mat MHH-N 160 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-N-160-1,00	1,00	160	16,5
MHH-N-240-1,50	1,50	240	21,5
MHH-N-340-2,15	2,15	340	36,0
MHH-N-480-2,50	2,50	400	46,0
MHH-N-480-3,00	3,00	480	51,0
MHH-N-640-4,00	4,00	640	64,0
MHH-N-800-5,00	5,00	800	86,0
MHH-N-960-6,00	6,00	960	104,0
MHH-N-1120-7,00	7,00	1120	110,0
MHH-N-1280-8,00	8,00	1280	128,0
MHH-N-1440-9,00	9,00	1440	150,0
MHH-N-1600-10,00	10,00	1600	160,0
MHH-N-1760-11,00	11,00	1760	183,0
MHH-N-1920-12,00	12,00	1920	180,0
MHH-N-2080-13,00	13,00	2080	216,0
MHH-N-2240-14,00	14,00	2240	217,0
MHH-N-2400-15,00	15,00	2400	243,0
MHH-N-2560-16,00	16,00	2560	253,0
MHH-N-2720-17,00	17,00	2720	271,0
MHH-N-2880-18,00	18,00	2880	289,0
MHH-N-3040-19,00	19,00	3040	307,0
MHH-N-3200-20,00	20,00	3200	308,0

Double-core heating mat MHH-N 200 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MHH-N-100-0,50	0,50	100	7,5
MHH-N-200-1,00	1,00	200	14,0
MHH-N-300-1,50	1,50	300	19,0
MHH-N-400-2,00	2,00	400	31,0
MHH-N-500-2,50	2,50	500	37,0
MHH-N-600-3,00	3,00	600	41,0
MHH-N-700-3,50	3,50	700	49,0
MHH-N-800-4,00	4,00	800	55,0
MHH-N-900-4,50	4,50	900	59,0
MHH-N-1000-5,00	5,00	1000	71,0
MHH-N-1200-6,00	6,00	1200	76,0
MHH-N-1400-7,00	7,00	1400	90,0
MHH-N-1600-8,00	8,00	1600	107,0
MHH-N-1800-9,00	9,00	1800	119,0
MHH-N-2000-10,00	10,00	2000	128,0
MHH-N-2200-11,00	11,00	2200	137,0
MHH-N-2400-12,00	12,00	2400	150,0
MHH-N-3000-15,00	15,00	3000	202,0

INSTALLATION

For the installation of the heating mat a thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

FEATURES

- ✓ The best solution for premises with low ceilings
- ✓ Cost and energy saving system
- ✓ Wide range of power outputs
- ✓ Self-adhesive mats
- ✓ Easy installation
- ✓ Uniform laying

DESCRIPTION

Application

The MDIR heating mat is applied as a supplementary system for comfortable floor heating. The system can be easily laid into a thin tile adhesive layer (8–10 mm). The system can be used under any covering of your choice: tile, marble or carpet. It is applicable for all types of premises and can be easily installed both on a new surface or on the existing floor in case of repair works, especially when it is highly important to keep a low thickness of the floor construction.

Construction

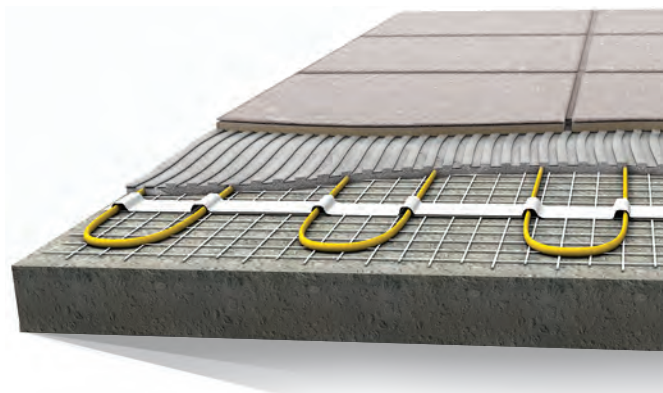
The double-core heating mat MDIR is made of a shielded double-core thin cable, stiched on to a fiber mesh. The MDIR heating mat is fitted up with a cold lead, a reliable coupling and end termination.

Thanks to the cable fixation on the self-adhesive mesh – there is no need to adjust the wire spacings and to fix the cable on the thin floor surface. Due to only one connection wire, the double-core mat construction makes the process of installation easier and reduces installation cost.

APPLICATION

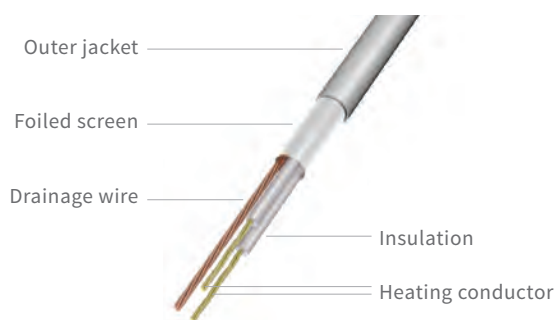
Application	Installation
Direct heating	<input type="checkbox"/> Mortar <input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/> Tile adhesive layer <input checked="" type="checkbox"/>

CONTENT OF DELIVERY



CABLE DESIGN

Double-core heating cable CIRS



TECHNICAL DATA

Rated voltage	230 VAC
Power	100, 160, 200 W/m ²
Maximum operation temperature	90 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Installation width	0,5 m
Cold lead length	4 m
Cable diameter	approx. 3,0–3,5 mm

ORDERING INFORMATION

Heating mat **MDIR-100-1,00**

Product reference: type of the heating mat _____

Power, W _____

Area, m² _____

PRODUCT REFERENCES

Double-core heating mat MDIR 100 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MDIR-100-1,00	1,00	100	11,5
MDIR-150-1,50	1,50	150	18,0
MDIR-200-2,00	2,00	200	28,0
MDIR-250-2,50	2,50	250	29,5
MDIR-300-3,00	3,00	300	40,0
MDIR-350-3,50	3,50	350	49,0
MDIR-400-4,00	4,00	400	47,0
MDIR-500-5,00	5,00	500	62,0
MDIR-600-6,00	6,00	600	75,0
MDIR-700-7,00	7,00	700	86,0
MDIR-800-8,00	8,00	800	110,0
MDIR-900-9,00	9,00	900	110,0
MDIR-1000-10,00	10,00	1000	123,0
MDIR-1200-12,00	12,00	1200	165,0
MDIR-1500-15,00	15,00	1500	192,0

Double-core heating mat MDIR 160 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MDIR-80-0,50	0,50	80	9,0
MDIR-160-1,00	1,00	160	16,5
MDIR-240-1,50	1,50	240	21,5
MDIR-340-2,15	2,15	340	36,0
MDIR-400-2,50	2,50	400	46,0
MDIR-480-3,00	3,00	480	51,0
MDIR-640-4,00	4,00	640	64,0
MDIR-8-5,00	5,00	800	86,0
MDIR-960-6,00	6,00	960	104,0
MDIR-1120-7,00	7,00	1120	110,0
MDIR-1280-8,00	8,00	1280	128,0
MDIR-1440-9,00	9,00	1440	150,0
MDIR-1600-10,00	10,00	1600	160,0
MDIR-1760-11,00	11,00	1760	183,0
MDIR-1920-12,00	12,00	1920	180,0
MDIR-2080-13,00	13,00	2080	216,0
MDIR-2240-14,00	14,00	2240	217,0
MDIR-2400-15,00	15,00	2400	243,0
MDIR-2560-16,00	16,00	2560	253,0
MDIR-2720-17,00	17,00	2720	271,0
MDIR-2880-18,00	18,00	2880	289,0
MDIR-3040-19,00	19,00	3040	307,0
MDIR-3200-20,00	20,00	3200	308,0

JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

Double-core heating mat MDIR 200 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MDIR-100-0,50	0,50	100	7,5
MDIR-200-1,00	1,00	200	14,0
MDIR-300-1,50	1,50	300	19,0
MDIR-400-2,00	2,00	400	31,0
MDIR-500-2,50	2,50	500	37,0
MDIR-600-3,00	3,00	600	41,0
MDIR-800-4,00	4,00	800	55,0
MDIR-1000-5,00	5,00	1000	71,0
MDIR-1200-6,00	6,00	1200	76,0
MDIR-1400-7,00	7,00	1400	90,0
MDIR-1600-8,00	8,00	1600	107,0
MDIR-1800-9,00	9,00	1800	119,0
MDIR-2000-10,00	10,00	2000	128,0
MDIR-2400-12,00	12,00	2400	150,0
MDIR-3000-15,00	15,00	3000	202,0

INSTALLATION

For the installation of the heating mat a thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ Safe solution for laminate and parquet flooring
- ✓ Electrical safety due to earthing
- ✓ Cost and energy saving system
- ✓ Easy installation

DESCRIPTION

Application

The FMD heating mat with aluminium foil is applied as a supplementary system for comfortable floor heating. The system can be used under laminate, parquet or carpet. It is applicable for all types of premises and can be easily installed both on a new surface or on the existing floor in case of repair works, especially when it is highly important to keep a low thickness of the floor construction.

Construction

The double-core heating mat FMD is made of double-core thin wires, fixed on a fiber mesh covered with aluminium foil. The FMD heating mat is fitted up with a cold lead, a reliable coupling and end termination.

Thanks to the cable fixation on the mesh – there is no need to adjust the wire spacings and to fix the cable on the floor surface. Due to only one connection wire, the double-core mat construction makes the process of installation easier and reduces installation cost.

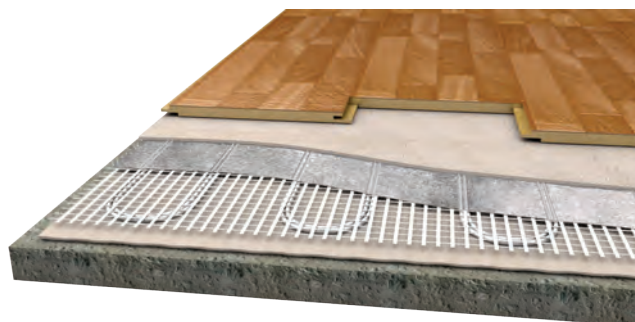
APPLICATION

Application	Installation	
Direct heating	<input type="checkbox"/>	Mortar <input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/>	Tile adhesive layer <input type="checkbox"/>
		Floating <input checked="" type="checkbox"/>

CONTENT OF DELIVERY

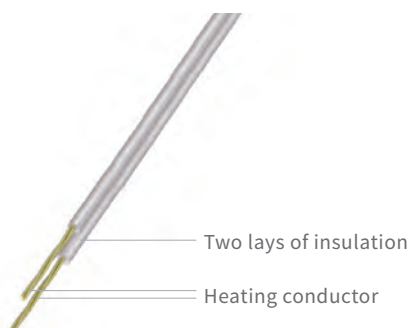


Double-core heating mat FMD



CABLE DESIGN

Double-core heating cable FMD



TECHNICAL DATA

Rated voltage	230 VAC
Power	150 W/m ²
Maximum operation temperature	80 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Installation width	0,5 m
Cold lead length for 150 W/m ²	4 m
Cable diameter	1,18–1,62 mm

ORDERING INFORMATION

Heating mat

FMD-225-1.5/150

Product reference: type of the heating mat _____
 Power, W _____
 Area, m² _____
 Power per square meter, W/ m² _____

PRODUCT REFERENCES

Double-core heating mat FMD 150 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
FMD-75-0.50/150	0.5	75	10.0
FMD-112-0.75/150	0.75	112	14.0
FMD-150-1.0/150	1.0	150	18.0
FMD-225-1.5/150	1.5	225	30.0
FMD-300-2.0/150	2.0	300	41.0
FMD-450-3.0/150	3.0	450	55.0
FMD-600-4.0/150	4.0	600	72.0
FMD-750-5.0/150	5.0	750	94.0
FMD-900-6.0/150	6.0	900	109.0
FMD-1050-7.0/150	7.0	1050	140.0
FMD-1200-8.0/150	8.0	1200	160.0
FMD-1350-9.0/150	9.0	1350	180.0
FMD-1500-10.0/150	10.0	1500	190.0

JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

INSTALLATION

For the installation of the heating mat a thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ The best solution for premises with low ceilings
- ✓ Cost and energy saving system
- ✓ Wide range of power outputs
- ✓ Approved long-life performance
- ✓ Self-adhesive mats
- ✓ Easy installation

DESCRIPTION

Application

The MH heating mat is applied as a supplementary system for comfortable floor heating. The system can be easily laid into a thin tile adhesive layer (8–10mm). The system can be used under any covering of your choice: tile, marble or carpet. It is applicable for all types of premises and can be easily installed both on a new surface or on the existing floor in case of repair works, especially when it is highly important to keep a low thickness of the floor construction.

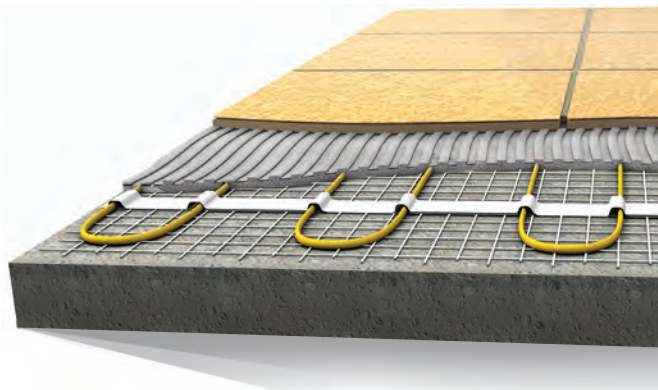
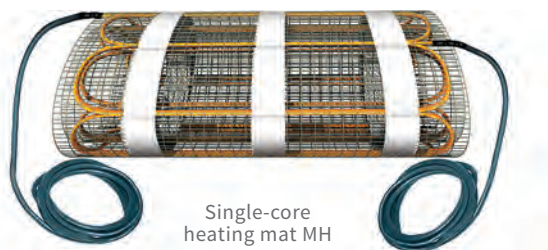
Construction

The single-core heating mat MH is made of a shielded single-core cable fixed on a fiber mesh. The MH heating mat is fitted up with cold leads and reliable couplings. Thanks to the cable fixation on the self-adhesive mesh – there is no need to adjust the wire spacings and to fix the cable on the floor surface.

APPLICATION

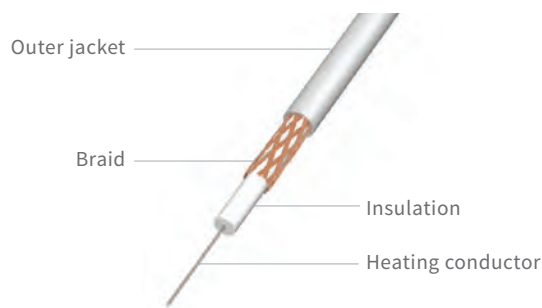
Application	Installation
Direct heating	<input type="checkbox"/> Mortar
Comfort heating	<input checked="" type="checkbox"/> Tile adhesive layer

CONTENT OF DELIVERY



CABLE DESIGN

Single-core heating cable MH



TECHNICAL DATA

Rated voltage	230 VAC	
Power	100, 150 W/m ²	
Maximum operation temperature	80 °C	
Minimum operation temperature	-10 °C	
Minimum storage temperature	-20 °C	
Minimum installation temperature	-10 °C	
Installation width	0,5 m	
Cold lead length	for 100 W/m ²	4 m+4 m till 3,9 m ² 4 m+8 m from 4,4 m ²
Cold lead length	for 150 W/m ²	4 m+4 m till 3,9 m ² 4 m+8 m from 4,4 m ²
Cable diameter	3,58–4,05 mm	

ORDERING INFORMATION

Heating mat

MH-470-3,1

Product reference: type of the heating mat _____
 Power, W _____
 Area, m² _____

PRODUCT REFERENCES

Single-core heating mat MH 100 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MH-165-1,6	1,6	165	17,7
MH-220-2,1	2,1	220	23,2
MH-270-2,6	2,6	270	29,3
MH-365-3,5	3,5	365	40,5
MH-470-4,5	4,5	470	52,0
MH-575-5,5	5,5	575	64,0
MH-680-6,5	6,5	680	72,0
MH-795-7,5	7,5	795	88,5
MH-990-9,5	9,5	990	108,5
MH-1145-11,0	11,0	1145	125,0
MH-1280-12,0	12,0	1280	139,0
MH-1500-14,0	14,0	1500	166,5
MH-1885-18,0	18,0	1885	185,0
MH-2100-20,0	20,0	2100	208,0
MH-2425-23,0	23,0	2425	247,0

Single-core heating mat MH 150 W/m ²			
Mat type	Area, m ²	Power, W	Cable length, m
MH-160-1,1	1,1	160	18,0
MH-215-1,5	1,5	215	24,0
MH-265-1,9	1,9	265	30,0
MH-360-2,5	2,5	360	41,0
MH-470-3,1	3,1	470	52,0
MH-570-3,9	3,9	570	64,0
MH-660-4,4	4,4	660	74,0
MH-800-5,3	5,3	800	88,0
MH-980-6,6	6,6	980	110,0
MH-1140-7,5	7,5	1140	126,0
MH-1275-8,5	8,5	1275	140,0
MH-1500-10,0	10,0	1500	167,0
MH-1850-12,2	12,2	1850	185,0
MH-2070-13,7	13,7	2070	208,0
MH-2440-16,2	16,2	2440	247,0

INSTALLATION

For the installation of the heating mat a thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



RoHS

FEATURES

- ✓ Small cable diameter
- ✓ Ecological compatibility
- ✓ 100% guarantee of electrical safety
- ✓ 100% absence of electromagnetic radiation
- ✓ Additional protection against overheating
- ✓ Universal solution for premises with complex room layouts
- ✓ Maximum cost and energy saving
- ✓ Easy installation

DESCRIPTION

Application

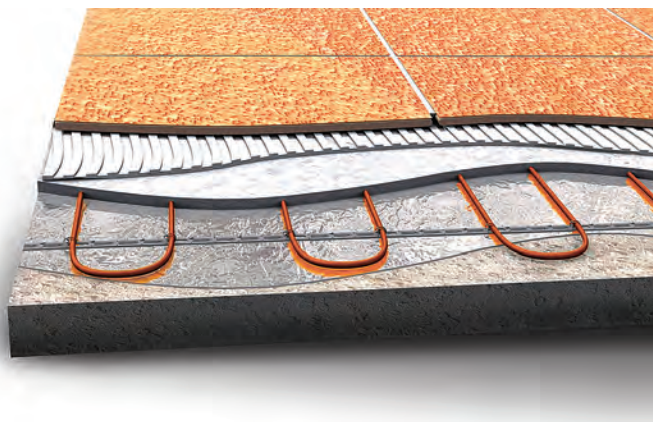
The spooled GB heating sections are applied as a supplementary system for comfortable floor heating. In thermal insulated buildings the GB heating sections could be used as a basic heating system when it is impossible to use a central heating system. The ultra-thin GB heating sections are excellently applicable for the installation in a tile adhesive layer or in screed. They can be applied under any covering of your choice: tile, marble or carpet.

Construction

The double-core heating section GB consists of a heating cable with two cores in a foil-coated screening sheath with a protective drainage wire, one coupling, one cold lead (3 m length) and a cable termination. Due to the double-core design of the heating cable, the electric power is supplied only from one end of the section, which makes the installation process easier. The cable insulation is made of tough heat-resisting non-flammable fluoropolymer. The cable shield is made of aluminium foil, reinforced with a copper line. The GB heating sections are made exclusively of high quality materials produced by world leading manufacturers. The GB heating sections operate in combination with thermostats. Therefore the consuming power of the system will be less than the installed power (up to 70%).

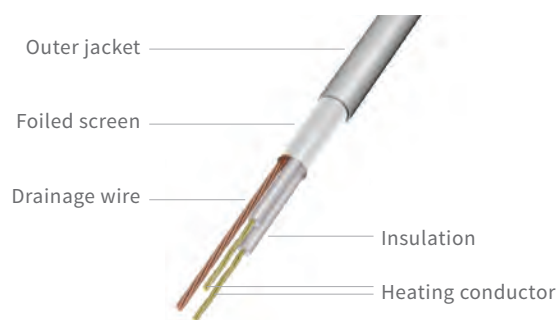
APPLICATION

Application		Installation	
Direct heating	<input type="checkbox"/>	Mortar	<input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/>	Tile adhesive layer	<input checked="" type="checkbox"/>



CABLE DESIGN

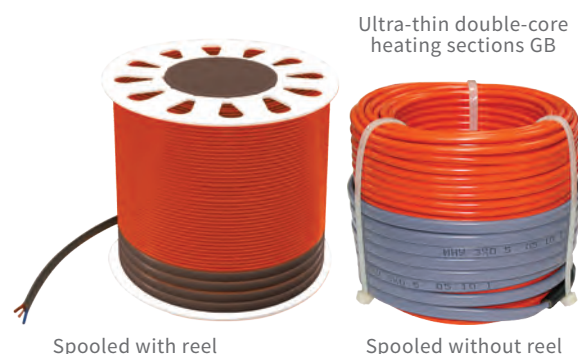
Double-core heating cable MHH



TECHNICAL DATA

Rated voltage	230 VAC
Power	12 W/m
Maximum operation temperature	90 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Minimum bending radius	30 mm
Cold lead length	3 m
Cable diameter	3,78–5,05 mm

CONTENT OF DELIVERY



PRODUCT REFERENCES

Double-core heating section GB				
Section type	Heating area recommended, m ²	Rated power, W	Nominal power output, W/m	Section length, m
GB-130-11	0,8–1,0	130	11,8	11,0
GB-220-18	1,4–1,7	220	12,2	18,0
GB-300-25	2,0–2,3	300	12,0	25,0
GB-470-39	3,0–3,6	470	12,1	39,0
GB-815-63	5,4–6,2	815	12,9	63,0
GB-1040-86	7,0–8,0	1040	12,1	86,0
GB-1800-155	12,0–13,8	1800	11,6	155,0

INSTALLATION

For the installation of the heating mat an additional thermostat with an appropriate temperature sensor is required. The temperature sensor is also embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you. Applicable norms, rules and data sheets as well as instructions and manuals are to be followed! For detailed installation instructions please use the installation manual.

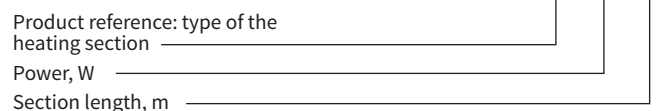
JOINT PRODUCTS

Thermostats (see page 35–36)
Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

ORDERING INFORMATION

Heating section



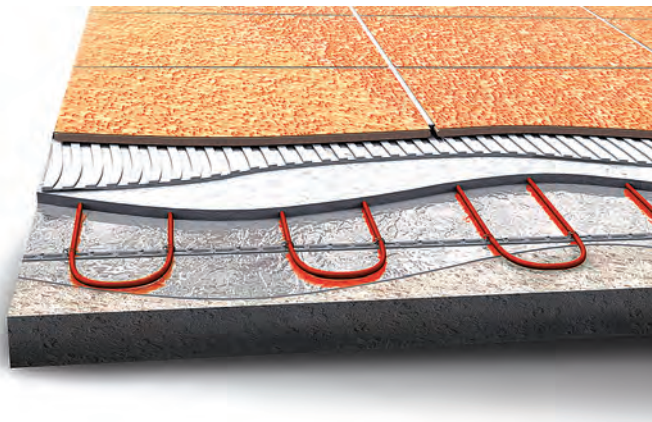
APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ Maximum cost and energy saving
- ✓ Wide range of heating cable power outputs
- ✓ Wide range of application possibilities
- ✓ Long-life performance
- ✓ Easy handling



DESCRIPTION

Application

The TLBE heating sections are applied as a basic heating system in thermally insulated buildings when it is impossible to use a central heating system. These systems are excellently applicable for installation in screeded floors and can be used under any covering of your choice: tile, marble or carpet.

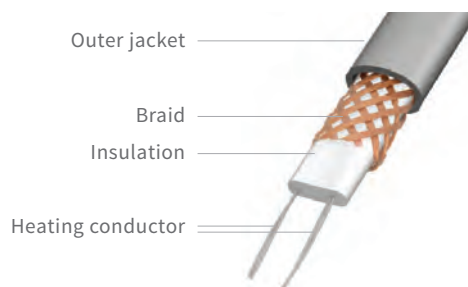
Construction

The double-core heating section TLBE consists of a shielded heating cable with two cores, one coupling, one cold lead and a cable termination. Due to the double-core design of the heating cable, the electric power is supplied from one end of the section which makes the installation process easier.

The TLBE heating sections are used in combination with thermostats. Therefore the consuming power of the system will be less than the installed power (up to 70% in winter and about 10% in spring and in autumn).

CABLE DESIGN

Double-core heating cable BNK



TECHNICAL DATA

Rated voltage	230 VAC
Power	16–18 W/m
Maximum operation temperature	80 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Minimum bending radius	30 mm
Cold lead length	3 m
Cable diameter	5,5×7,9 mm

APPLICATION

Application	Installation	
Direct heating	<input checked="" type="checkbox"/> Mortar	<input checked="" type="checkbox"/>
Comfort heating	<input type="checkbox"/> Tile adhesive layer	<input type="checkbox"/>

CONTENT OF DELIVERY



PRODUCT REFERENCES

Double-core heating section TLBE				
Section type	Heating area recommended, m ²	Rated power, W	Nominal power output, W/m	Section length, m
TLBE-7-105	0,7–1,0	105	15,0	7,0
TLBE-9,5-150	1,0–1,5	150	15,8	9,5
TLBE-12,5-210	1,5–2,0	210	16,8	12,5
TLBE-15,5-260	1,7–2,6	260	16,8	15,5
TLBE-21-350	2,3–3,4	350	16,7	21,0
TLBE-27-460	3,0–4,3	460	17,0	27,0
TLBE-33-560	3,7–5,5	560	17,0	33,0
TLBE-42-730	4,8–7,2	730	17,4	42,0
TLBE-55-980	6,5–9,6	980	17,8	55,0
TLBE-71-1265	8,0–12,0	1265	17,8	71,0
TLBE-84-1500	10–14,8	1500	17,9	84,0
TLBE-102-1855	12,3–17,0	1855	18,2	102,0
TLBE-131-2530	16,8–25	2530	19,3	131,0
TLBE-159-2680	17,8–26	2680	16,9	159,0

INSTALLATION

For uniform heat distribution, the heating sections are installed in loops with constant spacing by using the assembly tape. For the installation of the heating section an additional thermostat with an appropriate temperature sensor is required. The temperature sensor is embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you.

Applicable norms, rules and data sheets as well as instructions and manuals are to be followed!

For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Heating cable section

TLBE-131-2530

Product reference: type of the heating section _____
 Section length, m _____
 Power, W _____

JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

FEATURES

- ✓ Maximum cost and energy saving
- ✓ Wide range of heating cable power outputs
- ✓ Wide range of application possibilities
- ✓ Long-life performance
- ✓ Easy handling

DESCRIPTION

Application

The TLOE heating sections are applied as a basic heating system in thermally insulated buildings when it is impossible to use a central heating system. These systems are excellently applicable for installation in screeded floors and can be used under any covering of your choice: tile, marble or carpet.

Construction

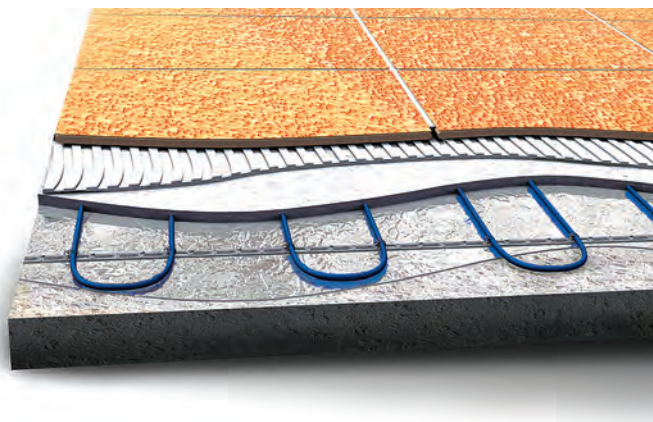
The single-core heating cable section TLOE consists of a shielded heating cable with one core, two couplings and two cold leads.

The TLOE heating sections are used in combination with thermostats. Therefore the consuming power of the system will be less than the installed power (up to 70% in winter and about 10% in spring and in autumn).

CONTENT OF DELIVERY

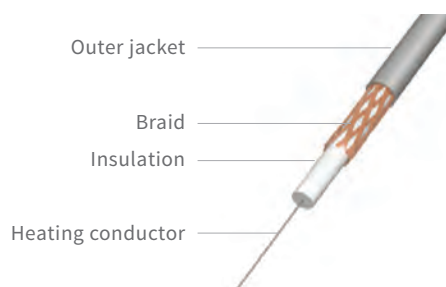


Single-core heating section TLOE



CABLE DESIGN

Single-core heating cable NO



TECHNICAL DATA

Rated voltage	230 VAC
Power	14-16 W/m
Maximum operation temperature	80 °C
Minimum operation temperature	-10 °C
Minimum storage temperature	-20 °C
Minimum installation temperature	-10 °C
Minimum bending radius	30 mm
Cold lead length	2 m
Cable diameter	5,5-6,3 mm

APPLICATION

Application		Installation	
Direct heating	<input checked="" type="checkbox"/>	Mortar	<input checked="" type="checkbox"/>
Comfort heating	<input type="checkbox"/>	Tile adhesive layer	<input type="checkbox"/>

PRODUCT REFERENCES

Single-core heating section TLOE				
Section type	Heating area recommended, m ²	Rated power, W	Nominal power output, W/m	Section length, m
TLOE-11-150	1,0–1,4	150	13,6	11,0
TLOE-14-200	1,4–2,0	200	14,3	14,0
TLOE-19-280	1,8–2,7	280	14,7	19,0
TLOE-22,5-330	2,2–3,3	330	14,7	22,5
TLOE-33-580	3,8–5,8	580	17,6	33,0
TLOE-41-720	4,8–7,1	720	17,6	41,0
TLOE-44-840	5,6–8,3	840	19,1	44,0
TLOE-51-970	6,4–9,6	970	19,0	51,0
TLOE-57-1080	7,2–10	1080	18,9	57,0
TLOE-67-1290	8,6–12,7	1290	19,3	67,0
TLOE-81-1530	10,2–15,1	1530	18,9	81,0

INSTALLATION

For uniform heat distribution, the heating sections are installed in loops with constant spacing by using the assembly tape. For the installation of the heating section, an additional thermostat with an appropriate temperature sensor is required. The temperature sensor is embedded in the cement mortar. It should be placed in a corrugated tube in the middle of one cable loop. The thermostat should be mounted on the wall in the most suitable place for you. Applicable norms, rules and data sheets as well as instructions and manuals are to be followed! For detailed installation instructions please use the installation manual.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Heating cable section

TLOE-67-1290

Product reference: type of the heating section _____

Section length, m _____

Power, W _____

JOINT PRODUCTS

- Thermostats** (see page 35–36)
- Temperature sensor** (see page 36)

For detailed information please refer to our control equipment catalogue.

FEATURES

- ✓ The best solution for decorative floor coverings
- ✓ Minimum time to heat up
- ✓ Ultra-thin (0,2 mm)
- ✓ Most economic comfort solution
- ✓ Easy installation
- ✓ Highest electrical safety
- ✓ No limitations with floor coverings

DESCRIPTION

The Heatfoil-floor is a perfect solution for floor comfort heating in living and office premises. The product was developed especially for coverings as laminate, linoleum, parquet board and carpet covering.

You will get comfortable heat from your floor in just a few minutes! Due to its construction, the heating foil warm floor system ensures a steady heating output from the whole surface of the floor.

This type of underfloor heating system does not require a concrete or a tile adhesive layer to be installed. It is simply laid out onto the raw floor surface and then covered by finishing material. The warm floor system based on Heatfoil provides comfortable heat in a premise.

Easy installation

To install the heating foil system the only requirement is to evaluate the amount of heating foil sections. Simply lay out the foil onto the floor surface, connect the foil sections to the cold leads using the connection kit included. After a short switch-on test, cover the foil by finishing materials.

CONTENT OF DELIVERY

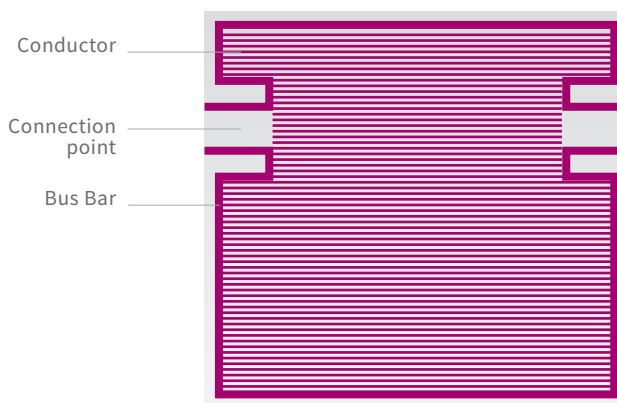


Heatfoil-floor

Cold lead connection



DESIGN



TECHNICAL DATA

Rated voltage	230 VAC
Power	80, 150 W/m ²
Maximum operation temperature	80 °C
Minimum operation temperature	10 °C
Minimum installation temperature	0 °C
Installation width	0,55 m
Cold lead length	5 m

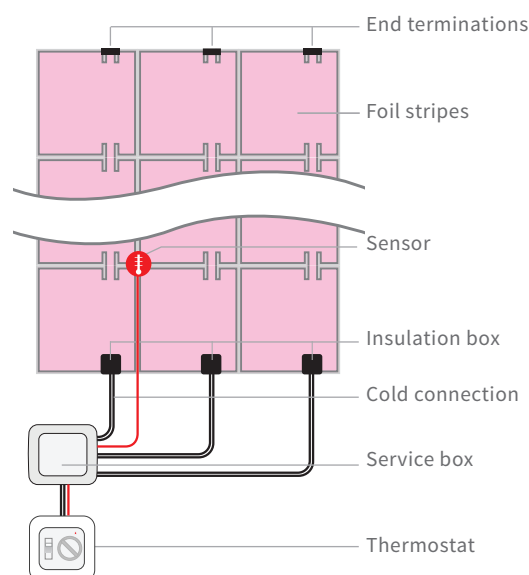
APPLICATION

Application		Installation	
Direct heating	<input type="checkbox"/>	Mortar	<input type="checkbox"/>
Comfort heating	<input checked="" type="checkbox"/>	Tile adhesive layer	<input type="checkbox"/>
		Floating	<input checked="" type="checkbox"/>

PRODUCT REFERENCES

Heatfoil-floor			
Type	Power, W	Length, m	Area, m ²
HF floor 80 1.2	96	2,4	1,2
HF floor 80 1.6	128	3,2	1,6
HF floor 80 2.0	160	4,0	2,0
HF floor 80 2.4	192	4,8	2,4
HF floor 80 2.8	224	5,6	2,8
HF floor 150 1.2	180	2,4	1,2
HF floor 150 1.5	225	3,0	1,5
HF floor 150 1,8	270	3,6	1,8
HF floor 150 2,1	315	4,2	2,1
HF floor 150 2,4	360	4,8	2,4
HF floor 150 2,7	405	5,4	2,7

INSTALLATION



JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Heatfoil-floor **HF floor 80 1,2**

Product reference: type of the heating foil _____

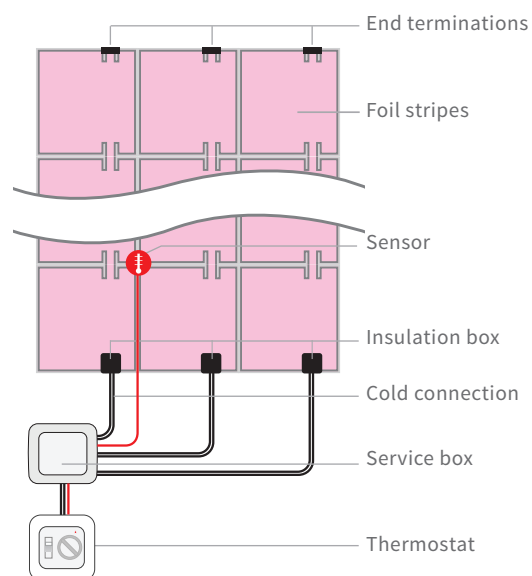
Power output, W/m² _____

Area, m² _____

PRODUCT REFERENCES

Heatfoil-floor			
Type	Power, W	Length, m	Area, m ²
HF floor 80 1.2	96	2,4	1,2
HF floor 80 1.6	128	3,2	1,6
HF floor 80 2.0	160	4,0	2,0
HF floor 80 2.4	192	4,8	2,4
HF floor 80 2.8	224	5,6	2,8
HF floor 150 1.2	180	2,4	1,2
HF floor 150 1.5	225	3,0	1,5
HF floor 150 1.8	270	3,6	1,8
HF floor 150 2.1	315	4,2	2,1
HF floor 150 2.4	360	4,8	2,4
HF floor 150 2.7	405	5,4	2,7

INSTALLATION



JOINT PRODUCTS

Thermostats (see page 35–36)

Temperature sensor (see page 36)

For detailed information please refer to our control equipment catalogue.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Heatfoil-floor

HF floor 80 1.2

Product reference: type of the heating foil _____

Power output, W/m² _____

Area, m² _____

FEATURES

- ✓ Designed for high humidity premises
- ✓ Connection to the mirror lighting
- ✓ Does not require maintenance
- ✓ Easy installation
- ✓ Highest electrical safety

DESCRIPTION

The Heatfoil-mirror demister is a foil heater and the best solution for demisting mirrors. It is intended for preventing condensate formation on mirrors in bathrooms or any other premises. The condensate evaporates off the mirror surface when the heater is switched on.

The Heatfoil-mirror demister consists of a heating element, connected to the installation wire. The ultrathin film (0,2 mm) is made of double-layer polyester fibre with a conductor inside.

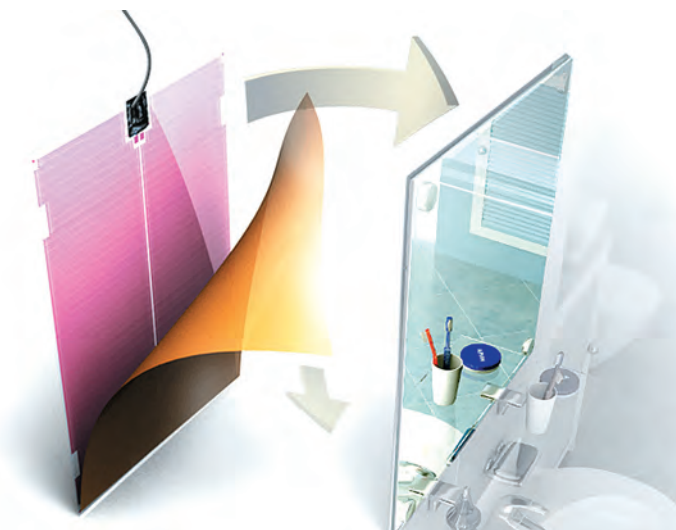
The heater is connected to a power supply of 230 VAC.

INSTALLATION

The connection to the electrical network should be done via a separate switch. The use of a ground fault circuit breaker (30 mA) is obligatory.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



TECHNICAL DATA

Rated voltage	230 VAC
Operating temperature	40 °C
Max temperature	80 °C
Connection cable	1,2 m
Protection class	II - IP 44

PRODUCT REFERENCES

Heatfoil-mirror		
Type	Dimensions, mm	Rated power, W
HF Mirror - 400×500	400×500	36
HF Mirror - 550×600	550×600	64

ORDERING INFORMATION

Heatfoil-mirror **HF Mirror - 400×500**

Product reference: _____

Type of the heating foil _____

Dimension, mm _____

FEATURES

- ✓ Easy to clean from dust and dirt
- ✓ The most successful solution for apartment, house, cottage, office, social institutions
- ✓ Can be used as a shoe dryer
- ✓ Easy connection
- ✓ Built-in thermostat

DESCRIPTION

The Heatfoil-carpet is intended for cleaning and drying shoes when entering a premise. The carpet is connected to a usual outlet. When switching on, the carpet is heated and dries out the moisture thus cleaning the shoes. Therefore the carpet is always dry, easy-to-clean and avoids humidity brought into the premise. The principal advantage of the Heatfoil-carpet in comparison to a usual carpet is that its surface is heated up to 40 °C and dries out the remaining dirt after cleaning shoes. Furthermore the heated carpet can be used for drying shoes. The carpet is simply switched on and can be easily maintained.

The Heatfoil-carpet is fitted with a built-in control system maintaining even temperature level on the surface and protecting the carpet against overheating. The heating time is very fast depending on the premise temperature.

The Heatfoil-carpet is a successful solution for apartments, houses, cottages, offices and social institutions.

INSTALLATION

Insert the plug of the electrical wire into a 230 V outlet. It is prohibited to bend and mechanically expose the carpet in order to avoid damages of the heater. When cleaning the carpet it is necessary to switch it off. The dirt can be removed with a brush. It is allowed to use chemical cleansing agents suitable for cleaning synthetic coverings.

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



TECHNICAL DATA

Rated voltage	230 VAC
Operating temperature	40 °C
Connection cable	2,0 m
Protection class	II - IP 67

PRODUCT REFERENCES

Heatfoil-carpet		
Type	Dimensions, mm	Rated power, W
HF Carpet 65 grey	600×450	65
HF Carpet 65 blue	600×450	65
HF Carpet 65 brown	600×450	65
HF Carpet 65 black	600×450	65
HF Carpet 65 green	600×450	65
HF Carpet 65 blue UK	600×450	65
HF Carpet 65 brown UK	600×450	65
HF Carpet 170 blue	600×900	170
HF Carpet 170 brown	600×900	170
HF Carpet 170 black	600×900	170
HF Carpet 170 green	600×900	170
HF Carpet 170 blue UK	600×900	170

ORDERING INFORMATION

Heatfoil-carpet

HF Carpet 65 grey

Product reference:

Type _____

Rated power, W _____

Colour _____

FEATURES

- ✓ Rapid and uniform heating
- ✓ Easy to clean from dust and dirt
- ✓ Best for any locations: entrance hall, lounge, living room, study, office
- ✓ Secure and durable
- ✓ Easy to use and care



DESCRIPTION

The I-WARM Heated Carpet may be used for:

- ✓ Shoes cleaning in the entry to accommodation spaces (offices, halls, lobbies, kitchens etc.). Due to the heated carpets you can decrease dust and mud protection.
- ✓ Wet shoes drying. In the result your shoes are always dry and well-groomed.
- ✓ Feet warming. Due to the heated carpets your feet are in comfort and warm when needed.
- ✓ The I-WARM heated carpet is designed to be use only on the floor. We recommend to use it on the following floor covering types: ceramic or stone tile, laminate covering and linoleum.

INSTALLATION

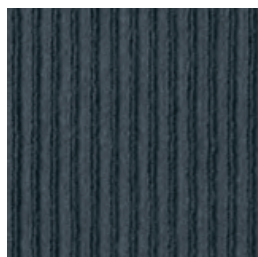
No additional preparations necessary.

PRODUCT REFERENCES

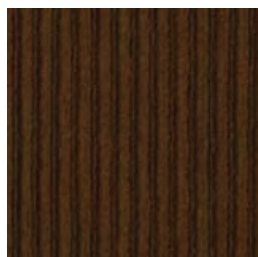
I-WARM heated carpet

Type	Dimensions, cm	Rated power, W
I-WARM heated carpet 80 x 50	80×50	70

COLOR EXAMPLES



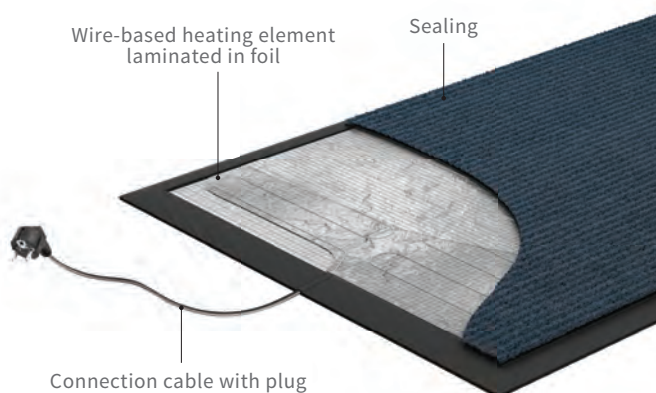
Grey



Brown

DESIGN

Connection cable is equipped with a grounded plug.



TECHNICAL DATA

Rated voltage	230 VAC
Operation temperature	35–40 °C
Connection cable	2.0 m
Protection class	I
IP protection level	IP67

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Heated carpet

I-WARM heated carpet 80×50

Product reference:
Dimensions, cm

FEATURES

- ✓ Rapid and uniform heating
- ✓ Simply plugs in and warms up within few minutes
- ✓ Best as mobile solution for: homes entrance hall, offices lounge, country-side homes
- ✓ Best to use on laminate, parquets, wooden floors
- ✓ Secure and durable
- ✓ Easy to use and care

DESCRIPTION

The undercarpet heater may be used for:

- ✓ Comfort floor heating under carpet as rapid installation mobil solution.
- ✓ May be best for country-side homes rented apartments, children rooms.
- ✓ Feet warming. Due to the heated carpets your feet are in comfort and warm when needed.
- ✓ Undercarpet heater is designed to be used only under carpet floor.

INSTALLATION

No additional preparations necessary.

PRODUCT REFERENCES

Undercarpet heater		
Type	Dimensions, m	Rated power, W
Undercarpet heater 2,00×1,40	2.0×1.4	330
Undercarpet heater 2,80×1,80	2.8×1.8	610

ORDERING INFORMATION

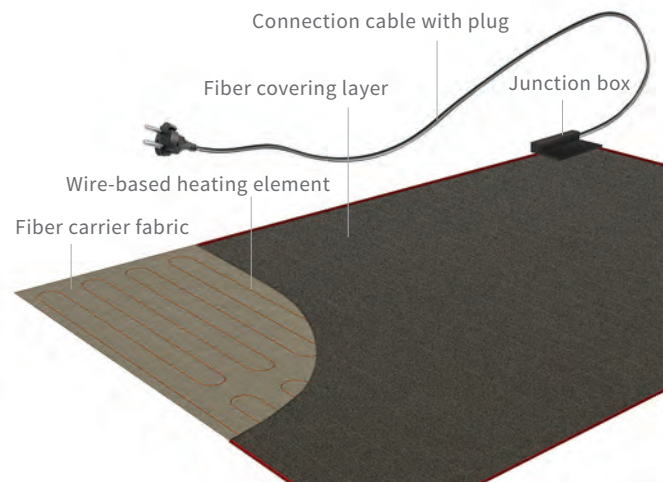
Undercarpet heater **2,00×1,40**

Product reference: _____
 Dimensions, cm _____



DESIGN

The electrical cable is equipped with plug which is able to be connected to grounding protection system via special socket.



TECHNICAL DATA

Rated voltage	230 VAC
Carpet temperature	30 °C
Connection cable	2.5 m
Protection class	II
IP protection level	IPX7

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ Modern and timeless design
- ✓ High quality and low-maintenance materials
- ✓ Wide range of colours offers a perfect match for every bathroom
- ✓ Freely positioned towel rails give a high flexibility for all individual requirements
- ✓ Easy to install in every bathroom (power supply is required)
- ✓ Comfort solution with radio controlled thermostat

DESCRIPTION

The Towel heater convinces by an elegant design and the use of high-quality materials.

The Towel heater is a perfect and aesthetic solution for each bathroom. It's available in different colours and sizes. Individually adaptable towel rails are separately available.

We offer two different types:

Basic – with an ON/OFF switch and a temperature limiter.

Comfort – The Towel heater comfort will be supplied with a programmable automatic controller, which realizes the control over radio control.

TECHNICAL DATA

Rated voltage	230 VAC
Cold lead length	1,2 m
Protection class	II
IP protection level	IP44

INSTALLATION

No additional preparations necessary.



PRODUCT REFERENCES

Towel heater			
Type	Power, W (230/240 V)	Colour	Dimensions, mm
TH 750 white	750	white	1200×600
TH 750 yellow	750	yellow	1200×600
TH 750 green	750	green	1200×600
TH 750 orange	750	orange	1200×600
TH 750 red	750	red	1200×600
TH 750 blue	750	blue	1200×600
TH 750 black	750	black	1200×600
TH 1100 white	1100	white	1800×600
TH 1100 yellow	1100	yellow	1800×600
TH 1100 green	1100	green	1800×600
TH 1100 orange	1100	orange	1800×600
TH 1100 red	1100	red	1800×600
TH 1100 blue	1100	blue	1800×600
TH 1100 black	1100	black	1800×600

COLOR EXAMPLES



JOINT PRODUCTS



APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



ORDERING INFORMATION

Towel heater

TH 750 white

Product reference: _____
 Type _____
 Power, W _____
 Colour _____

FEATURES

- ✓ Special emphasis of your interior
- ✓ Four seasons comfort
- ✓ Doesn't occupy usable floor space
- ✓ Reliable construction of heat-strengthened glass
- ✓ Cost-efficient
- ✓ High safety level, Ingress protection rating I – IP44

DESCRIPTION

Flora glass radiators are designed to provide additional heat to bathrooms, restrooms, kitchens, lobbies and also to dry out clothing. The radiator combines design, modern technology and high quality materials.

TECHNICAL DATA

Rated voltage	230 VAC
Operation temperature	70-80 °C
Maximum operation temperature	80 °C
Cold lead length	1,5 m
Minimum distance of the heating element from wall	30 mm
Protection class	I
IP protection level	IP44

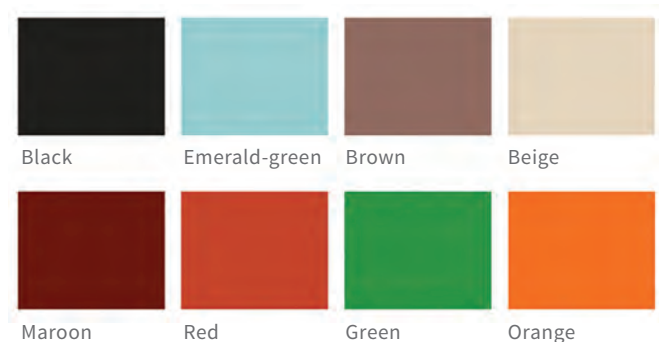
PRODUCT REFERENCES

Glass towel heater Flora			
Type	Power, W	Dimensions, mm	Weight, kg
Flora 60x60	175	600×600	3,6
Flora 60x90	285	600×900	7,8

INSTALLATION

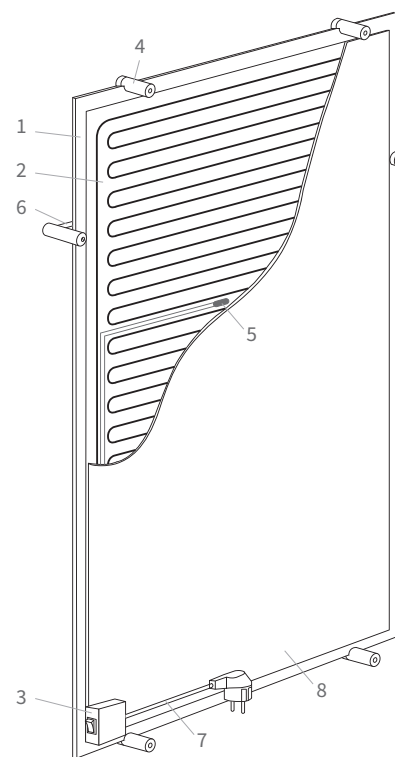
No additional preparations necessary.

COLOR DESIGN



DESIGN

- 1 – Decorative heat-strengthened glass;
- 2 – Heating element;
- 3 – Connection box with power switch;
- 4 – Spacing holders;
- 5 – Automatic thermal switch;
- 6 – Crossbar for towels;
- 7 – Supply cord with plug;
- 8 – Heat insulation layer with protective cover.



ORDERING INFORMATION

Glass towel heater _____ **Flora 60x60 Red**

Product reference: _____

Type of the towel heater _____

Dimensions, cm _____

Colour _____

APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ Innovative design
- ✓ Ergonomic shape
- ✓ Wide possibilities with compact form
- ✓ Fast warming-up
- ✓ Power output – 57 W
- ✓ Polished stainless steel ensures reliability
- ✓ Dimensions – 50×50 cm

DESCRIPTION

Sahara stainless towel heaters are designed to dry-out clothing and to provide additional heat to bathrooms, rest-rooms, kitchens and lobbies.

TECHNICAL DATA

Rated voltage	230 VAC
Operation temperature	55 °C
Protection class	I
IP protection level	IPX3

PRODUCT REFERENCES

Stainless towel heater Sahara			
Type	Power, W	Dimintions, mm	Weight, kg
Sahara 50×50	57	500×500	2,5

INSTALLATION

No additional preparations necessary.

ORDERING INFORMATION

Stainless towel heater

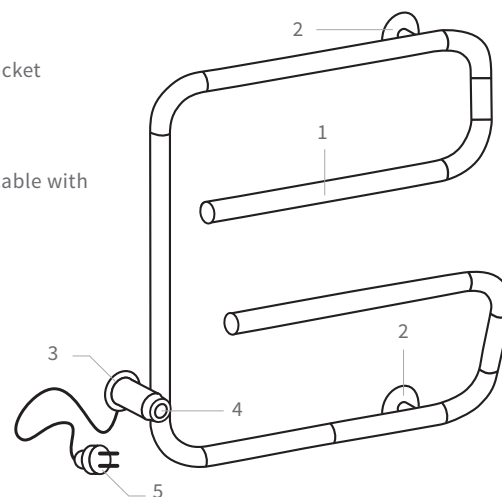
Sahara 50x50

Product reference: _____
 Type of the towel heater _____
 Dimintions, cm _____



DESIGN

1. Heater body
2. Installing bracket
3. Junction box
4. Switch
5. Connection cable with plug



APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



FEATURES

- ✓ Stylish and technological
- ✓ Reliable heater design
- ✓ Ergonomic and modern
- ✓ Effective and safe
- ✓ Two standard sizes: 50×50 cm (60 W) and 50×75 cm (47 W)
- ✓ Durable stainless steel housing
- ✓ Harmonious solution to any interior



DESCRIPTION

Savanna stainless towel heaters are designed to dry-out clothing and to heat bathrooms, restrooms, kitchens and lobbies.

TECHNICAL DATA

Rated voltage	230 VAC
Operation temperature	55 °C
Protection class	I
IP protection level	IPX3

PRODUCT REFERENCES

Stainless towel heater Savanna			
Type	Power, W	Dimensions, mm	Weight, kg
Savanna 50×50	47	500×500	2,6
Savanna 75×50	60	750×500	3,2

INSTALLATION

No additional preparations necessary.

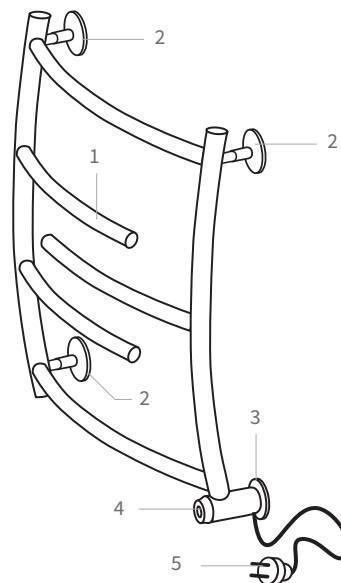
APPROVAL DETAILS

The compliance with all necessary requirements is approved by appropriate certificates:



DESIGN

1. Housing;
2. Installation bracket;
3. Junction box;
4. Power switch;
5. Supply cord.



ORDERING INFORMATION

Stainless towel heater


Savanna 50x50

Product reference: _____
 Type of the towel heater _____
 Dimensions, cm _____


For detailed information about our control systems please refer to our control equipment catalogue.

PRODUCT REFERENCES


MCS 300	
programmable thermal controller under smartphone or tablet PC control	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	2 W
Weight	100 g
Dimensions	83×83×48 mm
Memory time	12 months
IP protection level	IP21
Type of temperature sensor	TST 02; NTC 6.8 kOhm
Sensor installation wire length	2 m
Permissible ambient air temperature range	+5 °C ... +40 °C
Permissible relative air humidity	80 %
Maintained temperature range	+5 °C ... +45 °C
Factory preset temperature	28 °C




SE 200	
programmable digital thermostat with touch-screen control	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.45 W
Weight	130 g
Dimensions	90×90×50 mm
IP protection level	IP21
Remote floor temperature sensor	TST 02; NTC 6.8 kOhm
Sensor installation wire length	2 m
Permissible ambient air temperature range	+5 °C ... +40 °C
Permissible relative air humidity	80 %
Maintained temperature range	+5 °C ... +45 °C



I-WARM 510	
analogue electronic thermostat with a LED indication	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.45 W
Weight	90 g
Dimensions	80×80×20 mm
IP protection level	IP21
Memory time	NA
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperature sensor	NA
Temperature range	+5 °C ... +35 °C
Factory preset temperature	NA



I-WARM 520, I-WARM 520 air	
programmable digital electronic thermostat with LCD display	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.45 W
Weight	150 g
Dimensions	80×80×20 mm
IP protection level	IP21
Memory time	1–24 hours
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperature sensor*	NTC 6.8 kOhm
Temperature range	+5 °C ... +35 °C
Factory preset temperature	NA



* Function is used for thermostat 520 air.

PRODUCT REFERENCES

Roomstat 110	
analogue electronic thermostat with a LED indication	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.5 W
Weight	90 g
Dimensions	80×80×52 mm
IP protection level	IP20
Memory time	NA
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperatur sensor	NA
Temperature range	+5 °C ... +45 °C
Factory preset temperature	NA



I-WARM 710	
digital electronic thermostat with LCD display	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.45 W
Weight	150 g
Dimensions	80×80×52 mm
IP protection level	IP20
Memory time	12 months
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperatur sensor	NTC 6.8 kOhm
Temperature range	+5 °C ... +35 °C
Factory preset temperature	+25 °C



I-WARM 720	
programmable digital electronic thermostat with LCD display	
Supply voltage	230 VAC, 50 Hz
Max. load current	16 A
Power consumption	0.45 W
Weight	150 g
Dimensions	80×80×52 mm
IP protection level	IP20
Memory time	12 months
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperatur sensor	NA
Temperature range	+5 °C ... +35 °C
Factory preset temperature	+25 °C



I-WARM 730	
digital electronic thermostat with LCD display with 2 zone control	
Supply voltage	230 VAC, 50 Hz
Max. load current	2×8 A
Power consumption	1.350 W
Weight	200 g
Dimensions	116×82×54 mm
IP protection level	IP20
Memory time	12 months
Floor sensor	TST 02; NTC 6.8 kOhm
Built-in air temperatur sensor	NA
Temperature range	+5 °C ... +35 °C
Factory preset temperature	+25 °C



TST02	
temperature sensor	
Sensor cable length	2 m
Temperature range	+5 °C ... +45 °C
Sensitive element	thermal resistor 6,8 kOhm / 25 °C



i.warm