MADE IN GERMANY
MADE BY HEMSTEDT

all you can heat
Hemstedt
HEIZLEITUNGEN · KÜHLHAUSTECHNIK

PRODUCT CATALOGUE

Innovative products for optimized temperatures

TOP 100 · All you can heat · BVF · PATENT angemeldet · EN 50559 · CE · INDUSTRIE PREIS 2016 BEST OF

hemstedt.de

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Quality and innovation are a promise to our customers!

MADE IN GERMANY
MADE BY HEMSTEDT

Tradition and success of a family business

Our roots

It all began in 1974 in a small village not far from the metropolitan region of Stuttgart: Dieter and Silvi Hemstedt start their own business, with the goal of high-quality, specialized heating cables. And it works: Only four years later over 20 employees are working in the company, sales and space requirements are rising rapidly. And also the product range grows. Cold storage technology comes in and more and more customers are asking for specialized solutions that Hemstedt can realize quickly and accurately. This flexibility and the high quality make Hemstedt rapidly known around the world. More and more deliveries are made from the Swabian production facility to China, USA, Russia and in many other countries. Today 60 people work on a space of 17,500 square meters in development and production.

The Hemstedt management board consists of Dieter Hemstedt, chairman of the Hemstedt management board, and two other members. Already in 1990, with Sabine and Andreas Hemstedt the second generation joined in the company. From 2006 onwards, they worked as chief clerk until they became members of the management in 2011.

And so the company is now mainly in the development and manufacturing of energy-efficient heating systems and holistic approaches that make a significant contribution not only to create a carbon-neutral, but even the climate-positive house. For this endeavor Hemstedt was already awarded with the „Top 100" seal and the „Industriepreis Best Of" in 2014 and 2016 twice awarded the occasion of the Hannover trade fair. In 2015, the company won the „Querdenker Award" for unconventional and innovative ideas.

But as much as we continuously develop new ideas and solutions, one tradition always remains the same: Perfect quality 100% „Made in Germany"!

HEMSTEDT®- quality: Excellent!

EU-Examination certificate KEMA 09ATEX0021 U

EN 60079-0 : 2012+A11
prEN 60079-30-1 : 2016
EN 60079-30-1 : 2007
EN 60079-31 : 2014

Silvi and Dieter Hemstedt - Founders

IECEx Certificate of conformity IECEx KEM 10.0010 U

IEC 60079-0 : 2011
IEC/IEEE 60079-30-1 : 2015

QUALITY - SIGNED AND SEALED

Top-Innovator 2008 and 2015 - An award which confirms our actions!

Hemstedt is awarded the Top 100 award for particularly innovative products for floor heating and frost protection

Together with mentor Ranga Yogeshwar, „TOP 100" honors every year the 100 most innovative companies of the German SMEs. TOP 100 is already more than 20 years the only benchmark for innovation management in Germany. That means, „TOP 100" awards no individual products, but there are all stages of the innovation process taken under the microscope. Professor Nikolaus Franke and his team from the Vienna University of Economics are responsible for the scientific management of the project. We are proud that we have received for the second time this prestigious award, as it confirms that we are on our thoughts and actions in the right direction - namely to offer our customers always pioneering innovations to be jointly always one step ahead!

German industry-price 2014 and 2016 for our resource-saving GREEN products!

Electric heating is quite environmentally friendly today. The industrial price confirms this for the Hemstedt floor heating systems.

With our new underfloor heating mats GREEN ELECTRIC MAT® and GREEN ACCU MAT® we have not only created a high-quality product „Made in Germany" that helps you to heat 100% climate-neutral, but also an outstanding innovative and future-oriented product. The decision in this competition, which is held regularly since 2006, is made by an independent jury of 30 professors from renowned German universities and research institutions as well as trade journalists and industry representatives. They judge about more than 5,000 submitted products every year. Decisive factors are product maturity and future orientation, but also effective benefits, increasing efficiency and practicality. „Innovation means to me that a product or a method distinguishes itself significantly and surprisingly from the known state-of-the-art."(Prof. Dr. Thorsten M. Buzug, University of Luebeck, Germany)„An innovative industry solution uses the latest technical and scientific potential, conserves resources, provides new functionality and absolute safety and optimal user-friendliness." (Prof. Dr. Rainer Laur, University of Bremen, Germany)

Thus Hemstedt reiterates out from the crowd and proves that good quality combined with trend-setting innovations are the ingredients for customer-oriented, successful products. And that was confirmed the same in the following year with the „Querdenker-Award" and two years later again by the „Industriepreis 2016"

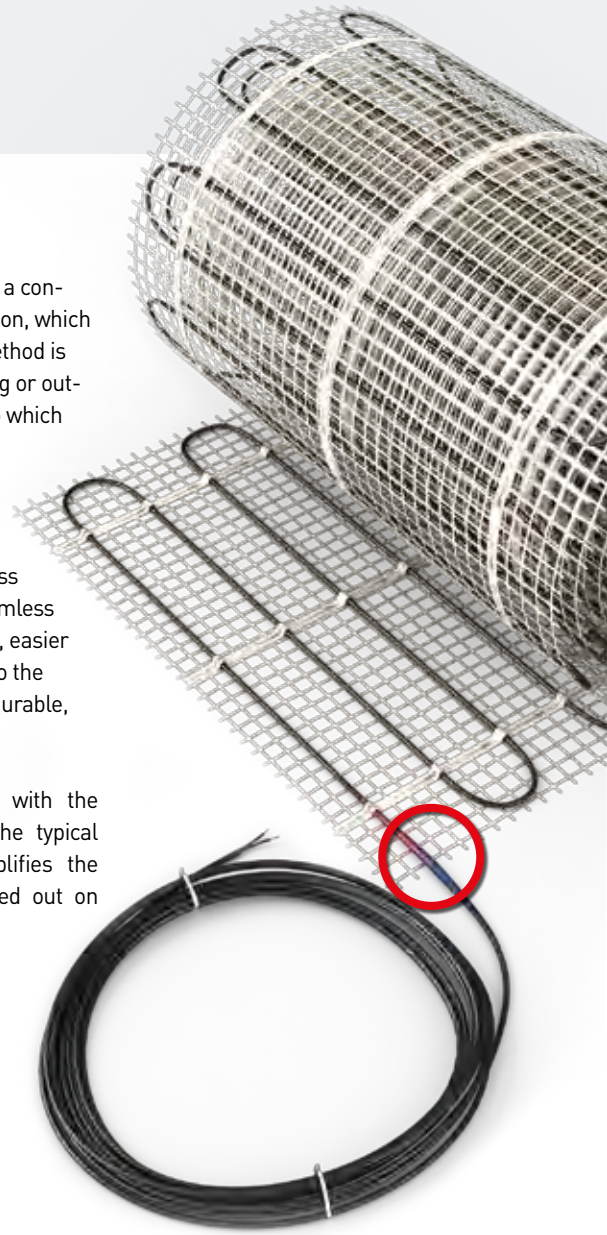
Querdenker 2015 - the award for lateral thinkers!

Hemstedt receives the award, mainly because of the forward-looking heating mats for energy storage heaters, for example.

Breaking new ground, leaving old ways of thinking. Only this can make future innovative. And it is this ability the prestigious jury of the „Querdenker Club" awards anually since 2009. 2015 the coveted trophy went to Germany´s former foreign minister Hans-Dietrich Genscher and to TV legend Thomas Gottschalk and - to Hemstedt! For new ideas and innovations in the field of energy saving and resource conservation. Thus, the Swabian family-run company stands out from the crowd again with this award for its products GREEN Products GREEN ELECTRIC MAT® und GREEN ACCU MAT® and sets new standards in the field of electric underfloor heating!

HEM-SYSTEM®

Innovation as a standard!



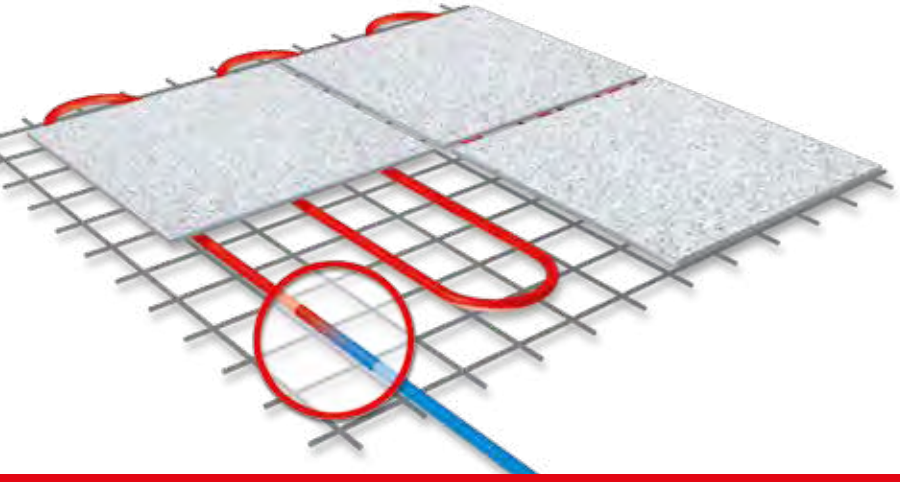
HEM-SYSTEM® – the sleeveless connection

This invention of Hemstedt has revolutionized the industry! Each heating cable needs a connection between hot and cold lead. This was usually done with a mechanical connection, which was then usually insulated with a shrink tube. The problem: On the one hand, this method is not always 100% leak-proof, which can lead to failures, for example in a gutter heating or outdoor heating sooner or later. For floor heating came alongside the density problem to which the compounds were thicker and so the laying has been difficult.

The breakthrough

With HEM-SYSTEM® the transition between hot and cold lead conductors is sleeveless because it is made as one piece. This also means, that the complete insulation is seamless as no heat shrink tubes are used. The advantages are obvious: Absolutely waterproof, easier installation because the entire cable is slim and thin. And one more advantage: Due to the omission of a work step, this electric underfloor heating is not only better and more durable, but also even cheaper!

The Hemstedt® self-adhesive reduced-thickness heating mat has been fitted with the HEM-SYSTEM® since 2005: The cold/warm splice is now sleeveless so that the typical problems associated with bulky shrinkable sleeves are eliminated. This simplifies the work for the floor fitter and the electrician. All subsequent work can be carried out on a flat surface. The HEM-SYSTEM® has established itself as a successful solution.



PRODUCT INNOVATION FOR EVEN SIMPLER ASSEMBLY

Cold connection cable | Sleeveless splice | Heating cable

The sleeveless splice is absolutely waterproof, and therefore ideal for installations requiring moisture proofing.

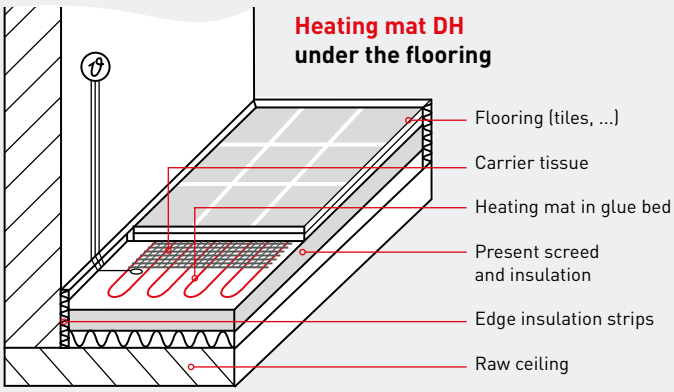
Hemstedt
HEM-SYSTEM®

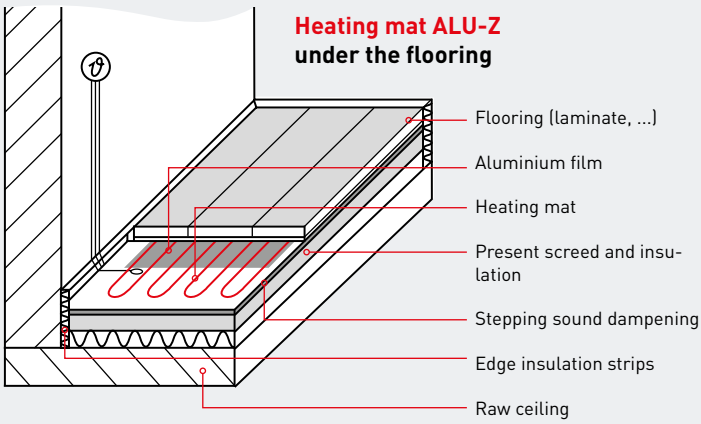
- **Warmth made to measure**
- **Direct from the manufacturer**
- **Self-adhesive**
- **100 % waterproof**
- **Insulating covering completely chemical and temperature resistant**

HEM-SYSTEM®
REDUCED-THICKNESS DIRECT HEATING MATS

for every floor covering - New construction and renovation

Easy to install - extremely thin





UNDERFLOOR HEATING FOR PERFECT, HEALTHY INDOOR CLIMATE

Easily and individually implemented with thin-bed heating mats and heating cables in new and old buildings.

Electric underfloor heating - the forward-looking technology!

However the energy transition in the various nations may look - one thing is clear: The trend is away from fossil fuels and towards renewable energy. And these sources usually generate electricity! This makes electric underfloor heating systems more interesting. And underfloor heating systems have many advantages. Fast and direct heat - because the thin-bed underfloor heating mats are laid directly under the floor covering. If the underfloor heating is switched on, it produces a pleasant, well-distributed radiant heat after a few minutes. This „direct reaction" of underfloor heating with thin-bed heating mats ensures shorter warm-up times and thus lower energy consumption.

Electric underfloor heating for each floor covering

In the Hemstedt program, you will find underfloor heating for every floor covering. Whether carpet, laminate, parquet, tiles or stone. Moreover, Hemstedt has the unique HEM-SYSTEM®, that means, the transition between hot and cold lead conductors is sleeveless and 100% waterproof. And it is just as thin as the rest of the heating cable. This makes installation of underfloor heating easier and allows minimal ground increases. So the Hemstedt underfloor heating is ideal, for example, for the renovation of old buildings.

Low installation height!
Max. 5 mm + floor covering

Healthy heat from below

Even the Romans or the great Mongol ruler Genghis Khan knew the soothing warmth of a heated floor. We can have it today! Children are free to play on the floor, the residents are completely free to roam barefoot in the house - a soothing and healthy relief for the feet in an ever more burdensome everyday world. Since modern underfloor heating systems no longer heat the surface of the floor covering - like the ancient systems - over 26°C, less dust from the ground is carried in the air, as for example, for radiators that are developing a much larger „pull" because of their forced higher temperature. In addition, the underfloor heating ensures near the bottom for reduced humidity, thus reducing the spread of mold and dust mites. Electric underfloor heating comes here at a special significance, since the temperature can be regulated better and more direct than with a conventional underfloor heating.

Unlimited space thanks to underfloor heating

A factor that we must never forget in a floor heating system: No radiators must be mounted. Because no matter how small, low or thin radiators are - they take away space from the room. So if you want to set up this living spaces otherwise, you are limited quickly in individuality by the position of the radiator or even worse - radiators. In rental properties an absolute argument for underfloor heating.

Underfloor heating for more security, for every application

Underfloor heating is not only suitable for living rooms, but especially for bathrooms. Here an underfloor heating can create a climate that is perceived as pleasant much more quickly and also dries moisture much faster on the ground, bringing additional safety. Heating cables as ring or sold by the meter provide the ability to create completely customized surfaces, so the underfloor heating is realized well in nooks and corners or small spaces.

EN/IEC 60335-2-96

DHSU REDUCED-THICKNESS HEATING MAT SET

with timer thermostat, self-adhesive, flush installation, for installation

MADE IN GERMANY
MADE BY HEMSTEDT

HEM SYSTEM® heating mats with **single-end connection cable** for mounting in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths, showers, living rooms, offices etc.

The reduced-thickness heating mat set contains the following products:

1 HEM direct heating mat with single-end connection cable 150 W/m² and 4.00 m connection cable
1 temperature regulator with self-teaching timer thermostat and sensor, flush
1 end seal sensor for sensor tube
1 sensor tube for room thermostat
1 switch socket
1 installation instructions

Technical data

Nominal voltage	230 Volt
Output	150 W/m²
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approvals	VDE
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

150 W/m² 230 V

DHSU reduced-thickness heating mats with single-end connection cable

Heating output W	Surface area m²	Calculated width m	Length m	Order no.
150	1.00	0.50	2.00	30751-150 U-SET
225	1.50	0.50	3.00	30751-225 U-SET
300	2.00	0.50	4.00	30751-300 U-SET
375	2.50	0.50	5.00	30751-375 U-SET
450	3.00	0.50	6.00	30751-450 U-SET
525	3.50	0.50	7.00	30751-525 U-SET
600	4.00	0.50	8.00	30751-600 U-SET
675	4.50	0.50	9.00	30751-675 U-SET
750	5.00	0.50	10.00	30751-750 U-SET
900	6.00	0.50	12.00	30751-900 U-SET
1050	7.00	0.50	14.00	30751-1050 U-SET
1200	8.00	0.50	16.00	30751-1200 U-SET
1350	9.00	0.50	18.00	30751-1350 U-SET
1500	10.00	0.50	20.00	30751-1500 U-SET
1800	12.00	0.50	24.00	30751-1800 U-SET
2250	15.00	0.50	30.00	30751-2250 U-SET

Cold connection cable 1.00 m² - 4.00 m² → 0.50 mm² I 4.50 m² - 9.00 m² → 0.75 mm² I 10.00 m² → 1.00 mm²
Heat insulation is required in flooring in all cases.

Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm², 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Spare temperature sensor timer thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.
Extended cold connection cables cannot be returned.

DHSPA REDUCED-THICKNESS HEATING MAT SET

with point scale regulator, self-adhesive flush for installation in tile glue

EN/IEC 60335-2-96

HEM SYSTEM® heating mats with **single-end connection cable** for mounting in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths, showers, living rooms, offices etc.

MADE IN GERMANY
MADE BY HEMSTEDT

The reduced-thickness heating mat set contains the following products:

1 HEM direct heating mat with single-end connection cable 150 W/m² and 4.00 m cold connection cable
1 analog regulator, flush and sensor
1 end seal sensor for sensor tube
1 sensor tube for room thermostat
1 switch socket
1 installation instructions

Technical data

Nominal voltage	230 Volt
Output	150 W/m²
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approvals	VDE
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

150 W/m² 230 V

DHSPA reduced-thickness heating mats with single-end connection cable

Heating output W	Surface area m²	Calculated width m	Length m	Order no.
150	1.00	0.50	2.00	30751-150 PA-SET
225	1.50	0.50	3.00	30751-225 PA-SET
300	2.00	0.50	4.00	30751-300 PA-SET
375	2.50	0.50	5.00	30751-375 PA-SET
450	3.00	0.50	6.00	30751-450 PA-SET
525	3.50	0.50	7.00	30751-525 PA-SET
600	4.00	0.50	8.00	30751-600 PA-SET
675	4.50	0.50	9.00	30751-675 PA-SET
750	5.00	0.50	10.00	30751-750 PA-SET
900	6.00	0.50	12.00	30751-900 PA-SET

Cold connection cable 1.00 m² - 4.00 m² → 0.50 mm² I 4.50 m² - 6.00 m² → 0.75 mm²
Heat insulation is required in flooring in all cases.

Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm², 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Spare temperature sensor timer thermostat	93088 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.
Extended cold connection cables cannot be returned.

DIN EN/IEC 60800

DH REDUCED-THICKNESS HEATING MATS
DR REDUCED-THICKNESS HEATING CABLES

Extremely thin, self-adhesive und easy to play, even afterwards!

MADE IN GERMANY
MADE BY HEMSTEDT

Pleasant radiant heat in each object!

The heating mats of Hemstedt enable the realization of an underfloor heating to any object, because the mats are only a few millimetres thick and can be easily installed anywhere. In general, the electric floor heating is laid directly in the tile adhesive or in a leveling compound. The advantages are obvious:

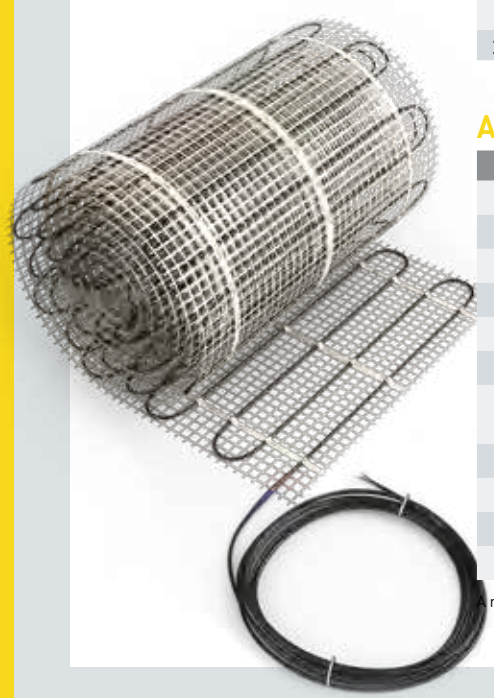
Technical data

Nominal voltage	230 Volt
Output	150 W/m²
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approval	VDE (1-10 m²)
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

CE

150 W/m² 230 V

DH heating mats with single-end connection cable					DR heating cables	
Heat output W	Surface area m²	Calculated width m	Mat length m	Order no.	Element length m	Order no.
150	1.00	0.50	2.00	30751-150	12.07	37702-12.07
225	1.50	0.50	3.00	30751-225	17.66	37702-17.66
300	2.00	0.50	4.00	30751-300	23.77	37702-23.77
375	2.50	0.50	5.00	30751-375	29.87	37702-29.87
450	3.00	0.50	6.00	30751-450	35.97	37702-35.97
525	3.50	0.50	7.00	30751-525	41.56	37702-41.56
600	4.00	0.50	8.00	30751-600	47.67	37702-47.67
675	4.50	0.50	9.00	30751-675	53.77	37702-53.77
750	5.00	0.50	10.00	30751-750	59.87	37702-59.87
900	6.00	0.50	12.00	30751-900	71.57	37702-71.57
1050	7.00	0.50	14.00	30751-1050	83.77	37702-83.77
1200	8.00	0.50	16.00	30751-1200	95.47	37702-95.47
1350	9.00	0.50	18.00	30751-1350	107.67	37702-107.67
1500	10.00	0.50	20.00	30751-1500	119.37	37702-119.37
1800	12.00	0.50	24.00	30751-1800	143.27	37702-143.27
2250	15.00	0.50	30.00	30751-2250	179.37	37702-179.37



Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm², 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1 piece, factory fitted), for extension	26121
Copper end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, flush	93088
Intelligent temperature monitoring timer thermostat with self-teach function and sensor, flush	93089
Distance bars	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

ALU-Z DRY INSTALLATION

Sleeveless, specially developed for laying under laminate and engineered parquet flooring, also available as a set.

EN/IEC 60335-2-96

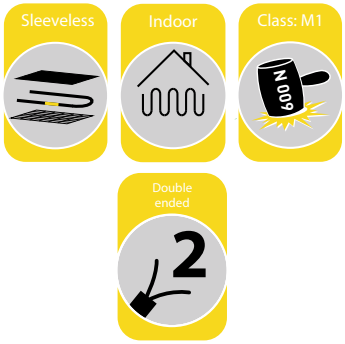
NEW! Extra-thin and superfast!

MADE IN GERMANY
MADE BY HEMSTEDT

Heating mat with **double-end connection cable.** The aluminium-coated textile glass fabric ensures even heat distribution underneath the flooring. The small installation height of only approx. 5 mm + floor makes this product ideal for renovations and for new buildings. Must only be installed in dry rooms.

The regulation system uses thermostats that are specially adapted to this product.
The HEM dry installation system is manufactured in accordance with VDE 60335-2-96.

Installation (brief description):
A vapour barrier must be installed and fitted if necessary. The room must be fitted with a temperature resistant sound and heat insulation (80 °C, B2). The heated area must be fitted with our HEM dry installation system. Fit floor covering.



Technical data

Nominal voltage	230 Volt
Output	100 W/m²
Cold connection cable	1 x 2.50 m / 1 x 6.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Standard	60335-2-96
Cold / warm splice	sleeveless, without shrinkable sleeve
Heating cable diameter	approx. 2.80 mm
Insulation	Fluoroplastic
Supplied width	0.45 m
Calculated width	0.50 m

Example for price calculation:

- The room must be completely fitted with sound and heat insulation (Order no.: 20106)
- Calculate the surface area to be heated = Size of heating mat (Order no.: 30600...)
- Remaining surface area (unheated area) = compensation textile (Order no.: 20107)
- Selection and determination of temperature regulator (Order no.: 93088 or 93089)

100 W/m² 230 V

Dry installation system

Heating output W	Surface area m²	Calculated width m	Length m	Order no.
100	1.00	0.50	2.00	30600-100
200	2.00	0.50	4.00	30600-200
300	3.00	0.50	6.00	30600-300
400	4.00	0.50	8.00	30600-400
500	5.00	0.50	10.00	30600-500
600	6.00	0.50	12.00	30600-600
700	7.00	0.50	14.00	30600-700
800	8.00	0.50	16.00	30600-800

Sound / heat insulation

Article designation	Width m	Length m	Surface area m²	Order no.
Fire class B2, thickness 5 mm	1.00	10.00	10.00	20106
Compensation textile	0.50	10.00	5.00	20107

Accessories

Article designation	Order no.
Cold connection cable for extension 1.00 mm², 2 x 1.00 m	81101-1.00 SW
Mounting sleeve (2, factory fitted), for extension	26123
Aluminium sensor sleeve (AD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, up to 35 °C, flush	93088
Digital floor regulator, digital with sensor, up to 35 °C, flush	93089

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

EN/IEC 60335-2-96

DHM MINI REDUCED-THICKNESS HEATING MATS DRM MINI-HEATING CABLES

heating mats self-adhesive

MADE IN GERMANY
MADE BY HEMSTEDT

HEM-SYSTEM® MINI heating mats with with single-end connection cable and MINI reduced-thickness cables for installation in tile glue/or compensation mass; Outstanding for old building renovation and for bathrooms, showers and similar. Also as installation set for self-assembly. Also for boats, yachts, etc.

Technical data

Rated voltage ..... 230 Volt
Power ..... 150 W/m²
Low-voltage connection line ..... 1 x 3.00 m (0.50 mm²)
Minimum placement temperature ..... 5 °C
Smallest bending radius ..... 6 x dA
Resistance tolerance ..... -5 % / +10 %
Cold/hot transfer ..... sleeveless

150 W/m² 230 V

	DHM Mini reduced-thickness heating mats with unilateral connection				DRM Mini heating cables with unilateral connection	
Heating output W	Surface area m²	Calculated width m	Length m	Order no.	Length m	Order no.
45.00	0.30	0.30	1.00	30900-45	4.57	37701-4.57
67.50	0.45	0.30	1.50	30900-67.5	6.76	37701-6.76
90.00	0.60	0.30	2.00	30900-90	8.96	37701-8.96
112.50	0.75	0.30	2.50	30900-112.5	11.42	37701-11.42

Accessories

Article designation	Order no.
Cold connection cable for extension 0.75 mm², black / 1.00 m	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium sensor sleeve (AD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Point scale controller, analogue, UP	93088
Smart temperature monitoring Clock thermostat with self-learning function, digital	93089
Spare temperature sensor for analogue controller	93088 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

Pleasant radiant heat in each object!

The heating mats of Hemstedt enable the realization of an underfloor heating to any object, because the mats are only a few millimetres thick and can be easily installed anywhere. In general, the electric floor heating is laid directly in the tile adhesive or in a leveling compound. The advantages are obvious:

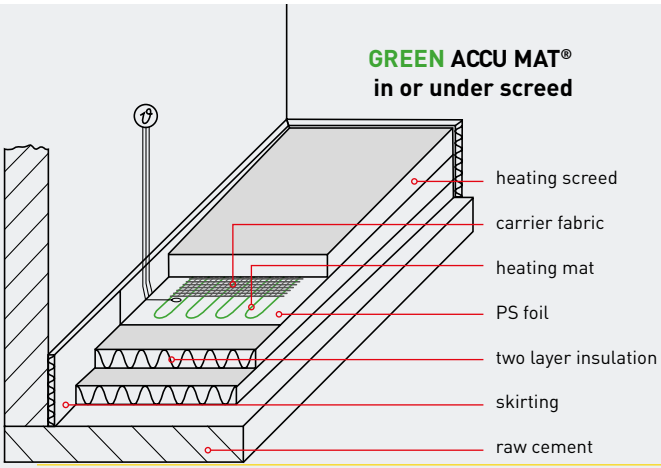
Direct heating effect

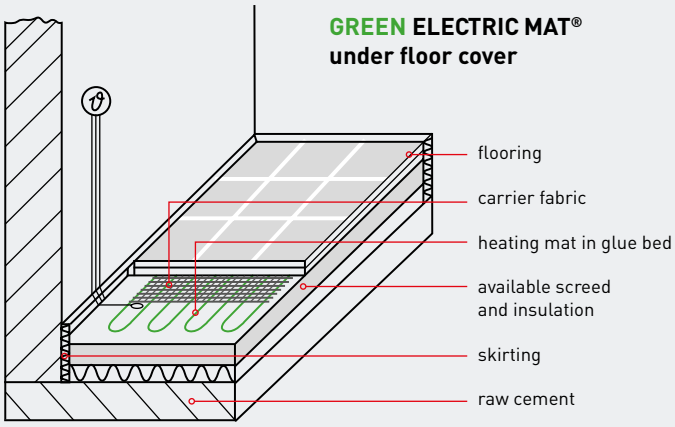
The heating occurs almost immediately, as soon as the electric underfloor heating is switched on, pleasant radiant heat ascends. Long preheating, as necessary when laid deep in the ground, accounting for water-borne underfloor heating or traditional radiators and convectors mounted on the walls, is not necessary, thus saving energy effectively.

Ideal for allergy sufferers

As modern electric underfloor heatings are operated with bottom temperatures of maximal 28 °C, there is a pleasant, slow heat distribution in the room. There arises no violent airflow as e.g. would be necessary in classical radiators. So less dust is whirled. By the warm, dry floor the spread of dust mites is almost completely prevented.

As direct or storage heater





HEMSTEDT® HEM-SYSTEM® ENERGY STORAGE HEATING

With socketless cold/heat transfer

Less energy – more heat!

The energy storage heating **GREEN ELECTRIC MAT®** and **GREEN ACCU MAT®** are forward-looking innovations by Hemstedt.

This is due to the fact that the new green heating mats are ideally tailored for use in low-energy houses, based on Hemstedt's thin-bed heating mat technology, which has been tried and tested for decades.The duplicated, low-power heating system allows for more needs-based heating, thereby saving energy: If heat is needed, then two heating conductors heat the floor much more quickly to the desired temperature than a heating mat with only one heating circuit.

If the optimum floor temperature is reached, then a circuit is automatically disabled, and the room temperature is maintained with significantly less energy usage than conventional systems.

100% climate-neutral heating – conserve resources!

If the green heating mats are powered in combination with a photovoltaic system or with wind or hydroelectric power, then not only are you heating in a climate-neutral manner, but with a + for the environment. This is due to the fact that, whereas fossil fuels release CO^2 and regenerative energy sources such as pellet fuels only emit as much CO^2 into the atmosphere as forest replanting can absorb, no CO^2 is produced when heating with electricity from the right energy source and the forest may grow and convert CO^2 produced elsewhere into oxygen.

Thus, you are making a valuable contribution to climate protection with the Hemstedt green heating mats and the right energy mix!

A PLUS FOR THE ENVIRONMENT! A PLUS FOR THE FUTURE

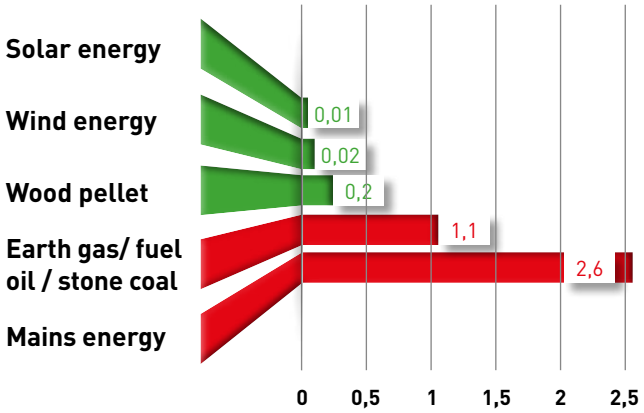
Store Energy – Optimize Self-Consumption

The **GREEN ACCU MAT®** takes up the somewhat disputed idea of a "storage heater", in version 2.0, however! That is to say, when combined with an intelligent control system, it will only heat when more electricity comes from a photovoltaic system than what is currently being consumed. Due to the fact that the **GREEN ACCU MAT®** is installed deep under the floor screed in concrete, energy is stored as heat here and slowly emitted for hours without having to use extra energy. In the near future in "intelligent power systems", it will be possible to heat whenever excessive wind energy is available, for instance. This allows for networks peaks to be decreased, which would otherwise lead to destabilisation in the power supply. The control systems required for it are already available today, and they not only monitor your heating but they also turn on the washing machine or dryer, for instance. By the way, retrofitting this type of control system is no problem!

Energy storage operation + self-consumption

Primary energy factor, CO^2 and resource availability by green electricity.

The primary energy factor indicates the amount of primary energy required to produce for one kilowatt-hour end energy. It is an expecially important indicator by fossil fuel energy carriers for economical and environmental friendly extraction of electrical and heating warmth.



EU Climate Protection Objective: On the right track to the 20-20-20 pact with the Hemstedt green heating mats!

In 2009, the EU decided to achieve the following goals by 2020: 20% less greenhouse emissions (CO^2), 20% less primary energy consumption, and 20% greater energy efficiency.

The green heating mats by Hemstedt make it possible to heat without even producing a single gram of greenhouse gas.

A significant amount of energy can be saved compared to conventional floor heaters.

Intelligent control systems ensure demand-oriented, targeted heating and thus, greater energy efficiency.

Using the **GREEN ELECTRIC MAT®** and **GREEN ACCU MAT®** , will achieve greater economy since the low heat load is covered threefold.

Profit from Factor 3.

The heating load of new low energy housing is **below 40 W/m²** and therefore the operation efficiency of **electrical heating** increases in comparison to **oil heating.**

The heating load of old housing accounts for approx. 120 W/m². This causes the calculation outcome result of factor 3.

The **GREEN ELECTRIC MAT®** and **GREEN ACCU MAT® heating storage** conforms to low energy requirements for low energy housing.

A higher economical operation coverage of Factor 3 is achieved using the **GREEN ELECTRIC MAT®** and **GREEN ACCU MAT®** .

Old housing

Low energy housing

$$\frac{120\ W/m^2}{40\ W/m^2} = \text{Factor 3}$$

Use green energy economically

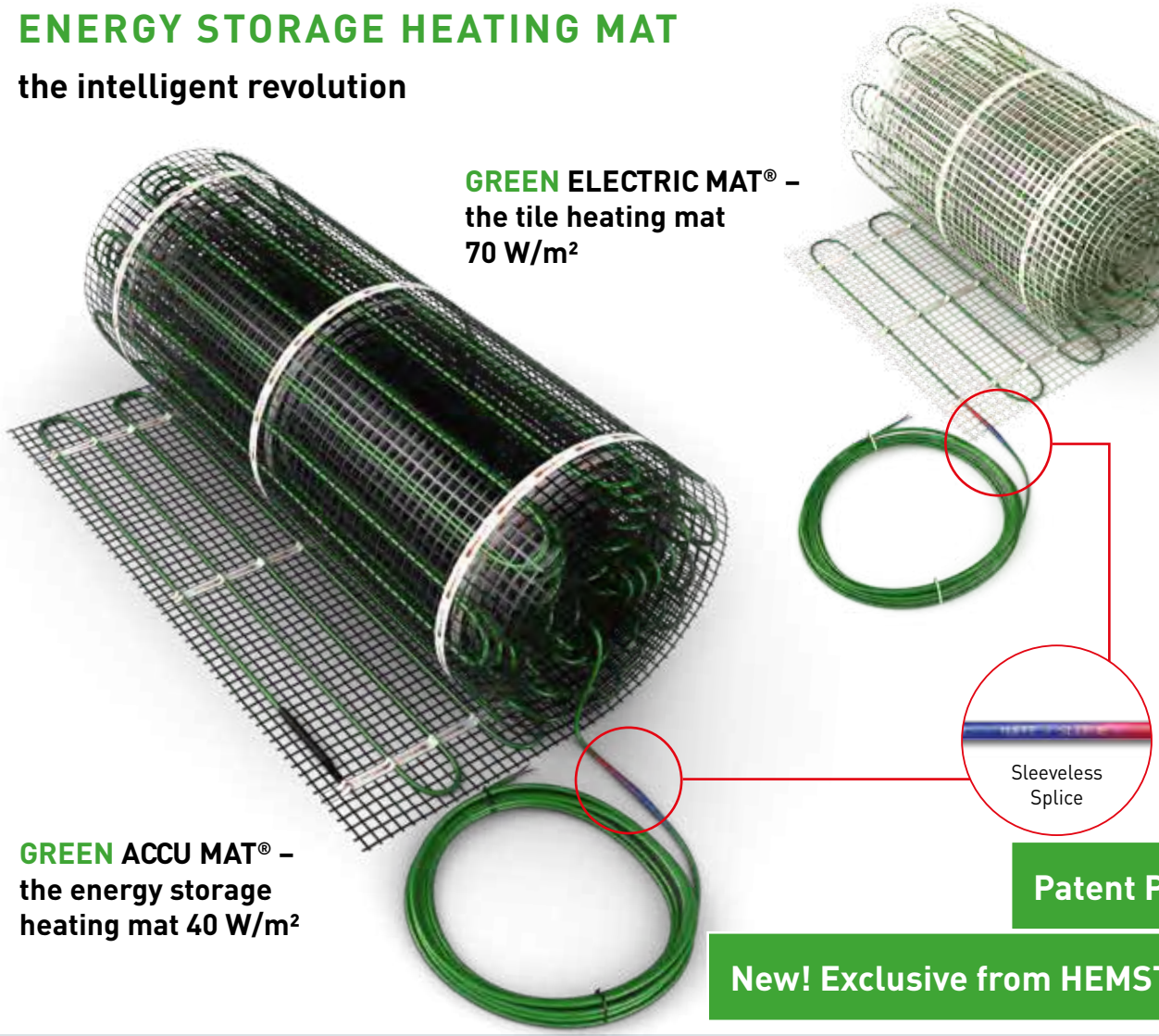
Special and night charge rates for regional green energy make targeted power supply to the possible for the **GREEN ELECTRIC MAT®** and **GREEN ACCU MAT®**.

The advantages:

+ Better usage of green electricity
+ Usage of own PV power
+ Optimized balance from electricity producer and usage
+ Participation to the stabilization and relief of networks

ENERGY STORAGE HEATING MAT

the intelligent revolution



GREEN ELECTRIC MAT® – the tile heating mat 70 W/m²

GREEN ACCU MAT® – the energy storage heating mat 40 W/m²

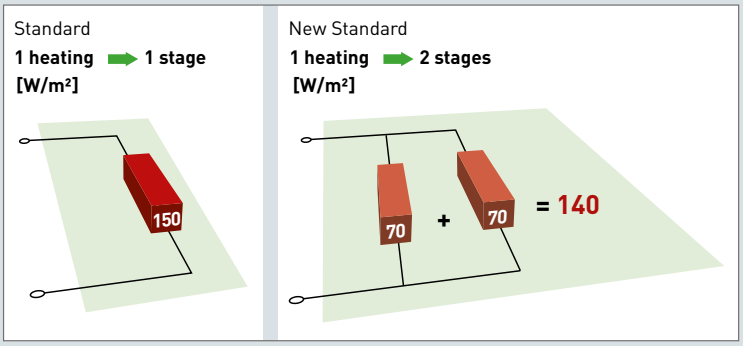
Patent Pending!

New! Exclusive from HEMSTEDT!

HEMSTEDT® Technology inside example of the GREEN ELECTRIC MAT®

Advantages overview:

- Energy storage operation
- Thin heating system thank thinner sleeveless termination
- Reserve heating circuit creating double safety in case of active heating circuit failure



NEW!

GREEN ACCU MAT®, storage or direct heating

The perfect storage heating for any low-energy-house

GREEN ACCU MAT® – The energy storage underfloor heating

The mat is an energy storage heating-mat by Hemstedt. It is ideal for new buildings as well as for the renovation of old buildings. It not only has the advantages of an underfloor heating but it also makes a valuable contribution to environmental protection, because it revolutionizes the idea of the night storage heating. The mat layed deep into the ground and uses concrete and screed as storage medium for heat energy.

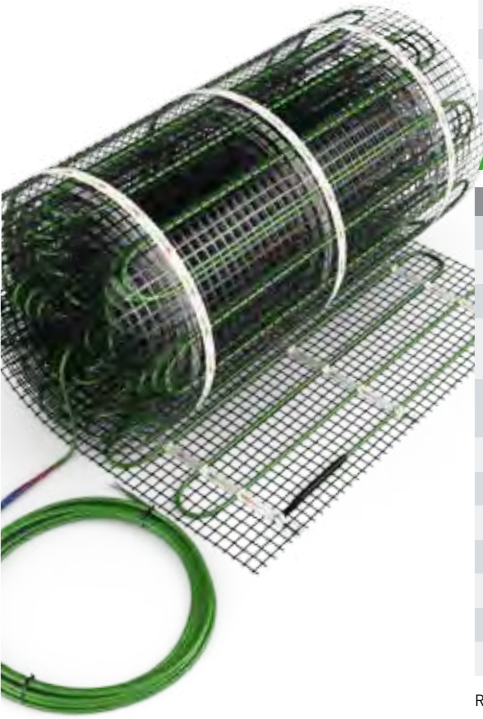
Technical data

Operation voltage	230 Volt
Power output	approx. 40 / 40 / 80 W/m²
Cold lead	1 x 4.00 m
Min. installation temperature	5 °C
Max. temperature cable sheath	65 °C
Min. bending radius	5 x O.D.
Resistance tolerance	-5 % / +10 %
VDE Regulation	acc. to IEC60800 Ed.3
Cold/Warm connection	sleeveless splice, without shrink sleeve
Insulation	XLPE
Delivery width	0.85 m / 0.50 m
Calculation width	1.02 m / 0.67 m

2x40=80W/m² 230 V

GREEN ACCU MAT®

Heating output W 2 x 40 W/m²	Installation aera m²	Calculation width m	Heating mat m length m	Order no.
2 x 64	1,61	0,67	2,40	31875-64/64
2 x 102	2,55	0,67	3,80	31875-102/102
2 x 137	3,42	0,67	5,10	31875-137/137
2 x 180	4,49	0,67	6,70	31875-180/180
2 x 225	5,63	0,67	8,40	31875-225/225
2 x 255	6,37	0,67	9,50	31875-255/255
2 x 275	7,04	1,02	6,90	31875-275/275
2 x 329	8,57	1,02	8,40	31875-329/329
2 x 407	10,10	1,02	9,90	31875-407/407
2 x 474	11,73	1,02	11,50	31875-474/474
2 x 541	13,26	1,02	13,00	31875-541/541
2 x 619	15,20	1,02	14,90	31875-619/619
2 x 670	17,34	1,02	17,00	31875-670/670
2 x 779	19,28	1,02	18,90	31875-779/779
2 x 860	21,22	1,02	20,80	31875-860/860
2 x 925	23,26	1,02	22,80	31875-925/925
2 x 1019	26,32	1,02	25,80	31875-1019/1019



Accessories

Description	Order no.
Cold lead extension 3 x 1.50 mm², 1.00 m, black	81302-1.50 BL/SW
Cold lead extension 4 x 2.50 mm², 1.00 m, black	81302-2.50 BL/SW
Installation sleeve (1 pc. factory terminated) for extension	26182
Installation/repair set with cold lead cable 1 x 5.00 m (1.50 mm²) including 1 sleeve for extension	26183
Installation/repair set with cold lead cable 1 x 5.00 m (2.50 mm²) including 1 sleeve for extension	26190
Plastic nail for securing (Pkg. = 100 pc.)	20304
Sensor lead extension 1.00 m	20090
Two heating circuit controller	93085
Solar-Log 1200	93120
24 V DIN rail relay with operation lamp	93121
DR-15-24, 24 V DIN rail power supply	93122
Digital S_0 consumption counter	93123

Regulations require installation of an earth leakage circuit breaker (ELCB) for protection.

GREEN ELECTRIC MAT®

NEW!

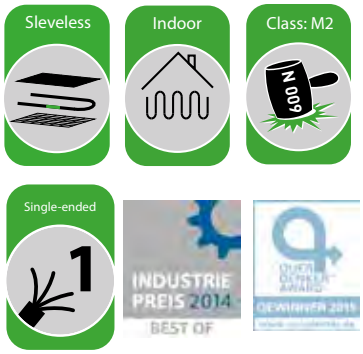
The energy-saving underfloor heating for the energy revolution!

Save up to 70% energy with underfloor heating in low-energy houses!

Thin-bed heating mats for low-energy houses

The low energy requirements of modern homes and the increasing reorientation away from fuels such as coal, gas or oil, towards regenerative energy sources, such as wind, water or sun, provide optimal conditions for the use of modern and reliable thin-bed heating mats as the GREEN ELECTRIC MAT®.

Old buildings often have a heat demand of 140 Watt / m². Many modern low-energy houses only need one-third or even less. Therefore, it was time to develop an electric floor heating which is adapted to these needs. The GREEN ELECTRIC MAT® has a heating power of 70 Watt / m². It is therefore ideally suited to the challenges of the future.



Technical data

Operation voltage	230 Volt
Power output	approx. 70 / 70 / 140 W/m²
Cold lead	1 x 4.00 m
Min. installation temperature	5 °C
Min. bending radius	6 x O.D.
Resistance tolerance	-5 % / +10 %
VDE Regulation	acc. to IEC60800 Ed.3
Cold/Warm connection	sleeveless splice, without shrink sleeve
Insulation	Fluor plastic
Delivery width	0.46 m
Calculation width	0.50 m

2x70=140 W/m² 230 V

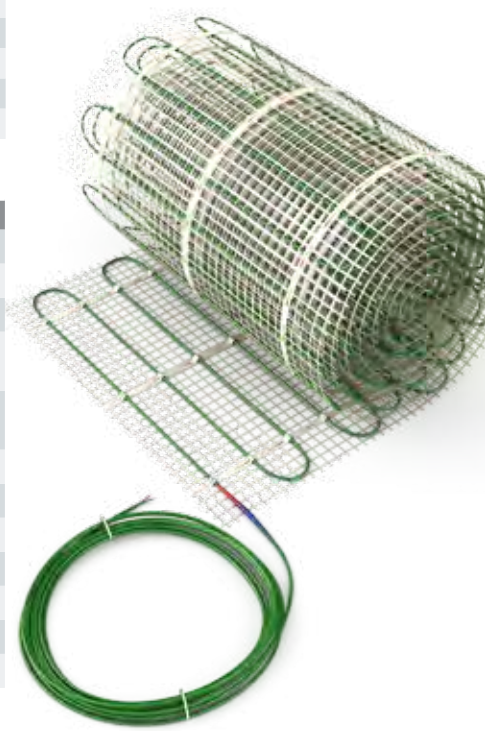
GREEN ELECTRIC MAT® PV

Heating output W 2 x 40 W/m²	Installation area m²	Calculation width m	Heating mat length m	Order no.
2 x 70	1.00	0.50	2.00	30770-70/70
2 x 105	1.50	0.50	3.00	30770-105/105
2 x 140	2.00	0.50	4.00	30770-140/140
2 x 175	2.50	0.50	5.00	30770-175/175
2 x 198	3.00	0.50	6.00	30770-198/198
2 x 238	3.50	0.50	7.00	30770-238/238
2 x 275	4.00	0.50	8.00	30770-275/275
2 x 300	4.50	0.50	9.00	30770-300/300
2 x 343	5.00	0.50	10.00	30770-343/343
2 x 423	6.00	0.50	12.00	30770-423/423
2 x 488	7.00	0.50	14.00	30770-488/488
2 x 562	8.00	0.50	16.00	30770-562/562
2 x 611	9.00	0.50	18.00	30770-611/611
2 x 715	10.00	0.50	20.00	30770-715/715

Accessories

Description	Order no.
Cold lead extension 3 x 1.50 mm², 1.00 m, black	81302-1.50 BL/SW
Cold lead extension 4 x 2.50 mm², 1.00 m, black	81302-2.50 BL/SW
Installation sleeve (1 pc. factory terminated) for extension	26182
Installation/repair set with cold lead cable 1 x 5.00 m (1.50 mm²) including 1 sleeve for extension	26183
Installation/repair set with cold lead cable 1 x 5.00 m (2.50 mm²) including 1 sleeve for extension	26190
Plastic nail for securing (Pkg. = 100 pc.)	20304
Sensor lead extension 1.00 m	20090
Two heating circuit controller	93085
Solar-Log 1200	93120
24 V DIN rail relay with operation lamp	93121
DR-15-24, 24 V DIN rail power supply	93122
Digital S_0 consumption counter	93123

For safety reasons, a ground fault circuit inerruptor (< 30mA) is mandatory.



GREEN ACCU MAT UND GREEN ELECTRIC MAT

Hemstedt innovations - signed and sealed.

INDUSTRIE PREIS 2016
BEST OF

With these new resource-saving heating mats we have not only introduced a high-quality, German-made product on the market, with which you can heat in a 100% climate-neutral manner, but also an outstanding, innovative, and forward-looking product. This is proven by the 2014 industry prize.

An independent jury composed of approximately 30 professors of reputable German universities and research institutes along with trade journalists and industry representatives decide on whom to issue the prize for more than 5000 submitted products in this contest which has been regularly held since 2000.

Crucial factors include product maturity and an orientation for the future, but also effective use, increased efficiency, and practical relevance.

The jury members' requirements are clear:

» For me, innovation means that a product or process significantly and surprisingly stands out from the known state of the art.

Prof. Dr. Thorsten M. Buzug,
University of Lübeck

» An innovative industry solution makes use of current technical and scientific potential, is light on resources, and offers new functionality and absolute safety while offering the highest level of user friendliness.

Prof. Dr. Rainer Laur,
University of Bremen


INDUSTRIE PREIS 2016
BEST OF

BEST OF 2016
ENERGIE & UMWELT

Die Huber Verlag für Neue Medien GmbH prämiert mit dem INDUSTRIEPREIS besonders fortschrittliche Industrieprodukte mit einem hohen wirtschaftlichen, gesellschaftlichen, technologischen und ökologischen Nutzen. Die Experten-Jury zeichnet mit dem Prädikat BEST OF 2016 aus:

FIRMA
Hemstedt GmbH

PRODUKT
GREEN ACCU MAT® – die energiesparende Fußbodenheizung für die Energiewende!

Das ausgezeichnete Unternehmen hat die Jury überzeugt und gehört damit zur Spitzengruppe der eingereichten Bewerbungen. Eine unabhängige Fachjury bestehend aus Industrie-Branchenexperten, Professoren und Fachjournalisten bilden den erlesenen Kreis der Preisrichter. Sie sorgen für maximale Objektivität und machen den Preis in der Industriebranche so einzigartig.

Beate Heider
Geschäftsführung

Rainer Kömel
Geschäftsführung

www.industriepreis.de

Hemstedt therefore stands out once more from the masses and demonstrates that proven quality, coupled with a forward-looking innovative spirit, are the ingredients for customer-oriented, successful products.

Querdenker Award 2015 – With Genscher and Gottschalk in the best company!

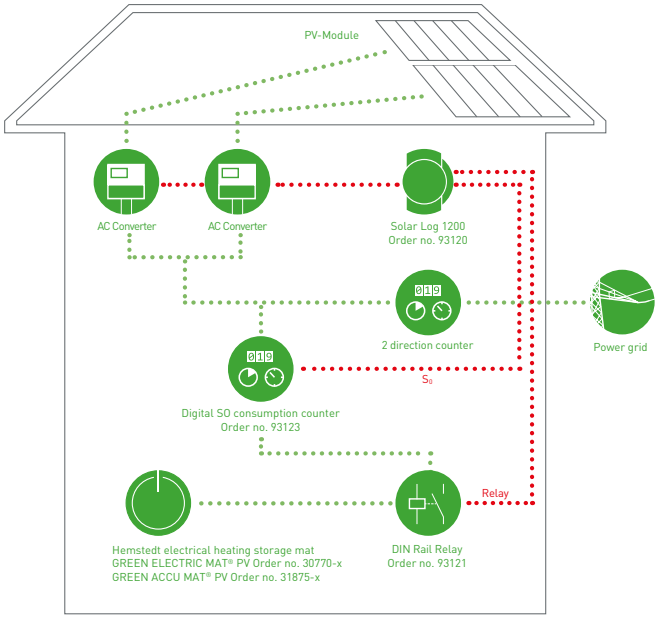
Breaking new ground, leaving old ways of thinking. Only this can make future innovative. And it is this ability the prestigious jury of the „Querdenker Club" awards anually since 2009. 2015 the coveted trophy went to Germany´s former foreign minister Hans-Dietrich Genscher and to TV legend Thomas Gottschalk and - to Hemstedt!

For new ideas and innovations in the field of energy saving and resource conservation. Thus, the Swabian family-run company stands out from the crowd again with this award for its products **GREEN** Products **GREEN ELECTRIC MAT®** und **GREEN ACCU MAT®** and sets new standards in the field of electric underfloor heating!

Hemstedt is awarded the Querdenker Award mainly because of future-oriented heating mats such as energy storage heaters!

SELF-CONSUMPTION OPTIMIZATION

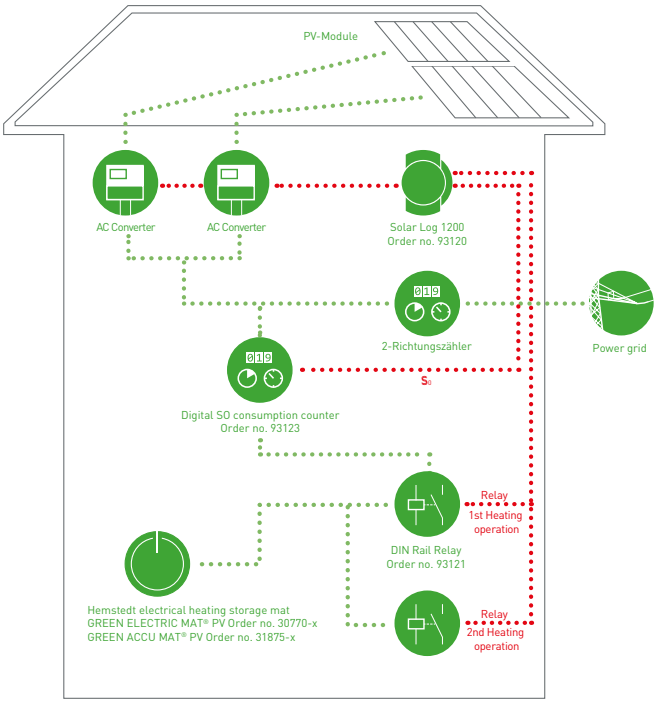
Solar Log™ and HEMSTEDT energy storage heating mat



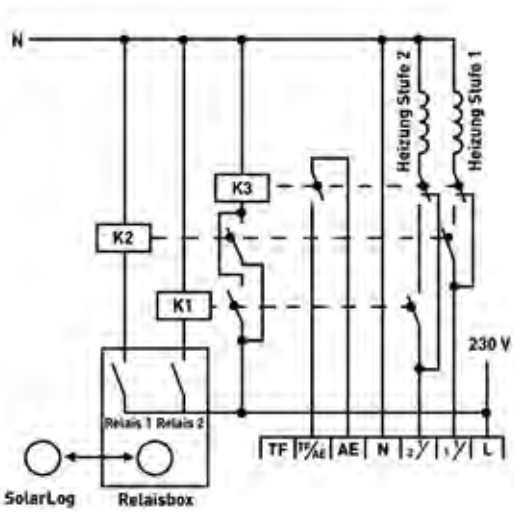
With Solar-Log™, you control the **GREEN ELECTRIC MAT®** or **GREEN ACCU MAT® .**
The available solar energy is constantly checked and heating is activated through Solar-Log™.

Example:
In a 7 kWp system and an assumed heating proportion of 5 kW, a large percentage of the required energy can be covered free of charge using PV (solar energy).
The PV system is monitored using the Solar- Log™, whereby other loads in the house are controlled as well. To that end, an integrated, potential-free relay contact is used in the Solar-Log 1200.
For this optimisation a rail mounted power supply unit (Order No. 93122) and a relay (Order No. 93121) and a consumption meter (Order No. 93123) are required in addition to the Solar-Log 1200.

Alternatively-Controlling the
DUAL CIRCUIT CONTROLLER

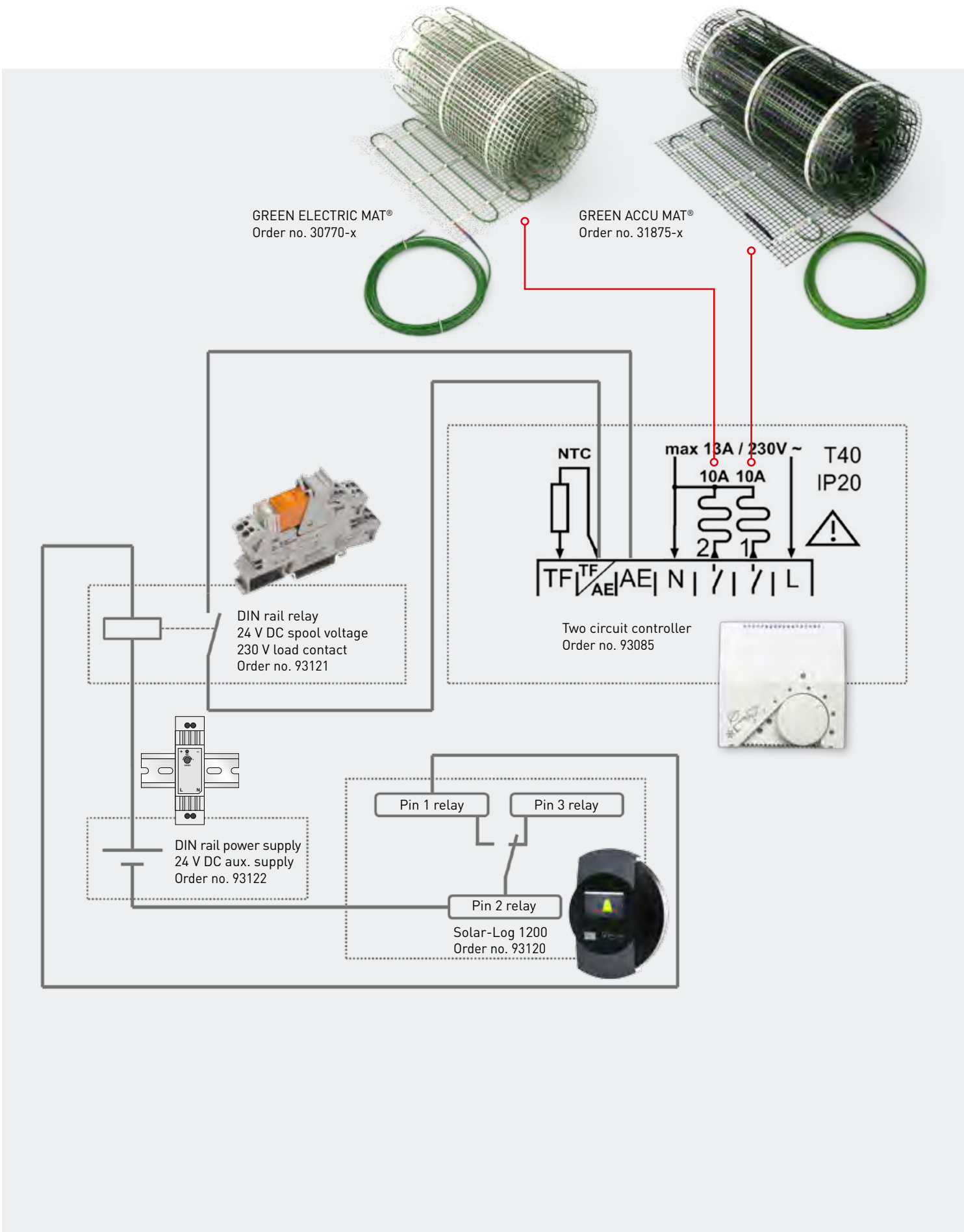


Advantage:
Depending on the amount of solar yield, the comfort heating circuit (70 W/m²) is used, and/or the reserve heating circuit (+70 W/m²) is additionally-operated in case of surplus.



FUNCTIONS

Wiring diagram for the GREEN ELECTRIC MAT® and GREEN ACCU MAT®



TWO CIRCUIT CONTROLLER – EVERYTHING UNDER CONTROL

for the GREEN ELECTRIC MAT®, floor tile heating and GREEN ACCU MAT®, storage heating

The switch allows the choice of heating operation

Indoor

Ideal for self-consumption

Order no. 93085

The HEMSTEDT two circuit controller is specially designed for the GREEN ELECTRIC MAT® and GREEN ACCU MAT® . The desired floor temperature is set using the dial and a slide switch allows the choice of heating operation.

In addtion to the basic setting function of the floor heating [heating circuit 1, heating circuit 1+2], the controller can receive information from the PV installation and ensure that the heating system only utilises "free" PV electricity to heat.

The operation modes can be freely chosen:

- Heating off with frost protection active
- Only PV unit in connection with Solar Log and relay station
- Electrical grid and PV operation

The heating circuit 1 or both heating circuits will be in operation depending on the difference between the actual floor temperature and set temperature.

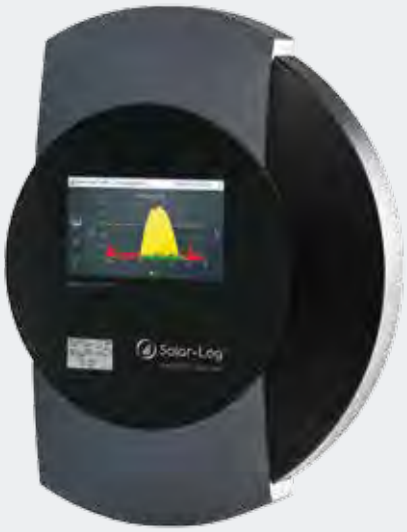
Technical data

Operation voltage	AC 230 V ±10 %, 50 Hz
Operation load	13 A by AC 230 V; 2-pole with seperate relays, each max 10 A
Switch hysterese	1 ±0.5 K, depending on the floor temperature
Floor temperature limiting	setting range from 30 to 40 °C in 5 K steps
Maximum setting range of the set temperature dial	10 to 40 °C
Floor sensor safety	for short circuit and fault
Installation the housing box	according to DIN 49073, in-wall
Protection classification	II, by associated installation
Protection type	IP20, operation by room temperature
Unit safety and EMC	according to EN 60730-1, EN 60730-2-9, EN 50559
Sensor	2 m

New! The two heating circuit controller is in accordance with the EN 50559:2013 (VDE0705-559): The regulation is valid for electrical floor heating, with a maximum floor weight of 4 kN/m², for housing and all other buildings in which there is housing or simular. The regulation defines the main characteristics of electrical floor heating and defines the test methods of these characteristics for user information.
Particularities of the two circuit controller: the heating function can be time limited according to DIN when the heating power is over 120 W/m².

SOLAR-LOG 1200 datalogger for solar units

Universal talent for small to middle size PV units



Indoor

Manages PV yielding!

Order no. 93120

The shapely designed unit for outfall and yielding supervision with TFT color touch screen and a smaller status LCD display.

Unit size
The Solar-Log 1200 is compatible with all standard available AC converters. Various amounts of AC converters up to 100 kWp from maximum two different manufacturers can be connected.

Self-consumption usage
The Solar-Log 1200 is also available in the Solar-Log 1200 Meter model. Here the consumption counter is integrated in the datalogger. This saves considerable installation time and costs. With the Solar-Log Meter, up to two three-phase wires can be connected single or coupled for supervision and illustration. Thank the extended S0 serial interface with two inputs, an external consumption counter may be connected.

The **GREEN ACCU MAT®** and **GREEN ELECTRIC MAT®** can be easily controlled to increase the power output with help of the standard integrated relays.

Power supply relays and a consumption counter (S0) are required for usage measurement.

Technical data Solar-Log 1200

- Max. unit size 100 kWp
- Optional power management
- TFT color touch screen 4,3"
- LCD status display
- Supervision, optimization, and control of self-comsumption possible
- 1 x USB
- 1 x potential free contact
- Number AC converter user-defined, max. 2 manufacturer
- Optional variables:
- WiFi, Bluetooth, GRPS, PM+, PM+/WiFi, PM+/GRPS, Meter
- Optional unit supervision
- Failures are immediately detected

2-stage heating - in a single heating mat

TWIN TURBO MAT® –
The intelligent revolution

TWIN TURBO MAT® – the underfloor heating 220 W/m²

Patent Pending!

New! Exclusive from HEMSTEDT!

TWO CIRCUIT CONTROLLER – everything under control
for the TWIN TURBO MAT®, floor heating

The HEMSTEDT two circuit controller is specially designed for the High Speed Floorheating.

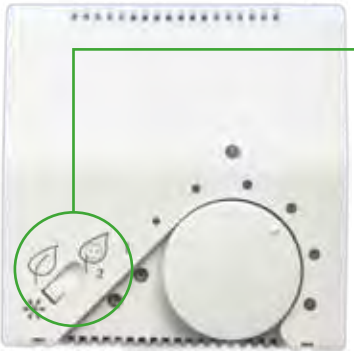
The operation modes can be freely chosen:

- Heating off with frost protection active

The heating circuit 1 or both heating circuits will be in operation depending on the difference between the actual floor temperature and set temperature.

Order no. 93085

The desired floor temperature is set using the dial and a slide switch allows the choice of heating operation.



Ideal for high speed heating

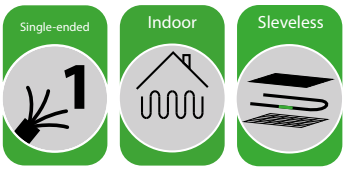
Technical data

Operation voltage	AC 230 V ±10 %, 50 Hz
Operation load	13 A bei AC 230 V; 2-pole with seperate realays, each max 10 A
Switch hysterese	1 ±0.5 K, depending on the floor temperature
Floor temperature limiting	setting range from 30 to 40 °C in 5 K steps
Maximum setting range of the set temperature dial	10 to 40 °C
Floor sensor safety	for short circuit and fault
Installation the housing box	according to DIN 49073, in-wall
Protection classification	II, by associated installation
Protection type	IP20, operation by room temperature
Unit safety and EMC	according to EN 60730-1, EN 60730-2-9, EN 50559
Sensor	2 m

New! The two heating circuit controller is in accordance to the EN 50559:2013 (VDE0705-559):
The regulation is valid for electrical floor heating, with a maximum floor weight of 4 kN/m², for housing and all other buildings in which there is housing or simular. The regulation defines the main characteristics of electrical floor heating and defi nes the test methods of these characteristics for user information. Particularities of the two circuit controller: the heating function can be time limitied according to DIN when the heating power is over 120 W/m².

HEM-SYSTEM®
TWIN TURBO MAT®
The tile heating

TWIN TURBO MAT® with one side termination and sleeveless splice is the floor tile heating mat for more effi cient heating. The heating mat is installed in the til glue. The especially thin mat with thinner, sleevless splice technology is designed for usage in old and low energy housing.



Technical Data

Operation voltage	230 Volt
Power output	approx. 70 / 70 / 140 W/m²
Cold lead	1 x 4.00 m
Min. installation temperature	5 °C
Min. bending radius	6 x O.D.
Resistance tolerance	-5 % / +10 %
VDE Regulation	acc. to IEC60800 Ed.3
Cold/Warm connection	sleeveless splice, without shrink sleeve
Insulation	Fluor plastic
Delivery width	0.46 m
Calculation width	0.50 m

2x110=220 W/m² 230 V

TWIN TURBO MAT®

Heating output W 2 x 40 W/m²	Installation area m²	Calculation width m	Heating mat length m	Order no.
2 x 110	1,00	0.50	2.00	30771-110/220
2 x 105	1.50	0.50	3.00	30771-105/330
2 x 220	2.00	0.50	4.00	30771-220/440
2 x 275	2.50	0.50	5.00	30771-275/550
2 x 330	3.00	0.50	6.00	30771-330/660
2 x 385	3.50	0.50	7.00	30771-385/770
2 x 440	4.00	0.50	8.00	30771-440/880
2 x 495	4.50	0.50	9.00	30771-495/990
2 x 550	5.00	0.50	10.00	30771-550/1100
2 x 660	6,00	0,50	12,00	30771-660/1320

Accessories

Description	Order no.
Cold lead extension 4 x 1.50 mm², 1.00 m	81302-1.50
Installation sleeve (1 pc. factory terminated) for extension	26173
Sensor lead extension 1.00 m	20090
Smart temperature monitoring Clock thermostat with self-learning function and sensor, U-UP	93089
Analogue point scale regulator with sensor, up to 35 °C, flush	93088
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Spare temperature sensor for two-circuit controller	93085
Repair sleeves on request	

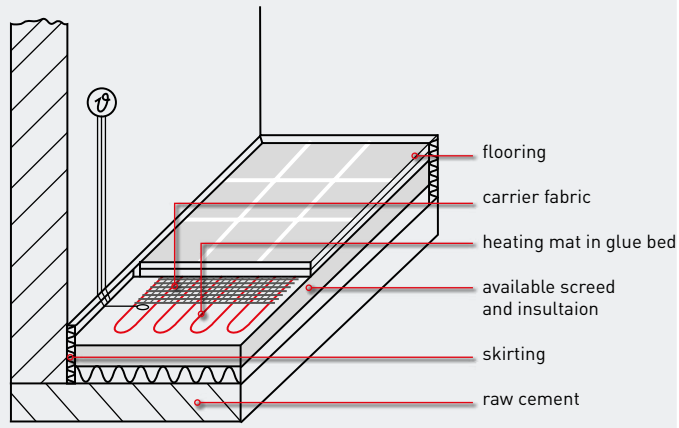
Regulations require installation of an earth leakage circuit breaker (ELCB) for protection.

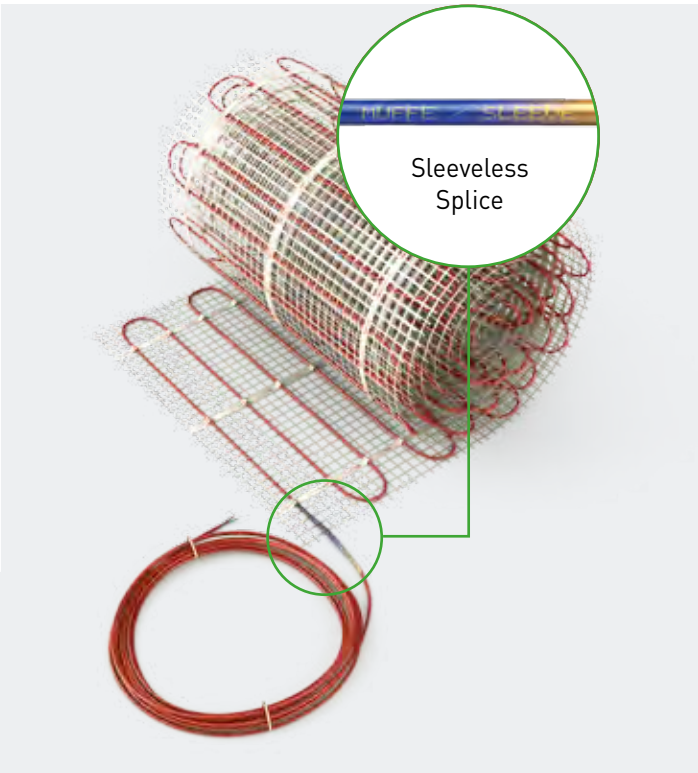
The temperature controllers with the order numbers 93088 and 93089 are only designed for a heating circuit with up to 16 A / 230 V. Compatible with the switching program due to interim frame 50 x 50 mm.

TWIN TURBO MAT®

the profi table thin heating mat for tiles

TWIN TURBO MAT® under the flooring





Patent Pending!

Immediate warm floor

TWIN TURBO MAT®
the tile heating mat

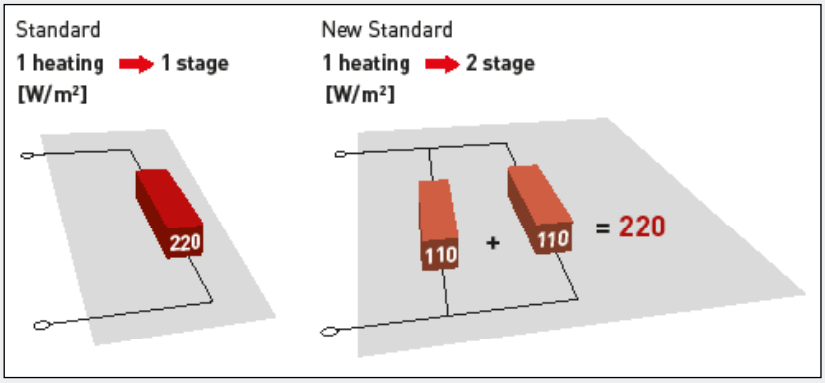
The **TWIN TURBO MAT®** is the tile heating mat for economical heating. The heating mat is installed within the tile adhesive layer. This especially thin heating mat with thinner, sleeveless splice can be used in renovation work as well as new low energy housing.

- **+ Reserve heating stage with 110 W/m² (additionally powered if required for fast heat-up)**
- **+ Comfort heating stage with 110 W/m²**
- **+ Reserve heating stage + comfort heating stage = fast heat-up with total 220 W/m²**

HEMSTEDT Technology inside example of the TWIN TURBO MAT®

Advantages overview:

- Energy storage operation
- Thin heating system thank thinner sleeveless termination
- Reserve heating circuit creating double safety in case of acive heating circuit failure



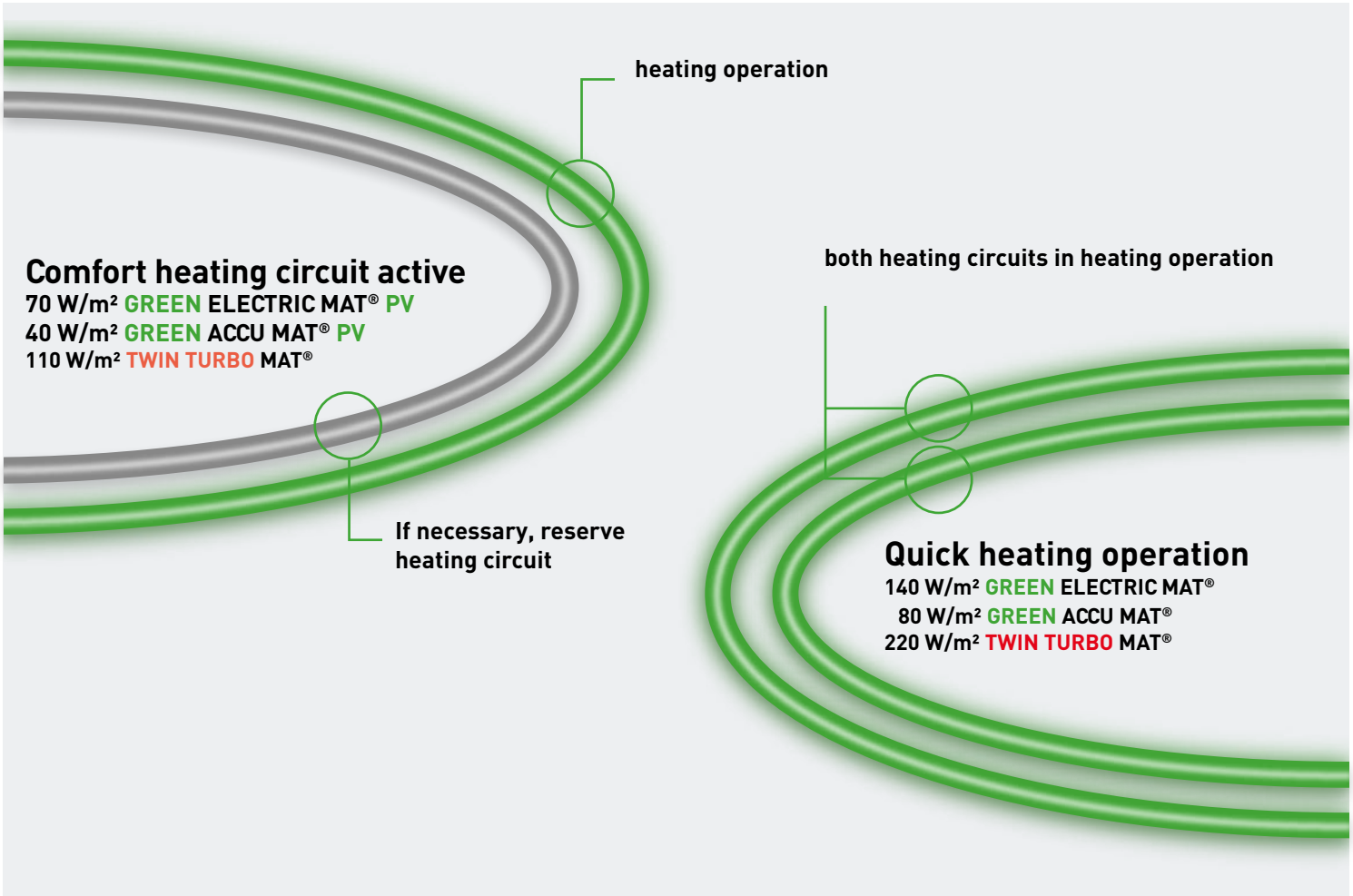
DOUBLE SAFETY:

Heating cable + Reserve heating cable

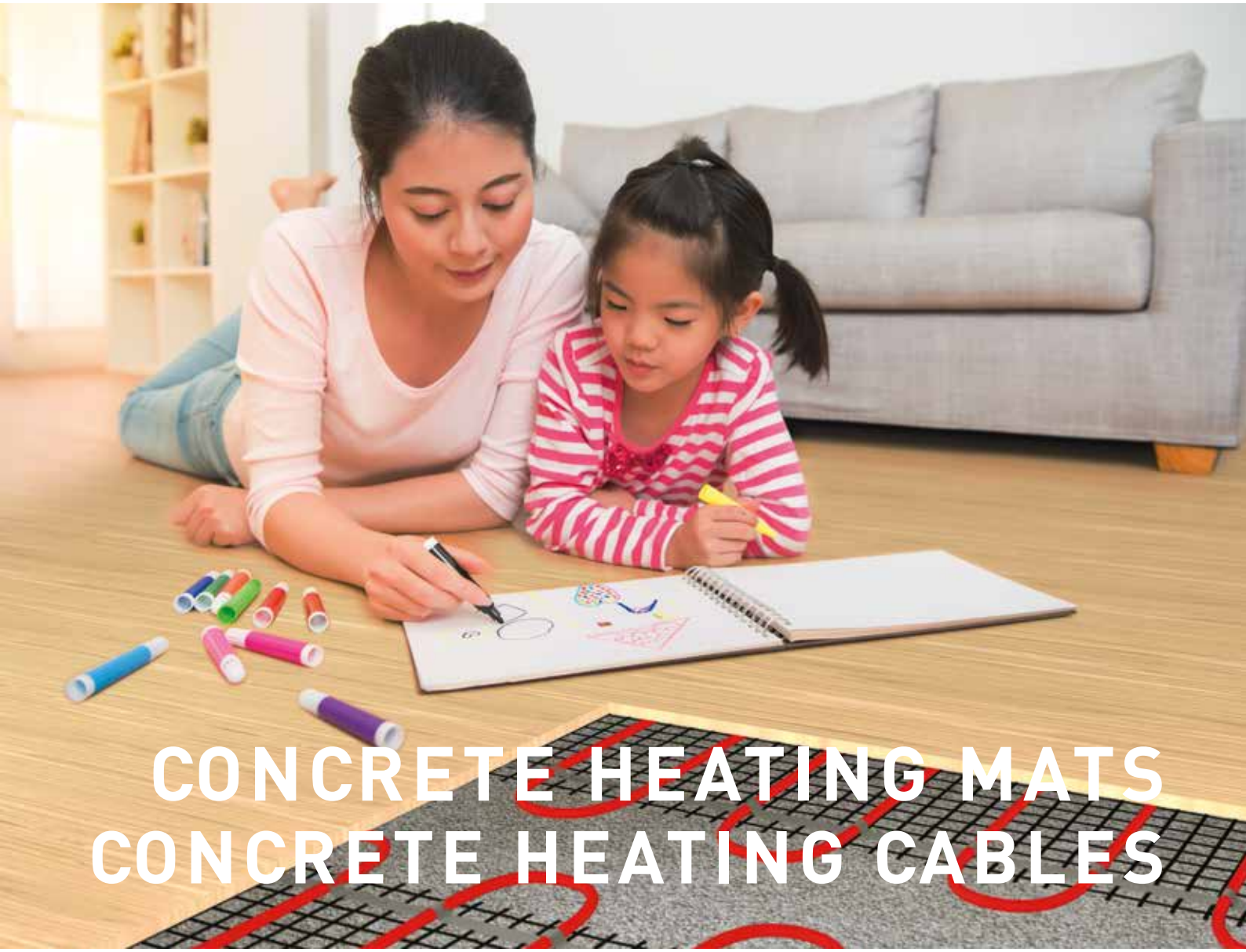
TWIN TURBO MAT® and **GREEN ACCU MAT®** are energy storage heating mats from HEMSTEDT with built-in safety and both systems have been filed at the European Patent Office. Both heating mats have a reserve heating cable that ensures comfort heating operation can be maintained even by failure of one heating circuit.

Your advantages:

- You receive a heating mat set with two **identical** heating circuits.
- You avoid a cold room in case of a possible heating circuit failure.
- You save extensive costs for time costing troubleshooting and repair.



HEM-SYSTEM®
FLOOR HEATING MATS - AND CONCRETE HEATING PIPES



CONCRETE HEATING MATS
CONCRETE HEATING CABLES

As direct or storage heater

BR-IM CONCRETE HEATING PIPES

DIN EN/IEC 60800

Suitability for concrete and screed tested by VDE

Concrete Heating Cables with **single-end connection cable** and sleeveless splice. Ideal for melting ice and snow in out- door areas as well as for installation in concrete and sand for melting snow and ice. Likewise suitable for outdoor areas, e.g. stairways. Not in Bitumen.

MADE IN GERMANY
MADE BY HEMSTEDT

Technical Data

Nominal voltage ..... 230 Volt
Output ..... 17 W/m
Cold connection cable ..... 1 x 4,00 m (1,00 mm²)
Minimum laying temperature ..... 5 °C
Max. temperature outer sheath ..... 65 °C
Smallest bending radius ..... 5 x dA
Resistance tolerance ..... -5 % / +10 %
Ccld-/warm splice ..... sleeveless, without shrink technology
Outer diameter ..... ca. 7,50 mm
Insulation ..... 310 W, XLPE ab 410 W

17 W/m

BR-IM Concrete Heating Cable

Heating Output W	Element lenght m	Order No.
150	8,86	37710-8,86
220	13,75	37710-13,75
300	18,50	37710-18,50
400	24,77	37710-24,77
500	31,04	37710-31,04
600	34,74	37710-34,74
700	40,59	37710-40,59
850	49,35	37710-49,35
1000	58,11	37710-58,11
1250	72,71	37710-72,71
1500	87,32	37710-87,32
1700	99,00	37710-99,00
1900	110,69	37710-110,69
2100	122,37	37710-122,37
2300	134,05	37710-134,05
2600	151,58	37710-151,58
3356	197,00	37710-197,00

Accessories

Article escription	Order no.
Cold connection cable for extension 3 x 2,50 mm², 1,00 m, black	81302-2,50 BL/SW
Mounting sleeve (1, factory fitted), for extension	26182
Plastic fixing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Spare temperature sensor for analogue controller	93088-sensor
Spare temperature sensor for clock thermostat	93089-sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. .

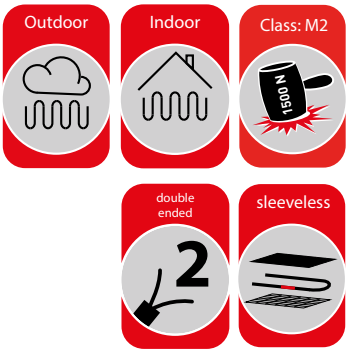
Further information in our installation instructions. Thermostats see page 56.

DIN EN/IEC 60800

BR-IM-Z CONCRETE HEATING CABLES

MADE IN GERMANY
MADE BY HEMSTEDT

Concrete Heating Cables with **double-end connection cable** and sleeveless splice. Ideal for melting ice and snow in out- door areas as well as for installation in concrete and sand for melting snow and ice. Likewise suitable for outdoor areas, e.g. stairways. Not in Bitumen.



Technical Data

Nominal voltage ..... 230 Volt
Output ..... 17 W/m
Cold connection cable ..... 2 x 2,50 m (1,00 mm²)
Minimum Installation ..... 5 °C
Max. temperature outer sheath ..... 65 °C
Smallest bending radius ..... 5 x dA
Restistance tolerance ..... -5 % / +10 %
Cold/ warm splice ..... sleeveless, without shrink technology
Outer diameter ..... approx. 7,00 mm
Insulation ..... PTEE up to 300 W, XLPE ab 410 W

17 W/m

BR-IM-Z concrete heating cables

Heating Output W	Element length m	Order no.
310	18,07	37720-18,07*
410	24,24	37720-24,24
510	30,42	37720-30,42
600	34,55	37720-34,55
700	41,09	37720-41,09
850	49,61	37720-49,61
1000	59,15	37720-59,15
1260	74,28	37720-74,28
1530	89,34	37720-89,34
1750	101,88	37720-101,88
1980	111,79	37720-111,79
2200	124,59	37720-124,59
2430	136,06	37720-136,06
2780	163,34	37720-163,34

* Insulation PTEE

Accessories

Article description	Order no.
Cold connection cable for extension1 x 1,50 mm², 1,00 m, black	81101-1.50 SW
Cold connection cable for extension 1 x 2,50 mm², 1,00 m, black	81101-2.50 SW
Mounting sleeve (1, factory fitted), for extension	26184
Plastic fixing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

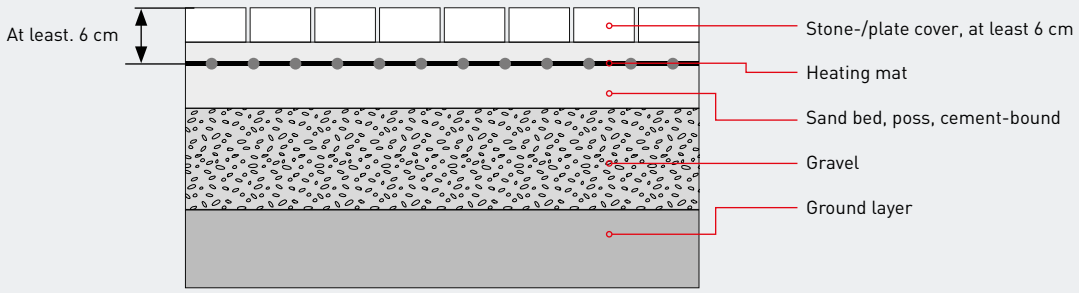
A residual current device (FI < 30 mA) must be provided as a protection measure.

Further information in our installation instructions. Thermostats see page 56.

HEM-SYSTEM®
HEATING MATS AND CABLES FOR OUTDOOR AREAS

for concrete, screed and sand

Secure installation in sand or concrete!



WITCH HEATING MATS FOR OUTDOOR AREAS, YOU´LL NEVER HAVE TO CLEAR SNOW AGAIN!

Trouble-free installation, easy handling

More safety in winter through heated driveways, footpaths and even lawns thanks to outdoor heating systems!

Paths, bridges, garage entrances, outdoor stairways, ramps, hospital entrances, heliports - many areas have to be kept free of snow and ice in winter for the safe movement of vehicles and people.Hemstedt® offers reliable electrical outdoor area heating systems , concrete, screed and sand. They guarantee the reliable melting of snow and ice and prevent the formation of snow covered and icy surfaces.

The 80 cm wide mats have an effective width of 90 cm and are operated at 230 or 400 V. The connection load at 7 cm installation depth is 300 W/m², 400 W/m² at a greater depth or in other climatic zones.

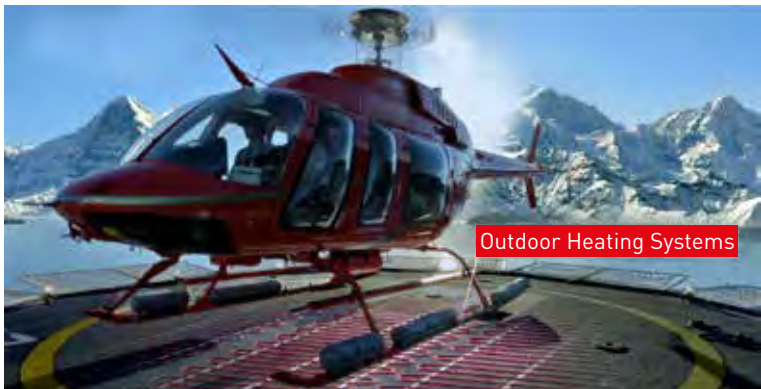
Application area: Concrete, screed and sand
The outdoor area heating mats are rugged and designed for installation in concrete and sand surfaces.

The heating cables are also available as fully pre-assembled reels.

The sleeveless splice is absolutely waterproof, and therefore ideal for installations requiring moisture proofi ng.

Hemstedt
HEM-SYSTEM®
sleeveless

- **Direct from the manufacturer**
- **Factory tested**
- **100 % waterproof**
- **100 % electrical safety**
- **With single and double end connection cable**



BHF-IM HEATING MATS
BRF-IM CONCRETE HEATING CABLES

Outdoor area heating

DIN EN/IEC 60800

HEM SYSTEM® Heating mats and concrete heating cables with **single-end connection cable** and sleeveless splice. Only for outdoor areas!!! Ideal for melting ice and snow in outdoor areas as well as for installation in concrete and sand for melting snow and ice. Not for hot asphalt.

MADE IN GERMANY
MADE BY HEMSTEDT

Technical data

Nominal voltage ..... 230 Volt
Output ..... approx. 27 W/m
Cold connection cable ..... 1 x 7,00 m (1,00 mm²)
Minimum installation temperature ..... 5 °C
Max. temperature outer sheath (colour red) ..... 65 °C
Smallest bending radius ..... 5 x dA
Resistance tolerance ..... -5 % / +10 %
Cold / warm splice ..... sleeveless, without shrink technology
Diameter ..... approx. 7,50 mm
Insulation ..... XLPE

300 W/m² 230 V · supplied width approx. 0,80 m

BHF-IM heating mats

Heat Output W	Surface area m²	calculated width m	Mat leght m	Order no.
891	2,97	0,90	3,30	31800-891
1068	3,56	0,90	3,95	31800-1068
1350	4,50	0,90	5,00	31800-1350
1593	5,31	0,90	5,90	31800-1593
1905	6,35	0,90	7,05	31800-1905
2430	8,10	0,90	9,00	31800-2430

BRF-IM bulk stock (D-COLD RING)

Order no.	Description	Outdoor area konf.	Resistasnce Ohm/Meter	Output Watt	Element leght m
37731-5,00	BRF-IM Beton-Ring F	135 Watt	78,37	135,00	5
37731-10,46	BRF-IM Beton-Ring F	300 Watt	16,86	300,00	10,46
37731-15,00	BRF-IM Beton-Ring F	405 Watt	8,70	405,00	15
37731-32,15	BRF-IM Beton-Ring F	891 Watt	1,85	891,00	32,15
37731-38,10	BRF-IM Beton-Ring	1068 Watt	1,30	1.068,00	38,10
37731-48,29	BRF-IM Beton-Ring F	1352 Watt	0,81	1.350,00	48,29
37731-57,64	BRF-IM Beton-Ring	1593 Watt	0,58	1.593,00	57,64
37731-68,69	BRF-IM Beton-Ring F	1764 Watt	0,40	1.905,00	68,69
37731-75,35	BRF-IM Beton-Ring F	2080 Watt	0,34	2.080,00	75,35
37731-87,38	BRF-IM Beton-Ring F	2430 Watt	0,25	2.430,00	87,38
37731-96,61	BRF-IM Beton-Ring F	2772 Watt	0,20	2.772,00	96,61
37731-107,23	BRF-IM Beton-Ring F	3132 Watt	0,15	3.132,00	107,23
37731-118,42	BRF-IM Beton-Ring F	3249 Watt	0,14	3.248,00	118,42
37731-129,05	BRF-IM Beton-Ring F	3489 Watt	0,12	3.489,00	129,05

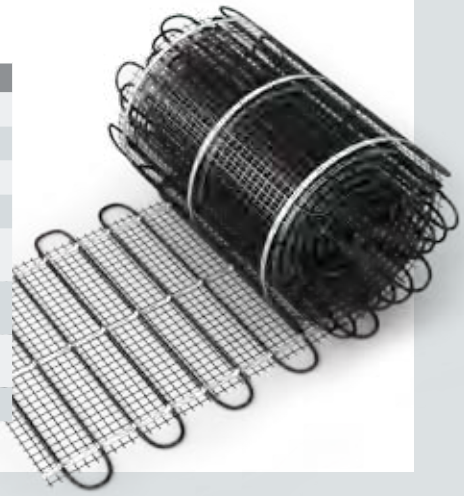
Only for Winter activities Outdoor suitable!

UV-resistant. Suitable for gutter heating.

Accessories

Article Description	Order no.
Cold connection cable for extension 3 x 2.50 mm², 1.00 m, black	81302-2,50 BL/SW
Mounting sleeve (1, factory fi tted), for extension	26182
Plastic fi xing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Digital ice and snow alarm (for roof gutters and outdoor areas)	93159
Ice sensor with 6.00 m supply cable, cable entry from bottom, with protective housing (for outdoor area)	93164
Ice sensor with 6.00 m supply cable, cable entry from side (for outdoor area)	93162
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.



DIN EN/IEC 60800

BHF-IM-S HEATING MATS

Outdoor area heating system, D-cold

MADE IN GERMANY
MADE BY HEMSTEDT

HEM SYSTEM® Heating mats with **single-end connection cable** and sleeveless splice. Only for outdoor areas!!! Ideal for melting ice and snow in outdoor areas as well as for installation in concrete and sand for melting snow and ice. Not in Bitumen.

Technical data	
Nominal voltage	230 Volt
Output	300 W/m²
Cold connection cable	1 x 7,00 m (1,00 mm²)
Minimum installation temperature	5 °C
Max. temperature outer sheath (colour red)	65 °C
Smallest bending radius	5 x dA
Resistance tolerance	-5 % / +10 %
Cold / warm splice	sleeveless, without shrink technology-
Diameter	approx. 7,00 mm
Insulation	XLPE
Supplied width	ca. 0,50 m
Calculated width	ca. 0,60 m

300 W/m² 230 V · supplied width approx. 0,50 m

D-cold mat BHF-IM-S heating mats

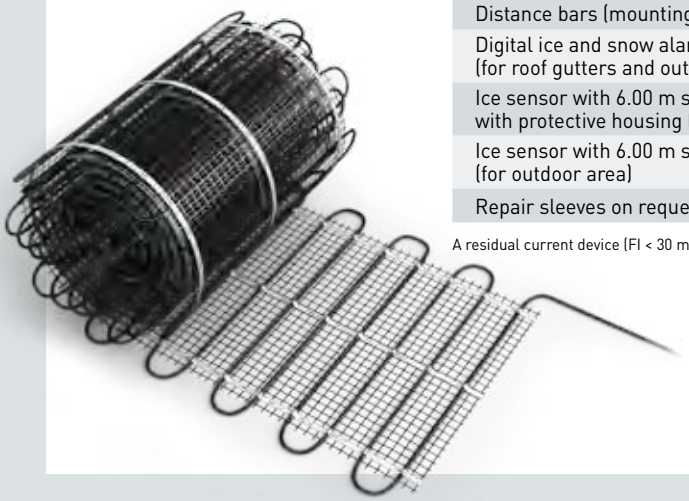
Order no.	Calculated width m	Resistance Ohm/Meter	Heat output Watt
31849-300	0,5 x 2,0m	16,85	300,00
31849-624	0,5 x 4,0m	4,02	624,00
31849-900	0,5 x 6,0m	1,80	900,00
31849-1200	0,5 x 8,0m	1,01	1200,00
31849-1480	0,5 x 10,0m	0,65	1480,00
31849-1760	0,5 x 12,0m	0,45	1760,00
31849-2080	0,5 x 14,0m	0,32	2080,00
31849-2300	0,5 x 16,0m	0,25	2300,00
31849-2770	0,5 x 18,0m	0,18	2770,00
31849-3130	0,5 x 20,0m	0,14	3130,00
31849-3250	0,5 x 22,0m	0,14	3250,00
31849-3490	0,5 x 24,0m	0,10	3490,00
31849-3884	0,5 x 26,0m	0,08	3884,00
31849-4265	0,5 x 28,0m	0,07	4265,00
31849-4550	0,5 x 30,0m	0,05	4550,00
31849-4870	0,5 x 32,0m	0,05	4870,00

Only for Winter activities Outdoor suitable!

Zubehör

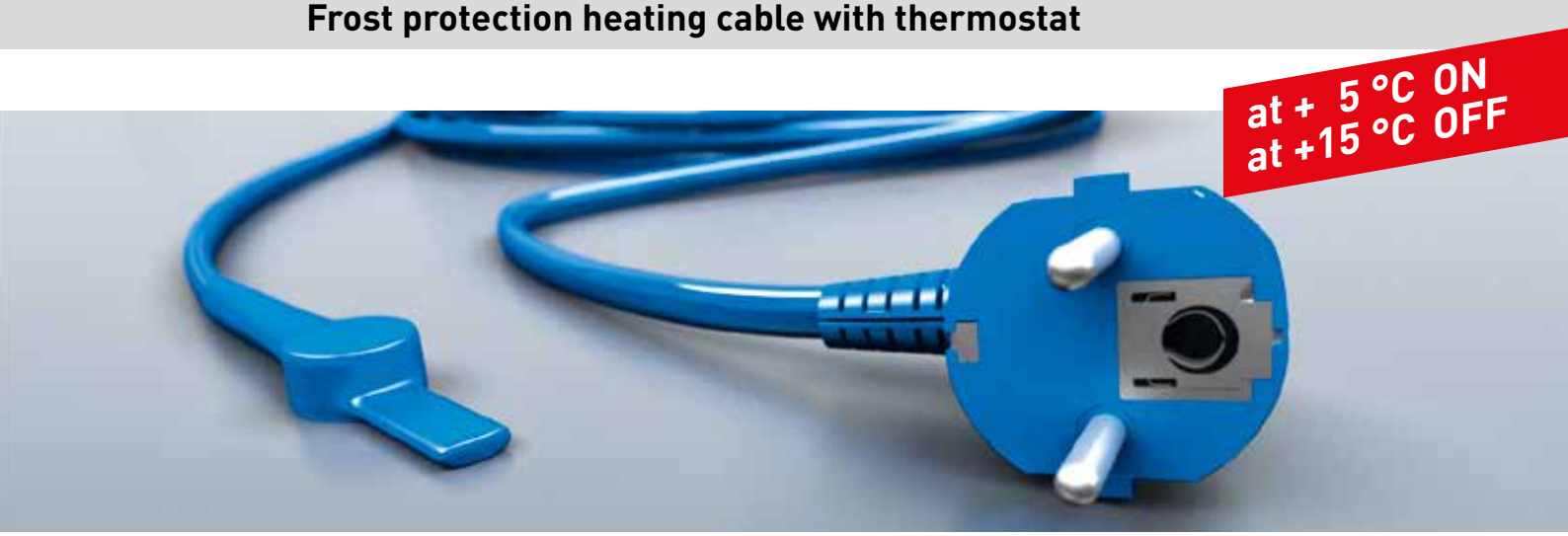
Article designation	Order no.
Cold connection cable for extension 3 x 2.50 mm², 1.00 m, black	81302-2,50 BL/SW
Mounting sleeve (1, factory fi tted), for extension	26182
Plastic fi xing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Digital ice and snow alarm (for roof gutters and outdoor areas)	93159
Ice sensor with 6.00 m supply cable, cable entry from bottom, with protective housing (for outdoor area)	93164
Ice sensor with 6.00 m supply cable, cable entry from side (for outdoor area)	93162
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.



HEM-SYSTEM®
FROSTY CONTROL

Frost protection heating cable with thermostat



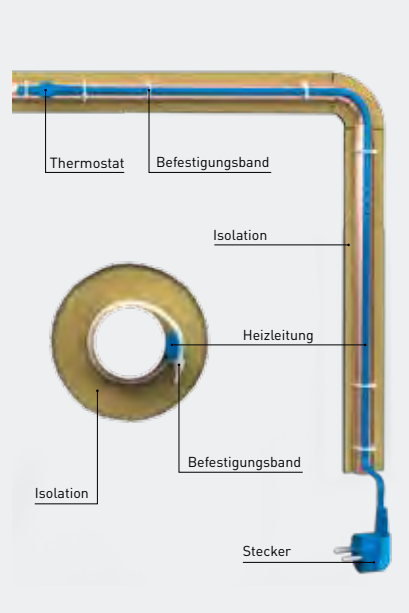
Carefree frost protection all around the year

TRACE HEATING AS EFFECTIVE FROST PROTECION FOR HOUSE AND GARDEN

Plug and Heat – reliable frost protection

Self-regulating and easy to install - frost damage are prevented effectively with pipe trace heating.

The HEM heating cable is designed for heating metal or plastic water pipes that are subject to freezing down to -20 °C. It is self-monitoring, prevents impermissible cooling and general frost damage, and ensures a minimum temperature, e.g. for the supply of drinking water to animals outdoors and in stables. A thermostat monitors the point on the pipe suspected of having the lowest temperature. For frost protection the heating cable is activated at + 5 °C and is deactivated when the temperature exceeds + 15 °C. Benefi t: The required electrical energy is automatically kept to a minimum.



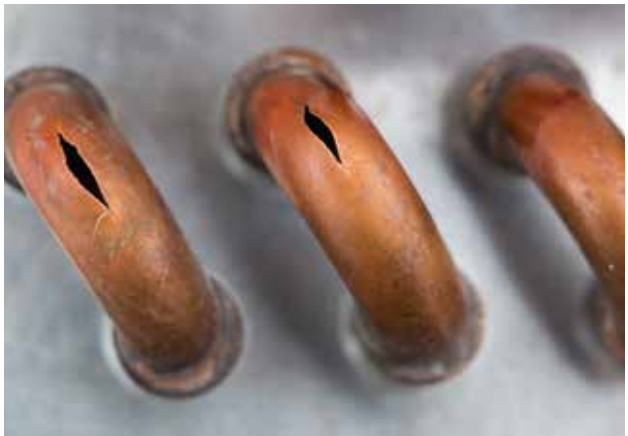
All in one: Fitted quickly and effortlessly

The HEM SYSTEM® heating cable is fi xed loosely with slight bends, preferably along the bottom of the pipe. At locations requiring additional energy such as valves, some loosely placed windings of the heating cable for the required energy supply. The cable is fi xed with adhesive aluminium tape or loosely fi tted with temperature resistant plastic cable binders. Plastic pipes must be wrapped beforehand in aluminium foil.
An industry standard heat insulation layer at least 20 mm thick not only guarantees the functioning of the heating cable but also reduces the heat requirement. Simply plug in and frost protection is guaranteed.

The sleeveless splice is absolutely waterproof and therefore ideal for installations requiring moisture proofing.

Hemstedt
HEM-SYSTEM®
muffenlos

- **Direct from the manufacturer**
- **Factory tested**
- **100 % waterproof**
- **Muffenlos**
- **Sleeveless**
- **100 % electrical safety**
- **VDE-approval**
- **With single-end connection cable**



FS FROSTPROTECTION-TRACE HEATING

With temperature regulator and earthed plug

Self-Regulating!

VDE-tested!

Heating cable with **single-end cold connection** cable, earthed plug and temperature regulator, +5 °C On / +15 °C Off; 10 W/m HEM SYSTEM® heating cables installed along water pipes prevent impermissible cooling and also protect the supply of drinking water to animals outdoors and in stables.

MADE IN GERMANY
MADE BY HEMSTEDT

Technical data

Nominal voltage	230 Volt
Output	ca. 10 W/m
Cold connection cable	1 x 2,00 m
Minimum installation temperature	5 °C
Nominal temperature	65 °C
Temperature regulator 16 A	+5 °C Ein / +15 °C AUS
Smallest bending radius	5 x Ad
Resistance tolerance	-5 % / +10 %
Approval (heating cable)	VDE
Cold/warm splice	sleeveless
Outer diameter	approx. 9,00 mm

approx. 10 W/m

FS frost protection heating element, ready to connect

Voltage V	Output W	Length m	Order no.
230	10	1	35602-01
230	20	2	35602-02
230	30	3	35602-03
230	40	4	35602-04
230	50	5	35602-05
230	60	6	35602-06
230	70	7	35602-07
230	80	8	35602-08
230	90	9	35602-09
230	100	10	35602-10
230	120	12	35602-12
230	140	14	35602-14
230	180	18	35602-18
230	220	22	35602-22
230	240	24	35602-24
230	280	28	35602-28
230	320	32	35602-32
230	360	36	35602-36
230	480	48	35602-48
230	500	50	35602-50
230	600	60	35602-60

CE

Low-current!

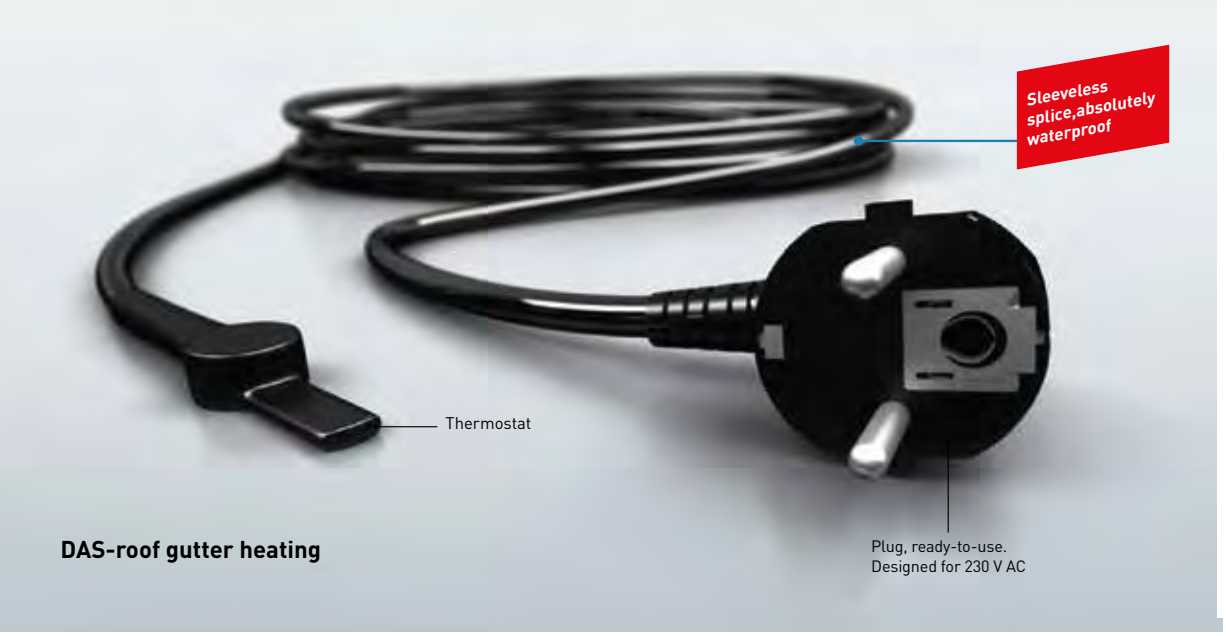
ca 10 W/m

FS Heizleitung schwarz und rund

Voltage V	Output W	Length m	Order no.
230	20,00	2	35602-02S
230	40,00	4	35602-04S
230	60,00	6	35602-06S
230	80,00	8	35602-08S
230	100,00	10	35602-10S
230	120,00	12	35602-12S
230	140,00	14	35602-14S
230	160,00	16	35602-16S
230	180,00	18	35602-18S
230	240,00	24	35602-24S
230	280,00	28	35602-28S
230	320,00	32	35602-32S
230	360,00	36	35602-36S

HEM-SYSTEM®
DAS-ROOF GUTTER HEATING

Heating cable with thermostat for protection from snow and ice



DAS-roof gutter heating

NO MORE FROST DAMAGE WITH THE HEM-SYSTEM® DAS GUTTER HEATING!

Safety for persons and building

Ice formation is dangerous!

In winter, melt water can easily form strong icicles on gutters. If one breaks, people walking beneath can be dangerously hurt. This is reason enough to provide adequate frost protection on gutters, not to mention liability issues, for example if the building is right next to a public footpath.

Gutter Heating is also a reliable frost protection, just to prevent damage to the gutter itself. This is aggravating enough, since repairs can be very expensive depending on the height of the roof.

Ice formations on buildings, gutters and roof surfaces are due to heat losses of buildings and unfavorable exposure to the sun. The resulting condensation water can't flow off and ices. HEMSYSTEM® DAS roof gutter heaters reliably keep the endangered areas snow and ice-free and thus avoid:

- **Formation of icicles (danger to persons and property)**
- **Bursting downpipes**
- **Freezing of downpipes in frost area (ground)**
- **Water penetration into buildings**
- **Damage to external facades**

Plug & Play: Fitted quickly and effortlessly

Plug, ready-to-use. With sleeveless splice and PE insulating covering. HEM SYSTEM® DAS roof gutter heating systems have multiple uses for pitched roof areas, semi-circular and box gutters and downpipes. Installation is simple, the electrical connection can also be carried out by unqualifi ed persons. The plug is already made up.
For normal semi-circular gutters, the expected energy consumption is approx. 50 to 60 W/m per meter of guttering. This also applies to downpipes that have to be heated up to the frost limit (approx. 1 m in ground area).

Important: When calculating the requirement and length, remember that the heating cable may have to be applied several times.

Cold connection cable | Sleeveless splice | Heating cable

The sleeveless splice is absolutely waterproof, and therefore ideal for installations requiring moisture proofing.

Hemstedt
HEM-SYSTEM®
sleeveless

- **Direct from the manufacturer**
- **Factory tested**
- **100 % waterproof**
- **Sleeveless**
- **Ready to plug**
- **100 %electrical safety**

NEU

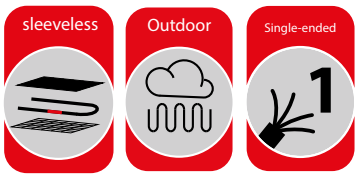
DIN EN/IEC 60800

DAS-ROOF GUTTER HEATING

With temperature regulator and earthed plug

MADE IN GERMANY

MADE BY HEMSTEDT



HEM-SYSTEM® DAS gutter heating with single-end connection cable, PE-insulated, seamless sleeve transfer, XLPE insulation sleeve and UV-resistant PVC jacket (black).

Technical data	
Nominal voltage	230 Volt
Output	approx. 30 W/m
Cold connection cable	1 x 4,00 m (0,5-1 mm²)
Minimum installation temperature	5 °C
Nominal temperature acc. VDE 0253	90 °C
Smallest bending radius	5 x Ad
Resistance tolerance	-5 % / +10 %
Cold / warm splice	sleeveless, without shrinkable sleev
Outer diameter	approx. 7,90 mm
Insulation	XLPE/PVC

approx. 30 W/m · with plug

DAS-roof gutter heating

Voltage V	Output W	Lenght m	Order no.
230	120	4	36613-04
230	150	5	36613-05
230	200	6	36613-06
230	290	10	36613-10
230	370	12	36613-12
230	419	14	36613-14
230	471	16	36613-16
230	627	20	36613-20
230	700	23	36613-23
230	919	30	36613-30
230	1103	35	36613-35
230	1265	41	36613-41
230	1440	49	36613-49
230	1719	55	36613-55
230	2062	70	36613-70

approx. 27 W/m · without plug

BRF-IM concrete heating cables

Voltage V	Output W	Element length m	Order no.
230	891	32,15	37731-32,15
230	1068	38,10	37731-38,10
230	1350	48,29	37731-48,29
230	1593	57,64	37731-57,64
230	1905	68,69	37731-68,69
230	2430	87,38	37731-87,38

UV-resilient. Suitable for gutter heating.

Other lengths on request.

Accessories

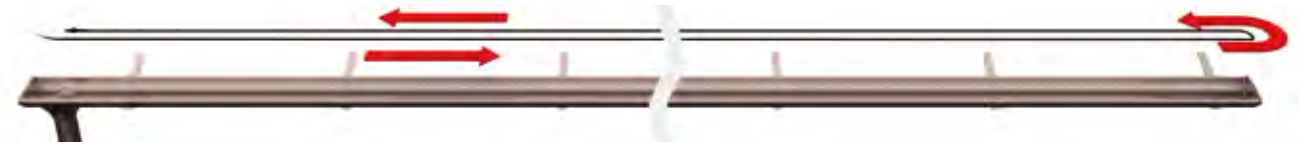
Article description	Order no.
Cross-beam, stainless steel (only roof gutter heating)	20075
Cord grip, stainless steel (only roof gutter heating)	20076
Support cable (only roof gutter heating)	20074
Distance bars (mounting bars) see page 28	20063
Edge guard	20103
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.

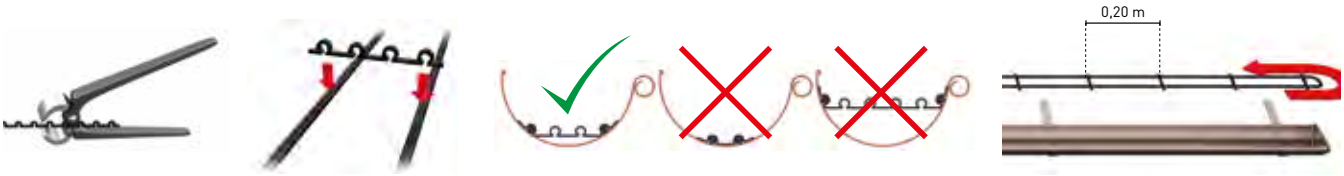
Further information in our installation instructions.
Thermostats see page 15.

Placement in the gutter

1.1 Place heating line in loop

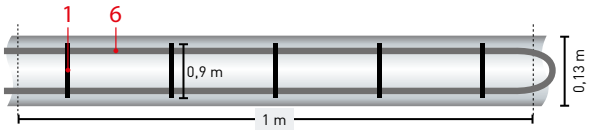


1.2 Cut distance bars to size and attach them every 20 cm



What must be ordered?

Calculation model 1
Gutter: Width 0.13 m / length 8 m



What must be ordered?

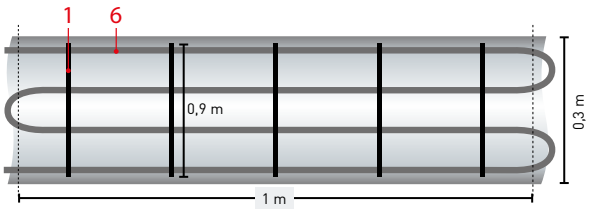
6 **Heating line**
1 m gutter = 2 m heating line (double placement)

8 m gutter x 2 = 16 m heating line
➡ Order no. 38613-16

1 **Distance bars**
1 m gutter = 5 x 0,09 m distance bars = 0,45 m

8 m gutter = 8 x 0,45 m distance bars = 3,60 m
rounded up 4 m, since yard goods
➡ 4 x order no. 20063

Calculation model 2
Box gutter: Width 0.30 m / length 15 m



What must be ordered?

6 **Heating line**
1 m gutter = 4 m heating line (fourfold placement)

15 m gutter x 4 = 60 m heating line
➡ 2 x Order no. 38613-30

1 **Distance bars**
1 m gutter = 5 x 0,30 m distance bars = 1,50 m

15 m gutter = 15 x 1,50 m distance bars = 22,50 m
rounded up 23 m,since yard goods
➡ 23 x order no. 20063

Calculation model 3
Drop pipe: Length 10 m
(incl. 1 m frost limit)

What must be ordered?

6 **Heating line**
1 m drop pipe
= 2 m heating line
(double placement)

10 m drop pipe x 2
= 20 m heating line
➡ Order no. 38613-20

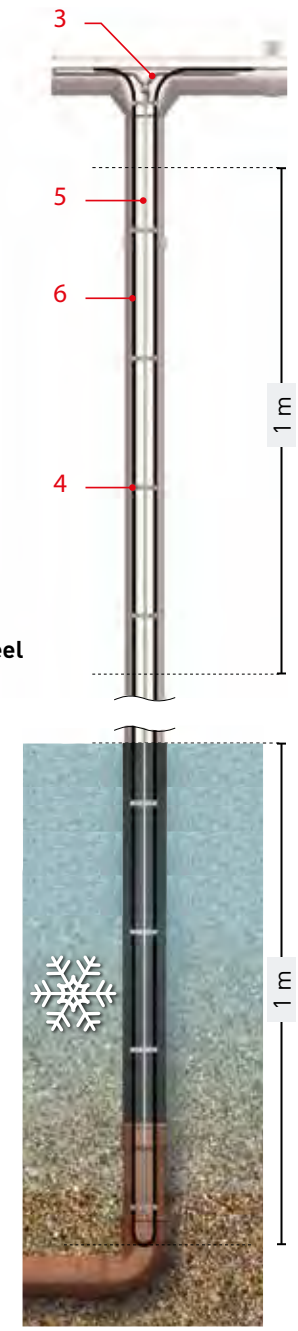
4 **Tension relieve clamp**
1 m dop pipe
= 4 x tension relieve clamp
(per metre 4 Stück)

10 m drop pipe x 4
= 40 x tension relieve clamp
➡ 40x Bestell-Nr. 20070

3 **3 Suspension. strainless steel**
1 x per drop pipe
➡ order No. 20075

5 **Suspension rope**
1 m drop pipe
= 1 m suspension rope

10 m drop pipe
= 10 m suspension rope
➡ Order No. 20074



Under-soil heating, snow load, escape routes and more ...

ELECTRIC UNDER-SOIL HEATING

extremely effective, extremely durable

No more cancellations in winter:

Cancellaions of matches due to snowfall or icy ground are a considerable financial burden for each club. For this reason, more and more sport clubs regulate that the lawn has to be playable in winter. To do so, there are two systems: on the one hand water-based heating systems, on the other hand electric heating cables, laid approx. 20 cm deep above the drainage in the lawn underground.

Advantages of electrical systems

Electrical systems are for several reasons clearly superior. First, because they don't freeze at extreme temperature and are therefore very durable. Second, electrical systems don't pollute the environment in case of damage releasing harmful antifreeze into the environment. Moreover, electrical systems achieve much more consistently temperature distributions.

In a hot water system, hot water is piped into a several thousand meter long pipe system and cools down relatively quickly in the course of the system. An electrical system is immediately and consistently warm. As a result, temperatures can not only be reached very accurately, but also hold. This is important, since the lawn is actually in „winter rest" and can under no circumstances be exposed heat or excessive heat.

Lawn heating not only for real lawns - it is about that Risk of injury!

In fact, artificial grass has to be heated in winter, too. Effectively, it's about elasticity and hardness of the playing field.

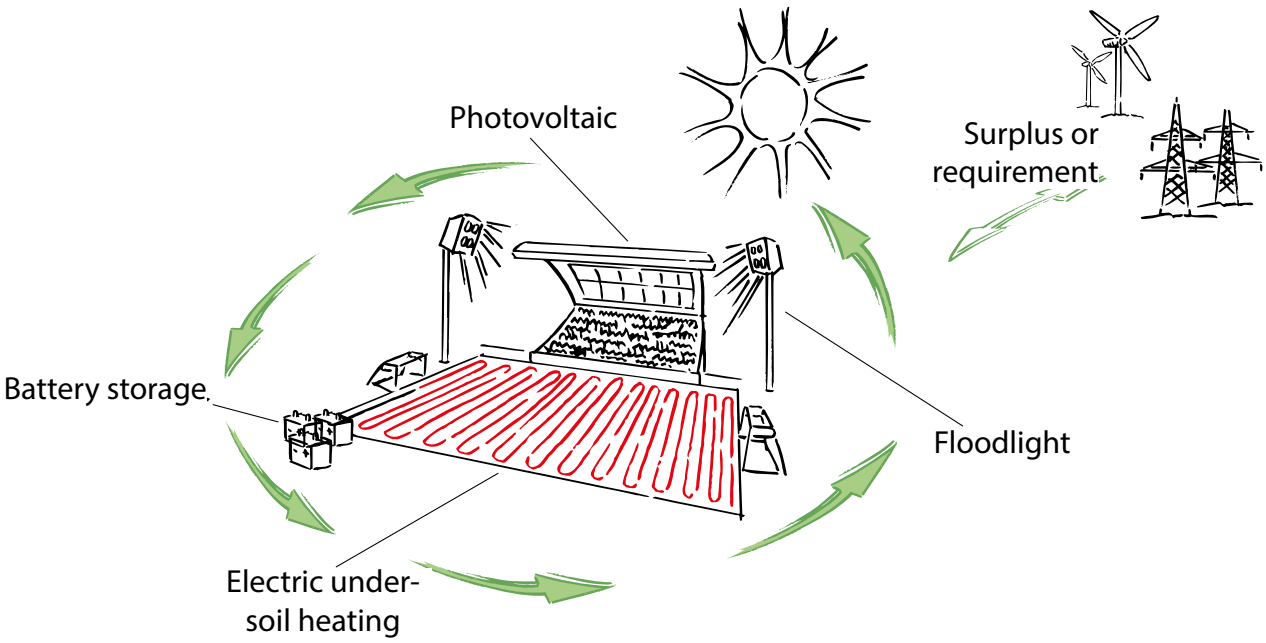
Frozen ground or by cold almost rigid artificial lawns lead to an increased risk of injury the player.

MINIMIZE COSTS – CONSERVE RESOURCES

The perfect zero-emission-stadium

Sustainable, energy-efficient, climate-neutral!

The investigation in an electric under-soil heating is an important decision. It's not only about the acquisition costs but also about the operation costs – and the environmental compatibility. Electric under-soil heating of Hemstedt have clear advantages, if planed correctly:



Especially in sports facilities it's very easy to install photovoltaic systems or wind power stations. Heat pumps are another effective option. Modern battery systems, for example by "Accumotive", a subsidiary of Daimler-Benz, make it possible to save generated energy. As a result, a stadium can be operated self-sufficient. The generated electricity can be stored used to power the under-soil heating and the floodlights.

Red card for the greenhouse effect

For a perfect result, Hemstedt has partners all over Europe, who take care of the complete project including planning, implementation and maintenance of your lawn heating. Therefore, you get a holistic solution with an intelligent management of professionals, who already installed under-soil-heating in big stadiums with 5 UEFA stars.

HEATING CABLE FOR GRASS AREAS IN STADIUMS AND SPORTS GROUNDS

For all-year use

Soil heating with Hemstedt cables

The management and people responsible for sports grounds such as football stadiums or golf courses are increasingly using soil heating systems.

The hard frozen ground is thawed, melting any snow covering and lengthening grass growth. Sporting activities can thus take place all year round, the season lengthened, as well as ensuring that the ground is dried out faster after heavy precipitation. The risk of injury to players is also considerably reduced.

Compared to warm water heating systems, electrical soil heating systems offer considerable benefi ts such as lower investment and running costs, faster operation and greater effi ciency. Hemstedt® heating cables are optimally designed for these demanding requirements. They can be used for heating any grass area.

Depending on the heating requirement, cables with a 15 – 20 Watt/m output for 230 V or 400 V are available that are designed for the toughest weather conditions.

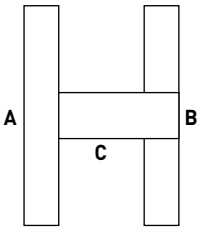
Technical data	
Rated voltage	400 V
Cold connection cable	z.B. 2 x 30 m (2,50 mm²)
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA

Element length of e.g. approx. 200 m is also available with cold connection cable and splice.

Heating cables for lawns in stadiums and sports facilities
On request

The following items can be ordere das well:

Order No.	Description	Quantity/dimensions
20021	Wood coil	500 x 200 x 280
00002	Sleeve	2 St. per coil
88002-2,5	Low-voltage connection	2,5 mm²
00002	Pallet	1P./ 2 coils



A	B	C	Order-Nr.
500 mm	200 mm	280 mm	20021

All prices on request.

HEATING CABLE DRUM FOR SELF ASSEMBLY

DIN EN/IEC 60800

Simple heating cable (double-end connection cable) as drumware

Application
Ideal for melting ice and snow in outdoor areas as well as for installation in concrete, for installation along water pipes and as gutter heating.

Aufbau

- Heating cable, braid
- Tinned protection line
- PVC cover
- XLPE insulation
- Aluminium protection
- Outer diameter approx. 6.5 mm

Technical data

Nominal temperature ..... 65 °C
Fixed resistance heating cable
Smallest bending radius ..... 5 x dA
Resistance tolerance ..... –5 / +10 %
Max. rated voltage ..... 300 / 500 V

CE

Standardtypes approx. 10 W/m – 230 V

Order no.	Length m	Watt/m	Output W	Voltage V	RE Ohm/m	Braid
65406-12,700	20,40	10,01	204,18	230	12,700	Wendeln
65406-8,000	25,70	10,01	257,30	230	8,000	8,000
65406-5,480	31,00	10,05	311,40	230	5,480	5,480
65406-3,590	38,40	9,99	383,73	230	3,590	3,590
65406-2,480	46,20	9,99	461,70	230	2,480	2,480
65406-1,390	61,70	10,00	616,82	230	1,390	1,390
65406-1,000	72,70	10,01	727,65	230	1,000	1,000
65406-0,700	86,90	10,01	869,64	230	0,700	0,700
65406-0,480	105,00	10,00	1049,60	230	0,480	0,480
65406-0,400	115,00	10,00	1150,00	230	0,400	0,400
65406-0,300	132,80	10,00	1327,81	230	0,300	0,300
65406-0,250	145,50	10,00	1454,30	230	0,250	0,250
65406-0,200	162,50	10,02	1627,69	230	0,200	0,200
65406-0,140	194,50	9,99	1942,71	230	0,140	0,140

Standardtypes approx. 17 W/m – 230 V

Order no.	Lenght m	Watt/m	Output W	Voltage V	RE Ohm/m	Braid
65406-12,700	15,60	17,12	267,01	230	12,700	Wendeln
65406-8,000	19,70	17,04	335,66	230	8,000	8,000
65406-5,480	23,80	17,04	405,60	230	5,480	5,480
65406-3,590	29,40	17,05	501,20	230	3,590	3,590
65406-2,480	35,40	17,02	602,56	230	2,480	2,480
65406-1,390	47,30	17,01	804,60	230	1,390	1,390
65406-1,000	55,80	16,99	948,03	230	1,000	1,000
65406-0,700	66,70	16,99	1133,00	230	0,700	0,700
65406-0,480	80,50	17,01	1369,05	230	0,480	0,480
65406-0,400	88,20	17,00	1499,43	230	0,400	0,400
65406-0,300	101,80	17,02	1732,15	230	0,300	0,300
65406-0,250	111,50	17,02	1897,76	230	0,250	0,250
65406-0,200	124,70	17,01	2121,09	230	0,200	0,200
65406-0,140	149,00	17,02	2535,95	230	0,140	0,140
65406-0,080	197,00	17,04	3356,60	230	0,080	0,080
65406-0,065	218,80	17,00	3719,59	230	0,065	0,065
65406-0,050	249,00	17,06	4249,00	230	0,050	0,050
65406-0,025	352,00	17,08	6011,36	230	0,025	0,025

Accessories

Article Description	Order No.
Wood coil (fl ange 800 mm / 320 mm core / length 600 mm)	20031
Pallet	00002

HEMSTEDT-PARTNER IN SPORTS

For the perfect stadium

France‘s first league plays on Hemstedt-heated lawn!

The “Stade de France” as well as the “Prinzenparkstadion”, the two most important and most historical stadiums of France, have an electrical lawn heating from Hemstedt. Just like stadiums in Lille, Lyon, Le Havre, Saint Etienne and many more Cities.

The first installation took already place 2010 in Auxerre, France. 34 km of Hemstedt-heating pipes have proved so successful, so that by 2015 another 500 km of Hemstedt-heating pipes have been layed in French Football stadiums.

Hemstedt solutions for security and building protection for sports facilities

At Hemstedt you will find many more solutions for more comfort, safety and building protection in sports facilities, e.g.:

Sleeveless defrosting water heating
For the active, demand-controlled frost protection of Drains, e.g. of roofs, grandstands or drains under the lawn.

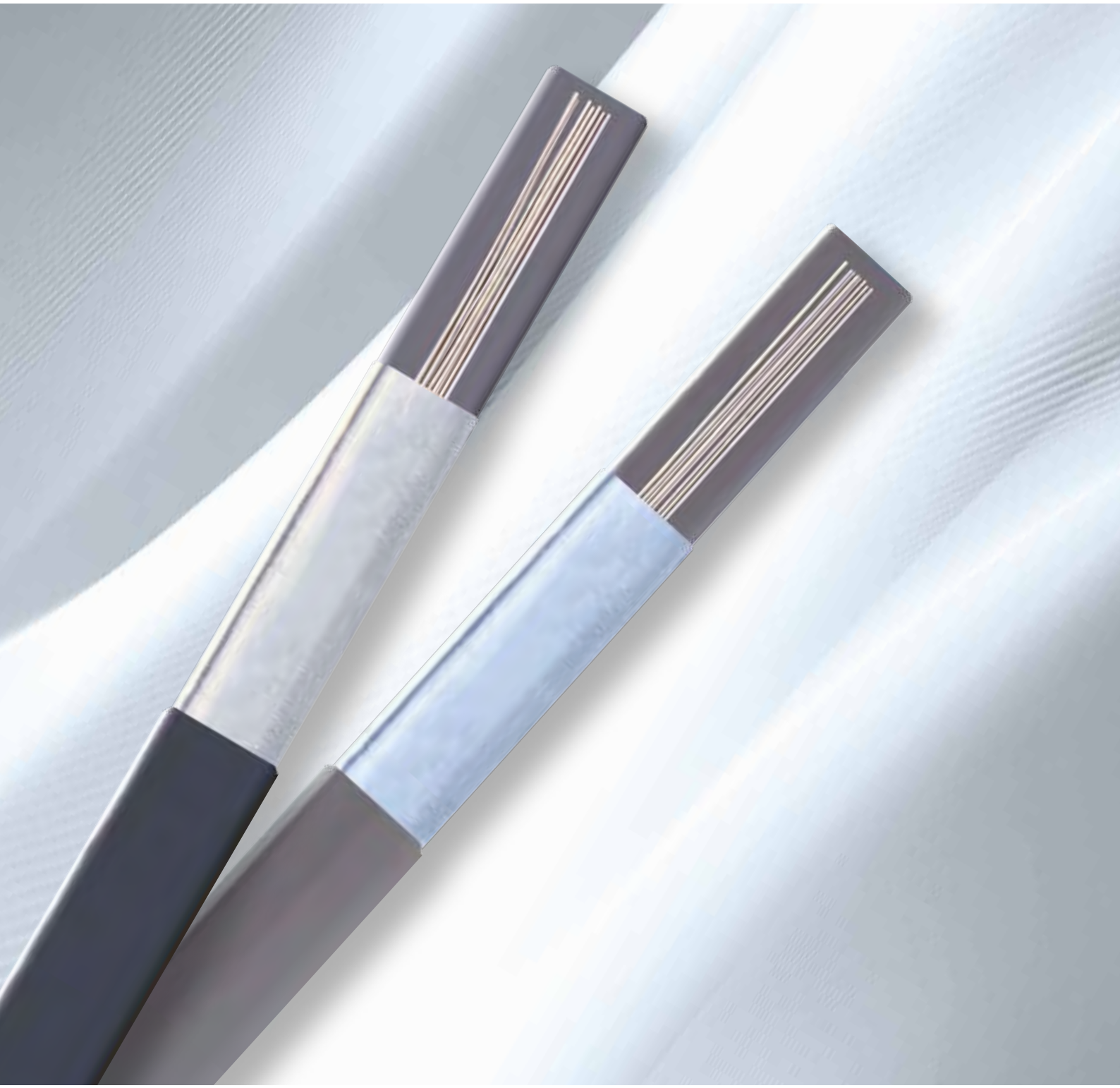
Roof heating
To actively avoid dangerously high snow loads or roof slats.

Underfloor heating
For a faster drying, e.g. in changing rooms and sanitary areas to minimize risk of skidding.

Outdoor Heating Systems
For protection against ice and snow, e.g. on escape routes and access roads for rescue workers.

Electric frost protection heating on the floor
For ice stadiums as protection for foundations and Subsoil.

Roof gutter heating
Frost protection for rain gutters and downpipes as well as active prevention of icicle formation, e.g. above footpaths and grandstands.



Variable Output - no temperature limitation required

FROST PROTECTION AGAINST ICE AND LOW TEMPERATURE MAINTENANCE

For pipes, tanks, containers, valves, gutters

Reliable for frost protection and temperature maintenance

Self-monitoring and requirement-based

Self-monitoring heating tapes from Hemstedt® are the ideal solution for frost protection and temperature control for pipes, valves, containers and gutters. Differenttapes are available, depending on the use.

The heating tapes comprise two parallel copper wires, with a net-like plastic heating element between them, fitted with carbon particles.

The heating element changes its output depending on the ambient temperature. If the temperature increases, the plastic stretches as a result of molecular expansion, the connections between the carbon particles are broken, the resistance increases the output falls. During cooling, the process is reversed and the output increases. Consequently, the heating tape equalises the requirement for heating everywhere.

Advantages at a glance:

- Storage on coils
- Any filling measuring as required on site
- No overheating, also installation over cross joints
- Variable output
- No temperature limiter required

Fitted quickly and effortlessly

HEM-SYSTEM® heating tapes can be cut on site to match the length required. The manufacture of the connection technology is easy. The heating tape is fixed to the bottom of pipes with temperature-resistant cable ties.

It only has to be taped over its entire surface on plastic, cast and glass pipes and containers. For larger pipe diameters, several tapes are used as required.

HEM-SYSTEM® SELF-REGULATING HEATING CABLES 10/20/30/40 W

Frost protection against ice and low temperature maintenance for pipes, tanks, containers, valves, gutters

MADE IN GERMANY
MADE BY HEMSTEDT

Self-regulating heating cables consist of two parallel copper supply lines, embedded in a linked plastic heating element doped with carbon particles with a positive temperature coeffi cient, i.e. the heating element changes its output depending on the ambient temperature. If the temperature rises, the plastic will expand by molecular expansion. The connection between the carbon particles breaks open, the resistance increases and thus power reduces. When cooling, the process reverses and the power increases. Thus, the heating cable will adjust to the heat demand from any location.

The reliable solution to your problems with frost protection and temperature maintenance.

Technical data

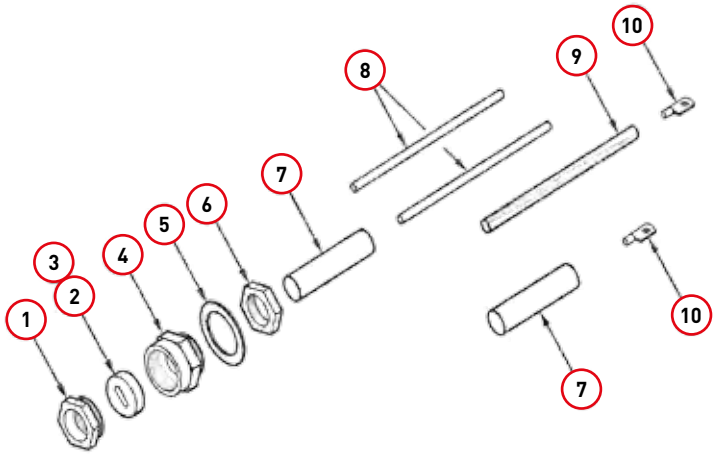
Rated voltage	230 V
Tolerance	-0/+5 W
Output at 10 °C	10, 20, 30, 40 W/m
Min. installation temperaturer	-35 °C
Max. adm. workpiece temperature	65 °C switched on 80 °C switched off
Temperature class	T6
Max. protective mesh resistance	< 18,2 Ohm
Smallest bending radius	25 mm
Jacket of polyolefi n/fl uorpolymer	black
Weight (from/to)	90-105 kg/km

HEM System – self-regulating heating cables with protection mesh

Order no.	C-Characteristics m		Thickness x width mm	Rated output W/m* at +5 °C	Delivery form
69500-10	16 A	188	4,9 x 13,0	11,5	Yard goods 100 m Drum** 200 m Drum** 500 m Drum***
	20 A				
	25 A				
69500-20	16 A	93	4,9 x 13,0	23	Yard goods 100 m Drum** 200 m Drum** 500 m Drum***
	20 A	116			
	25 A	142			
69500-30	16 A	63	5,3 x 15,6	33,5	Yard goods 70 m Drum** 140 m Drum** 500 m Drum***
	20 A	87			
	25 A	102			
69500-40	16 A	160	5,3 x 15,6	40	Yaqrd goods 70 m Drum** 140 m Drum** 500 m Drum***
	20 A	76			
	25 A	96			
39500-10 39500-20 39500-30 39500-40					Desired length factory customised with 1.80 m cold end (H05RN F 3 x 2.5 mm2, black) and with end connection set

* Rated output on insulated metal tubes at +5 °C (W/m).
** We will charge 3.25 € per coil + 11 € packaging costs.
*** We will charge 5.50 € per coil + 8 € EWP or 5 €/HP.

ACCESSORIES FOR HEM SELF-REGULATING HEATING CABLES



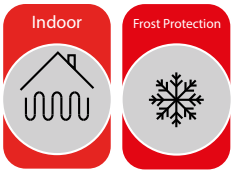
1. Cover
2. Seal
3. Seal
4. Screw connection
5. Seal
6. Counter nut
7. Shrink hose Ø 12:4 length 5 cm (number: 2)
8. Shrink hose Ø 3:1 length 10 cm (number: 2)
9. Shrink hose Ø 6:2 length 10 cm
10. Connection ground cable (number: 2)

Accessory connection and end resistor set	
	Order no.
Connection and end resistor set	26142

SH SILICON HEATING CABLES

5 W/m / 10 W/m low-voltage

MADE IN GERMANY
MADE BY HEMSTEDT



HEM silicone heating cables are available as single and double conductors.

Technical data

Output ..... depending on heat discharge
Max. temperature ..... 150 °C
Voltage ..... on request
Diameter ..... approx. 3.5 mm without Cu-mesh
Connection ..... two-sided PVC connection line 1.00 m (1 x 0.75 mm2)

5 W/m 12 V

Length m	Voltage V	Output Watt	Order no.
2,08	12	10,50	42505
3,90	12	19,50	42505
6,66	12	33,30	42505
8,95	12	44,75	42505
10,70	12	53,50	42505
12,65	12	63,25	42505

10 W/m 12 V

Length m	Voltage V	Output Watt	Order no.
1,90	12	19,00	42506
3,80	12	38,00	42506
6,32	12	63,20	42506
7,59	12	75,90	42506
8,94	12	89,40	42506
12,65	12	63,25	42505

5 W/m 24 V

Length m	Voltage V	Output Watt	Order no.
3,09	24	15,45	42507
5,45	24	26,85	42507
7,80	24	39,00	42507
10,70	24	53,50	42507
12,56	24	63,25	42507
16,08	24	80,00	42507
17,88	24	89,40	42507
21,47	24	107,30	42507
25,30	24	126,50	42507

10 W/m 24 V

Length m	Voltage V	Output Watt	Order no.
2,95	24	29,70	42508
5,50	24	55,00	42508
9,40	24	94,00	42508
11,31	24	113,10	42508
12,65	24	126,50	42508
15,18	24	150,80	42508
17,90	24	179,00	42508

Accessories

Article designation	Order no.
Low-voltage cold cable for extension of the wire colour (blue/blue) 1.00 m (1 x 0.75 mm²)	81201-0,75 BL
Distance bars (assembly bridges)	20060
Control box 0 °C to +80 °C 2000 W / 230 V with analogue controller incl. 10.00 m sensor	98406
Spare sensor 10.00 m	94010
Components for a sleeve	26000
On-site assembly sleeve (1 pc.)	20304

For other versions, see brochure customised heating cables.

Active building protection and feel-good climate - with energy-efficient wall heating

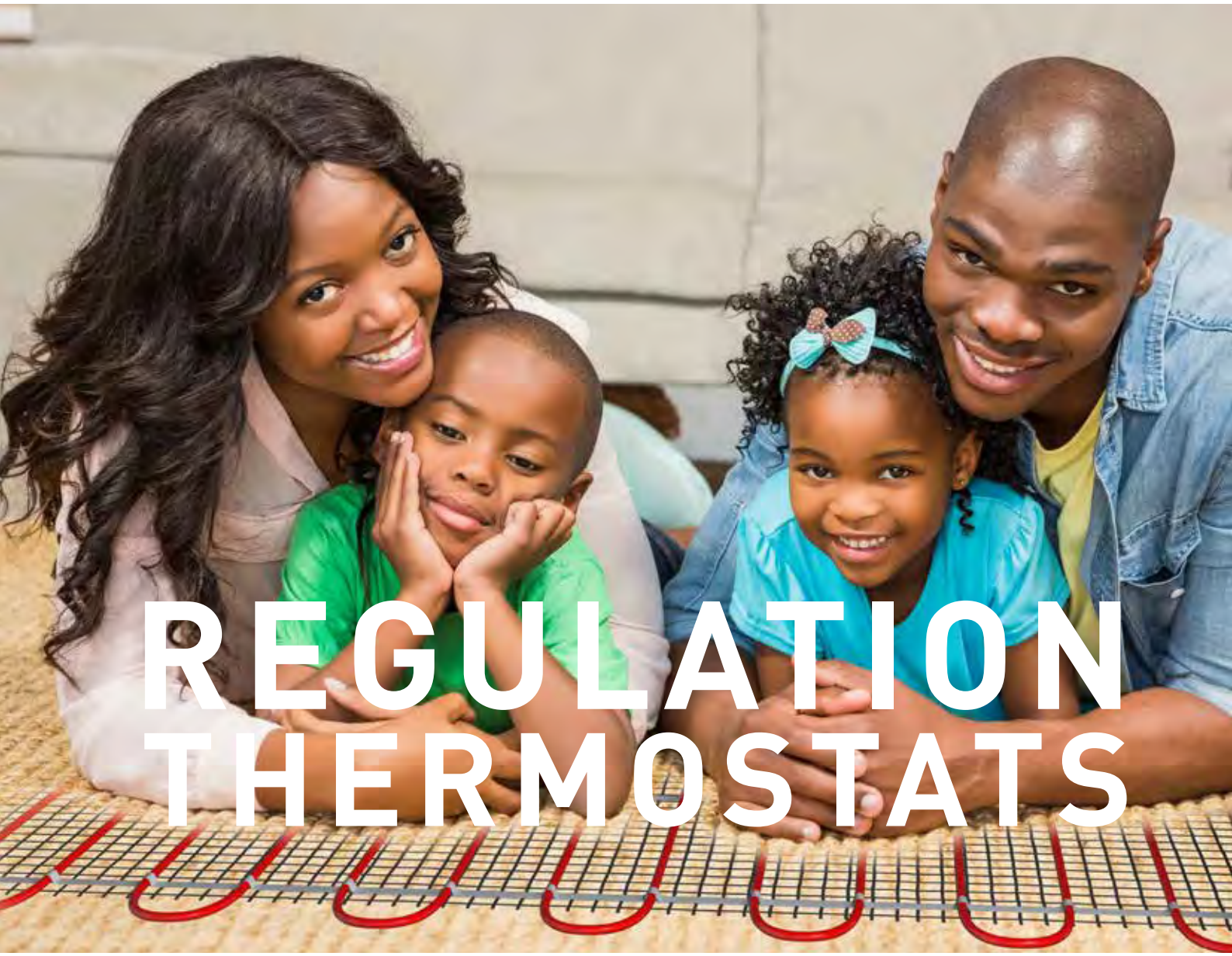
Building protection with wall heating
This area of application for wall heating is probably the most common. In old and new buildings it often comes to damp masonry, because of condensation, e.g. on external walls or walls to colder building parts. Or think of the condensation in bathrooms, for instance. A wall heating ensures reliable dryness of building materials and prevents from expensive consequential damages.

Comfortable climate with wall heating and less dust!
Particularly in combination with a floor heating, a wall heating can significantly contribute to an ideal room climate. Pleasant radiant heat from all sides and especially, by a very even distribution of the heat in the room, ensures the wall heating very small air movements. The result: no dust is whirred up- a plus for allergy sufferers.

Technical data	
Voltage	230 Volt
Power	approx. 40 bis 67 W/m
Minimum placement temperature	5 °C
Smallest bending radius	5 x Ad
Resistance tolerance	-5 % / +10 %
VDE	approval
Rated temperature	140 °C
Outer diameter	4,80 mm
Cold/hot transfer	with shrink sleeve and temperature monitor 105 °C or 120 °C

Price- and length-project-related, on request

Order no.	472...
Connection output	2 x 0.75 mm2 blue/brown; jacket white
	2 x 1.00 mm2 blue/brown; jacket white



Optimize costs and benefits with the right control technology.

REGULATION AND THERMOSTATS

Everything under control, from frost alarms to intelligent building management

Optimize costs and benefits with the right control technology.

- Carefree antifreeze
- Ice and snow detector
- Controller for individual rooms
- Energy management
- Self-consumption
- Adaptive controller

The appropriate controls and thermostats for every purpose

Whether frost and ice protection for open areas, underfloor heating or under soil heating in the football stadium: A heating system is only as good as its control technology: With precise temperature control and well-tuned on and off periods energy can be saved without sacrificing comfort and safety. Hemstedt offers matching controllers for every application.

Intelligent controlling systems

Particularly interesting are adaptive control systems that control all electrical equipment in the house and compare them with data of utilities as well as weather forecasts. So the self-consumption of solar power and peak electricity can be optimized as a contribution to energy and conservation of ressources.

Safety and protection of buildings with Hemstedt technology

Snow free driveways, ice-free heliports, frost protection for water pipes and garden areas with optimum energy efficiency. The ice and snow detectors and frost guards by Hemstedt give safety. Heating cables are only activated when really there is an acute need. But this - absolutely reliable!

Usability and design

Control room temperature, pool heating and heated driveways comfortably by app or with the classic point scale thermostat. Hemstedt offers various controls for all tastes and needs.

MADE IN GERMANY
MADE BY HEMSTEDT

U-UP timer thermostat

Intelligent temperature monitoring

Indoor

The timer thermostat by Hemstedt offers a well-arranged display, making all functions quick and easy to operate. For example, the timer thermostat allows for individual settings of the heating programs. Actual/target temperature, time of day, lowering of the temperature at night, and so on - all under control. The timer thermostat by Hemstedt leaves nothing to be desired. Additionally, it's teachable: Thanks to self-optimization the timer thermostat can calculate the time needed for heating or cooling. Users can individually adjust the floor temperature independently from their space heater. Timed heating assures efficient heating.

Technical Data

Hemstedt HEM U smart temperature monitoring: Thermostat with self-learning function, programmable, time switching zones, with sensor (digital)

Nominal voltage .....230 V/50 Hz
Switching capacity.....16 (2) A
Setting range .....+10 °C to + 40 °C with mechanical range limitation via setting button
Switching difference .....approx. 1.5 K
Display .....Heating mode
Temperature reduction .....Optional within the control range (via external switch/pilot timer)
Temperature sensor ..... NTC 4 m to DIN 44574. Heating is switched off in the event of sensor failure and short-circuit
Degree of protection .....IP 30 – degree of protection II after appropriate installation
Housing colour .....Similar to RAL 9010 pure white

Timer thermostat	Order no. 93089

The fault interrupter circuit is required as a protective measure (FI < 30 mA).
Assembly in concealed socket by interim frame 50 x 50 (according to DIN 49075) in almost all wall sockets.
Fits DIN wall sockets, compatible with Busch-Jaeger, Jung, etc.

Spare temperature sensor for clock thermostat	93089 sensor

PA-UP temperature regulator with point scale

For those who like it conventional!

Indoor

Simple, well-arranged yet efficient. The room thermostat with point scale by Hemstedt is the classic among room thermostats for underfloor heating systems. One switch, one controller, nothing beyond that, but efficient regardless! An integrated temperature sensor monitors room temperature. Thus, you will heat only as much as you desire. Additionally, the temperature can be lowered at night, indicated through an LED display. The design of the Hemstedt room thermostat is plain and timeless. It fits into any wall socket conforming to German industry norms. This makes installation - as well as retrofitting - especially easy.

Technical Data

Nominal voltage ..... 230 V/50 Hz +-10 % / -15 %
Switching capacity..... 16 (2) A
Setting range ..... +10 °C to + 40 °C with mechanical range limitation via setting button
LED indication ..... Heating (red) and temperature reduction (green)
Temperature reduction .... 5K via external switch/pilot timer
Temperature sensor ..... NTC 4 m to DIN 44574. Heating is switched off in the event of sensor failure and short-circuit
Degree of protection ..... IP 30 – degree of protection II after appropriate installation
Housing colour ..... Similar to RAL 9010 pure white

PA-UP temperature regulator with point scale and sensor (analog)	Order no. 93088

The fault interrupter circuit is required as a protective measure (FI < 30 mA).
Assembly in concealed socket by interim frame 50 x 50 (according to DIN 49075) in almost all wall sockets.
Fits DIN wall sockets, compatible with Busch-Jaeger, Jung, etc.

Spare temperature sensor for analogue controller	93088-sensor

MADE IN GERMANY
MADE BY HEMSTEDT

SOLAR-LOG 1200 – DATA LOGGER FOR SOLAR SYSTEMS

Alround-talent for small to average photovoltaic systems

Optimize your power consumption - with teachable controls

As soon as custom power is produced, through a photo-voltaic system for example, it's sensible to not just regulate room temperature via a simple room thermostat. Smart controls can contribute to an enormous reduction of energy costs, with no detriment to comfort or well-being, because not only does the smart controls by Hemstedt regulate the room temperature, they also controll all other household appliances. It learns, when and where you like it to be warm, and how often the washing machine needs to be turned on. Cheap, off-peak power or your own photo-voltaic produced power will be used selectively, so that maximum efficiency is reached..

Specifications Solar-Log 1200

- Max. unit size 100 kWp
- Optional power management
- TFT colour touch screen 4.3"
- LCD status display
- Supervision, optimization and control of self-consumption possible
- 1 x USB
- 1 x potential-free contact
- Number of AC converters user defined, max. 2 manufacturers
- Optional available:
  WiFi, Bluetooth, GRPS, PM+, PM+/WiFi, PM+/GRPS, Meter
- Optional unit supervision

Failures are immediately detected

The elegant device for failure and yield monitoring with TFT-color-touchscreen and a smaller LCD display for status messages.

Plant size

The Solar-Log 1200 is compatible with all current inverters. There may be several inverters from a maximum of two manufacturers and a total of 100 kWp.

Self-current use

The Solar-Log 1200 is also available in the variant Solar-Log 1200 meters. An electricity meter is integrated in de data logger. This saves installation time and costs significantly. Up to two three-phases lines can be monitored and displayed individually or coupled by the Solar-Log ™ meters. Because of the extended SO-interface to two inputs, external current meters can be connected.

The standard integrated relay allows GREEN ACCU MAT® and GREEN ELECTRIC MAT® to increase the consumption of own power. For the use of data loggers for solar systems, a network relay as well as a DIN rail power supply is required. To measure the consumption a Energy meter (SO) is required.

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Two-circuit controllers

Optimize your own consumption - with adaptive controls

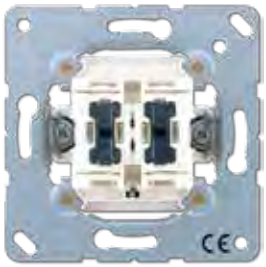
As soon as your own electricity is produced, for example with a photovoltaic system, it is useful to regulate the room temperature no longer via a simple room thermostat. Intelligent Controllers can lead to enormous energy consumption reductions - without sacrificing comfort and wellbeing climate contribute. The intelligent control of Hemstedt does not only regulate the room temperature, it also controls all other consumers in the house. Learns when and where you like to have it warm and how often the washing machine must run. Then, favorable night-time or own photovoltaic electricity is used in a very targeted way, which ensures maximum efficiency.

Technical data	
Rated operating voltage	AC 230 V ±10 %, 50 Hz
Rated load	13 A at AC 230 V; two-pin with separate relays, max. 10 A each
Switching hysteresis	1 ± 0,5 K, referring to the bottom temperature
Bottom temperature operation	adjustable from 30 to 40 °C in 5 K steps
Maximum setting area of the target dial	10 .. 40 °C
Bottom sensor monitoring	for short circuit and interruption
Installation in switch sockets	according to DIN 49073, concealed
Protection class	II, at corresponding installation
Protection type	IP20, use at room temperature
Equipment safety and EMC	according to EN 60730-1, EN 60730-2-9, EN 50559
Sensor	2 m

2-circuit controller	Order no. 93085

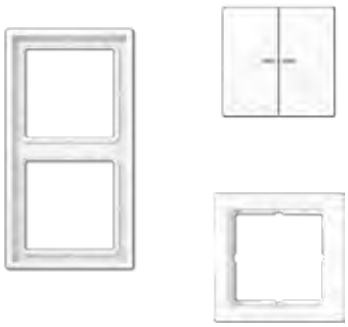
The fault interrupter circuit is required as a protective measure (FI < 30 mA).
Busch-Jäger Program Impuls, Gira Program S-Color oder Fläche, Jung Program LS 990

Spare temperature sensor for two-circuit controller	93085-sensor



LS series for temperature controllers 93089, 93088, 93095

Article designation	Order no.
Serial rocker control switch Jung 505KOU5	93130
Double cover frame Jung LS982WW	93131
Rocker for serial control switch Jung LS995KO5WW	93132



Only necessary for temperature controllers 93089 and 93088

Article designation	Order no.
Interim frame Jung LS961ZWW	93133

DES ICE AND SNOW ALARM

Digital

The digital DES ice and snow alarm has used in conjunction with one or two combined moisture and temperature sensors, the digital ice and snow alarm the task of detecting ice and snow early on and keeping the monitored areas clear by switching on a melting device.

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Outdoor

Technical data

Nominal voltage	1/N/AC, 50 Hz, 230 V, to DIN EN 60730
Voltage range	230 V +6/-6 %
Rated output	approx. 10 VA
Output contact	Load max. 250 V~, 6 (2) A
Ambient temperature	0 bis 50 °C, condensation not permissible
Degree of protection	II nach DIN 57700, when mounted in distribution panel
Weight	approx. 0,4 kg

DES ice and snow alarm

Article designation	Order no.
Digital ice and snow alarm (for roof gutters and outdoor areas)	93159
Moisture and temperature sensor (for roof gutters)	93156
Ice sensor with 6.00 m supply cable, cable entry from bottom, with protective housing (for outdoor area)	93164
Ice sensor with 6.00 m supply cable, cable entry from side (for outdoor area)	93162

A residual current device (FI < 30 mA) must be provided as a protection measure.

FR FROST ALARM AND REGULATOR

For roof gutter heating

This device is a practical / cost-effective alternative to the digital ice and snow alarm and is used for the economical control of roof gutter heating. The critical temperature range is monitored by two regulators so that the heating is only in operation when there is actually a risk of freezing. Heating is only activated in the critical range from -5 °C to +5 °C.

Technical data

Rated voltage	230 V AC
Switch current	16 (4) A
Ambient temperature	-30 to +50 °C
Temperature range	-20 to -35 °C
Degree of protection	IP 65
Dimensions	122 x 120 x 55 mm
Contact	1 NC / 1 NO

FR frost alarm and regulator

Article designation	Order no.
Frost alarms and regulators for roof gutter heating	93160

A residual current device (FI < 30 mA) must be provided as a protection measure.

Installation of domestic appliances and building technology made easy.

D DISTANCE BARS

For fixing heating cables

Heating mats can be created with distance bars.
A variable Watt/m2 heating mat production is possible depending on the grid dimensions of the distance bars.
Examples: Heating mats, heating cables, heating loops.
Not in Bitumen.

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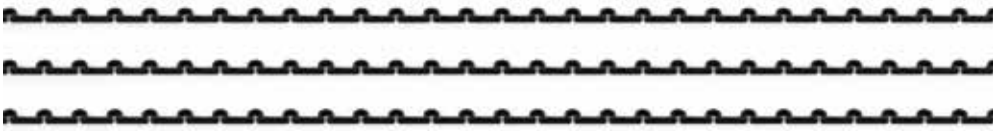
Distance bars					
Article designation	Length m	Grid mm	Cable diameter mm	Bar width mm	Order no.
MS-1 distance bars	~ 1,00	20,00	3,5 – 4,5	8	20060
MS-2 distance bars	~ 1,00	25,00	4,5 – 5,5	8	20061
MS-3 distance bars	~ 1,00	25,00	5,6 – 6,5	8	20062
MS-4 distance bars	~ 1,00	25,00	6,6 – 8,0	8	20063



CE

Examples:

- **Heating mats**
- **Heating cables**
- **Heating loops**

Accessory for Solar-Log 1200

RELAY SOCKET

with small switching relay and status indication

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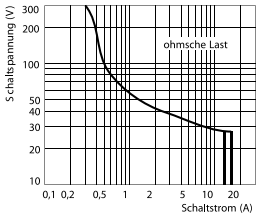
Indoor

Relay socket, 24 VDC, 1 changeover contact

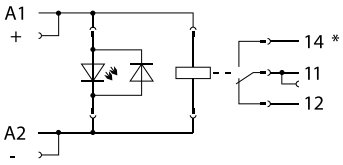
- Relay socket for DIN rail mounting
- Status indication using insertion LED (red)
- Insulated, insertion bridge system, for the spool and load relays
- CAGE CLAMP S termination termination of one wire, fine wire with ferrules or ultra shall compacted wire through direct insertion
- Quick exchange of the relays and the status indication without removing the wiring in case of service
- Safe electrical disconnection according to DIN VDE 0140 Section 1

DC Load Curve



Note:

Inductive loads have to be attenuated by an appropriate protective circuit in order to protect relay coils and contacts!



* Die Anschlüsse 11-11, 12-12 und 14-14 sind nur bei gestecktem Relais gebrückt.

Order no. 93121

Technical data

Contact material .....AgNi 90/10
Input nominal voltage UN .....24 V DC
Input voltage range .....UN +/-10 %
Current input at UN (20 °C).....19 mA
Max. switching voltage .....250 V AC
Max. making current (resistive)
at 10% continuous duty ..... 4 s (AC) 30 A
Max. continuous current ..... 16 A
(at 70 °C continuous current 8 A, seperated)
Max. switching power
(resistive) .....AC 4000 VA
(resistive) .....DC refer to load curve
Max. number of switching
operations with/without load ..... 6 min-1 / 1200 min-1
Operating power.....400 mWtyp.
Pull-in/dropout/bounce timetyp.....7 ms / 3 ms / 3 ms
Operation at normal rating .....100 % continuous duty
Dielectric strength
contact/coil. ..... 5 kV
open contact ..... 1 kV
Nominal voltage acc. to
VDE 0110 Part 1 / 4.97
IEC 60664-1 ..... 250 V / 4 kV / 3
Mechanical life ..... 30 x 106 switching operations
Degree of protection ..... IP 20
Relay type .....RT 1
Ambient operating temperature ..... -25 °C...+50 °C
-25 °C...+70 °C
(at 8 A continuous current)
Storage temperature ..... -40 °C...+70 °C
Dimensions (W x H x D) .....(15 x 53** x 86) mm
**at top edge of DIN rail TS35

Accessory for Solar-Log 1200

RAIL POWER SUPPLY

DR-15-24, 24 V

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The outgoing power is fine adjustable of an AC/DC wide range input and conforms to the EuP Standard requirements.

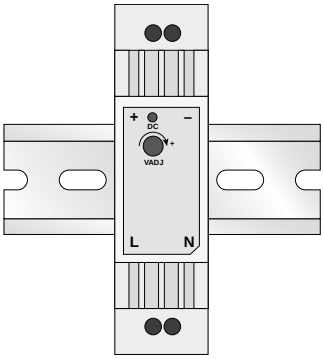
Indoor

- Installation to DIN rail TS35, 1/4 TE
- Comprehensive integrated protection switching: Short-circuit, over voltage and over load protection
- Passive cooling
- LED operation indication
- Manufacture tested under full load
- Double insulation, degree of protection, IP 20
- Wide ambient operation temperature: -20 °C to + 60 °C

CE

Expert Power Control NET 4x DIN

Rated power ..... 15.2 W
DC Voltage..... 24 V
Rated current ..... 0.63 A
Voltage range ..... 85-264 VAC, 120-370 VDC
Termination ..... screw termination
Ripple & noise ..... 150 mVss
Line regulation ..... ± 1 %
Load regulation ..... ± 1 %
Efficiency..... 85 %
Display ..... Operation
Dimensions (W x H x D) ..... 25 x 93 x 56 mm
Weight ..... 0.1 kg



Order no 93122

Accessory for Solar-Log 1200

DIGITAL CONSUMPTION COUNTER FOR SMART TIMING S0 CONSUMPTION COUNTER

for electrical consumption measurement

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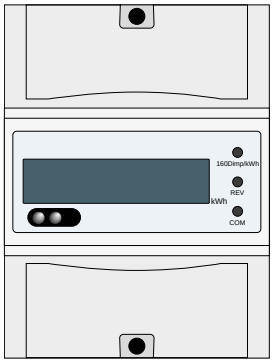
Indoor

The consumption counter transmits the measured technical data Iskra uncalibrated, 3-phase, S0 current for evaluation to the Solar-Log. If you want o consume the produced electricity from a PV system itself, the meter measures the electricity consumed and places it in comparison to the electricity produced.

The counter can be used in 3 modes configured in the Solar-Log.

1. Measurement of the power for the domestic consumption optimization.
2. Measurement of the total power supply of the unit.
3. Measurement of power production produced by a non-supported converter.

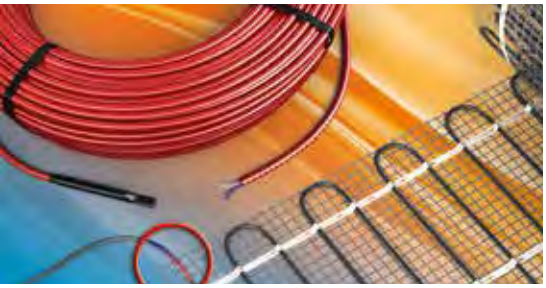
Technical Data	Iskra, uncalibrated, 3-phase, S_0
Termination	6 pole S0-In / Out plug / cable length max. 10 m
Direct connection	65 A
Power measurement	10 A
Power supply U_n	3 x 230 V / 400 V +20% - + 15%
Measurement range	4 mA to 65 A
Usage	< 0,85 W
Start-up power	4 mA
Frequency	50 Hz / 60 Hz
Dimensions (H x W x D)	84.3 x 53.6 x 65.1 mm
Cable cross-section	2.5 – 16 mm2
Protection	IP20
LCD Display	6 + 1 digit, 100 Wh display
S_0 impuls	500 p / KWh
Others	no LCD display class 1 EN 62053-21 and EN 62052-11



Order no. 93123

HEMSTEDT® – ALL IN ONE PARTNER

Our range



Hemstedt® is the successful specialist and reliable OEM partner for innovative electrical fl oor heating systems. Cold storage technology and special solutions complete the portfolio together with consulting, project planning and development.

Profi t from the comprehensive range from a single source:

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Worldwide: Direct

As a global player, Hemstedt GmbH supplies and works with customers and projects together with overseas agents on all continents, directly from the headquarters in Brackenheim.

Visit our model house: www.hemstedt.de/en/company/model-house/

all you can heat
Hemstedt
HEIZLEITUNGEN · KÜHLHAUSTECHNIK

Hemstedt GmbH
Schleicherweg 19
D-74336 Brackenheim
Phone: +49 (0) 7135 / 9898-0
Fax: +49 (0) 7135 / 2197
Mail: office@hemstedt.de
Web: www.hemstedt.de