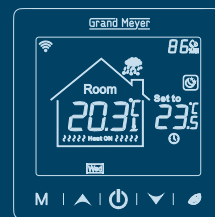
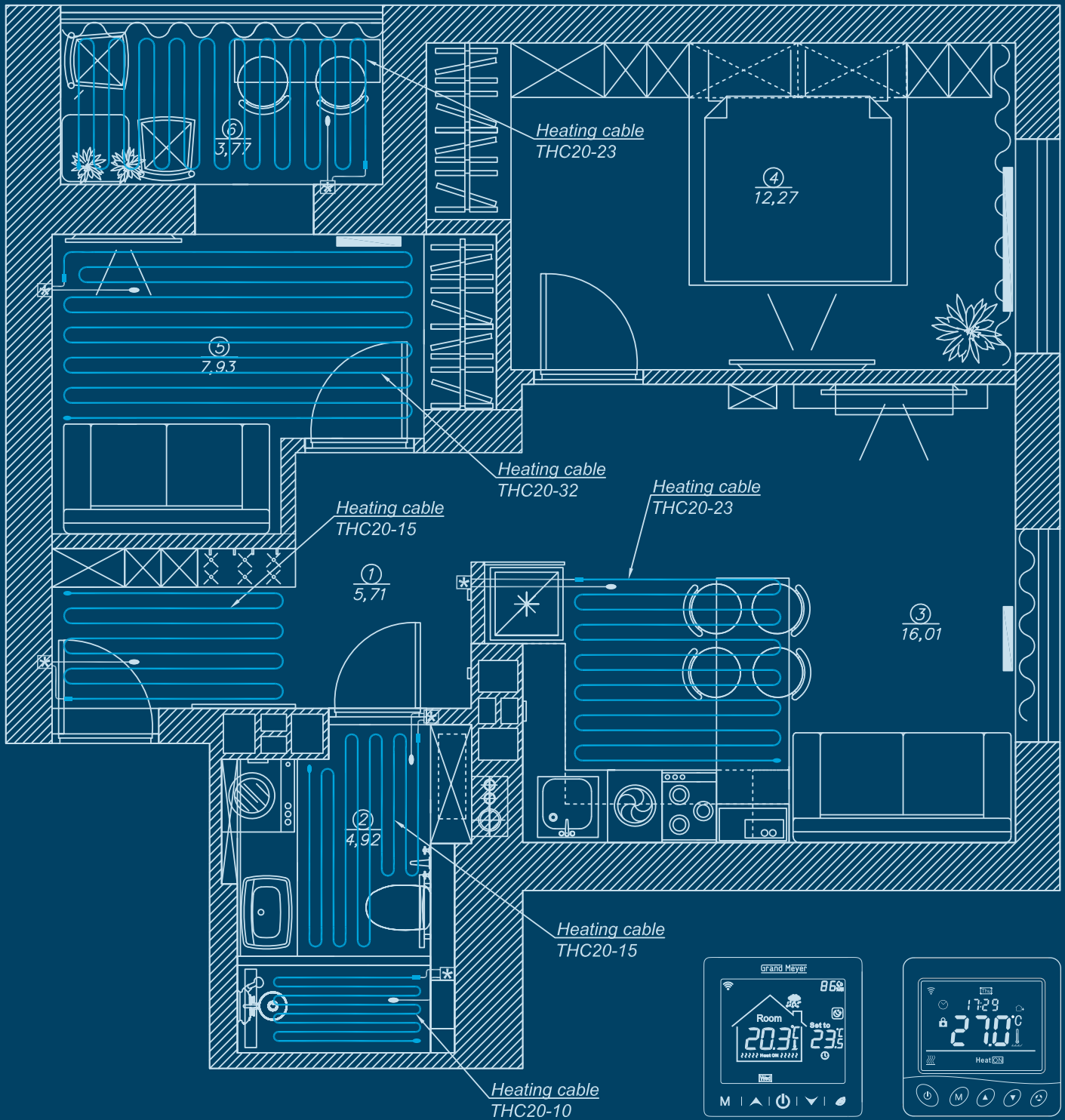


# PRODUCT CATALOGUE



**Grand Meyer**<sup>®</sup>  
The heating of life

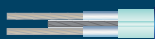
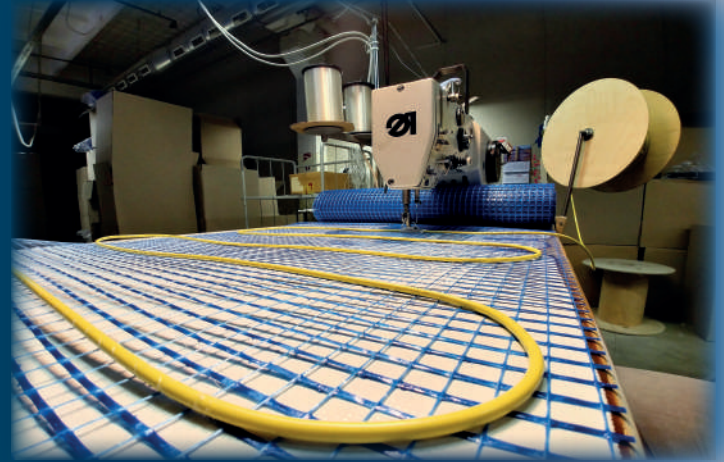
**2025/2026**



Grand Meyer® is an OEM manufacturer of heating cable systems with more than 20 years of experience. Today, our company is represented in 24 countries across Europe and the CIS and has eight of its own branches.

Resistive heating cables are TÜV tested and produced according to ISO 9001:2015 quality management standards applicable to cable production.

A strong foundation for the company's mutually beneficial partnership with clients worldwide has been the high quality of the supplied products and their consistently high efficiency in use.





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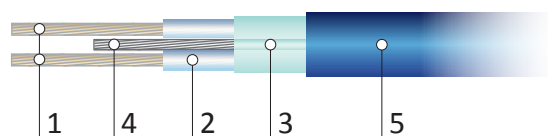


# THC20



*Twin-core resistive type electric loose heating cable Grand Meyer THC20 with a linear output of 20 W/m. Used for underfloor heating systems as main heating or as comfort underfloor heating. Also can be used for protection against snow and ice of the small open areas.*

## HEATING CABLE FEATURES



1. Heating wire made from CuNi, CuCr, NiCr (depending on resistance).
2. New generation XLPE internal insulation.
3. Al-Mg foil shield.
4. Stranded Al-Mg wire conductor.
5. PVC outer jacket with increased heat resistance.

## DATA SHEET

- Cable type ..... twin-core
- Power supply ..... ~230V
- Linear power at rated voltage ..... 20 W/m
- Maximum operating temperature ..... +90°C
- Minimum installation temperature ..... -10°C
- Minimum bend radius ..... 6cm
- Cable outer diameter ..... 5,0 mm
- Cold lead length ..... 3,0m
- Color of connecting wires ..... brown - Load (L), blue - Neutral (N), yellow-green - Ground (PE)
- Length tolerances ..... ±0.5%

Article	Heating part length, m	Power, W	Current, A	Resistance, Ohm
THC20-10	10	200	0,9	251 ... 291
THC20-15	15	300	1,4	168 ... 194
THC20-23	23	460	2,1	109 ... 127
THC20-32	32	640	2,9	79 ... 91
THC20-45	45	900	4,1	56 ... 65
THC20-57	57	1 140	5,2	44 ... 51
THC20-70	70	1 400	6,4	36 ... 42
THC20-85	85	1 700	7,7	29 ... 34
THC20-98	98	1 960	8,9	25 ... 30
THC20-115	115	2 300	10,5	21 ... 25
THC20-160	160	3 200	14,5	15 ... 19





### KIT INCLUDES



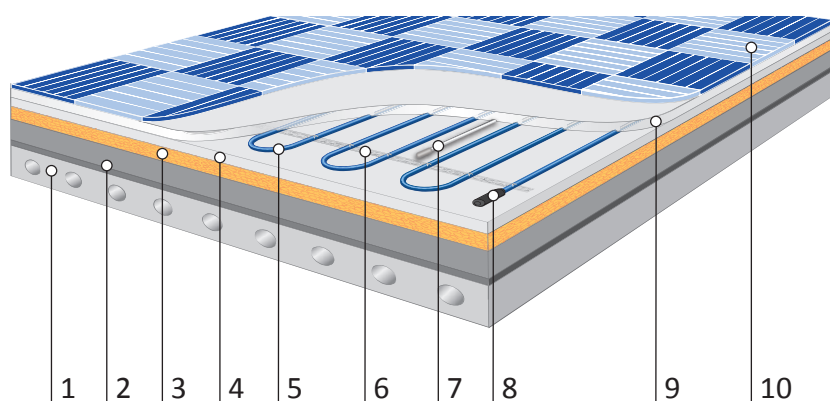
- Loose heating cable THC20 with 3m. cold lead for power supply.
- Corrugation tube for temperature sensor  $\varnothing$  16mm 1.5m.
- Instruction and warranty card.
- Technical data sheet.

*\*To control electric under floor heating we recommend to use Grand Meyer temperature controllers.*

### RECOMMENDATIONS FOR THE SELECTION OF LOOSE HEATING CABLE THC20

Article	Length, m	Power, W	Max. Heating Area (m <sup>2</sup> ) at Laying Spacing (Power Density, W/m <sup>2</sup> )				
			7,5 cm 267 W/m <sup>2</sup>	10 cm 200 W/m <sup>2</sup>	12,5 cm 160 W/m <sup>2</sup>	15 cm 133 W/m <sup>2</sup>	17,5 cm 114 W/m <sup>2</sup>
THC20-10	10	200	0,75	1,00	1,25	1,50	1,75
THC20-15	15	300	1,13	1,50	1,88	2,25	2,63
THC20-23	23	460	1,73	2,30	2,88	3,45	4,03
THC20-32	32	640	2,40	3,20	4,00	4,80	5,60
THC20-45	45	900	3,38	4,50	5,63	6,75	7,88
THC20-57	57	1 140	4,28	5,70	7,13	8,55	9,98
THC20-70	70	1 400	5,25	7,00	8,75	10,50	12,25
THC20-85	85	1 700	6,38	8,50	10,63	12,75	14,88
THC20-98	98	1 960	7,35	9,80	12,25	14,70	17,15
THC20-115	115	2 300	8,63	11,50	14,38	17,25	20,13
THC20-160	160	3 200	12,00	16,00	20,00	24,00	28,00

### INSTALLATION OF THE LOOSE HEATING CABLE GRAND MEYER THC20



1. Floor slab
2. Concrete base
3. Thermal insulation
4. Cement screed min. 3 cm high.
5. Heating cable THC20.
6. Mounting strap SCS19.
7. Temperature sensor (installed in a corrugated tube, the end of which is plugged).
8. End termination.
9. Cement screed min. 3 cm high.



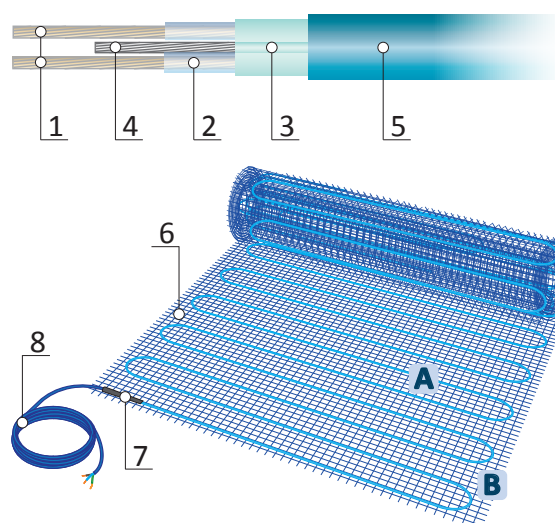


# THM200

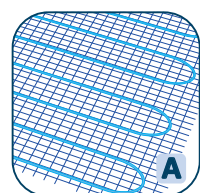


**Twin-core electric heating mat THM200 200 W/m<sup>2</sup> is designed for comfortable and basic floor heating in any type of premises. Ideal for “cold rooms” (balconies, ground floors, winter gardens), as well as source main heating. Is used under any surface: ceramic tiles, porcelain stoneware, marble, linoleum or carpet. Heating mat mounted on a new floor base or on an existing floor during the renovation and can be installed straight into tile adhesive if needed.**

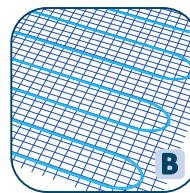
## HEATING MAT FEATURES



1. Heating wire made from CuNi, CuCr, NiCr (depending on resistance).
2. FEP internal insulation.
3. Al-Mg foil shield.
4. Stranded Al-Mg wire conductor.
5. PVC outer jacket with increased heat resistance.
6. Synthetic fiberglass mesh 500 mm wide.
7. Splice.
8. Cold lead 3,0m long.



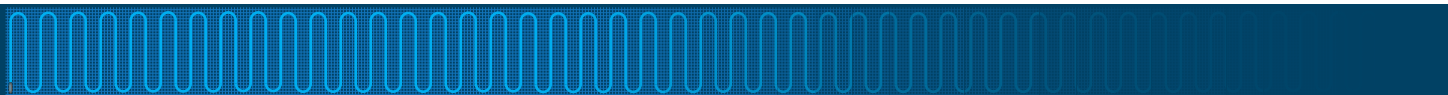
Heating cable thickness is only 3.6 mm, which allows to install heating mat straight in tile adhesive, without requiring concrete screed.



The heating cable is fixed to an ultra-thin and durable synthetic fiberglass mesh with a thickness of only 0.2 mm, which does not deform when laid out.

## DATA SHEET

■ Cable Type .....	twin-core
■ Voltage .....	230 V ~ AC
■ Wattage .....	200W/m <sup>2</sup>
■ Maximum operating temperature .....	+90°C
■ Minimum installation temperature .....	-10°C
■ Cable outer diameter .....	3,6mm
■ Heating mat thickness .....	3,8mm
■ Heating mat width .....	50cm
■ Cold lead length .....	3,0m
■ Color of connecting wires .....	brown - Load (L), blue - Netural (N), yellow-green - Ground (PE)





Article	Mat size (W x L), m	Coverage area, m <sup>2</sup>	Power, Watt	Current, A	Resistance, Ohm
THM200-007	0,5 x 1,5	0,75	150	0,7	335,0 ... 387,9
THM200-010	0,5 x 2,0	1,0	200	0,9	251,3 ... 291,0
THM200-015	0,5 x 3,0	1,5	300	1,3	167,5 ... 194,0
THM200-020	0,5 x 4,0	2,0	400	1,7	125,6 ... 145,5
THM200-030	0,5 x 6,0	3,0	600	2,6	83,8 ... 97,0
THM200-040	0,5 x 8,0	4,0	800	3,5	62,8 ... 72,7
THM200-050	0,5 x 10,0	5,0	1000	4,3	50,3 ... 58,2
THM200-060	0,5 x 12,0	6,0	1200	5,2	41,9 ... 48,5
THM200-070	0,5 x 14,0	7,0	1400	6,1	35,9 ... 41,6
THM200-080	0,5 x 16,0	8,0	1600	7,0	31,4 ... 36,4
THM200-090	0,5 x 18,0	9,0	1800	7,8	27,9 ... 32,3
THM200-100	0,5 x 20,0	10,0	2000	8,7	25,1 ... 29,1
THM200-120	0,5 x 24,0	12,0	2400	10,4	20,9 ... 24,3
THM200-140	0,5 x 28,0	14,0	2800	12,1	18,0 ... 20,8

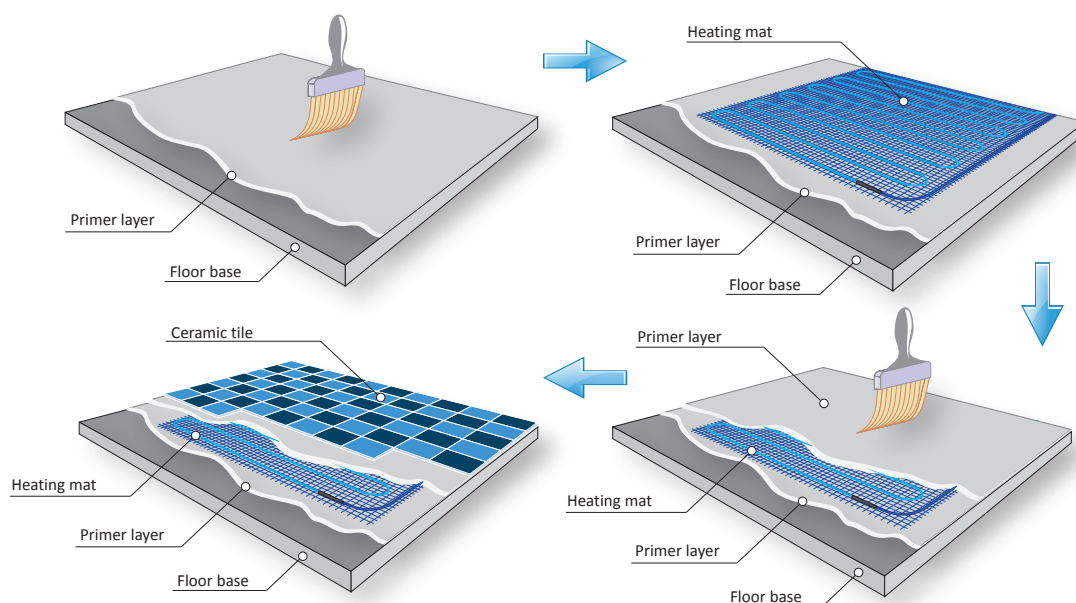
### KIT INCLUDES



- Heating mat THM200 with 3m. cold lead for power supply.
- Corrugation tube for temperature sensor Ø 16mm 1.5m.
- Instruction and warranty card.
- Technical data sheet.

*\*To control electric under floor heating we recommend to use Grand Meyer temperature controllers.*

### RECOMMENDATIONS OF THE HEATING MAT THM200 INSTALLATION INTO ADHESIVE GLUE



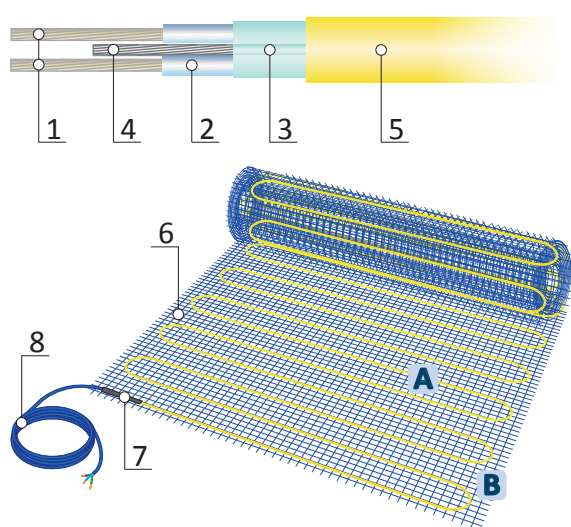


# EcoNG170

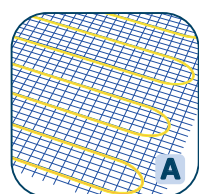


*Twin-core electric heating mat EcoNG170 170 W/m<sup>2</sup> is designed for comfortable and basic floor heating in any type of premises. Is used under any surface: ceramic tiles, porcelain stoneware, marble, linoleum or carpet. Heating mat mounted on a new floor base or on an existing floor during the renovation and can be installed straight into tile adhesive if needed.*

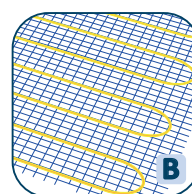
## HEATING MAT FEATURES



1. Heating wire made from CuNi, CuCr, NiCr (depending on resistance).
2. New generation XLPE internal insulation.
3. Al-Mg foil shield.
4. Stranded Al-Mg wire conductor.
5. PVC outer jacket with increased heat resistance.
6. Synthetic fiberglass mesh 500 mm wide.
7. Splice.
8. Cold lead 3,0m long.



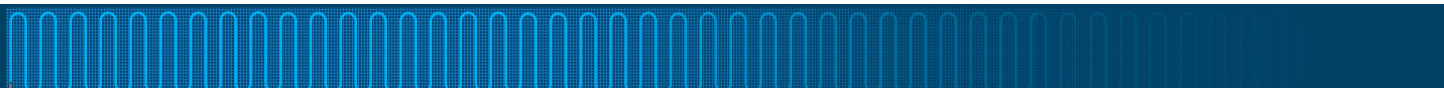
Heating cable thickness is only 3.8 mm, which allows to install heating mat straight in tile adhesive, without requiring concrete screed.



The heating cable is fixed to an ultra-thin and durable synthetic fiberglass mesh with a thickness of only 0.2 mm, which does not deform when laid out.

## DATA SHEET

- Cable Type ..... twin-core
- Voltage ..... 230 V ~ AC
- Wattage ..... 170W/m<sup>2</sup>
- Maximum operating temperature ..... +90°C
- Minimum installation temperature ..... -10°C
- Cable outer diameter ..... 3,8mm
- Heating mat thickness ..... 4,0mm
- Heating mat width ..... 50cm
- Cold lead length ..... 3,0m
- Color of connecting wires ..... brown - Load (L), blue - Netural (N), yellow-green - Ground (PE)





Article	Mat size (W x L), m	Coverage area, m <sup>2</sup>	Power, Watt	Current, A	Resistance, Ohm
EcoNG170-010	0,5 x 2,0	1,0	170	0,7	295,6 ... 342,3
EcoNG170-015	0,5 x 3,0	1,5	255	1,1	197,1 ... 228,2
EcoNG170-020	0,5 x 4,0	2,0	340	1,5	147,8 ... 171,2
EcoNG170-025	0,5 x 5,0	2,5	425	1,8	118,3 ... 136,9
EcoNG170-035	0,5 x 7,0	3,5	595	2,6	84,5 ... 97,8
EcoNG170-045	0,5 x 9,0	4,5	765	3,3	65,7 ... 76,1
EcoNG170-055	0,5 x 11,0	5,5	935	4,1	53,8 ... 62,2
EcoNG170-065	0,5 x 13,0	6,5	1105	4,8	45,5 ... 52,7
EcoNG170-070	0,5 x 14,0	7,0	1190	5,2	42,2 ... 48,9
EcoNG170-080	0,5 x 16,0	8,0	1360	5,9	37,0 ... 42,8
EcoNG170-090	0,5 x 18,0	9,0	1530	6,7	32,9 ... 38,0
EcoNG170-110	0,5 x 22,0	11,0	1870	8,1	26,9 ... 31,1
EcoNG170-130	0,5 x 26,0	13,0	2210	9,6	22,7 ... 26,3
EcoNG170-150	0,5 x 30,0	15,0	2550	11,1	19,7 ... 22,8

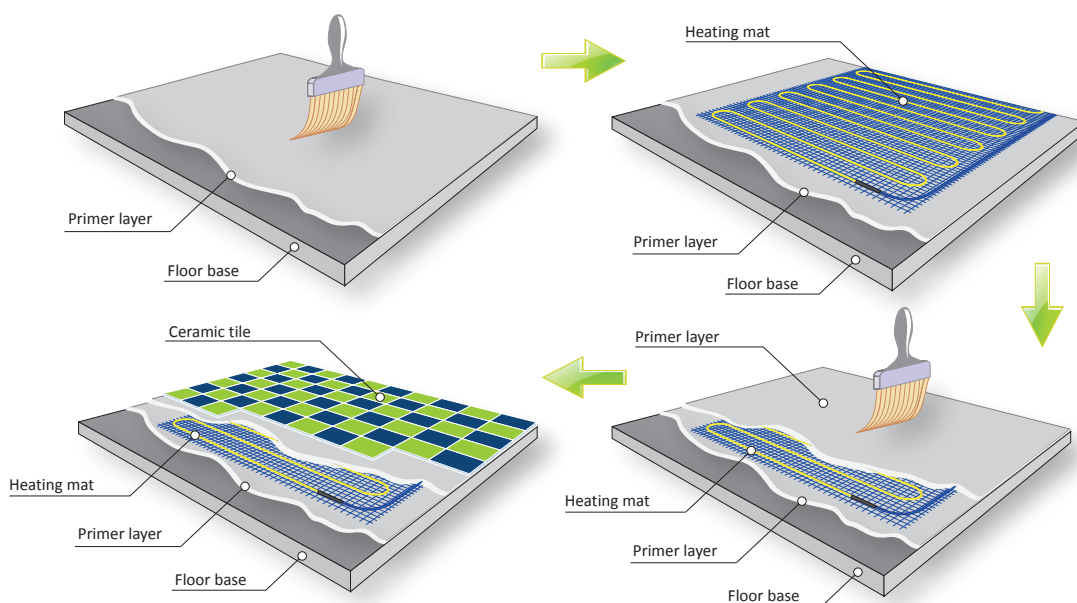
### KIT INCLUDES



- Heating mat EcoNG170 with 3m. cold lead for power supply.
- Corrugation tube for temperature sensor  $\varnothing$  16mm 1.5m.
- Instruction and warranty card.
- Technical data sheet.

*\*To control electric under floor heating we recommend to use Grand Meyer temperature controllers.*

### RECOMMENDATIONS OF THE HEATING MAT ECONG170 INSTALLATION INTO ADHESIVE GLUE





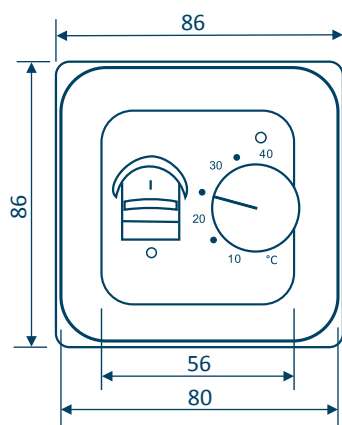
# MST-1, MST-1i, MST-10



*A simple and reliable electronic temperature controller for underfloor heating control is used in cases where programming is not required. It has a separate power switch and LED indication of underfloor heating operation. It is completed with a temperature sensor (NTC, 10 kOhm), which is installed in the floor between the coils of the heating cable. The length of the sensor wire is 3m. The temperature controller controls the load up to 16A. The temperature controller is designed for hidden (recessed) mounting in the socket of the mounting box. Available in three colors: MST-1 in white, MST-1i in ivory, MST-10 in black.*

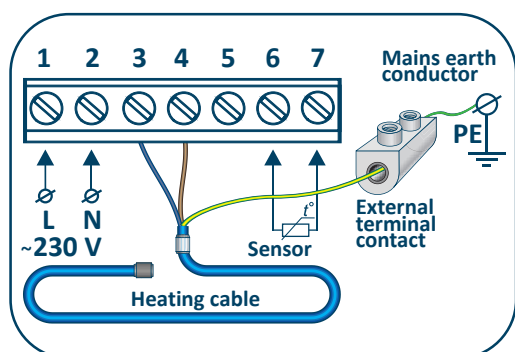


MST-1 (white), MST-10 (black), MST-1i (ivory).



## DATA SHEET

- Power supply ..... ~230V (-15%, +10%), 50Hz
- Switched current/power ..... 16A
- Power consumed by the regulator  
with the load switched off, no more ..... 5W
- Operating principle ..... On/Off
- Output relay ..... Trailing
- Load indicator ..... Red LED
- Operating temperature ..... from -5°C to +50°C
- Temperature control limits ..... from +5°C to +40°C
- Temperature drop that activates  
the heating element (hysteresis) ..... 0,5°C
- Temperature sensor ..... External
- External temperature sensor resistance ..... 10kOhm at +25°C
- External temperature sensor  
connecting cable length.....3m
- Body material ..... Self-extinguishing PVC
- Degree of protection ..... IP20
- Assembly dimensions ..... 86(H) x 86(W) x 50(D) mm
- Body color ..... White(MST-1), Black(MST-10), ivory(MST-1i)
- Weight ..... 90 g
- Warranty ..... 2 years
- Certified ..... CE, EAC



## TEMPERATURE AND VALUE OF SENSOR RESISTANCE

Temperature, °C	Resistance, kOhm
5	22,070
10	17,960
20	12,091
30	8,312
40	5,827



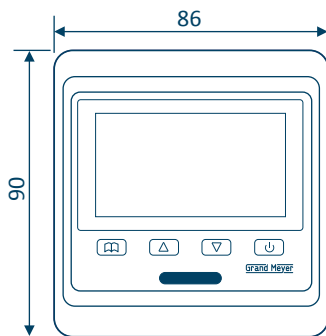
# HW500, HW500i, HW800



**Programmable temperature controller with an updated design for underfloor heating control. Possibility of programmable and manual control. Possibility to set a weekly period of 5+2/6+1/7 days. Memory settings when power off. Built-in temperature sensor and external NTC sensor 3 m long. Maximum load up to 16A. The temperature controller controls the operation of the underfloor heating according to the readings of the floor temperature sensor (included in the kit) or according to the readings of the ambient air temperature build-in sensor, or a combination of both sensors. The temperature controller HW-500 is designed for hidden (recessed) mounting in the socket of the mounting box. Available in three colors: HW500 in white, HW500i in ivory and HW800 in black.**

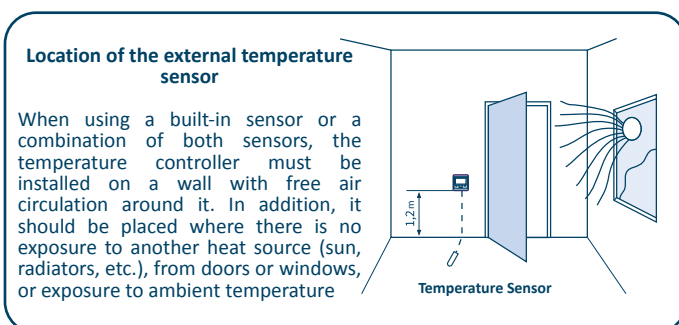
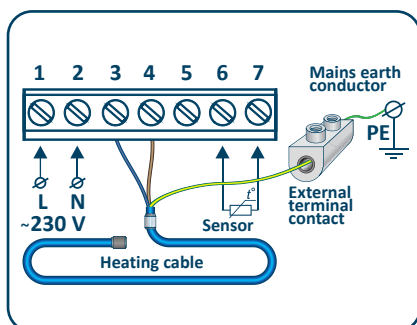


HW500 (white), HW800 (black), HW500i (ivory).



## DATA SHEET

- Power supply ..... ~230V (-15%, +10%), 50Hz
- Switched current/power ..... 16A
- Power consumed by the regulator with the load switched off, no more ..... 2W
- Operating principle ..... On/Off
- Output relay ..... Trailing
- Temperature sensors ..... Built-in and external
- Operating temperature ..... from -5°C to +50°C
- Hysteresis (configurable) ..... from 0.5°C to 10°C
- Temperature control limits ..... from +5°C to +95°C (factory from +5°C to +35°C)
- Programming mode ..... 5+2/6+1/7 days
- Frost protection function ..... Yes
- External temperature sensor resistance ..... 10kOhm at +25°C
- External temperature sensor connecting cable length.....3m
- Body material ..... Self-extinguishing PVC
- Degree of protection ..... IP20
- Assembly dimensions ..... 90 (H) x 86 (W) x 43 (D) mm
- Body color ..... White(HW500), Black(HW800), ivory(HW500i)
- Weight ..... 90 g
- Warranty ..... 2 years
- Certified ..... CE, EAC





# W350, W350i, W390



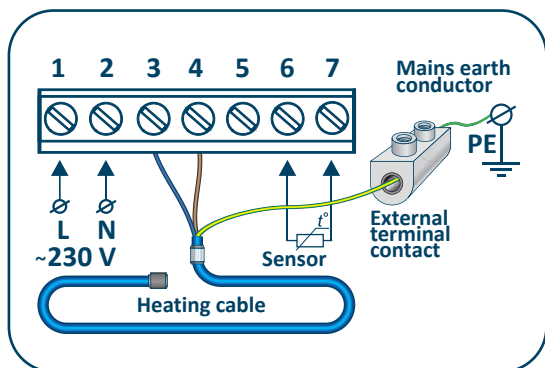
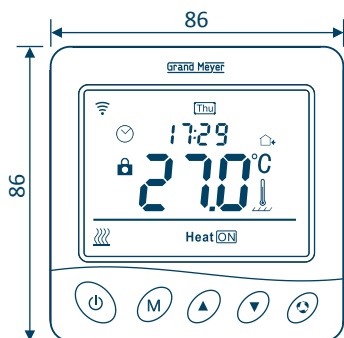
**Programmable temperature controller with Wi-Fi remote access for underfloor heating control. The temperature controller automatically maintains the set temperature of the heated surface according to the readings of the floor temperature sensor (included in the delivery set) or according to the readings of the ambient build-in air temperature sensor, or a combination of both sensors. The temperature controller W350 is adapted for hidden (recessed) mounting in a socket of a standard mounting box. Available in three colors: W350 in white, W350i in ivory and W390 in black.**



W350 (white), W390 (black),  
W350i (ivory).

## DATA SHEET

- Power supply ..... ~230V (-15%, +10%), 50Hz
- Switched current/power ..... 16A
- Power consumed by the regulator  
with the load switched off, no more ..... 2W
- Operating principle ..... On/Off
- Output relay..... Trailing
- Operating temperature ..... from -5°C to +50°C
- Temperature sensors ..... Built-in and external
- Temperature control  
limits ..... from +5°C to +95°C (factory from +5°C to +35°C)
- Hysteresis (configurable) ..... from 0.5°C to 10°C
- External temperature sensor resistance ..... 10kOhm at +25°C
- External temperature sensor  
connecting cable length.....3m
- Frost protection function ..... Yes
- Programming mode ..... 5+2/6+1/7 days
- Wi-Fi network ..... 802.11b/g/n, 2.4GHz
- Mobile App  
Compatibility ..... Android, iOS
- Body material ..... Self-extinguishing PVC
- Degree of protection ..... IP20
- Assembly dimensions ..... 90 (H) x 86 (W) x 43 (D) mm
- Body color ..... White(W350), Black(W390), ivory(W350i)
- Weight ..... 135g
- Warranty ..... 2 years
- Certified..... CE, EAC





For remote access to the temperature controller via a Wi-Fi network download the Smart Life mobile application adapted for our controller. The app is available on Google Play for Android and the App Store for iOS.





GET IT ON  
Google play



DOWNLOAD ON THE  
App Store



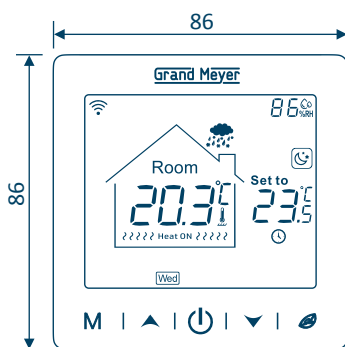
# SN-10, SN-15, SN-20



*This programmable temperature controller with Wi-Fi remote access for underfloor heating control with a glass body design and a monochrome display will suit any modern interior. The temperature controller automatically maintains the set temperature of the heated surface according to the readings of the floor temperature sensor (included in the delivery set) or according to the readings of the ambient build-in air temperature sensor, or a combination of both sensors. The temperature controller is adapted for hidden (recessed) mounting in a socket of a standard mounting box. Also temperature controller has a weather forecast (sunny/rainy/cloudy/snow). Available in three colors: SN-10 in white, SN-15 in gold and SN-20 in black.*

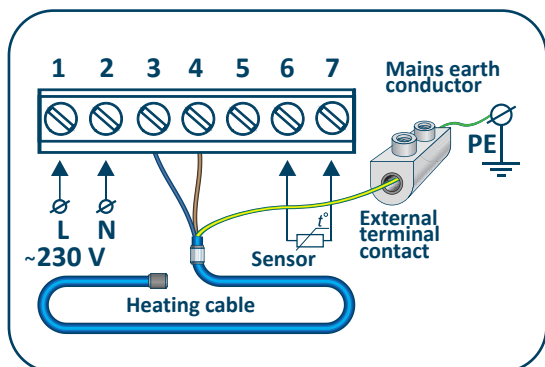



SN-10 (white), SN-15 (gold), SN-20 (black).




## DATA SHEET



- Power supply ..... ~230V (-15%, +10%), 50Hz
- Switched current/power ..... 16A
- Power consumed by the regulator with the load switched off, no more ..... 1,5W
- Operating principle ..... On/Off
- Output relay..... Trailing
- Operating temperature ..... from -5°C to +50°C
- Temperature sensors ..... Built-in and external
- Temperature control limits ..... from +5°C to +95°C (factory from +5°C to +35°C)
- Hysteresis (configurable) ..... from 0.5°C to 10°C
- External temperature sensor resistance ..... 10kOhm at +25°C
- External temperature sensor connecting cable length.....3m
- Frost protection function ..... Yes
- Weather forecast function ..... Yes
- Programming mode ..... 5+2/6+1/7 days
- Wi-Fi network ..... 802.11b/g/n, 2.4GHz
- Mobile App Compatibility ..... Android, iOS
- Body material ..... Self-extinguishing PVC
- Degree of protection ..... IP20
- Assembly dimensions ..... 86 (H) x 86 (W) x 44,4 (D) mm
- Body color ..... White(SN10), Gold(SN15), Black(SN20)
- Weight ..... 135g
- Warranty ..... 2 years
- Certified..... CE, EAC





For remote access to the temperature controller via a Wi-Fi network download the Smart Life mobile application adapted for our controller. The app is available on Google Play for Android and the App Store for iOS.





# HE-TS

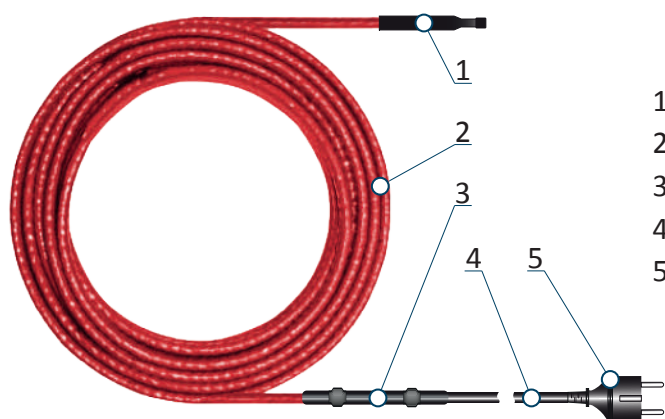


*Grand Meyer HE-TS kit is used:*

- For heating domestic water pipes, sewer pipes for protection from freezing.
- For heating air conditioners drain pan and line, protecting from freezing.
- For soil heating, protecting from freezing.

HE-TS kit not require temperature controller. Self-regulating heating cable is used in the kit, which automatically adjusts the heating temperature depending on the ambient temperature and prevents cable overheating, even if it overlaps. HE-TS kit not require temperature controller.

## KIT INCLUDES



1. End termination.
2. Self-Regulating heating cable.
3. Splice connection.
4. 2 meters H05RN-F cold lead.
5. EU plug

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

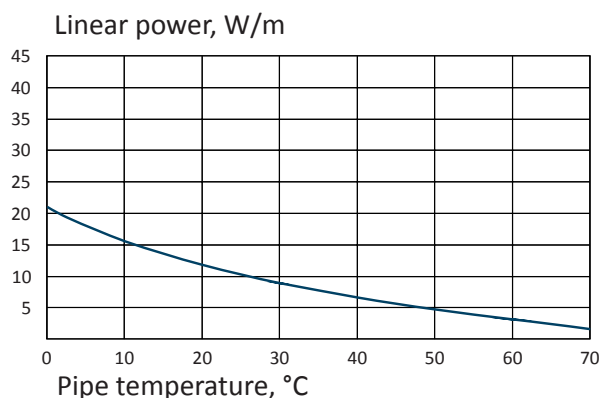
The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.

## HE-TS KIT AVAILABLE SIZES

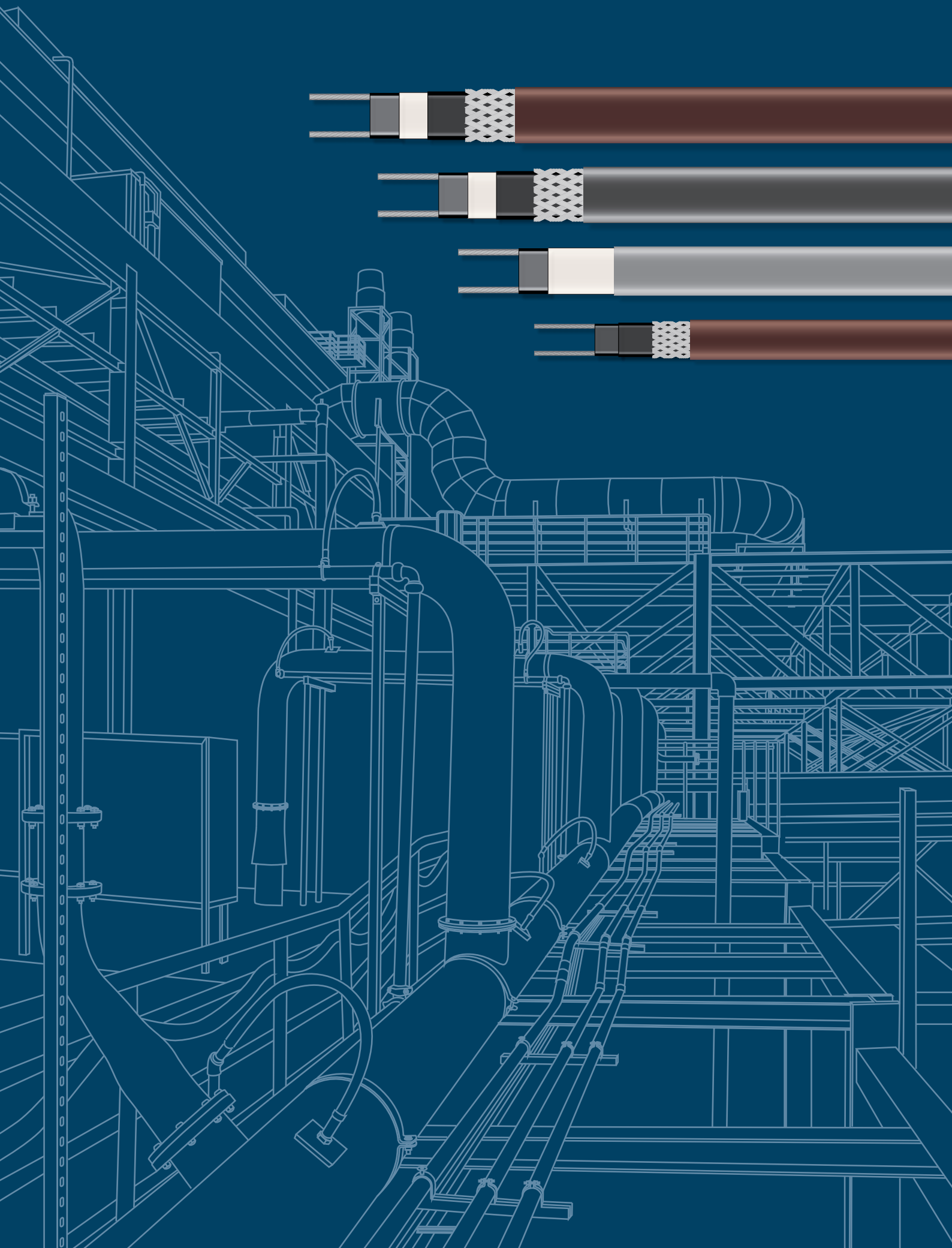
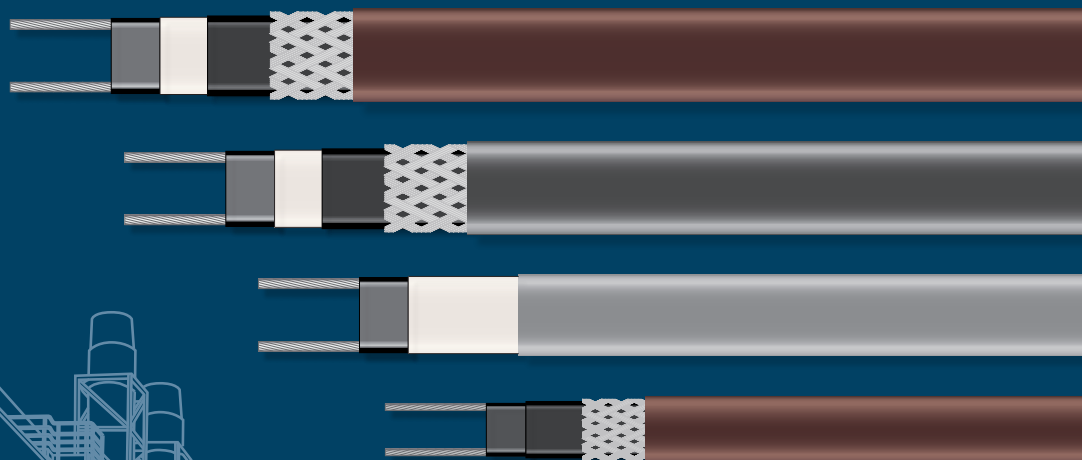
Article	Heating cable length, m	Linear power, Watt at +10°C
HE-TS-02	2	32
HE-TS-03	3	48
HE-TS-04	4	64
HE-TS-05	5	80
HE-TS-06	6	96
HE-TS-08	8	128
HE-TS-10	10	160
HE-TS-12	12	192
HE-TS-15	15	240

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable with operating voltage ~230V.



# OUTDOOR AND INDUSTRIAL HEATING

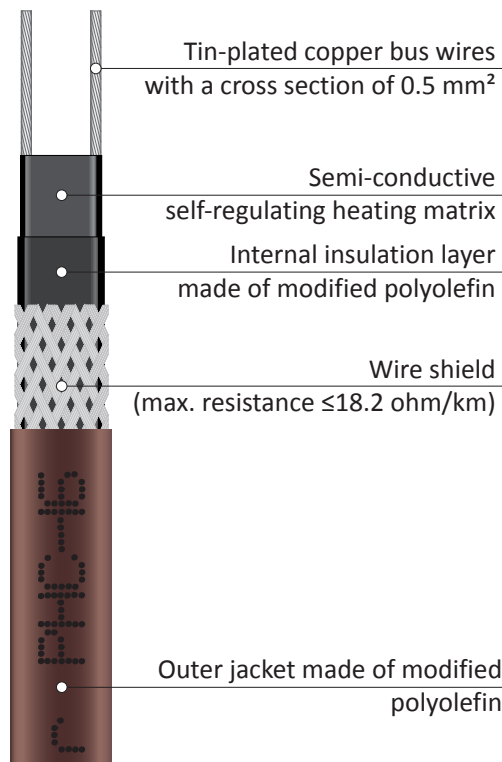




# PHC-16



**Parallel type self-regulating heating cable for freeze protection and underfloor heating. Used for maintenance of pipelines and tanks that are not subjected to steaming, comfort floor heating, radiant space heating, freezer frost heave prevention. Can be used to install inside the pipeline using pipe coupling.**



## DESCRIPTION

Grand Meyer PHC-16 is an oval type low temperature self-regulating heating cable with semi-conductive carbon matrix and parallel 0.5mm<sup>2</sup> tinned copper bus wires. The heating intensity depends with number of the conductive paths between the bus wires, which varies with the surrounding temperature.

The modified polyolefin internal insulation and outer jacket provides dielectric resistance,

UV resistance, moisture resistance, impact and abrasion resistance.

Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

The modified polyolefin outer jacket is UV resistant, allowing the heating cable to be used on open areas.

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

Grand Meyer PHC-16 heating cable can be installed inside the pipeline using the Grand Meyer HCF pipe coupling.

Note: Grand Meyer PHC-16 cable is not approved for drinking water.

Grand Meyer TTK-25 connection kit is used to terminate heating cable to cold lead for power supply.



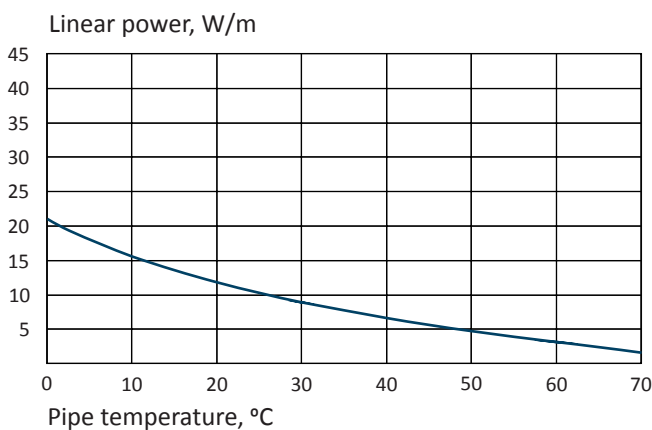


## DATA SHEET

- Power per meter at ambient temperature +10°C..... 16W/m
- Maximum operating temperature (continuous operation) ..... +65°C
- Maximum allowable temperature without load (1000 hours total)..... +85°C
- Minimum mounting temperature..... -40°C
- Power supply..... ~220-240V
- Minimum bend radius..... 35mm
- Wire shield maximum resistance..... 18.2 ohm/km
- Cable size..... 8.5 x 5.5mm
- Weight ..... 6.7kg/120m
- Outer jacket color..... Brown

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable PHC-16 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

## MAXIMUM LENGTH OF HEATING CABLE, M

(or total cable lengths connected in parallel) depending on the type of circuit breaker.

Cable type	Switch-on temperature	~230V			
		10A	16A	30A	40A
PHC-16	10°C	63	75	-	-
	0°C	55	65	-	-
	-20°C	40	50	-	-
	-40°C	20	30	-	-

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ~300 seconds after switching on, the current value will be stabilized.

## ACCESSORIES

Grand Meyer PHC-16 heating cable can be installed inside the pipeline using the Grand Meyer HCF pipe coupling.

Note: Grand Meyer PHC-16 cable is not approved for drinking water.

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.

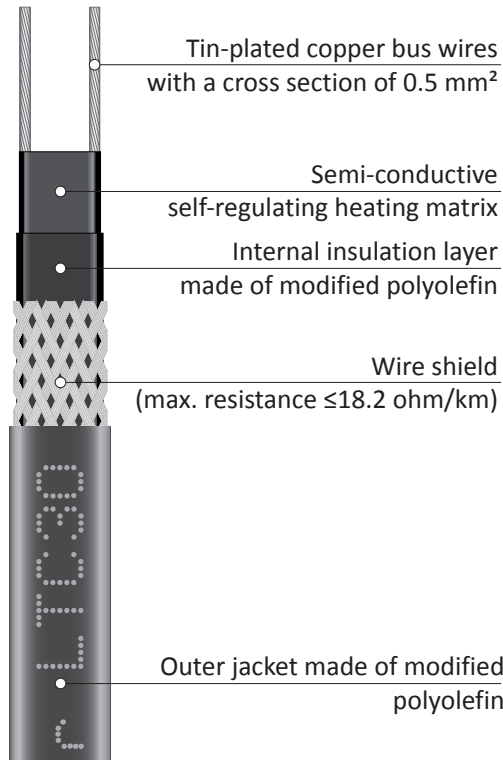




# LTC30



**Parallel type self-regulating heating cable for freeze protection of roofs, gutters and temperature maintenance of pipelines and tanks that are not subjected to steaming. Can be used to install inside the pipeline using pipe coupling. Ideal to use where short lengths is required.**



## DESCRIPTION

Grand Meyer LTC30 is an oval type low temperature self-regulating heating cable with semi-conductive carbon matrix and parallel 0.5mm<sup>2</sup> tinned copper bus wires. The heating intensity depends with number of the conductive paths between the bus wires, which varies with the surrounding temperature.

The modified polyolefin internal insulation and outer jacket provides dielectric resistance, UV resistance, moisture resistance, impact and abrasion resistance. Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

The modified polyolefin outer jacket is UV resistant, allowing the heating cable to be used on open areas.

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

Grand Meyer LTC30 heating cable can be installed inside the pipeline using the Grand Meyer HCF pipe coupling.

Note: Grand Meyer LTC30 cable is not approved for drinking water.

Grand Meyer TTK-25 connection kit is used to terminate heating cable to cold lead for power supply.

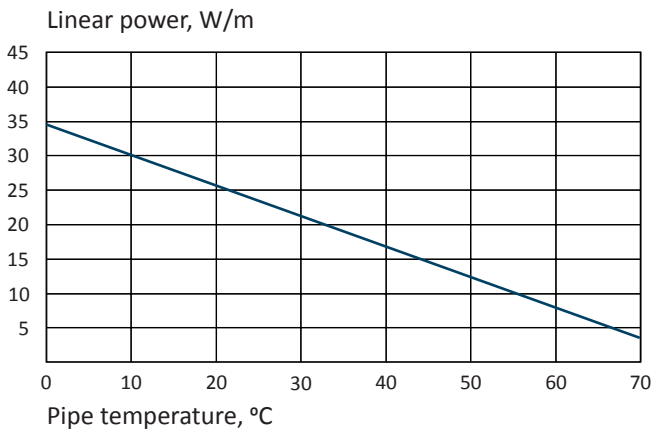


**DATA SHEET**

- Power per meter at ambient temperature +10°C..... 30W/m
- Maximum operating temperature (continuous operation) ..... +65°C
- Maximum allowable temperature without load (1000 hours total)..... +85°C
- Minimum mounting temperature..... -40°C
- Power supply..... ~220-240V
- Minimum bend radius..... 35mm
- Wire shield maximum resistance..... 18.2 ohm/km
- Cable size.....8.5 x 5.5mm
- Weight ..... 6.7kg/120m
- Outer jacket color..... Brown

**TEMPERATURE CHARACTERISTICS**

Rated heat dissipation under standardized conditions for cable LTC30 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

**MAXIMUM LENGTH OF HEATING CABLE, M**

(or total cable lengths connected in parallel) depending on the type of circuit breaker. We recommend not to use length more than 25m in one section.

Cable type	Switch-on temperature	~230V			
		16A	20A	30A	40A
LTC30	10°C	37	0	0	0
	0°C	35	0	0	0
	-20°C	30	0	0	0
	-40°C	25	0	0	0

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ~300 seconds after switching on, the current value will be stabilized.

**ACCESSORIES**

Grand Meyer LTC30 heating cable can be installed inside the pipeline using the Grand Meyer HCF pipe coupling.

Note: Grand Meyer LTC30 cable is not approved for drinking water.

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

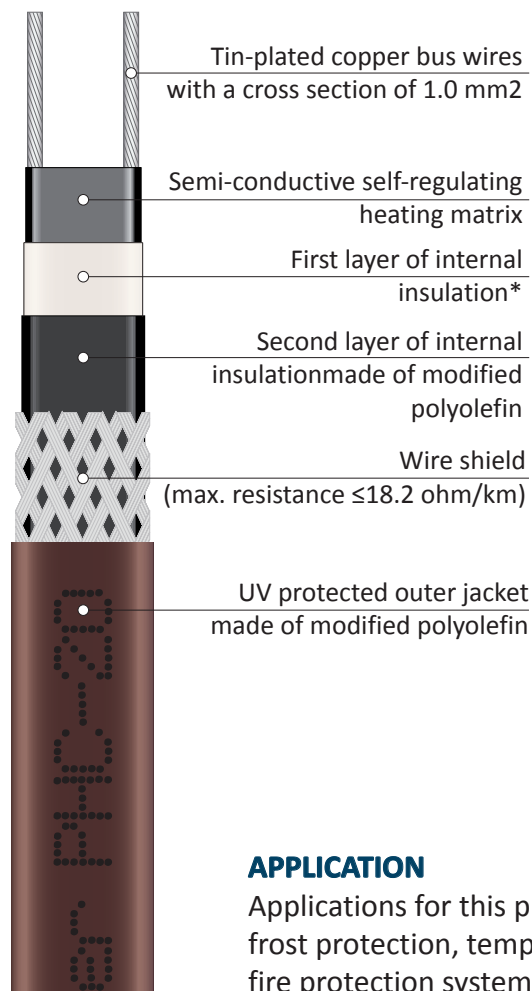
To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.



# PHC-20



*Parallel type self-regulating heating cable for freeze protection of roofs, gutters and temperature maintenance of pipelines and tanks that are not subjected to steaming.*



## DESCRIPTION

Grand Meyer PHC-20 is an tape type low temperature self-regulating heating cable with semi-conductive carbon matrix co extruded together with PE insulation and parallel 1.0mm<sup>2</sup> tinned copper bus wires. The heating intensity depends with number of the conductive paths between the bus wires, which varies with the surrounding temperature.

Two layers of internal insulation and outer jacket provides dielectric resistance, UV resistance, moisture resistance, impact and abrasion resistance.

Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

\* The insulation layer is made using a unique technology by co-extrusion PE insulation together with carbon matrix.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.



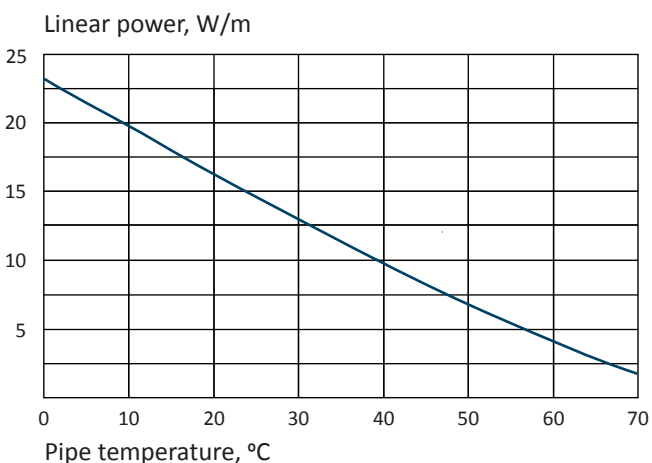


## DATA SHEET

- Power per meter at ambient temperature +10°C..... 20W/m
- Maximum operating temperature (continuous operation) ..... +65°C
- Maximum allowable temperature without load (1000 hours total)..... +85°C
- Minimum mounting temperature..... -40°C
- Power supply..... ~220-240V
- Minimum bend radius..... 35mm
- Wire shield maximum resistance..... 18.2 ohm/km
- Cable size..... 11.0 x 6.5mm
- Weight ..... 10.0kg/100m
- Outer jacket color..... Brown

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable PHC-20 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

## MAXIMUM LENGTH OF HEATING CABLE, M

(or total cable lengths connected in parallel) depending on the type of circuit breaker.

Cable type	Switch-on temperature	~230V			
		16A	20A	30A	40A
PHC-20	10°C	90	102	126	138
	0°	75	93	114	129
	-20°C	68	78	90	108
	-40°C	52	66	78	90

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ≈300 seconds after switching on, the current value will be stabilized.

## ACCESSORIES

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.

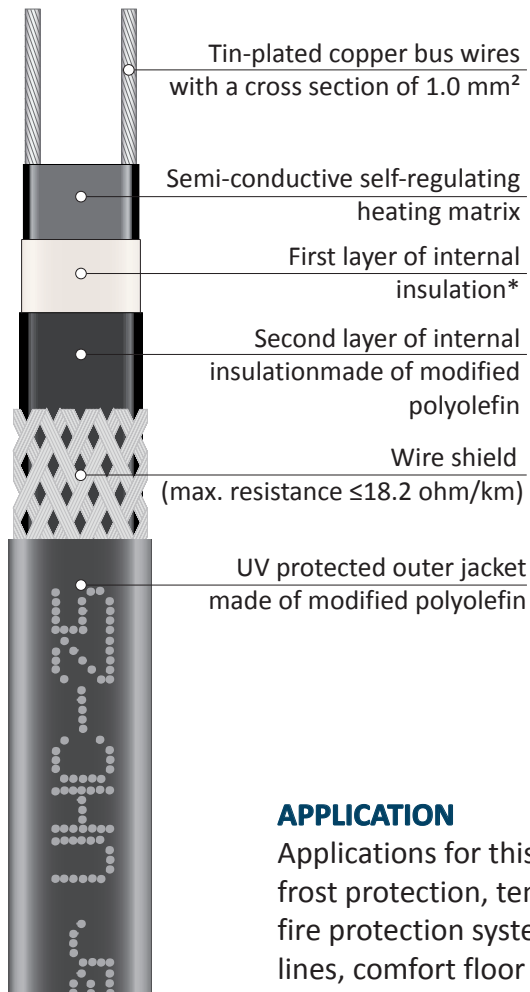




# UHC-25



**Parallel type self-regulating heating cable for freeze protection of roofs, gutters and temperature maintenance of pipelines and tanks that are not subjected to steaming.**



## DESCRIPTION

Grand Meyer UHC-25 is a tape type low temperature self-regulating heating cable with semi-conductive carbon matrix co extruded together with PE insulation and parallel  $1.0 \text{ mm}^2$  tinned copper bus wires. The heating intensity depends with number of the conductive paths between the bus wires, which varies with the surrounding temperature. Two layers of internal insulation and outer jacket provides dielectric resistance, UV resistance, moisture resistance, impact and abrasion resistance. Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

\* The insulation layer is made using a unique technology by co-extrusion PE insulation together with carbon matrix.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.



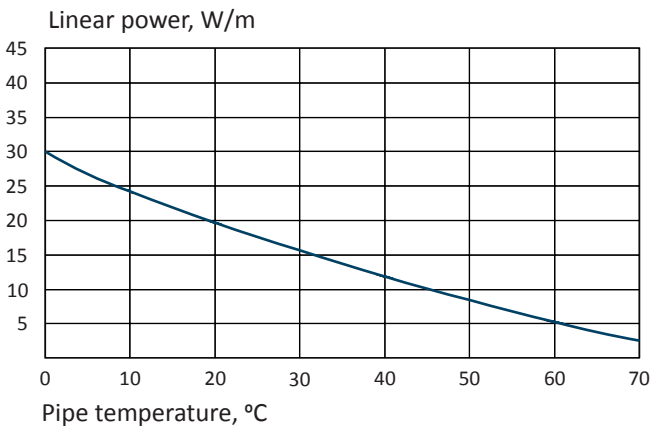


## DATA SHEET

- Power per meter at ambient temperature +10°C..... 25W/m
- Maximum operating temperature (continuous operation) ..... +65°C
- Maximum allowable temperature without load (1000 hours total)..... +85°C
- Minimum mounting temperature..... -40°C
- Power supply..... ~220-240V
- Minimum bend radius..... 35mm
- Wire shield maximum resistance..... 18.2 ohm/km
- Cable size.....11.0 x 6.5mm
- Weight ..... 10.0kg/100m
- Outer jacket color..... Black

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable PHC-25 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

## MAXIMUM LENGTH OF HEATING CABLE, M (or total cable lengths connected in parallel) depending on the type of circuit breaker.

Cable type	Switch-on temperature	~230V			
		16A	20A	30A	40A
UHC-25	10°C	75	85	105	115
	0°C	63	77	95	107
	-20°C	56	65	75	90
	-40°C	43	55	65	75

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ≈300 seconds after switching on, the current value will be stabilized.

Lorem ipsum

## ACCESSORIES

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.

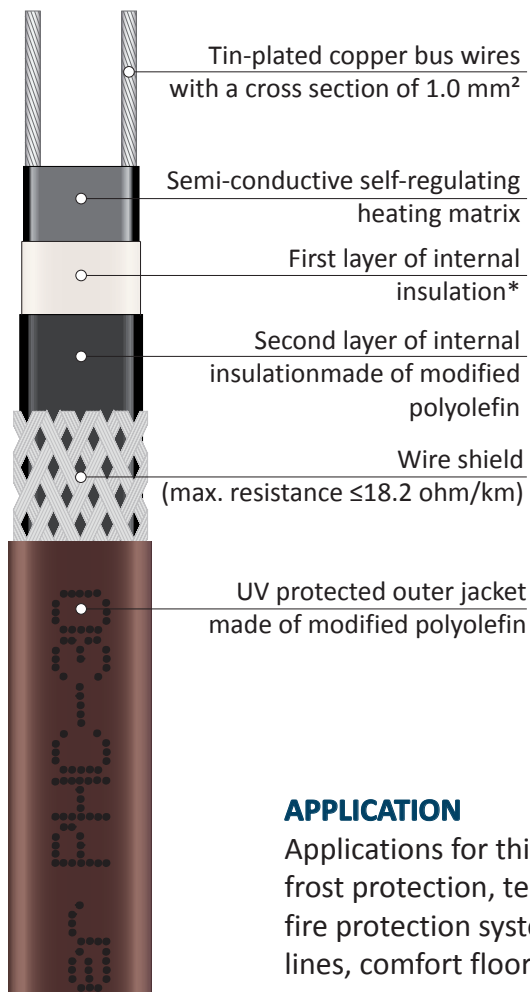




# PHC-30



**Parallel type self-regulating heating cable for freeze protection of roofs, gutters and temperature maintenance of pipelines and tanks that are not subjected to steaming.**



## DESCRIPTION

Grand Meyer PHC-30 is an tape type low temperature self-regulating heating cable with semi-conductive carbon matrix co extruded together with PE insulation and parallel  $1.0 \text{ mm}^2$  tinned copper bus wires. The heating intensity depends with number of the conductive paths between the bus wires, which varies with the surrounding temperature.

Two layers of internal insulation and outer jacket provides dielectric resistance, UV resistance, moisture resistance, impact and abrasion resistance.

Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

\* The insulation layer is made using a unique technology by co-extrusion PE insulation together with carbon matrix.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

## OPERATING PRINCIPLE

Parallel bus wires provides voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths of the will be increased generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the isolation layers.



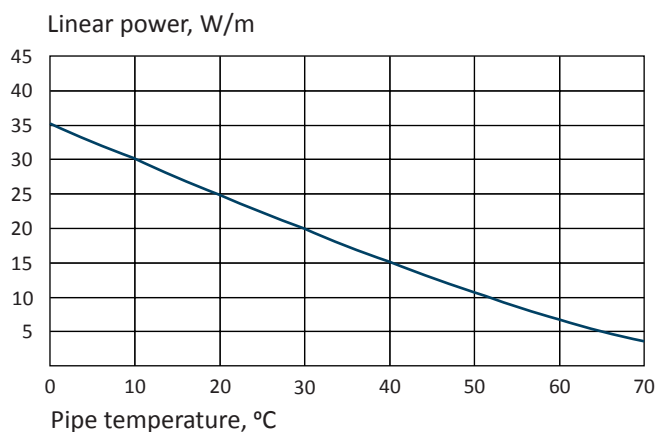


## DATA SHEET

- Power per meter at ambient temperature +10°C..... 30W/m
- Maximum operating temperature (continuous operation) ..... +65°C
- Maximum allowable temperature without load (1000 hours total)..... +85°C
- Minimum mounting temperature..... -40°C
- Power supply..... ~220-240V
- Minimum bend radius..... 35mm
- Wire shield maximum resistance..... 18.2 ohm/km
- Cable size..... 11.0 x 6.5mm
- Weight ..... 10.0kg/100m
- Outer jacket color..... Brown

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable PHC-30 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

## MAXIMUM LENGTH OF HEATING CABLE, M

(or total cable lengths connected in parallel) depending on the type of circuit breaker.

Cable type	Switch-on temperature	~230V			
		16A	20A	30A	40A
PHC-30	10°C	60	75	100	108
	0°C	57	70	90	98
	-20°C	48	56	70	85
	-40°C	40	50	60	70

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ≈300 seconds after switching on, the current value will be stabilized.

## ACCESSORIES

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.

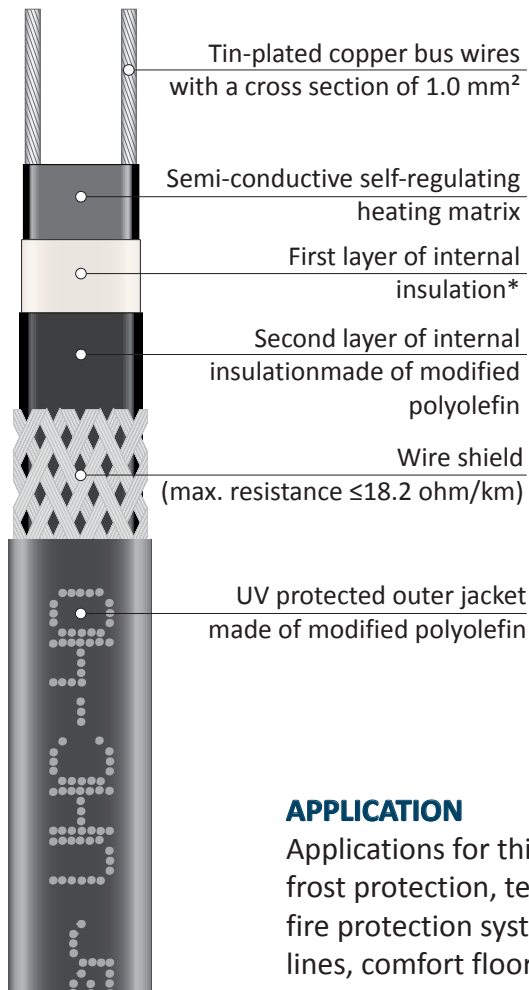




# UHC-40



*Parallel type self-regulating heating cable for freeze protection of roofs, gutters and temperature maintenance of pipelines and tanks that are not subjected to steaming.*



## DESCRIPTION

Grand Meyer UHC-40 is a tape type low temperature self-regulating heating cable with semi-conductive carbon matrix co-extruded together with PE insulation and parallel  $1.0 \text{ mm}^2$  tinned copper bus wires. The heating intensity depends on the number of the conductive paths between the bus wires, which varies with the surrounding temperature. Two layers of internal insulation and outer jacket provide dielectric resistance, UV resistance, moisture resistance, impact and abrasion resistance. Self-regulating heating cable is protected by a wire screen, which provides mechanical protection and ensures reliable grounding along the entire length of the cable.

\* The insulation layer is made using a unique technology by co-extrusion PE insulation together with carbon matrix.

## APPLICATION

Applications for this product are as follows: roof and gutter frost protection, pipeline frost protection, temperature maintenance for industrial and domestic pipelines, tanks, fire protection systems, systems for supplying technical fluids, water, condensate return lines, comfort floor heating, radiant space heating, freezer frost heave prevention.

## OPERATING PRINCIPLE

Parallel bus wires provide voltage along the entire length of the heating cable, the semi-conductive matrix is a continuous heating element. This design allows you to cut the cable anywhere. The number of the conductive paths between the bus wires varies with the surrounding temperature. When ambient temperature decreases, the number of the electrical paths will be increased, generating heat. As temperature increases, the heating matrix expands and reduces the number of electrical paths. So the power output depends on the environmental conditions.

The ability of self-regulation eliminates the risk of overheating or burnout of the cable when it crosses itself or when the cable passes through the insulation layers.



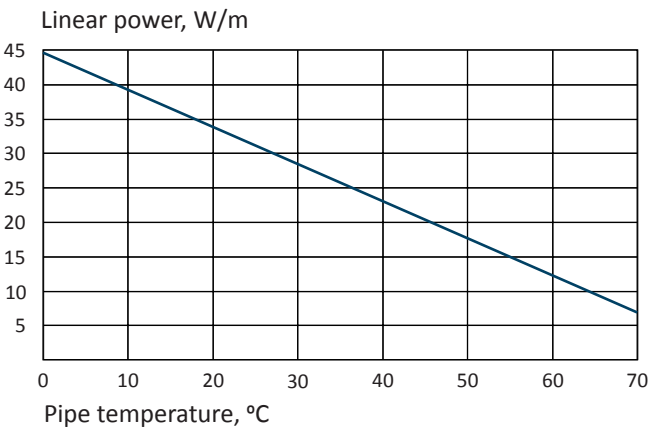


## DATA SHEET

Power per meter at ambient temperature +10°C.....	40W/m
Maximum operating temperature (continuous operation) .....	+65°C
Maximum allowable temperature without load (1000 hours total).....	+85°C
Minimum mounting temperature.....	-40°C
Power supply.....	~220-240V
Minimum bend radius.....	35mm
Wire shield maximum resistance.....	18.2 ohm/km
Cable size.....	11.0 x 6.5mm
Weight .....	10.0kg/100m
Outer jacket color.....	Black

## TEMPERATURE CHARACTERISTICS

Rated heat dissipation under standardized conditions for cable UHC-40 with operating voltage ~230V.



\* This line graph only applicable for pipeline and tank heating and can not be used for roofs and gutters heating calculation.

## MAXIMUM LENGTH OF HEATING CABLE, M

(or total cable lengths connected in parallel) depending on the type of circuit breaker.

Cable type	Switch-on temperature	~230V			
		16A	20A	30A	40A
UHC-40	10°C	45	60	90	100
	0°C	43	56	83	92
	-20°C	38	49	65	75
	-40°C	35	44	58	67

For use with type C circuit breakers according to IEC 60898-1:2003.

\*Starting current of self regulating heating cable is higher than operating current. Maximum starting current can be 3-4 times more than the rated current for which the circuit breaker is designed. Within ~300 seconds after switching on, the current value will be stabilized.

## ACCESSORIES

**Grand Meyer TTK-25** connection kit is used to terminate heating cable to cold lead for power supply.

To ensure trouble-free operation and comply with all safety standards and requirements, we recommend using original Grand Meyer components.



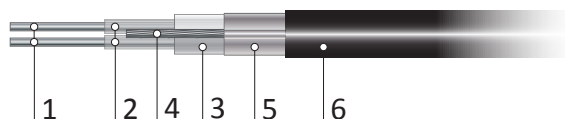


# OHC30



***Twin-core 30 w/m resistive heating cable extended power and protection for outdoor use. Can be used for parking areas, roadways, sidewalks, external stairs, loading ramps, bridges, soil surfaces, roofs and gutters to prevent icing. Cable can be installed into cement-sand mortar, concrete, sand, soil or on open surfaces such as roofs and gutters.***

## HEATING CABLE FEATURES



1. Heating element: two heating conductors made of CuNi, CoCr, NiCr alloys.
2. Fluoroplastic insulation (FEP).
3. Internal protective shield made of cross-linked polyethylene (XLPE).
4. Drainage conductor.
5. Aluminum foil screen.
6. Outer jacket: Irradiated PVC with UV protection.

## DATA SHEET

- Cable type ..... twin-core
- Rated voltage ..... 230V (±10%), 50Hz
- Linear power at rated voltage ..... 30W/m
- Maximum long-term allowable temperature ..... +90°C
- Minimum installation temperature: ..... -30°C
- Minimum bend radius during operation and storage ..... 150mm
- Minimum allowable one-time bend radius ..... 40mm
- External cable diameter ..... 6.5mm
- Protection rating ..... IPx7
- Mechanical strength according to IEC 60800 ..... class M2
- Insulation test voltage ..... 2.6kV
- Insulation resistance ..... not less than  $1 \times 10^3$  MΩ·m
- Resistance tolerance of the section ..... +10%, -5%
- Length tolerance of the section ..... ±0,5%
- Installation wire supplying the heating cable ..... 3.0m (H05RN-F)
- Color of connected wires ..... brown – phase (L), blue – neutral (N),  
yellow-green – ground (PE)
- Flammability ..... non-propagating
- Weight ..... not more than 6kg/100m
- Certified..... EAC, CE





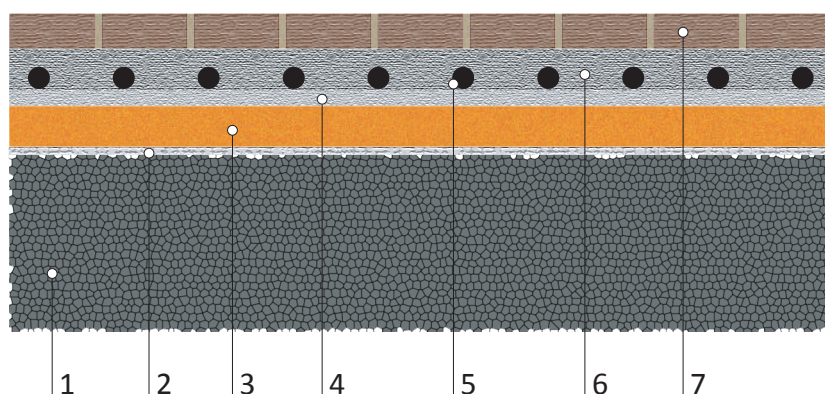
## OHC30 AVAILABLE SIZES

Article	Length of heating cable, m	Power, W	Current, A	Resistance, Ohm
OHC30-10	10	300	1,40	167,51 ... 193,96
OHC30-20	20	600	2,70	83,76 ... 96,99
OHC30-30	30	900	4,10	55,84 ... 64,66
OHC30-40	40	1200	5,50	41,88 ... 48,49
OHC30-50	50	1500	6,90	33,50 ... 38,79
OHC30-60	60	1800	8,20	27,90 ... 32,31
OHC30-70	70	2100	9,60	23,93 ... 27,71
OHC30-90	90	2700	12,40	18,61 ... 21,55

## RECOMMENDED HEATING POWER

Type of area	Power w/m <sup>2</sup>	
	Min	Max
Stairs	300	400
Sidewalks	300	400
Walk ramps	300	400
Loading ramps	350	500
Bridges	350	500
Paved terraces	300	400
Balconies	300	400
Soft roof	250	300
Hard roof	300	350
Gutters	160	250
Downspouts	60	130

## HEATING SURFACE SAMPLE



1. Base layer - compacted soil mixed with crushed stone 40-60 mm, with compaction coefficient  $K_{com}=0.95$ . Recommended layer from 100 to 300 mm.
2. Polyurethane Concrete. Min 9 mm.
3. Thermal insulation - extruded polystyrene foam boards with density at least 45 kg/m<sup>3</sup>. Min. thickness 100 mm.

4. Reinforced concrete or reinforced cement-sand mortar Min. 30 mm. Recommended to use 100x100 mm reinforcing mesh.
5. Heating cable OHC30.
6. Concrete or cement-sand mortar where heating cable is laid. Min. 50mm.
7. Surface layer (asphalt, paving stone, e.t.c.).

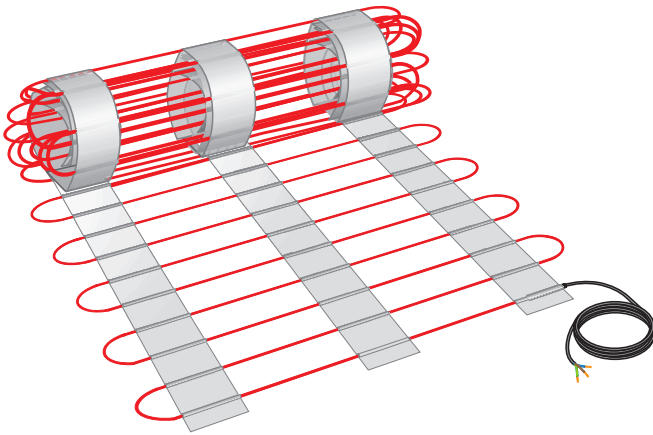
\*OHC30 Heating cable also can be laid into sand.



# N-CDS



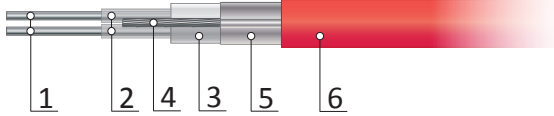
**Twin-core heating mat with extended power and protection for outdoor use.  
Installed directly under asphalt, cement-sand mortar, concrete, sand, soil.  
Can be used for parking areas, roadways, sidewalks, external stairs, loading ramps,  
bridges, soil surfaces.**



## DESCRIPTION

The heating mat is a twin-core heating cable with a linear power of 30 W/m and a thickness of 6.5 mm. fixed with continuous tape with step of 10 cm. Heating mat width - 50 cm, length - from 60 cm to 2000 cm, depending on it's type. Heating mat equipped with 5 meters H05RN-F cold lead. Power of heating mat 300 W/m<sup>2</sup> at voltage 230 V.

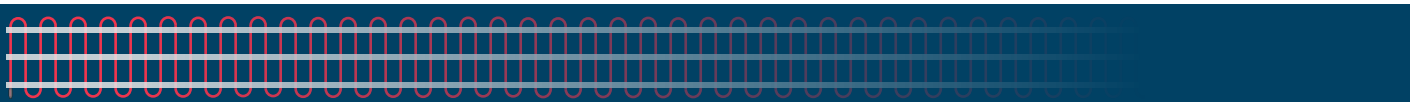
## HEATING MAT FEATURES



1. Heating element: two heating conductors made of CuNi, CoCr, NiCr alloys.
2. Fluoroplastic insulation (FEP).
3. Internal protective shield made of cross-linked polyethylene (XLPE).
4. Drainage conductor.
5. Aluminum foil screen.
6. Outer jacket: Irradiated cross-linked polyolefin. (Irradiated XLPO)

## DATA SHEET

- Cable Type ..... twin-core
- Voltage ..... 230 V ~ AC
- Linear power at rated voltage ..... 30W/m
- Maximum exposure temperature ..... +150°C
- Short time maximum temperature impact ..... +250°C for 30 minutes.
- UV protection ..... Yes
- Protection level ..... IPx7
- Mechanical protection class ..... M2
- Possibility of laying in sand ..... Yes
- Possibility of laying in concrete ..... Yes
- Possibility of laying in asphalt ..... Yes





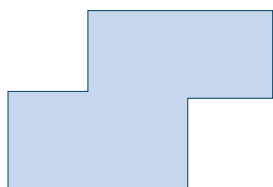
- Heating Cable outer diameter ..... 6.5mm
- Installation wire (cold lead), ..... 5.0m (H05RN-F)
- Color of connected wires ..... brown - phase (L), blue - zero (N),  
yellow-green - "ground"
- Certified..... EAC, CE

### N-CDS AVAILABLE SIZES

Article	Coverage area, m <sup>2</sup>	Mat size (W x L), m	Length of the heating cable, m	Power, Watt	Resistance, Ohm (at 20°C)
N-CDS-03 900	3,0	0,5x6	30	900	55,8 - 64,7
N-CDS-05 1500	5,0	0,5x10	50	1500	33,5 - 38,8
N-CDS-06 1800	6,0	0,5x12	60	1800	27,9 - 32,3
N-CDS-07 2100	7,0	0,5x14	70	2100	23,9 - 27,7
N-CDS-09 2700	9,0	0,5x18	90	2700	18,6 - 21,6
N-CDS-10 3000	10,0	0,5x20	100	3000	16,8 - 19,4

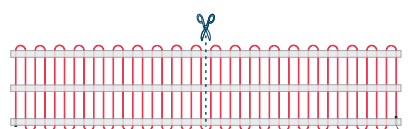
### HOW TO LAY HEATING MAT

Choose a heating mat size according to your planned heating area.  
You can rotate the heating mat by cutting the continuous tape that fix the cable.  
Cutting the heating cable is not allowed.

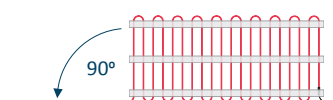


1. Select a heating mat size, according to planned heating area.

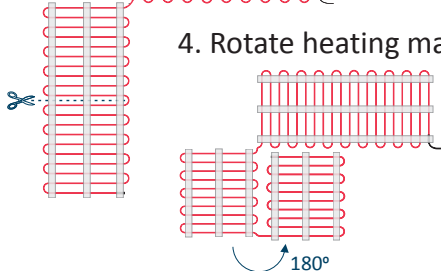
How to cut and rotate heating mat:



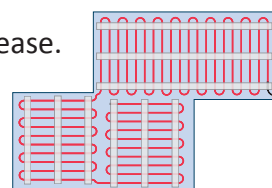
2. Cut the continuous tape that fix the cable.  
Cutting the heating cable is not allowed.



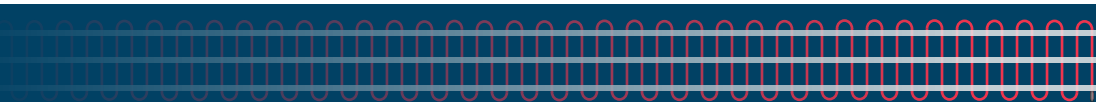
3. Rotate heating mat by 90 degree and make a second cut of continuous tape.



4. Rotate heating mat by 180 degree.



5. Sample view of laid heating mat.





# SMM-9050



*Temperature controller SMM-9050 is designed to control temperature in rooms, vegetable storage facilities, open areas, water and electric heating systems, etc. by turning on/off the heating or cooling unit based on signals from a remote NTC temperature sensor.*



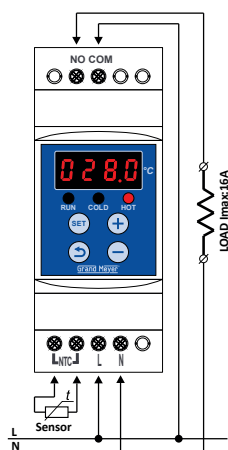
## FUNCTIONALITY

- Operation mode can be selected: heating or cooling.
- LED Indication of the relay status (closed/open).
- Adjustable temperature hysteresis.
- Adjustable operation delay time.
- Adjustable temperature calibration.

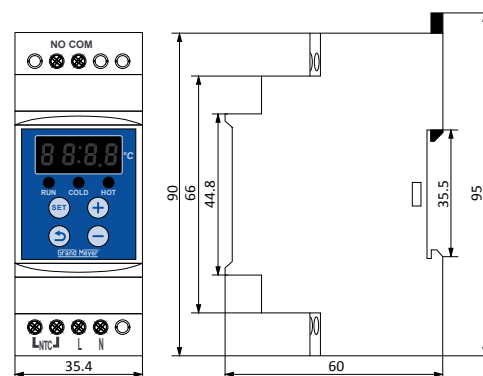
## DATA SHEET

- Voltage ..... ~230V (±10%), 50 (60) Hz
- Rated power consumption ..... no more than 1 W
- Max. current..... 16 A
- TRelay contact type ..... SPDT
- Temperature measure range..... from -20°C to +100°C
- Temperature hysteresis (adjustable) ..... from 0 °C to 15 °C
- Relay operation delay time (adjustable) ..... from 0 to 300 sec.
- Temperature calibration (adjustable) ..... from -15°C to +15°C
- Operating temperature range ..... from 0°C to +50°C
- Max. relative air humidity (at +35 °C) ..... 85%
- Temperature sensor ..... NTC 10 kOhm at +25°C
- Sensor location ..... OUT
- Sensor connecting cable length ..... 2 m
- IP class ..... IP20
- Enclosure color ..... gray
- Enclosure dimensions ..... 90 (H) x 35.4 (W) x 60 (D) mm
- Weight ..... 175 g
- Mounting type ..... DIN rail, 2 modules
- Saved settings when power is off ..... 12 months
- Warranty ..... 24 months
- Certification ..... CE, EAC

## INSTALLATION



## DIMENSIONS (mm)





# MST-91Ai



**Wireless controller MST-91Ai is designed to control snow melting systems on roofs, gutters, open areas, pipelines, and tanks, as well as any other cable systems for electrical heating.**



## DESCRIPTION

Controller designed using dual-core microprocessor technology using the real-time operating system, which made it possible to build an exceptionally reliable snow melting system. Using several unique settings, algorithms, weather service and technology for remote access to control sensor data, made MST-91Ai flexible and economical next-gen snow melting system.

Controller supports to work with temperature and precipitation sensor or to work fully autonomously using weather service thru internet.

## DATA SHEET

- Supply voltage ..... ~100-240V, 50(60)Hz
- Power consumption ..... no more 5W
- Number of control channels (relay) ..... 1
- Control relay contact current/load ..... 16A/250V
- Type of relay contacts ..... NO (SPDT)
- Number of channels of temperature sensors ..... 1
- Temperature measuring range ..... -40°C ... +120°C
- Temperature accuracy ..... ± 1,0°C
- Number of channels of water and precipitation sensors ..... 1 channel:  
- 1 sensor MPS
- The number of gradations of measurement levels (sensitivity)  
    of the sensor of water and precipitation..... 2(0-dry, 1-presence of water precipitation)
- Wi-Fi standard ..... 802.11b/g/n
- Wi-Fi Output ..... 2.4GHz
- Operating temperature range ..... -30°C ... +80°C at humidity up to 80%
- Wire cross section of sensor cables  
connected to the weather station terminals..... up to 2.5mm<sup>2</sup>
- Wire cross section for control relay and power supply cables  
connected to weather station terminals ..... up to 2.5mm<sup>2</sup>
- Enclosure Rating ..... IP20
- Dimensions ..... 86(H)mm x 90(W)mm x 65(D)mm
- Body color ..... Light gray
- Type of mount ..... DIN-rail
- Internal fuse rating ..... 0.5 A
- Weight ..... 165g
- Compatible temperature sensors ..... Grand Meyer TS-1
- Compatible moisture and precipitation sensors ..... Grand Meyer TS-2
- Warranty ..... 3 Years
- Certified ..... CE, EAC



Controller MST-91Ai works with next sensors:

1. Temperature sensor - **TS-1**



**Grand Meyer TS - 1**

**Specification**

- Temperature measuring range ..... -40°C ... +120°C
- Temperature accuracy ..... ± 1,0°C
- Active sensor element ..... NTC (12 kOhm at +25°C)
- Overall dimensions of the sensor ..... Ø6mm x 30mm (length)
- Sensor Cable Length ..... 3 m
- Maximum cable extension length ..... 100 m
- Extension cable ..... 2-wire, with copper conductors  
0.75mm<sup>2</sup>
- Certified ..... CE, EAC

2. Moisture and precipitation sensor - **TS-2.**

The sensor is used to detect the presence of melt water and precipitation in the drainage elements (trays, gutters, valleys, etc.). It is made of a 500mm section of a self-regulating cable, the heat emission of which varies depending on the environmental properties (temperature, atmospheric precipitation, melt water and humidity) of the sensor location. The current dependence of the sensor, proportional to its heat dissipation, is analyzed by a controller, which, on the basis of the received data, issues a command to turn on / off the heating sections of the heating system.



**Grand Meyer TS - 2**

**Specification**

- Supply voltage ..... 220V - 230V alternating current, 50(60)Hz
- Power consumption..... 8 - 16 W (in dry condition)
- A type ..... self-regulating cable
- Operating temperature range ..... -60°C ...+65°C (+85°C when off)
- The number of gradations of precipitation measurement levels ..... 2(0-dry, 1-presence of water precipitation)
- Degree of protection ..... IP67
- Sensor Cable Length ..... 3 m
- Maximum cable extension length ..... 100 m
- Extension cable ..... 3-wire shielded, with copper conductors 0.75mm<sup>2</sup>
- Overall dimensions of the active surface of the sensor ..... 11.5 mm x 500 mm
- Certified ..... CE, EAC

**SENSORS INSTALLATION**

1. Temperature sensor Grand Meyer TS-1.

**Installation on ambient area.**

The ambient temperature sensor should be installed inside an empty installation box with a protection class of at least IP65, which can be mounted on the building or on roof. For a more accurate indication of the ambient temperature, temperature sensor should be mounted in place that are most protected from sunlight, outside the range of exhaust ventilation, attic, etc.



### Temperature sensor installation in a heated open area (screed, soil)

The temperature sensor of the heated pipeline (tank) should be installed on the outer wall of the pipe (tank). The sensor is glued with adhesive aluminum mounting tape and connected to the weather station through an intermediate mounting box

### Temperature sensor installation on the heated pipeline (tank)

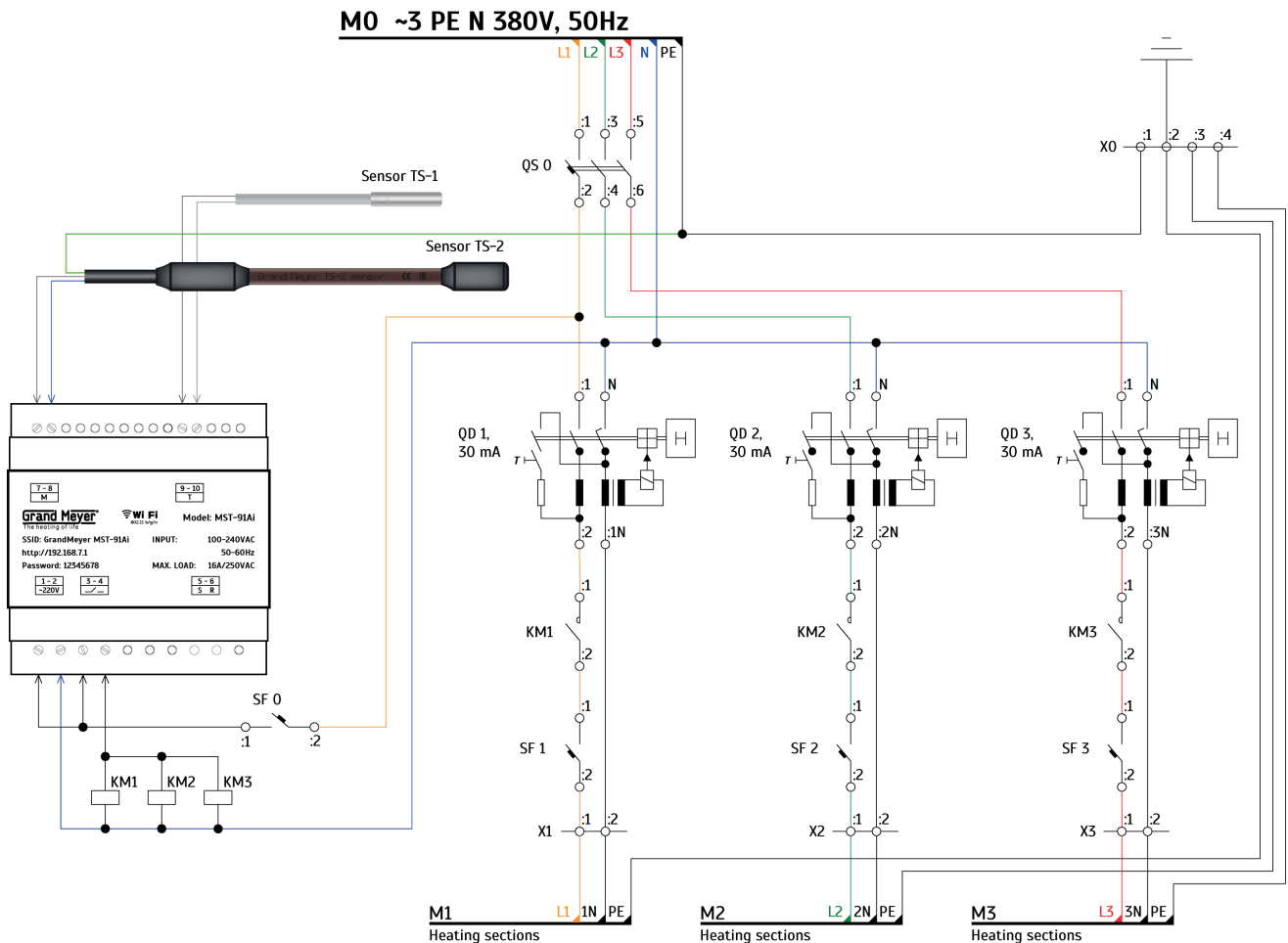
The temperature sensor should be installed on the outer wall of the pipeline (tank). The sensor should be fixed by adhesive aluminum adhesive tape to a pipeline or tank and connected to the controller using mounting box.

## 2. Moisture and precipitation sensor Grand Meyer TS-2

### Moisture and precipitation sensor installation.

The sensor is installed in the tray (gutter) as close as possible to the drainpipe or inlet funnel drainpipe. It is important that melt water and precipitation fall on active element of the sensor and to keep sensor clean from a dirt. Sensor can be fixed by a metal cable strap or aluminum adhesive tape.

## CONNECTING SCHEME





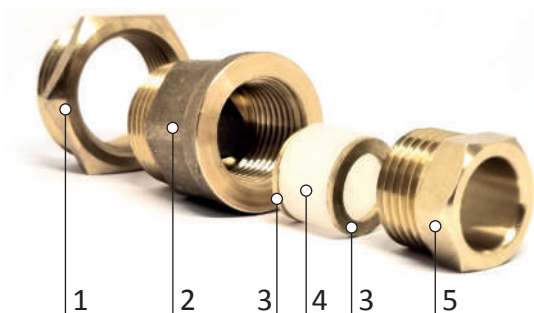
## INSTALLATION ACCESSORIES

### Grand Meyer TTK-25



The Grand Meyer TTK-25 kit is designed to connect a self-regulating cable and installation wire directly on site. Includes heat-shrinkable tubes based on a polyethylene composition and crimping sleeves. Using one kit, you can make one end sleeve and one connecting sleeve. The kit is designed for self-regulating cables LTC16 SRL16-2, PHC-20, PHC-30, UHC-25, UHC-40. The kit is not subject to mandatory certification.

### Grand Meyer HCF



Pipe coupling with gasket for heating cable 3/4 and 1 inch (M20/M25)

Grand Meyer HCF is used to install heating cable into pipe.

Consists of:

1. Adapter for 1".
2. Sealing sleeve for 3/4".
3. Washers.
4. Rubber seal.
5. Clamping sleeve.

The kit is not subject to mandatory certification.

### Grand Meyer SCS19



Mounting strap for fixing heating cable made of stainless steel.

The mounting tape is designed for laying the heating cable with a constant pitch and fixing it on the heated surface.

- Width: 19 mm
- Thickness: 0,4 mm
- Grid length (step): 25mm

### Grand Meyer TS-10K



External temperature sensor TS-10K is designed for room temperature controllers "Grand Meyer".

- Active element of the sensor/type ..... NTC (10 kOhm at +25°C)
- Sensor cable length ..... 3 m
- Certified ..... CE, EAC









