ENGINEERING
TOMORROW

Danfoss

Electrical heating | Product Catalogue

Product Catalogue
Global

October 2017

electricheating.danfoss.com

Experience the luxury of electrical heating designed by Danfoss

Danfoss - Intelligent solutions with lasting effect

Danfoss provides solutions for electrical heating with a dedicated focus on advanced and user friendly systems, delivering all products dedicated to this for both indoor and outdoor.

These solutions are covered by a wide range of products e.g. heating cables, heating mats, self-limiting cables, contemporary thermostats and accessories.

Danfoss's heating solutions come from a long history covering 75 years of experience resulting in powerful Danish design products build with the highest standards of quality control.

Danfoss products and solutions are applied almost every- an anywhere you can imagine. We deliver these solutions literally all over the world into a wide range of purposes e.g. in- and outside residential houses and apartments, public buildings, infrastructure, sports fields and specific areas ranging from elevators, trains to airports and complete highways.

Danfoss warranty up to 20-year guarantee

Danfoss delivers high quality products with lasting effect and offers the best warranties in the market.

Danfoss warranty is a series of 4 individual best in the market warranties: 20-year, 10-year, 5-year and standard 2-year, to give you full peace of mind while using Danfoss products in electric heating systems.

For example our 20 years Danfoss warranty on cables and mats not only covers the products but all costs related resulting in a Full Floor Warranty.

This product catalogue that lies in front of you covers a wide range of our products and accessories and explains what to use for what purpose.

If you still have any specific requests of questions related to these or to any specific solution that you need, please don't hesitate to contact us as we will more than likely be able to help you.

Our quality management system **certifications and compliances**

✓ ISO 9001   ✓ TS 16949
✓ ISO 14001

Along with full compliance with EU directives and product approvals

Overview

Floor Heating

Underfloor heating provides the most comfortable indoor climate in all rooms. The heat distributed by underfloor cables or mats is more evenly than with heating methods relying on radiators or airborne systems.

Danfoss intelligent solutions are invisible and saves space by eliminating the need for radiators, pipes and other installations.

Nowadays electrical floor heating solutions with intelligent thermostats provided by Danfoss are not only comfortable but also energy efficient and environmentally friendly. You have to consider what kind of heating method is suitable for your needs before installing floor heating.

Examples of floor heating by Danfoss

Conrad Hotel, Beijing, China

Total area extends to around 3,000 m^2.
298 bathrooms areas

Products
ECflex 18T (replaces DTIP)
EFET 330 (-10°C to 10°C)
EFCI

Taş Evler, Antalya

Total heating installed in 16 villas
4 000 m^2 - total power consumption is 230 kW.

Products
ECflex 18T – 13750 m
ECtemp Touch – 200 pcs
ECfast – 210 pcs

**The Wedding Palace ,
Warsaw (Old Town), Poland**

Project size 600 m^2

Products
ECmat 50 on 600 m^2
EFET 550
(replaced by ECtemp Touch)

Floor heating, *total heating & supplementary heating*
Total heating meaning the only source of heating and comfort heating meaning additonal comfort heating. Electrical floor heating is very well suited for advanced timer-controls, so that you only heat up the room when you are actually at home, this is sound economy and good for environment.

			Applications			
			Concrete more than 3 cm	**Thin concrete less than 3 cm**	**Dry solutions**	**Joist floors**
Cables and Mats	**Standard**	**Mechanical class**	**Page no.**			
ECflex 10T	IEC60800:2009	M2	16	16		16
ECflex 18T	IEC60800:2009	M2	17			
ECflex 20T	IEC60800:2009	M2	18			
ECbasic 20S	IEC60800:1992	C	19			
ECheat 150S	IEC60335-1 + IEC60335-2-96			24		
ECcomfort 100T	IEC60335-1 + IEC60335-2-96			23		
ECmat 100T	IEC60335-1 + IEC60335-2-96			20		
ECmat 150T	IEC60335-1 + IEC60335-2-96			21		
ECmat 200T	IEC60335-1 + IEC60335-2-96			22		
ECdry 55	IEC60335-1 + IEC60335-2-96 + EN62233:2008				25	
ECdry 100	IEC60335-1 + IEC60335-2-96 + EN62233:2008				26	
EFCI Reflect insulation plates					28	
Thermostats						
ECtemp Smart	EN 60730		49	49	49	49
ECtemp Next Plus	EN 60730		50	50	50	50
ECtemp Touch	EN 60730		48	48	48	48
ECtemp 130 (EFET 130)	EN 60730		44	44		
ECtemp 132 (EFET 132)	EN 60730		44	44	44	44
ECtemp 330 (EFET 330) (5°C to 45°C)	EN 60730		57	57		
ECtemp 531 (EFET 531)	EN 60730		46	46		
ECtemp 532 (EFET 532)	EN 60730		46	46	46	46
Danfoss Link CC	EN 60730 + EN 300 220-2		51	51	51	51
Danfoss Link FT	EN 60730 + EN 300 220-2		52			
Danfoss Link RS	EN 60730 + EN 300 220-2		53			
Danfoss Link RU			54			
ECdry Touch Kit	IEC60730 + IEC60335-2-96				27	

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Ice & snow melting

Many homeowners experience the challenges of ice and snow on the roof, in gutters, downpipes and on the driveway. Electric heating cables can minimize these problems. Danfoss's ice and snow melting system is designed to provide comfort and safety for people, vehicles, and buildings.

Ground applications

Danfoss outdoor heating solutions clean snow and ice from your driveway and provide safe walking and driving.

The most common Danfoss ice and snow melting applications on ground are car parks, driveways, pavements, outdoor steps, loading platforms, and bridges. Danfoss's ice and snow melting system works well with most common surface covering materials such as asphalt, concrete, and tiles.

Roof applications

Ice and snow melting systems offered by Danfoss for roofs and gutters protect them from damages caused by icicles. The solution can be installed in any type of roof construction where there is a need to prevent melt water deposits in roof gutters and reduce damages to constructions like frozen facades and roofs.

In roof gutters and downpipes damage is prevented by an efficient and free draining of melt water, which naturally ensures that the system functions satisfactorily.

Examples of ice&snow melting by Danfoss

Örebro Castle, Sweden

Ice&snow melting system installed during complete roof renovation of the national monument

Products
nearly 1000 m of ECiceguard
Danfoss Connecto
EFIT 850

Metro, Sofia

780 square meters of stairway against ice and snow.

Products
Metro station 9-II "NDK":
ECsnow 20T – 2800 m
EFIT 850 – 3 and 8 digital ground sensors.
Metro station 10-II "Sv. Naum":
ECsnow 20T – 6700 m
EFIT 850 – 3 and 12 digital round sensors.
Metro station 11-II "James Baucher":
ECsnow 20T – 2050 m
EFIT 850 – 2 and 8 digital ground sensors.

Protekol Road, Ankara

Ice and snow melting installed on 3,5 km – total area is 17.000 m^2

Products
DEVIasphalt 30T – < 245,000 m
EFIT 850 – 18 pcs.
Ground Sensor – 56 pcs.
ECfast – 4050 pcs.

Ice & snow melting, *grounds, roofs & gutters and antennas & wires*

When heating cables are installed to melt snow or slippery ice from ground areas, safety and cost savings go hand in hand. These systems can be used at home in pavements, driveways and walkways or in commercial car parks, ramps, steps and areas of drainage. It can even be used to melt snow and ice from mastic asphalt surfaces.

Cables and Mats	Standard	Mechanical class	Frost protection - antennas / wires	Roofs and gutters	Asphalt (mastic) - high temperature	Asphalt - low temperature	Pavements, roads and ramps
			Applications				
			Page no.				
ECsnow 20T - 230 V	IEC60800:2009	M2	30	30		30	30
ECsnow 20T - 400 V	IEC60800:2009	M2	31	31		31	31
ECsnow 30T - 230 V	IEC60800:2009	M2	32	32		32	32
ECsnow 30T - 400 V	IEC60800:2009	M2		33		33	33
ECbasic 20S	IEC60800:1992	C					19
ECsafe 20T	IEC60800:2009	M2	29	29		29	29
ECiceguard 18			35	35			
Thermostats							
ECtemp Touch	EN 60730		48				
ECtemp 130 (EFET 130)	EN 60730		44				
ECtemp 132 (EFET 132)	EN 60730		44				
ECtemp 316 (EFET 316)	EN 60730		55			55	55
ECtemp 330 (EFET 330) (-10 °C to 10 °C)	EN 60730		57		57	57	57
ECtemp 330 (EFET 330) (5 °C to 45 °C)	EN 60730		57				
ECtemp 531 (EFET 531)	EN 60730		46				
ECtemp 316 (EFET 316)	EN 60730		46				
ECtemp 610 (EFET 610)	EN 60730		60			60	60
ECtemp 850 (EFIT 850)	EN 60730			58	58		58

Pipe tracing

Danfoss's pipe tracing systems may be used for two main purposes:

1. Frost protection systems are installed where there is a need to prevent water and sanitary pipes from freezing and becoming ice-damaged.
2. Temperature maintenance systems ensure that hot water or fluid pipes maintain the required temperature.

Danfoss's pipe tracing systems may be used on the inside and outside of pipes, for indoor and outdoor pipe networks as well as for pipes above and below the ground.

The advantages of the pipe tracing systems are:

- Ice-free pipes
- Constant flow in pipes
- Depth reduction for underground pipes
- No repair costs after a hard winter
- No hardening of fatty products in pipe systems
- Efficient hot water supply

Examples of pipe tracing by Danfoss

Stitula Building, Ljubljana, Slovenia
Danfoss was chosen for the pipe tracing solutions and heating roof, gutters & down pipes, as well as parking entrance.

Products
ECpipeguard 10 self-limiting cable
ECpipeguard 25 self-limiting cable
EFET 330 thermostats
ECsnow 30T
EFIT 850 – 10 pcs.
Roof Sensors – 5 pcs
Ground Sensors – 13 pcs

Gas accounting knot, Odessa, Ukraine
All new knots were insulated and Danfoss system was installed. Construction was slightly changed – cable is fixed with a glue stripe to the foliage of galvanized iron and it is placed in the knot bottom cable side down.

Products
ECflex 14 m
EFET 132

Pipeline in Strzelce Opolskie, Poland
Electric heating of pipes to protect them against frost damage.

Products
ECflex 18
EFET 330

Pipe tracing, *frost protection and temperature maintenance*
During the winter, problems with frost in fresh water pipes, waste water pipes, cooling water pipes, supply water pipes and sprinkler systems can be avoided by heating the pipes internally or externally. The Danfoss systems provide either a constant wattage system or a self-limiting system.

Cables and Mats	Standard	Mechanical class	Applications		
			Pipe tracing - temp. maintenance, externally	Pipe tracing - frost protection, externally	Pipe tracing - frost protection, internally
			Page no.		
ECflex 10T	IEC60800:2009	M2		16	
ECaqua 9T	IEC60800:2009	M2			41
ECbasic 20S	IEC60800:1992	C		19	
EChotwatt 45			36		
EChotwatt 55			36		
EChotwatt 70			36		
ECpipeguard 10				34	
ECpipeguard 25				34	
ECpipeguard 33				34	
ECpipeheat 10 w/plug				40	40
Thermostats					
ECtemp 316 (EFET 316)	EN 60730			55	55
ECtemp 330 (EFET 330) (-10 °C to 10 °C)	EN 60730			57	57
ECtemp 330 (EFET 330) (5 °C to 45 °C)	EN 60730			57	57
ECtemp 610 (EFET 610)	EN 60730		60	60	60

Fields

Danfoss electrical heating is the best solution for sports fields such as stadiums or golf-links but also for seed beds. Heating of seed beds can be used in greenhouses, cutting beds, seed beds and reproduction boxes.

Sport fields heating

With Danfoss electric heating solutions installed in football fields or golf courses the soil can be heated and the growth of grass can start in the early spring. The area will then be ready up to two months earlier than usual. Furthermore, the season can be prolonged in autumn when the period until the grass stops growing can be extended by means of heating the roots. Not only does Danfoss very efficiently and energy aware prevent the field with artificial grass from being hit with frost and or snow when this is needed, it also serves as a growth and restoration stimulator for the natural grass. All this ensures a better pitch that can be used to the max irrespective of the season or location.

Applications for natural field grass keep the ground temperature on a certain level. They help to maintain and evolve the roots grass.

Artificial grass applications keep the field free from ice and snow.

Examples of fields heating by Danfoss

RSCA Anderlecht Stadium, Bruxelles, Belgium
Seed beds heating – 8000 m heated with 83 W/m^2 divided in 4 zones

Products
ECflex DSM3 ready made with DSWA cold tail.

Reyford Golf Club – Golf Green Field Heating, Youngchun City, Kyungsangbuk-do
Golf Green Soil Heating to prevent icing and to facilitate the grass growing

Products
ECsnow 30 – 24 pcs (16 Rolls for 5th Green and 8 Rolls for Practice Green)

Fredrikstad Stadium, Norway
Electrical heating extends the seasonal use of the facilities equipped with artificial grass

Products
DEVIheat™ 90 – 228 pcs.

Seed beds heating

In order to speed up vegetation and reproduction in greenhouses the soil may be heated from early spring so the vegetation starts earlier and the harvest lasts longer. Besides, it facilitates the cultivation of heat requiring plants which normally only grow in subtropical/tropical latitudes.

In order to reach the necessary temperatures Danfoss heating solutions are ideal and if they are equipped with electronic thermostats and sensors, the energy consumption will be minimal.

Examples of seed beds heating by Danfoss

Atatürk Horticultural Central Research Institute, Yalova, Turkey
Seed beds heating on 2 tables of greenhouse sample – 15x1m^2 each

Products
ECflex 10T – 280 m
EFET 535 – 2 pcs
ECfast – 1 pc

VKEXD102

Fields, *football fields and seed beds*

With Danfoss heating cables or heating mats in the ground you can heat the field and start the growing season early in the spring. The field can be ready for use up to two months earlier than usual. In this way the season can also be prolonged well into the autumn. Danfoss also has excellent solutions for fields with artificial grass.

			Applications		
			Seed beds	New fields	Existing fields
Cables and Mats	**Standard**	**Mechanical class**	Page no.		
ECflex 10T	IEC60800:2009	M2	16		
ECflex 18T	IEC60800:2009	M2	17		
ECflex 20T	IEC60800:2009	M2	18		
ECsnow 20T - 230 V	IEC60800:2009	M2		30	
ECsnow 20T - 400 V	IEC60800:2009	M2		31	
ECsnow 30T - 230 V	IEC60800:2009	M2		32	
ECsnow 30T - 400 V	IEC60800:2009	M2		33	
ECbasic 20S	IEC60800-1992	C	19		
ECsafe 20T	IEC60800:2009	M2		29	
Thermostats					
ECtemp 316 (EFET 316)	EN60730		55		
ECtemp 330 (EFET 330) (-10 °C to 10 °C)	EN60730		57		
ECtemp 330 (EFET 330) (5 °C to 45 °C)	EN60730		57		
ECtemp 610 (EFET 610)	EN60730		60		

Cold stores

Heating up the floor construction in a cold store is a necessity in order to protect the building from the floor in cold stores or ice stadiums, etc. In cold stores where the temperature is constantly between -20 and -30℃, coldness will still be given off to the surroundings even though the floor is well insulated.

Condensation protection of floors

In doorways between cold stores and heated rooms condensed water may form on the floor due to the constant shifts between cold and warm air caused by the opening and closing of doors. This can result in dangerous ice formations on the floor and therefore, the floor in these areas must be heated. As an extra comfort it will also limit the flow of cold air to the heated area.

Floors

In cold stores where the temperature constantly lies between –20 and –30℃, cold will still be released to the surroundings even though the floor is well-insulated. This means that the materials which are in contact with the ground/soil, such as foundation and floor areas, will absorb the cold and leave the ground/soil to freeze. The water content in the ground/soil will expand and this can cause considerable damages due to frost erosion.The same problem also appears in ice stadiums, which are artificially frozen. This can be avoided with Danfoss's frost protection system, though.

Examples of cold stores heating by Danfoss

Regional logistics center, Kiev, Ukraine

Cold stores: the Danfoss system was installed under the floor 2 freezers, area 1720 sq. m. each, with an operating temperature of minus 22℃.
Project size: 2 x1720 m^2

Products
ECflex – 7560 m
EFET 535 – 6 pcs

Divan Taşdelen Bakery Facilities, İstanbul, Turkey

Electrical Underfloor Heating, Frost Protection – Cold Room
Project Size: 2000m^2

Products
ECflex 10T – 5 660 m
EFET 330 – 24 pcs.
ECfast – 314 pcs.

Panda, Jeddah, Saudi Arabia

Danfoss electrical heating solutions will be used for the protection of thresholds and floor of the biggest Middle Eastern cold store. The total size of the project is 8,000 m^2 and total installed power is approximately 160 kW.

Products
ECbasic 192m – 14 pcs
ECbasic 229m – 73 pcs
ECsnow 63m – 13 pcs
ECsnow 140m – 18 pcs
ECfast – 982 pcs
EFET 330 with sensor-10-+10℃

Heating of thermal bridges

Danfoss's heating systems can be used to avoid temperature differences in floors caused by thermal bridges. Danfoss's heating systems can also be used to avoid or limit draughts, e.g. at windows, doors, exterior walls, and central elements in concrete buildings.

Concrete hardening

In connection with casting processes during winter time, it can often be difficult to ensure the correct strength of the concrete as well as to achieve a uniform result of the surface, when temperatures fall below the freezing point.

To avoid unnecessary and expensive delays of the building activities it often can be necessary to add a little extra heat, to keep up the correct temperature to sustain the hardening process.

This problem may in many cases be solved, by embedding heating cables in the concrete construction attached directly to the reinforcement mesh and raising the temperature some degrees to maintain the natural process.

If the temperature is -10ºC or above it is normally not necessary to protect the concrete construction further, but if the temperature falls below -10ºC it is recommended to sheet the construction over. Depending on the outdoor temperature the system can be maintained at approx. +1 to +2ºC for a week. Then, it is possible to reduce the effect gradually.

Example of concrete hardening by Danfoss

Bjørvika tunnel Oslo, Norway

Bjørvika tunnel links Festning tunnel in Oslo west with Ekeberg tunnel in Oslo east.

Danfoss was chosen to harden the concrete in roof and walls in the immersed part of the tunnel

Project size: 1 100 meters of tunnels, 675 meters of which is immersed

Products

ECflex
EFET 330

Cold stores and concrete hardening, *preventing frost damage to foundations and floors*
In cold stores (and ice stadiums) where the temperature constantly is between -20°C and -30°C cold will be emitted to the surroundings in spite of good insulation. This means that the floor will freeze as well as the soil below. The water in the soil expands which can lead to frost damage to the foundation / floor. This can be prevented by using Danfoss heating cables.

			Applications	
			Cold stores	Concrete hardening
Cables and Mats	**Standard**	**Mechanical class**	**Page no.**	
ECflex 10T	IEC60800:2009	M2	16	
ECflex 18T	IEC60800:2009	M2	17	
ECflex 20T	IEC60800:2009	M2	18	
ECsnow 20T - 230 V	IEC60800:2009	M2	30	
ECsnow 20T - 240 V	IEC60800:2009	M2	31	
ECbasic 20S	IEC60800:1992	C	19	
Thermostats				
ECtemp 316 (EFET 316)	EN 60730		55	
ECtemp 330 (EFET 330) (-10 °C to 10 °C)	EN 60730		57	
ECtemp 610 (EFET 610)	EN 60730		60	

Other heating elements

| Heating elements | Standard | Applications |
		Heating elements
		Page no.
ECfoil Mirror	60800:2009	42

Danfoss products
Data sheets

ECflex 10T

ECflex is an extremely high-quality, 360° fully screened twin conductor cable with a tough outer sheath (non UV stable). Its round profile and robust construction ensures a fast, simple and safe installation in multiple indoor floor constructions and pipe tracing applications.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product Installation Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Multiple application options**
- **Safe and robust**
- **Long life-time**
- **Maximum protection**

Approvals:

Intertek EHC 001 CE

Standard compliance
- **IEC60800:2009**

Operation voltage	220 - 240 V~
Construction	Round, twin conductor with 360° screen, one cold lead
Output	10 W/m @ 230 V~
Max. permissible use temperature, powered	75 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	Ø 6,9 mm
Deformation strength	>1500 N
Pulling strength	>500 N
Conductor insulation	PEX
Outer sheath	PVC, red
Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Cold lead	2,3 m DTCL
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L6025	10 m	100 W	529,0 Ω	3 x 1,5 mm²	5703466224366
088L6026	20 m	205 W	260,0 Ω	3 x 1,5 mm²	5703466224373
088L6027	30 m	290 W	183,0 Ω	3 x 1,5 mm²	5703466224380
088L6028	40 m	390 W	136,0 Ω	3 x 1,5 mm²	5703466224397
088L6029	50 m	505 W	105,0 Ω	3 x 1,5 mm²	5703466224403
088L6030	60 m	600 W	88,2 Ω	3 x 1,5 mm²	5703466224410
088L6031	70 m	695 W	76,3 Ω	3 x 1,5 mm²	5703466224427
088L6032	80 m	795 W	66,9 Ω	3 x 1,5 mm²	5703466224434
088L6073	90 m	920 W	57,4 Ω	3 x 1,5 mm²	5703466226322
088L6034	100 m	990 W	53,4 Ω	3 x 1,5 mm²	5703466224458
088L6035	120 m	1220 W	43,4 Ω	3 x 1,5 mm²	5703466224465
088L6036	140 m	1410 W	37,5 Ω	3 x 1,5 mm²	5703466224472

ECflex 18T

ECflex is an extremely high-quality, 360° fully screened twin conductor cable with a tough outer sheath (non UV stable). Its round profile and robust construction ensures a fast, simple and safe installation in multiple indoor floor constructions and pipe tracing applications.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Multiple application options**
- **Safe and robust**
- **Long life-time**
- **Maximum protection**

Approvals:

Intertek   EAC   001   CE

Standard compliance
- **IEC60800:2009**

Operation voltage	220 - 240 V~
Construction	Round, twin conductor with 360° screen, one cold lead
Output	18 W/m @ 230 V~
Max. permissible use temperature, powered	60 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	Ø 6,9 mm
Deformation strength	>1500 N
Pulling strength	>500 N
Conductor insulation	XLPE
Outer sheath	PVC, red
Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Cold lead	2,3 m DTCL
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L6037	7,3 m	130 W	410,3 Ω	3 x 1,5 mm²	5703466224489
088L6038	10 m	180 W	294,0 Ω	3 x 1,5 mm²	5703466224496
088L6039	15 m	270 W	195,0 Ω	3 x 1,5 mm²	5703466224502
088L6040	22 m	395 W	134,2 Ω	3 x 1,5 mm²	5703466224519
088L6041	29 m	535 W	98,6 Ω	3 x 1,5 mm²	5703466224526
088L6042	34 m	615 W	86,4 Ω	3 x 1,5 mm²	5703466224533
088L6043	37 m	680 W	77,7 Ω	3 x 1,5 mm²	5703466224540
088L6044	44 m	820 W	64,7 Ω	3 x 1,5 mm²	5703466224557
088L6045	52 m	935 W	56,7 Ω	3 x 1,5 mm²	5703466224564
088L6046	59 m	1075 W	49,3 Ω	3 x 1,5 mm²	5703466224571
088L6047	68 m	1220 W	43,4 Ω	3 x 1,5 mm²	5703466224588
088L6048	74 m	1340 W	39,5 Ω	3 x 1,5 mm²	5703466224595
088L6049	82 m	1485 W	35,6 Ω	3 x 1,5 mm²	5703466224601
088L6050	90 m	1625 W	32,6 Ω	3 x 1,5 mm²	5703466224618
088L6051	105 m	1880 W	28,1 Ω	3 x 2,5 mm²	5703466224625
088L6052	118 m	2135 W	24,8 Ω	3 x 2,5 mm²	5703466224632
088L6053	131 m	2420 W	21,9 Ω	3 x 2,5 mm²	5703466224649
088L6054	155 m	2775 W	19,1 Ω	3 x 2,5 mm²	5703466224656

ECflex 20T

ECflex is an extremely high-quality, 360° fully screened twin conductor cable with a tough outer sheath (non UV stable). Its round profile and robust construction ensures a fast, simple and safe installation in multiple indoor floor constructions and pipe tracing applications.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product Installation Floor/Surface

Technical specifications

Benefits		
• **Fast and easy to install**	Operation voltage	220 - 240 V~
• **Multiple application options**	Construction	Round, twin conductor with 360° screen, one cold lead
• **Safe and robust**	Output	20 W/m @ 230 V~
• **Long life-time**	Max. permissible use temperature, powered	60 °C
• **Maximum protection**	Max. permissible use temperature, unpowered	90 °C
	Cable dimensions	Ø 6,9 mm
Approvals:	Deformation strength	>1500 N
	Pulling strength	>500 N
Intertek EHC 001 CE	Conductor insulation	XLPE
	Outer sheath	PVC, red
	Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Standard compliance	Cold lead	2,3 m DTCL
• **IEC60800:2009**	Min. installation temperature	-5 °C
	Bending Ø, min.	50 mm
	IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L6055	7,1 m	140 W	375,6 Ω	3 x 1,5 mm²	5703466224663
088L6056	10 m	195 W	269,0 Ω	3 x 1,5 mm²	5703466224670
088L6057	16,5 m	330 W	161,4 Ω	3 x 1,5 mm²	5703466224687
088L6058	21 m	415 W	128,1 Ω	3 x 1,5 mm²	5703466224694
088L6059	28 m	555 W	95,2 Ω	3 x 1,5 mm²	5703466224700
088L6060	32 m	650 W	81,3 Ω	3 x 1,5 mm²	5703466224717
088L6061	36 m	700 W	75,6 Ω	3 x 1,5 mm²	5703466224724
088L6062	43 m	835 W	63,2 Ω	3 x 1,5 mm²	5703466224731
088L6063	50 m	970 W	54,5 Ω	3 x 1,5 mm²	5703466224748
088L6064	56 m	1130 W	46,8 Ω	3 x 1,5 mm²	5703466224755
088L6065	65 m	1275 W	41,5 Ω	3 x 1,5 mm²	5703466224762
088L6066	70 m	1415 W	37,4 Ω	3 x 1,5 mm²	5703466224779
088L6067	78 m	1565 W	33,9 Ω	3 x 1,5 mm²	5703466224786
088L6068	86 m	1700 W	31,1 Ω	3 x 1,5 mm²	5703466224793
088L6069	100 m	1975 W	26,8 Ω	3 x 2,5 mm²	5703466224809
088L6070	112 m	2250 W	23,5 Ω	3 x 2,5 mm²	5703466224816
088L6071	125 m	2530 W	20,9 Ω	3 x 2,5 mm²	5703466224823
088L6072	148 m	2905 W	18,2 Ω	3 x 2,5 mm²	5703466224830

ECbasic 20S

ECbasic is a high-quality, braided screen, single conductor cable with a non UV stable outer sheath. Its round profile and robust construction ensures a fast, simple and safe installation in multiple indoor, outdoor and pipe tracing applications.

The two cold leads have clearly visible connections to avoid accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Easy to install**
- **Multiple application options**
- **Safe and robust**
- **Long life-time**

Approvals:

Ⓝ EHC ✓001 CE

Standard compliance
- **IEC60800:1992**

Operation voltage	220 - 240 V
Construction	Round, single conductor with screen, 2 x cold lead
Output	20 W/m @ 230 V~
Max. permissible use temperature, powered	60 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	Ø 5,5 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	XLPE
Outer sheath	PVC
Screen	16 x 0,3 mm Cu (1 mm^2)
Cold lead	2 x 3 m DSWA, single conductor with screen
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L2130	9 m	170 W	347,3 Ω	1 x 1,5 mm^2	5703466126530
088L2131	14 m	260 W	203,5 Ω	1 x 1,5 mm^2	5703466126547
088L2132	18 m	375 W	141,1 Ω	1 x 1,5 mm^2	5703466126554
088L2133	26 m	520 W	101,7 Ω	1 x 1,5 mm^2	5703466126561
088L2134	32 m	640 W	82,7 Ω	1 x 1,5 mm^2	5703466126578
088L2135	39 m	800 W	66,1 Ω	1 x 1,5 mm^2	5703466126585
088L2136	53 m	1070 W	49,4 Ω	1 x 1,5 mm^2	5703466126592
088L2137	63 m	1260 W	42,0 Ω	1 x 1,5 mm^2	5703466126608
088L2138	74 m	1465 W	36,1 Ω	1 x 1,5 mm^2	5703466126615
088L2139	91 m	1820 W	29,1 Ω	1 x 1,5 mm^2	5703466126622
088L2140	110 m	2025 W	23,9 Ω	1 x 1,5 mm^2	5703466126639
088L2141	131 m	2640 W	20,0 Ω	1 x 2,5 mm^2	5703466126646
088L2142	159 m	3170 W	16,7 Ω	1 x 2,5 mm^2	5703466126653
088L2143	192 m	3855 W	13,7 Ω	1 x 2,5 mm^2	5703466126660
088L2144	228 m	4565 W	11,6 Ω	1 x 4,0 mm^2	5703466126677

ECmat 100T

ECmat is an extremely high-quality, 360° fully screened self-adhesive all-in-one mat with FEP insulated conductors and a red PVDF outer sheath (non UV stable). The round profile, low height (only 3,5 mm) and robust construction ensures a fast, simple and safe installation perfect for renovating existing floors.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Self-adhesive mesh**
- **Low height - only 3,5 mm**
- **Only one cold lead**
- **Long life-time**
- **Maximum protection**

Approvals:

Ⓢ
Intertek

Standard compliance
- **IEC60335-2-96**

Operation voltage	220 - 240 V~
Construction	Twin conductor with 360° screening, one cold lead
Output	100 W/m² @ 230 V~
Max. permissible use temperature, powered	115 °C
Max. permissible use temperature, unpowered	120 °C
Cable dimensions	3,0 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	FEP
Outer sheath	PVDF
Screen	100% coverage; alu-foil; 0,5 mm2 tinned copper drain wire
Cold lead	4 m DTWB 2 x 1 mm2 with screen
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Output @ 230V~	Heated area	Resistance, Ohm	Dimensions (W x L)	EAN no.
088L0215	50 W	0,5 m²	1058 Ω	0,5 x 1 m	5703466120071
088L0216	100 W	1,0 m²	529 Ω	0,5 x 2 m	5703466120088
088L0217	150 W	1,5 m²	353 Ω	0,5 x 3 m	5703466120095
088L0218	200 W	2,0 m²	265 Ω	0,5 x 4 m	5703466120101
088L0219	250 W	2,5 m²	212 Ω	0,5 x 5 m	5703466120118
088L0220	300 W	3,0 m²	176 Ω	0,5 x 6 m	5703466120125
088L0221	350 W	3,5 m²	151 Ω	0,5 x 7 m	5703466120132
088L0222	400 W	4,0 m²	132 Ω	0,5 x 8 m	5703466120149
088L0223	500 W	5,0 m²	106 Ω	0,5 x 10 m	5703466120156
088L0224	600 W	6,0 m²	88 Ω	0,5 x 12 m	5703466120163
088L0225	700 W	7,0 m²	76 Ω	0,5 x 14 m	5703466120170
088L0226	800 W	8,0 m²	66 Ω	0,5 x 16 m	5703466120187
088L0227	900 W	9,0 m²	59 Ω	0,5 x 18 m	5703466120194
088L0228	1000 W	10,0 m²	53 Ω	0,5 x 20 m	5703466120200
088L0229	1200 W	12,0 m²	44 Ω	0,5 x 24 m	5703466120347

ECmat 150T

ECmat is an extremely high-quality, 360° fully screened self-adhesive all-in-one mat with FEP insulated conductors and a red PVDF outer sheath (non UV stable). The round profile, low height (only 3,5 mm) and robust construction ensures a fast, simple and safe installation perfect for renovating existing floors.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product | Installation | Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Self-adhesive mesh**
- **Low height - only 3,5 mm**
- **Only one cold lead**
- **Long life-time**
- **Maximum protection**

Approvals:

Ⓢ
Intertek

Standard compliance
- **IEC60335-2-96**

Operation voltage	220 - 240 V~
Construction	Twin conductor with 360° screening, one cold lead
Output	150 W/m² @ 230 V~
Max. permissible use temperature, powered	115 °C
Max. permissible use temperature, unpowered	120 °C
Cable dimensions	3,0 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	FEP
Outer sheath	PVDF
Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Cold lead	4 m DTWB 2 x 1 mm² with screen
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Output @ 230V~	Heated area	Resistance, Ohm	Dimensions (W x L)	EAN no.
088L0200	75 W	0,5 m²	705 Ω	0,5 x 1 m	5703466117729
088L0201	150 W	1,0 m²	353 Ω	0,5 x 2 m	5703466117736
088L0202	225 W	1,5 m²	235 Ω	0,5 x 3 m	5703466117743
088L0203	300 W	2,0 m²	176 Ω	0,5 x 4 m	5703466117750
088L0204	375 W	2,5 m²	141 Ω	0,5 x 5 m	5703466117767
088L0205	450 W	3,0 m²	118 Ω	0,5 x 6 m	5703466117774
088L0206	525 W	3,5 m²	100 Ω	0,5 x 7 m	5703466117781
088L0207	600 W	4,0 m²	88 Ω	0,5 x 8 m	5703466117798
088L0208	750 W	5,0 m²	70 Ω	0,5 x 10 m	5703466117804
088L0209	900 W	6,0 m²	59 Ω	0,5 x 12 m	5703466117811
088L0210	1050 W	7,0 m²	50 Ω	0,5 x 14 m	5703466117828
088L0211	1200 W	8,0 m²	44 Ω	0,5 x 16 m	5703466117835
088L0212	1350 W	9,0 m²	40 Ω	0,5 x 18 m	5703466117842
088L0213	1500 W	10,0 m²	35 Ω	0,5 x 20 m	5703466117859
088L0214	1800 W	12,0 m²	30 Ω	0,5 x 24 m	5703466120330

ECmat 200T

ECmat is an extremely high-quality, 360° fully screened self-adhesive all-in-one mat with FEP insulated conductors and a red PVDF outer sheath (non UV stable). The round profile, low height (only 3,5 mm) and robust construction ensures a fast, simple and safe installation perfect for renovating existing floors.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Self-adhesive mesh**
- **Low height - only 3,5 mm**
- **Only one cold lead**
- **Long life-time**
- **Maximum protection**

Approvals:

Ⓢ Intertek

Standard compliance
- **IEC60335-2-96**

Operation voltage	220 - 240 V~
Construction	Twin conductor with 360° screening, one cold lead
Output	200 W/m² @ 230 V~
Max. permissible use temperature, powered	115 °C
Max. permissible use temperature, unpowered	120 °C
Cable dimensions	3,0 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	FEP
Outer sheath	PVDF
Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Cold lead	4 m DTWB 2 x 1 mm² with screen
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Output @ 230V~	Heated area	Resistance, Ohm	Dimensions (W x L)	EAN no.
088L5400	87 W	0,5 m²	608 Ω	0,5 x 0,9 mm	5703466242087
088L5405	215 W	1,1 m²	246 Ω	0,5 x 2,1 mm	5703466242094
088L5410	285 W	1,5 m²	186 Ω	0,5 x 2,9 mm	5703466242100
088L5415	430 W	2,1 m²	123 Ω	0,5 x 4,2 mm	5703466242117
088L5420	500 W	2,5 m²	106 Ω	0,5 x 5,0 mm	5703466242124
088L5425	605 W	3,1 m²	87 Ω	0,5 x 6,2 mm	5703466242131
088L5430	695 W	3,5 m²	76 Ω	0,5 x 6,9 mm	5703466242148
088L5435	845 W	4,3 m²	63 Ω	0,5 x 8,6 mm	5703466242155
088L5440	990 W	5,0 m²	53 Ω	0,5 x 9,9 mm	5703466242162
088L5445	1210 W	6,1 m²	44 Ω	0,5 x 12,2 mm	5703466242179
088L5450	1385 W	7,0 m²	38 Ω	0,5 x 14,0 mm	5703466242186
088L5455	1565 W	7,8 m²	34 Ω	0,5 x 15,6 mm	5703466242193
088L5460	1715 W	8,8 m²	31 Ω	0,5 x 17,6 mm	5703466242209
088L5465	2070 W	10,5 m²	26 Ω	0,5 x 20 mm	5703466242216

ECcomfort 100T

ECcomfort is an extremely high-quality, 360° fully screened twin conductor self-adhesive all-in-one mat with a tough red PVC outer sheath (non UV stable). Its round profile, robust construction and low height ensures a fast, simple and safe installation which is perfect for renovating existing floors.

The cold lead is an installation cable with solid conductors ensuring fast installation. A clearly visible connection avoids accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product | Installation | Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Self-adhesive mesh**
- **Low height**
- **Only one cold lead**
- **Long life-time**
- **Maximum protection**

Approvals:

Intertek · EAC · 001 · CE · SP

Standard compliance
- **IEC60335-2-96**

Operation voltage	220 - 240 V~
Construction	Round, twin conductor with 360° screen, one cold lead
Output	100 W/m² @ 230 V~
Max. permissible use temperature, powered	85 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	4 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	FEP
Outer sheath	PVC
Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Cold lead	4 m DTWB, 2 x 1,0 mm², earthed
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Output, W @ 230 V~	Heated area	Resistance, Ohm	Dimensions (W x L)	EAN no.
088L6200	50 W	0,5 m²	1058,0 Ω	0,5 x 1 m	5703466240649
088L6201	100 W	1,0 m²	529,0 Ω	0,5 x 2 m	5703466240656
088L6202	150 W	1,5 m²	352,0 Ω	0,5 x 3 m	5703466240663
088L6203	200 W	2,0 m²	264,0 Ω	0,5 x 4 m	5703466240670
088L6204	250 W	2,5 m²	211,0 Ω	0,5 x 5 m	5703466240687
088L6205	300 W	3,0 m²	176,0 Ω	0,5 x 6 m	5703466240694
088L6206	350 W	3,5 m²	151,0 Ω	0,5 x 7 m	5703466240700
088L6207	400 W	4,0 m²	132,0 Ω	0,5 x 8 m	5703466240717
088L6208	500 W	5,0 m²	105,0 Ω	0,5 x 10 m	5703466240724
088L6209	600 W	6,0 m²	88,1 Ω	0,5 x 12 m	5703466240731
088L6210	700 W	7,0 m²	75,5 Ω	0,5 x 14 m	5703466240748
088L6211	800 W	8,0 m²	66,1 Ω	0,5 x 16 m	5703466240755

ECheat 150S

ECheat is an high-quality, braided screen, self-adhesive all-in-one mat with FEP insulated conductors and a red PVDF outer sheath (non UV stable). The round profile, very low height (only 2,5 mm) and robust construction ensures a fast, simple and safe installation perfect for renovating existing floors.

The two cold leads have clearly visible connections to avoid accidentally installing the heated cable in the wall.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our full floor extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Self-adhesive mesh**
- **Very low height - only 2,5 mm**
- **Long life-time**

Approvals:

Intertek   EAC   001   CE

Standard compliance
- **IEC60335-2-96**

Operation voltage	220 - 240 V~
Construction	Round, single conductor with screen, two cold leads
Output	150 W/m^2 @ 230 V~
Max. permissible use temperature, powered	110 °C
Max. permissible use temperature, unpowered	120 °C
Cable thickness	2,5 mm
Deformation strength	600 N
Pulling strength	120 N
Conductor insulation	FEP
Outer sheath	PVDF
Screen	10 x CU threads
Cold lead	4 m DSWB, 1 x 1,0 mm^2, earthed
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Heated area	Output @ 230V~	Resistance, Ohm	Dimensions (W x L)	EAN no.
088L0550	0,5 m^2	75 W	705 Ω	0,5 x 1 m	5703466118757
088L0551	1,0 m^2	150 W	353 Ω	0,5 x 2 m	5703466118764
088L0552	1,5 m^2	225 W	235 Ω	0,5 x 3 m	5703466118771
088L0553	2,0 m^2	300 W	176 Ω	0,5 x 4 m	5703466118788
088L0554	2,5 m^2	375 W	141 Ω	0,5 x 5 m	5703466118795
088L0555	3,0 m^2	450 W	118 Ω	0,5 x 6 m	5703466118801
088L0556	3,5 m^2	525 W	101 Ω	0,5 x 7 m	5703466118818
088L0557	4,0 m^2	600 W	88 Ω	0,5 x 8 m	5703466118825
088L0558	5,0 m^2	750 W	74 Ω	0,5 x 10 m	5703466118832
088L0559	6,0 m^2	900 W	59 Ω	0,5 x 12 m	5703466118849
088L0560	7,0 m^2	1050 W	50 Ω	0,5 x 14 m	5703466118856
088L0561	8,0 m^2	1200 W	44 Ω	0,5 x 16 m	5703466118863
088L0562	9,0 m^2	1350 W	39 Ω	0,5 x 18 m	5703466118870
088L0563	10,0 m^2	1500 W	35 Ω	0,5 x 20 m	5703466118887

ECdry 55 Heating Element

ECdry is a floor heating system consisting of a foam construction only 8 mm high with heating elements inside.

This all-in-one heating element and underlay system can be used under wooden floorings, parquets and laminates up to 22 mm (and even carpets with ECdry Plug Kit). The system has been tested with flooring materials with insulation values from 0,05 to 0,18 m^2 K/W.

To ensure a long life-time, all heating elements are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality.

5 YEAR WARRANTY

Technical specifications

Benefits
- **Easy and simple installation**
- **No screed needed**
- **Fast responding**
- **Noise reduction up to 17 dB**
- **Low building height**

Approvals:

EAC ⓥ ₀₀₁ CE

Standard compliance
- **IEC 60335-2-96 (with ECdry Touch Kit)**

Operation voltage	220 - 240 V
Output	55 W/m^2 @ 230 V~
Height	8 mm
Max. amps per ECdry system	10 A
Insulation value (μ)	8 W/m^2 K
Sound reduction value	17 db
IP class	X7
Point load	>2000 N

Types

Item no.	Type	Heated area	Output, W @ 230 V~	EAN no.
088L0140	Danfoss ECdry 55, 2 m^2	1,4 m^2	77 W	5703466238196
088L0141	Danfoss ECdry 55, 3 m^2	2,4 m^2	132 W	5703466238202
088L0142	Danfoss ECdry 55, 4 m^2	3,4 m^2	187 W	5703466238219
088L0143	Danfoss ECdry 55, 5 m^2	4,4 m^2	242 W	5703466238226

Accessories

Item no.	Product name	Type	EAN no.
088L0123	Danfoss ECdry Touch Kit	ECdry Touch kit	5703466238233
088L0144	Danfoss ECdry Fillermat 2 m^2	ECdry Fillermat	5703466238233
088L0124	Danfoss ECdry Extension cord 0,25 m	ECdry Extension cord	5703466238165
088L0125	Danfoss ECdry Extension cord 1 m	ECdry Extension cord	5703466238172
088L0126	Danfoss ECdry Extension cord 2 m	ECdry Extension cord	5703466238189

Output	Subfloor		Top floor		
	Wood	Concrete	Wood	Laminate	Carpet
55 W/m^2	+	+	+	+	+

ECdry 100 Heating Element

ECdry is a floor heating system consisting of a foam construction only 8 mm high with heating elements inside.

This all-in-one heating element and underlay system can be used under wooden floorings, parquets and laminates up to 22 mm (and even carpets with ECdry Plug Kit). The system has been tested with flooring materials with insulation values from 0.05 to 0,18 m² K/W.

To ensure a long life-time, all heating elements are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality.

5 YEAR WARRANTY

Technical specifications

Benefits
- **Easy and simple installation**
- **No screed needed**
- **Fast responding**
- **Noise reduction up to 17 dB**
- **Low building height**

Approvals:

EAC | CE

Standard compliance
- **IEC 60335-2-96 (with ECdryTouch Kit)**

Operation voltage	220 - 240 V
Output	100 W/m² @ 230 V~
Height	8 mm
Max. amps per ECdry system	10 A
Insulation value (μ)	8 W/m² K
Sound reduction value	17 db
IP class	X7
Point load	>2000 N

Types

Item no.	Type	Heated area	Output, W @ 230 V~	EAN no.
088L0145	Danfoss ECdry 100, 1 m²	0,4 m²	40 W	5703466240434
088L0146	Danfoss ECdry 100, 2 m²	1,4 m²	140 W	5703466240441
088L0147	Danfoss ECdry 100, 3 m²	2,4 m²	240 W	5703466240458
088L0148	Danfoss ECdry 100, 4 m²	3,4 m²	340 W	5703466240465
088L0149	Danfoss ECdry 100, 5 m²	4,4 m²	440 W	5703466240472

Accessories

Item no.	Product name	Type	EAN no.
088L0123	Danfoss ECdry Touch Kit	ECdry Touch kit	5703466238233
088L0144	Danfoss ECdry Fillermat 2 m²	ECdry Fillermat	5703466238233
088L0124	Danfoss ECdry Extension cord 0,25 m	ECdry Extension cord	5703466238165
088L0125	Danfoss ECdry Extension cord 1 m	ECdry Extension cord	5703466238172
088L0126	Danfoss ECdry Extension cord 2 m	ECdry Extension cord	5703466238189

Output	Subfloor		Top floor		
	Wood	Concrete	Wood	Laminate	Carpet
100 W/m²	–	+	+	+	–

ECdry Touch Kit

The ECdry Touch Kit is used to control the ECdry floor heating system designed for floor heating in dry rooms under wooden floorings, parquets, laminates and carpets.

The kit consists of the ECtemp Touch thermostat, the NTC Floor Sensor, the Power Supply Cord, the Connection Tool and aluminium Tape.

2 YEAR WARRANTY

Technical specifications

Benefits
- **All-in-the-box**
- **Easy installation**
- **Digital timer thermostat**
- **Low standby consumption**
- **Childproof function**

Standard compliance
- **EN/IEC 60335-106 (with ECdry)**
- **EN/IEC 60730-1 (general)**
- **EN/IEC 60730-2-7 (timer)**
- **EN/IEC 60730-2-9 (thermostat)**

Operation voltage	220 - 240 V~ 50/60 Hz
Standby power consumption	max. 0,40 W
Resistive load	16A, 3680 W @ 230 V
Inductive load	Max. 1 A, cos φ = 0,3
Sensing unit	NTC 15 kΩ @ 25 °C
Ambient temperature	0 °C to 30 °C
Frost protection	5°C to 9°C (default 5°C)
Temperature range	5 °C to 35°C (room) 5 °C to 45 °C (floor)
Cable specification max	1 x 4 mm^2 or 2 x 2,5 mm^2
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Controller type	1 C
Storage temperature	-20°C to +65°C
IP class	21
Protection class	Class II - ▢
Dimensions (H/W/D)	85 x 85 x 20-24 mm (in-wall depth: 22 mm)
Weight	115 g

Type

Item no.	Product name	Type	EAN no.
088L0123	Danfoss ECdry Touch Kit	With ECtemp Touch timer	5703466238158

Accessories

Item no.	Product name	Type	EAN no.
088L0144	Danfoss ECdry Fillermat 2 m^2	ECdry Fillermat	5703466238233
088L0124	Danfoss ECdry Extension cord 0,25 m	ECdry Extension cord	5703466238165
088L0125	Danfoss ECdry Extension cord 1 m	ECdry Extension cord	5703466238172
088L0126	Danfoss ECdry Extension cord 2 m	ECdry Extension cord	5703466238189

Output	Subfloor		Top floor		
	Wood	Concrete	Wood	Laminate	Carpet
55 W/m^2	+	+	+	+	+
100 W/m^2	–	+	+	+	–

EFCI Reflect insulation plates

EFCI is an energy-efficient system, which provides up to 20% extra energy saving through integrated thermal insulation. EFCI Insulation plate covered with aluminum and readymade groves for easy and fast installation of ECflex heating cables.
The full covering aluminum effect ensures faster reaction time and an even heat distribution for the top floor.

EFCI a special system for new floor installed on top of all existing floors or sub floors. The system can be installed on the existing tiles, wooden floors or concrete floors. The system can be used under nearly all types of floor surfaces. In case of "wet" installation - the glue and primer, must be suitable for installation of tiles onto an aluminum plate and confirmed by supplier of adhesives.

EFCI system under laminate, wooden or parquet floors – EFCI & ECflex must not be embedded in concrete or similar "wet" material, Dry installation only.

EFCI system under tiles floors – "wet" installation with special tiles adhesive should be used for tile installation. Tile glue and primer, must be suitable for installation of tiles onto an aluminum plate and confirmed by producer for this application.

10 YEAR WARRANTY

Technical specifications

Benefits	Construction	Polystyrene with aluminium
• **Sturdy construction**	R value	0,26 m² K/W
• **No mason work with screed**	Plate size	50 x 100 cm
• **Fits ECflex**	Thickness	13 mm
• **Fits odd corners**	Aluminium thickness	0,8 mm
• **Reduced downward heat loss**	Insulation	12 mm fire retardant EPS
• **Even temperature distribution**	Deformation strength	180 kPa at 10% compression
• **Quick response time with timer**	Max working temp	80 °C
• **Noise reduction -3 dB**	Usage of cable	5 metres per plate
	Noise reduction	-3 dB

Heat density [W/m²]

CC-distance [cm]	ECflex 10
10	100 W/m²
20	50 W/m²

Types

Item no.	Type	No. of plates	EAN no.
088L0076	Reflect insulation plates, 5m²	10 plates	5703466228104
088L0077	Reflect insulation plates, 2m²	4 plates	5703466228111

ECsafe 20T

ECsafe is an extremely high-quality, 360° fully screened twin conductor cable with a tough outer sheath (UV stable). Its round profile and robust construction ensures a fast, simple and safe installation in multiple outdoor applications.

The cold lead is an installation cable with solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product | Installation | Floor/Surface

Technical specifications

Benefits		
• **Fast and easy to install**	Operation voltage	220 - 240 V~
• **Multiple application options**	Construction	Round, twin conductor with 360° screen, one cold lead
• **Safe and robust**	Output	20 W/m
• **Long life-time**	Max. permissible use temperature, powered	60 °C
• **Maximum protection**	Max. permissible use temperature, unpowered	90 °C
• **UV stable**	Cable dimensions	Ø 6,9 mm
	Deformation strength	>1500 N
Approvals:	Pulling strength	>500 N
	Conductor insulation	PEX
Ⓢ Intertek	Outer sheath	UV protected PVC
	Screen	100% coverage; alu-foil; 0,5 mm² tinned copper drain wire
Standard compliance	Cold lead	2,5 m DTWC, screened
• **IEC60800:2009**	Min. installation temperature	-5 °C
	Bending Ø, min.	50 mm
	IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L2170	6 m	125 W	430,1 Ω	2 x 1,5 mm²	5703466227312
088L2171	12 m	250 W	216,5 Ω	2 x 1,5 mm²	5703466227329
088L2172	17 m	335 W	157,3 Ω	2 x 1,5 mm²	5703466227336
088L2173	25 m	505 W	105,2 Ω	2 x 1,5 mm²	5703466227343
088L2174	33 m	675 W	79,2 Ω	2 x 1,5 mm²	5703466227350
088L2175	42 m	830 W	63,4 Ω	2 x 1,5 mm²	5703466227367
088L2176	50 m	1000 W	53,0 Ω	2 x 1,5 mm²	5703466227374
088L2177	60 m	1200 W	44,1 Ω	2 x 1,5 mm²	5703466227381
088L2178	68 m	1370 W	38,7 Ω	2 x 1,5 mm²	5703466227398
088L2179	85 m	1700 W	31,2 Ω	2 x 1,5 mm²	5703466227404
088L2180	101 m	2040 W	26,1 Ω	2 x 2,5 mm²	5703466227411
088L2181	118 m	2360 W	22,4 Ω	2 x 2,5 mm²	5703466227428
088L2182	135 m	2685 W	19,7 Ω	2 x 2,5 mm²	5703466227435
088L2183	152 m	3025 W	17,5 Ω	2 x 2,5 mm²	5703466227442
088L2184	170 m	3385 W	15,6 Ω	2 x 2,5 mm²	5703466227459
088L2185	194 m	3895 W	13,6 Ω	2 x 2,5 mm²	5703466227466

ECsnow 20T - 230V

ECsnow is an extremely high-quality, 360° fully screened twin conductor cable with a tough black PVC outer sheath (UV stable). Its round profile and robust construction ensures a fast, simple and safe installation on roofs, in gutters, down drain pipes and on the ground.

The cold lead has solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product | Installation | Floor/Surface

Technical specifications

Benefits		
• **Fast and easy to install**	Operation voltage	230 V~
• **Multiple outdoor applications**	Construction	Twin conductor with 360° screening, one cold lead
• **Safe and robust**	Output	20 W/m
• **Long life-time**	Max. permissible use temperature, powered	60 °C
• **Maximum protection**	Max. permissible use temperature, unpowered	90 °C
• **UV stable**	Cable dimensions	7 mm
	Deformation strength	>1500 N
Approvals:	Pulling strength	>300 N
	Conductor insulation	FEP
	Outer sheath	UV protected PVC
	Screen	0,5 mm² Cu, 100% Alu-foil
Standard compliance	Cold lead	2,5 m DTWC
• **IEC60800:2009**	Min. installation temperature	-5 °C
	Bending Ø, min.	50 mm
	IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L0470	12 m	250 W	211,6 Ω	2 x 1,5 mm²	5703466190449
088L0471	25 m	505 W	104,8 Ω	2 x 1,5 mm²	5703466190456
088L0472	40 m	855 W	61,9 Ω	2 x 1,5 mm²	5703466190463
088L0473	50 m	1000 W	52,9 Ω	2 x 1,5 mm²	5703466190470
088L0474	60 m	1200 W	44,1 Ω	2 x 1,5 mm²	5703466190487
088L0475	70 m	1333 W	39,7 Ω	2 x 1,5 mm²	5703466190494
088L0476	85 m	1695 W	31,2 Ω	2 x 1,5 mm²	5703466190500
088L0477	100 m	2060 W	25,7 Ω	2 x 1,5 mm²	5703466190517
088L0478	135 m	2685 W	19,7 Ω	2 x 1,5 mm²	5703466190524
088L0479	150 m	3066 W	17,3 Ω	2 x 2,5 mm²	5703466190531
088L0480	170 m	3382 W	15,6 Ω	2 x 2,5 mm²	5703466190548
088L0481	195 m	3875 W	13,7 Ω	2 x 2,5 mm²	5703466190555

ECsnow 20T - 400V

ECsnow is an extremely high-quality, 360° fully screened twin conductor cable with a tough black PVC outer sheath (UV stable). Its round profile and robust construction ensures a fast, simple and safe installation on roofs, in gutters, down drain pipes and on the ground.

The cold lead has solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits		
• **Fast and easy to install**	Operation voltage	400 V~
• **Multiple outdoor applications**	Construction	Twin conductor with 360° screening, one cold lead
• **Safe and robust**	Output	20 W/m
• **Long life-time**	Max. permissible use temperature, powered	60 °C
• **Maximum protection**	Max. permissible use temperature, unpowered	90 °C
• **UV stable**	Cable dimensions	7 mm
	Deformation strength	>1500 N
Approvals:	Pulling strength	>300 N
	Conductor insulation	FEP
Intertek ⮌ 🇪🇦🇨 ⮌ 001 CE CSP	Outer sheath	UV protected PVC
	Screen	0,5 mm² Cu, 100% Alu-foil
	Cold lead	10 m DTWC, 2 x 1,5 mm²
Standard compliance	Min. installation temperature	-5 °C
• **IEC60800:2009**	Bending Ø, min.	50 mm
	IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	EAN no.
088L0482	21 m	433 W	369,5 Ω	5703466190562
088L0483	30 m	570 W	280,7 Ω	5703466190579
088L0484	43 m	888 W	180,2 Ω	5703466190586
088L0485	58 m	1165 W	137,3 Ω	5703466190593
088L0486	72 m	1463 W	109,4 Ω	5703466190609
088L0487	85 m	1780 W	89,9 Ω	5703466190616
088L0488	105 m	2073 W	77,2 Ω	5703466190623
088L0489	135 m	2628 W	60,9 Ω	5703466190630
088L0490	150 m	2905 W	55,1 Ω	5703466190647
088L0491	170 m	3245 W	49,3 Ω	5703466190654
088L0492	205 m	4108 W	39,0 Ω	5703466190661

ECsnow 30T - 230V

ECsnow is an extremely high-quality, 360° fully screened twin conductor cable with a tough black PVC outer sheath (UV stable). Its round profile and robust construction ensures a fast, simple and safe installation on roofs, in gutters, down drain pipes and on the ground.

The cold lead has solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Multiple outdoor applications**
- **Safe and robust**
- **Long life-time**
- **Maximum protection**
- **UV stable**

Approvals:

Intertek EHC 001 CE CSA

Standard compliance
- **IEC60800:2009**

Operation voltage	220 V - 240 V~
Construction	Twin conductor with 360° screening, one cold lead
Output	30 W/m
Max. permissible use temperature, powered	60 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	7 mm
Deformation strength	>1500 N
Pulling strength	>300 N
Conductor insulation	FEP
Outer sheath	UV protected PVC
Screen	0,5 mm² Cu, 100% Alu-foil
Cold lead	2,5 m DTWC
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L0230	5 m	150 W	352,7 Ω	2 x 1,5 mm²	5703466188484
088L0232	10 m	300 W	176,3 Ω	2 x 1,5 mm²	5703466188507
088L0233	14 m	400 W	132,3 Ω	2 x 1,5 mm²	5703466188514
088L0234	20 m	630 W	84,0 Ω	2 x 1,5 mm²	5703466188521
088L0235	27 m	830 W	63,7 Ω	2 x 1,5 mm²	5703466188538
088L0236	34 m	1020 W	51,9 Ω	2 x 1,5 mm²	5703466188545
088L0237	40 m	1250 W	42,3 Ω	2 x 1,5 mm²	5703466188552
088L0238	45 m	1350 W	39,2 Ω	2 x 1,5 mm²	5703466188569
088L0239	50 m	1440 W	36,7 Ω	2 x 1,5 mm²	5703466188576
088L0240	55 m	1700 W	31,1 Ω	2 x 1,5 mm²	5703466188583
088L0241	63 m	1860 W	28,4 Ω	2 x 1,5 mm²	5703466188590
088L0242	70 m	2060 W	25,7 Ω	2 x 1,5 mm²	5703466188606
088L0243	78 m	2340 W	22,3 Ω	2 x 1,5 mm²	5703466188613
088L0244	85 m	2420 W	21,9 Ω	2 x 1,5 mm²	5703466188620
088L0245	95 m	2930 W	18,1 Ω	2 x 1,5 mm²	5703466188637
088L0246	110 m	3290 W	16,1 Ω	2 x 2,5 mm²	5703466188644
088L0247	125 m	3680 W	14,4 Ω	2 x 2,5 mm²	5703466192948
088L0248	140 m	4110 W	12,9 Ω	2 x 2,5 mm²	5703466192955

ECsnow 30T - 400V

ECsnow is an extremely high-quality, 360° fully screened twin conductor cable with a tough black PVC outer sheath (UV stable). Its round profile and robust construction ensures a fast, simple and safe installation on roofs, in gutters, down drain pipes and on the ground.

The cold lead has solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product   Installation   Floor/Surface

Technical specifications

Benefits
- **Fast and easy to install**
- **Multiple outdoor applications**
- **Safe and robust**
- **Long life-time**
- **Maximum protection**
- **UV stable**

Approvals:

Intertek   EAC   001   CE   SP

Standard compliance
- **IEC60800:2009**

Operation voltage	400 V~
Construction	Twin conductor with 360° screening, one cold lead
Output	30 W/m
Max. permissible use temperature, powered	60 °C
Max. permissible use temperature, unpowered	90 °C
Cable dimensions	7 mm
Deformation strength	>1500 N
Pulling strength	>300 N
Conductor insulation	FEP
Outer sheath	UV protected PVC
Screen	0,5 mm² Cu, 100% Alu-foil
Cold lead	2,5 and 10 m DTWC
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	Cold lead, mm²	EAN no.
088L0231	8,5 m	267 W	599,3 Ω	2 x 1,5 mm²	5703466188491
088L0130	17,5 m	520 W	307,7 Ω	2 x 1,5 mm²	5703466169124
088L0131	35,0 m	1090 W	146,8 Ω	2 x 1,5 mm²	5703466169131
088L0132	70,0 m	2160 W	74,1 Ω	2 x 1,5 mm²	5703466169148
088L0133	110,0 m	3225 W	49,6 Ω	2 x 1,5 mm²	5703466169155
088L0134	145,0 m	4295 W	37,3 Ω	2 x 1,5 mm²	5703466169162
088L0135	170,0 m	4955 W	32,3 Ω	2 x 2,5 mm²	5703466169179
088L0136	190,0 m	5770 W	27,7 Ω	2 x 2,5 mm²	5703466169186
088L0137	215,0 m	6470 W	24,7 Ω	2 x 2,5 mm²	5703466169193

ECpipeguard 10, ECpipeguard 25, ECpipeguard 33

5 YEAR WARRANTY

The ECpipeguard is a self-limiting heating cable that is mainly used for frost protection of pipes. The self-limiting capability of the cable ensures that the output of the cable increase or decrease according to ambient temperature. The cable will maintain its functionality even when shortened.

The polyolefin outer sheath is highly resistant to harsh environmental conditions and corrosion and it also serves as a protection against mechanical influences.

Technical specifications

Benefits		
• **Cut to length on site** • **PVC free** **Approvals:** **Standard compliance** • **DIN VDE 0254: 1994-06**	Operation voltage	230 V AC
	Nominal output: ECpipeguard 10 ECpipeguard 25 ECpipeguard 33	 10 W/m @ 10 °C 25 W/m @ 10 °C 33 W/m @ 10 °C
	Maximum permissible use temperature	65°C, powered 85°C, unpowered
	Minimum use temperature	- 50 °C
	Cable dimensions	11,8 mm × 5,5 mm
	Outer sheath: ECpipeguard 10 ECpipeguard 25 ECpipeguard 33	 Blue, TPE Red, TPE Grey, TPE
	Screen	Tinned copper braid
	Minimum braid coverage	70%
	Maximum resistance protective braid	18,2 Ω/Km
	Bending Ø, min.	50 mm (Ø to the inside of the tape)

Types

Item no.	Type	Length	Tolerance	EAN no.
98300708	ECpipeguard 10	Drum, 100 m	-	5703466177174
98300700	ECpipeguard 10	Drum, 270 m	270-330 m	5703435005552
98300707	ECpipeguard 10	Drum, 720 m	720-880 m	5703466096598
98300709	ECpipeguard 10	Cut-to-length	1 m (up to 720 m)	5703466193358
98300761	ECpipeguard 25	Drum, 100 m	-	5703466177181
98300759	ECpipeguard 25	Drum, 270 m	270-330 m	5703435005569
98300758	ECpipeguard 25	Drum, 720 m	720-880 m	5703466096604
98300763	ECpipeguard 25	Cut-to-length	1 m (up to 720 m)	5703466193365
98300764	ECpipeguard 33	Drum, 305 m	-	5703466196120
98300672	ECpipeguard 33	Cut-to-length	1 m (up to 305 m)	5703466193341

RCD of 30 mA is required, max. 500 m of self-limiting heating cable per RCD.

ECpipeguard heating cable maximum length (with 16 A circuit breaker)

Switch on temperature	ECpipeguard 10				ECpipeguard 25				ECpipeguard 33			
	16 A	**20 A**	**25 A**	**32 A**	**16 A**	**20 A**	**25 A**	**32 A**	**16 A**	**20 A**	**25 A**	**32 A**
10 °C	205 m	205 m	205 m	205 m	88 m	117 m	120 m	126 m	70 m	90 m	98 m	108 m
-15 °C	139 m	186 m	190 m	195 m	58 m	75 m	95 m	117 m	49 m	64 m	80 m	95 m
-30 °C	120 m	150 m	170 m	195 m	45 m	64 m	82 m	100 m	43 m	52 m	65 m	82 m

ECiceguard 18

The ECiceguard is a self-limiting parallel heating cable that is used for ice and snow melting on roofs and in gutters and downpipes.

The self-limiting capability of the cable ensures that the output of the cable increase or decrease according to ambient temperature.

The heating cable is flexible and easy to install as it can be cut to length at site and installed directly on to the roof and gutter system.

5 YEAR WARRANTY

Technical specifications

Benefits
- **Easy to install**
- **Cut to length on site**
- **Readymade lengths**

Approvals:

Ⓢ Intertek · VDE · EHC · 001 · CE

Standard compliance
- SS 4242411

Operation voltage	230 V AC
Nominal output	18 W/m @ 0 °C
Maximum permissible use temperature	65 °C, powered 85 °C, unpowered
Minimum use temperature	- 51°C
Cable dimensions	11,8 mm × 5,8 mm
Outer sheath	TPE
Minimum braid coverage	80%
Maximum resistance protective braid	14,8 Ω/Km
Bending Ø, min.	50 mm (Ø to the inside of the tape)

Max. installation length
 - with 16 A circuit breaker
   10°C
  -15°C
  -20°C
	
	 82 m
	 60 m
	 50 m

Types

Item no.	Type	Length	Tolerance	EAN no.
98300810	ECiceguard 18	Drum, 100 m	-	5703466177198
98300809	ECiceguard 18	Drum, 270 m	270-330 m	5703435005576
98300831	ECiceguard 18	Drum, 720 m	720-880 m	5703466096581
98300827	ECiceguard 18	Cut-to-length	1 m (up to 720 m)	5703466193372

RCD of 30 mA is required, max. 500 m of self-limiting heating cable per RCD.

ECiceguard 18 heating cable maximum length

Switch on temperature	ECiceguard 18			
	16 A	20 A	25 A	32 A
10 °C	145 m	162 m	162 m	162 m
-15 °C	93 m	125 m	142 m	162 m
-30 °C	77 m	106 m	135 m	160 m

EChotwatt 45, EChotwatt 55, EChotwatt 70

The EChotwatt is a self-limiting heating cable that is used for temperature maintenance of hot water supply and other fluids that need to maintain a certain temperature.

The self-limiting capability of the cable ensures that the output of the cable increase or decrease according to ambient temperature.

EChotwatt ensures hot water in all taps and savings when circulation of the whole pipe system is unnecessary.

5 YEAR WARRANTY

Technical specifications

Benefits	Operation voltage	230 V AC
• **Cut to length on site**	Nominal output:	
• **Black version is UV protected**	EChotwatt 45	7 W/m @ 45 °C
• **PVC free**	EChotwatt 55	9 W/m @ 55 °C
	EChotwatt 70	12 W/m @ 70 °C
Approvals:	Outer sheath:	
	EChotwatt 45	Black, TPE
VDE Ⓥ ℂℇ	EChotwatt 55	Green, TPE
001	EChotwatt 70	Red, TPE
	Maximum permissible use temperature	80 °C, powered
		100 °C, unpowered
	Minimum use temperature	- 30 °C
	Cable dimensions	11,8 mm × 5,8 mm
	Minimum braid coverage	70%
	Maximum resistance protective braid	18,2 Ω/Km
	Bending Ø, min.	50 mm (Ø to the inside of the tape)
	Max. installation length	
	- with 10 A circuit breaker	55 m

EChotwatt 45

Item no.	Type	Description	EAN no.
088L1360	EChotwatt 45	Drum, 305 m	5703466114360
088L1088	EChotwatt 45	Cut-to-length (up to 305 m)	5703466196816

EChotwatt 55

Item no.	Type	Description	EAN no.
98300958	EChotwatt 55	Drum, 100 m	5703466180976
088L1362	EChotwatt 55	Drum, 305 m	5703466114377
088L1090	EChotwatt 55	Cut-to-length (up to 305 m)	5703466196878

EChotwatt 70

Item no.	Type	Description	EAN no.
088L1364	EChotwatt 70	Drum, 305 m	5703466114384
088L1092	EChotwatt 70	Cut-to-length (up to 305 m)	5703466196892

RCD of 30 mA is required, max. 500 m of self-limiting heating cable per RCD.

EChotwatt heating cable maximum length

Temperature	EChotwatt 45				EChotwatt 55				EChotwatt 70			
	16 A	20 A	25 A	32 A	16 A	20 A	25 A	32 A	16 A	20 A	25 A	32 A
10 °C	165 m	189 m	189 m	189 m	135 m	160 m	160 m	160 m	120 m	140 m	140 m	140 m
-25 °C	117 m	152 m	170 m	189 m	100 m	130 m	145 m	160 m	88 m	120 m	130 m	140 m

EChotwatt cable heat emissions
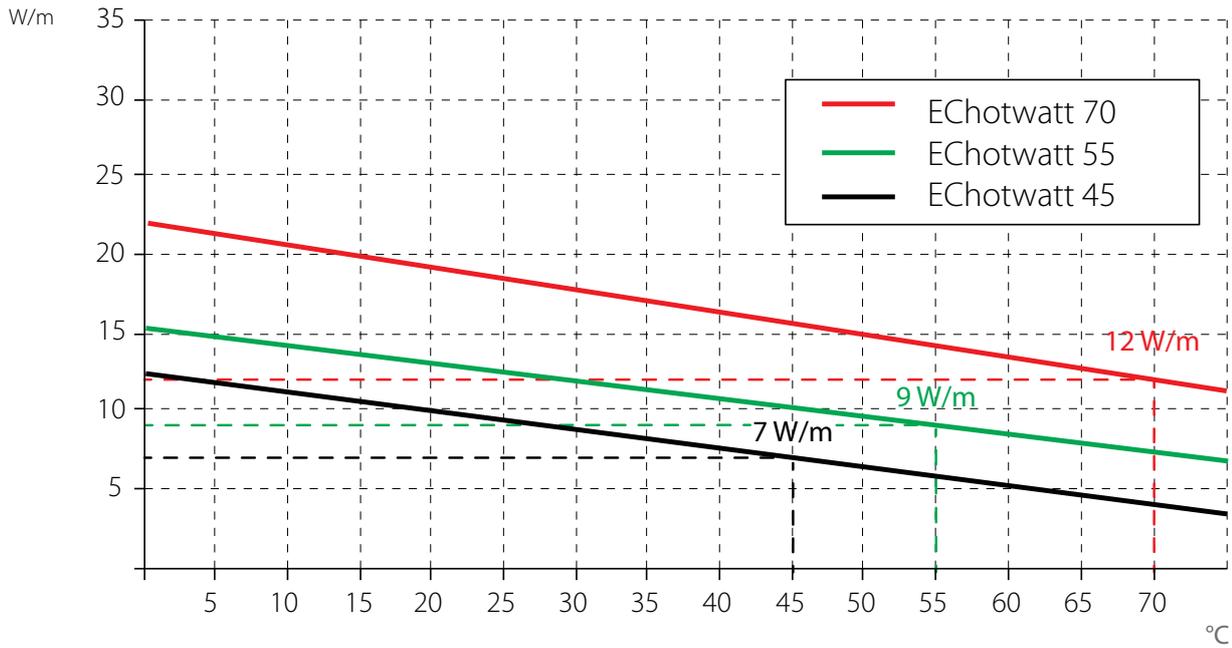
Construction
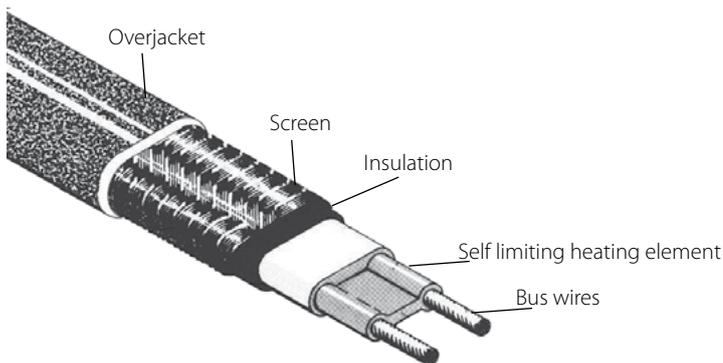
- Nickel plated copper bus wires
- Radiation Cross-Linked Semiconductive Heating Matrix
- Radiation Cross-Linked Primary Dielectric Insulation
- Tinned copper braid
- Polyolefin over jacket

Connecto

The Danfoss Connecto programme gives you different solutions for easy and safe connection of Danfoss self-limiting heating cables - ECiceguard, ECpipeguard, EChotwatt.

Using Danfoss Connecto to wire up a heating circuit is fast, requiring only a knife and a diagonal cutter.

Technical specifications

Benefits	Operation voltage, max.	250 V~
• **Fast and easy to install**	Max. current	16 A
• **Cost savings by reduced assembly time**	Ambient temperature	-25 °C to +60 °C
• **Great reliability of assembly simplicity**	On request	-25 °C to +85 °C
• **Safe electrical contacting by precise clamp cutting technology**	IP class	IP 66
Approvals:		
• **VDE/CE**		

Types

Item no.	Product name	Description	EAN no.
088L0413	Connecto B-A	Connection power supply	5703466130247
088L0414	Connecto B-C	Heating cable connection	5703466130254
088L0415	Connecto B-E	End termination	5703466130261
088L0416	Connecto B-S	Connection termination	5703466130278
088L0417	Connecto B-T	Y-junction + end termination	5703466130285
088L0418	Connecto B-TE2	Y-junction + 2 end terminations	5703466130292
088L0419	Connecto B-TE3	Y-junction + 3 end terminations	5703466130308
088L0420	Connecto B-X	X-junction + 2 end terminations	5703466130315
088L0494	Connecto B-E	5 pcs in plastic bag	5703466228067

ATTENTION. Danfoss Connecto may not be put in the gutters when used with ECiceguard. Must be installed in a dry place.

Selection chart. Connecto for heating cables with braiding

Illustration	Name	Description
	Connecto B-S	Heating cable connection with 1,5 m power cable and end terminal
	Connecto B-C	Heating cable slice/extension for connecting two heating cables
	Connecto B-T	Heating cable T-branch as a T-junction for three heating cables and 1 end terminal
	Connecto B-TE2	Heating cable double connection with 1,5 m power cable and 2 end terminals
	Connecto B-TE3	Heating cable T-branch with 1,5 m power cable and 3 end terminals
	Connecto B-X	Heating cable X-branch for 4 heating cables incl. 2 end terminals
	Connecto B-A	Heating cable connection with power cable 1,5 m without end terminal
	Connecto B-E	Heating cable end terminal
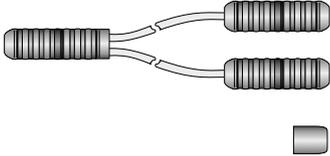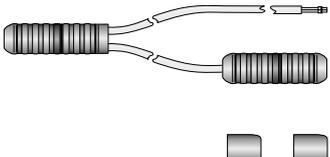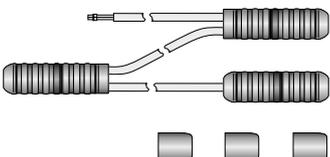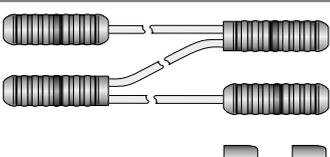
Connecto system installation steps

1. Cut the heating cable straight
2. Push the heating cable in
3. Twist untill closed

ECpipeheat 10

The ECpipeheat 10 w/plug is a self-limiting heating cable that is mainly used for frost protection of pipes.

The self-limiting capability of the cable ensures that the output of the cable increase or decrease according to ambient temperature.

The heating cables can be installed on to the pipe system or inside the pipe as the cable is approved for use in drinking water.

5 YEAR WARRANTY

Technical specifications

Benefits
- **Cut to length on site**
- **Ready made lengths**
- **Can be installed inside pipes**

Approvals:

VDE 1.99-18009 EHC 001 CE

Standard compliance
- **IEC 60335-1:2012**
- **IEC 62233:2008**

Operation voltage	230 V~
Output	10 W/m @ 10 °C
Max. permissible use temperature, powered	65 °C
Max. permissible use temperature, unpowered	85 °C
Minimum use temperature	- 30 °C
Heating cable dimensions	7,7 mm × 5,3 mm
Outer sheath	TPE
Minimum Screen Coverage	100% aluminium foil
Maximum resistance protective braid	18,2 Ω/Km
Bending Ø, min.	50 mm (Ø to the inside of the cable)
Cold tail for w/plug type	1,5 m, 3 x 1 mm², Schuko plug
Max. installation length on a pipe with 10 A circuit breaker with C-characteristic 10°C 0°C -20°C	 100 m (60 m inside the water pipe) 96 m 77 m

Types

Ite m no.	Type	Cable length, m	Permissible length	Output, W @ 10 °C 230 V	EAN no.
088L0989	ECpipeheat 10 w/plug V2	2 m		20 W	5703466217818
088L0990	ECpipeheat 10 w/plug V2	4 m		40 W	5703466217825
088L0991	ECpipeheat 10 w/plug V2	6 m		60 W	5703466217832
088L0992	ECpipeheat 10 w/plug V2	8 m		80 W	5703466217849
088L0993	ECpipeheat 10 w/plug V2	10 m		100 W	5703466217856
088L0994	ECpipeheat 10 w/plug V2	12 m		120 W	5703466217863
088L0995	ECpipeheat 10 w/plug V2	14 m		140 W	5703466217870
088L0996	ECpipeheat 10 w/plug V2	16 m		160 W	5703466217887
088L0997	ECpipeheat 10 w/plug V2	19 m		190 W	5703466217894
088L0998	ECpipeheat 10 w/plug V2	22 m		220 W	5703466217900
088L0999	ECpipeheat 10 w/plug V2	25 m		250 W	5703466217917
088L1001	ECpipeheat 10 V2 Blue 305 m drum	Drum, 305 m	-	10 W/m @ 10 °C	5703466217740
088L1002	ECpipeheat 10 V2 Blue 1000 m drum	Drum, 900 m	900-1100 m	10 W/m @ 10 °C	5703466217757

ECaqua 9T

The ECaqua 9T is a high-quality, braided screen, twin conductor heating cable with a tough UV stable outher sheath. It is designed for frost protection inside water pipes and is approved for use in contact with drinking water.

The heating cable is supplied in readymade lengths with a 3/4" or 1" cable gland and cold lead with solid conductors ensuring fast installation with a clearly visible connection.

To ensure a long life-time, all cables are minutely inspected including tests for Ohmic resistance, high voltage and material controls to ensure the quality. This means that we are proud to supply our extended Danfoss warranty.

20 YEAR WARRANTY

Product Installation Floor/Surface

Technical specifications

Benefits
- **Frost protection inside pipes**
- **Approved for drinking water**
- **Readymade cables**
- **Safe and robust**
- **Long life-time**

Approvals:

Intertek EAC GODKENDT TIL DRIKKEVAND

Standard compliance
- **IEC 60800:20095**

Operation voltage	220 - 240 V~
Construction	Oval, twin conductor with Cu screening, 16 x 0,3 mm, one cold lead
Output	9 W/m @ 230V~
Max. water pressure	10 Bar
Max. water temperature	23 °C
Cable thickness	5,5 mm x 5,7 mm
Deformation strength	>600 N
Pulling strength	>120 N
Conductor insulation	XLPE
Outer sheath	MDPE
Screen	16 x 0,30 mm Cu
Cold lead	2,5 m, DTWC 2 x 1,5mm^2, black
Min. installation temperature	-5 °C
Bending Ø, min.	50 mm
IP Class	IPX7

Types

Item no.	Cable length, m	Output, W @ 230 V~	Resistance, Ohm	EAN no.
088L0050	3 m	25 W	2116,0 Ω	5703466145227
088L0051	5 m	45 W	1175,6 Ω	5703466145234
088L0052	7 m	65 W	813,8 Ω	5703466145241
088L0053	10 m	90 W	587,8 Ω	5703466145258
088L0054	12 m	110 W	480,9 Ω	5703466145265
088L0055	15 m	135 W	391,9 Ω	5703466145272
088L0056	20 m	180 W	293,9 Ω	5703466145289
088L0057	25 m	225 W	235,1 Ω	5703466145296
088L0058	30 m	270 W	195,9 Ω	5703466145302
088L0059	35 m	315 W	167,9 Ω	5703466145319
088L0060	40 m	360 W	146,9 Ω	5703466145326
088L0061	50 m	450 W	117,6 Ω	5703466145333
088L0062	60 m	540 W	98,0 Ω	5703466145340
088L0063	70 m	630 W	84,0 Ω	5703466145357
088L0064	80 m	720 W	73,5 Ω	5703466145364
088L0065	90 m	810 W	65,3 Ω	5703466145371
088L0066	100 m	900 W	58,7 Ω	5703466145388
088L0067	110 m	990 W	53,4 Ω	5703466145395
088L0068	120 m	1080 W	49,0 Ω	5703466145401
088L0069	130 m	1170 W	45,2 Ω	5703466145418
088L0070	140 m	1260 W	42,0 Ω	5703466145425
088L0071	150 m	1350 W	39,2 Ω	5703466145432

Note! DEVIaqua 9T is only for use when installed in a pipe and only when fully covered by water.
DEVIaqua 9T is only intended for being used for cold drinking water with max. temperature 23 °C.

ECfoil Mirror

An effective system for keeping the mirror completely steam free.

Fast and easy installation where the self-adhesive side of the heating foil is placed on the back of the mirror.

Low energy consumption and automatic activation when the light is switched on.

2 YEAR WARRANTY

Technical specifications

Benefits	Operation voltage	230 V~
• **Fast and easy installation**	Output	200 W/m^2
• **Low energy consumption**	Max. ambient temperature	80°C
• **Automatic activation**	IP Class	44
Approvals: CE	Protection class	Class II - ▢
Standard compliance • **EN Norm BS EN 60335-1:2002 + Amd. 1 to 6** • **BS EN 60335-2-30:2003 + Amd. 1 & 2**	Cold tail length	95 cm

Types

Item no.	Type	Dimensions	Wattage	EAN no.
088L1600	ECfoil Mirror	274 x 358 mm	17,5 W	5703466180853
088L1601	ECfoil Mirror	410 x 524 mm	40 W	5703466180860
088L1602	ECfoil Mirror	708 x 524 mm	70 W	5703466180877

Notes

ECtemp 130 (EFET 130), ECtemp 132 (EFET 132)

ECtemp 130/132 is a line of simple electronic 16 Amps thermostats with possibility to be installed directly on the wall. The thermostats have only one button for adjusting the temperature and for OFF mode. Furthermore, it has an LED indicator showing standby (green light) and heating (red light) periods. The thermostats do not have wire sensor failure monitoring. Wire temperature sensor included in the set.

ECtemp 130 is equipped with a wire (floor) sensor used for control of Comfort Floor Heating applications. The thermostat has a dial for adjusting the temperature setting with a numeric scale from ⏻, ❄ to 5 (meaning from OFF, 5 °C to 45 °C and each step corresponds to approx. 9 °C). This type of thermostat can be used for outdoor applications too – Ice and Snow Melting on Ground, Frost Protection on Roofs, Pipe Tracing, etc., because it doesn't have wire sensor failure monitoring.

ECtemp 132 is equipped with a built-in air sensor to control the room temperature and an additional floor (wire) sensor to limit the maximum floor temperature. The main application is Total (Direct) Heating via Floor systems. The thermostat has a dial for adjusting the room temperature, with a degree scale from ⏻, ❄ to 35 °C (which means from OFF, 5 °C to 35 °C). Adjusting maximum floor temperature is provided with potentiometer placed under front cover (default 35 °C).

Technical specifications

Benefits
- **Double pole safety breaker**
- **Sensor failure monitoring**
- **LED indication**
- **Frost protection**

Approvals:

Ⓝ EHI ✓ CE

Standard compliance
- **EN/IEC 60730-1 (general)**
- **EN/IEC 60730-2-9 (thermostat)**

Operation voltage	220 - 240 V, 50/60 Hz
Standby power consumption	Max. 5 W
Resistive load	Max. 16 A (3680 W) @ 230 V
Inductive load	Max. 1 A, cos φ = 0,3
Hysteresis	± 0,2°C
Ambient temperature	-10 °C to +30 °C
Frost protection	5 °C - ❄
Cable specification max	1 x 4 mm² or 2 x 2,5 mm²
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Controller type	1 C
Storage temperature	-20 °C to +65 °C
IP class	IP 30
Protection class	Class II - ▣
Dimensions (H/W/D)	82 x 82 x 36 mm
Weight	90 g

Types

Item no.	Product name	Temp. range	Sensor type	Marking	EAN no.
088L0030	**ECtemp 130**	5-45 °C	Wire sensor, 3 m, NTC 15 kOhm at 25 °C	D130	5703466126714
088L0032	**ECtemp 132**	Room: 5-35 °C, max. floor temp.: 20-50 °C (default 35 °C)	Built-in room sensor and wire sensor, 3 m, NTC 15 kOhm at 25 °C	D132	5703466126738

Connection schemes

ECtemp 130

Load
max. 16 A

L   N
   L
   230 V~
   N

❄...5
(5...45 °C)

NTC

t° NTC
15 kOhm/25 °C

PE

ECtemp 132

Room t°
sensor

Max. floor t°
20...50 °C

t°

5...35 °C

Load
max. 16 A

L   N
   L
   230 V~
   N

NTC

t° NTC
15 kOhm/25 °C

PE
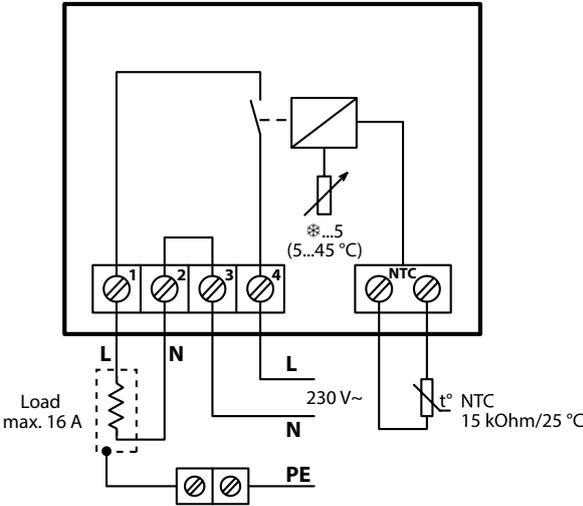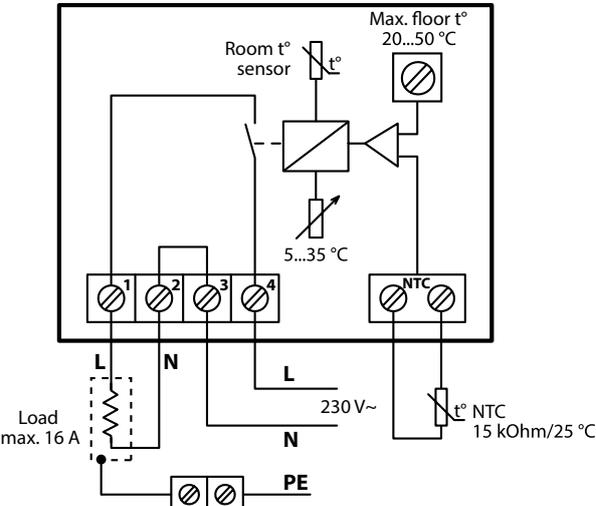
ECtemp 531 (EFET 531), ECtemp 532 (EFET 532)

ECtemp 531/532 is a line of simple electronic 15 Amps thermostats with a 2-pole switch and for flush-mounted fixing. The thermostats are used to control indoor floor heating systems.

ECtemp 531 is a 15 Amps thermostat with a built-in air (room) sensor, used to control Direct Floor Heating systems. It has a dial for adjusting the temperature setting with a degree scale from ❄ to 35 °C (meaning from 5 °C to 35 °C).

ECtemp 532 is a 15 Amps thermostat with a built-in air (room) sensor to control the room temperature and an additional floor (wire) sensor to limit the maximum floor temperature. The thermostat is used to control Direct Heating via Floor systems with limitation of maximum floor temperature in wooden floors and other heat sensitive floors. It has a dial for adjusting the room temperature, with a degree scale from ❄ to 35 °C (meaning from 5 °C to 35 °C). Adjusting of the maximum floor temperature is provided by potentiometer placed under front cover (default 35 °C).

2 YEAR WARRANTY

Technical specifications

Benefits
- **2-pole safety breaker**
- **Low standby consumption**
- **Sensor failure monitoring**
- **LED indication for fault**
- **Frost protection**

Approvals:

Ⓝ EHL 🔰 CE
001

Standard compliance
- **EN/IEC 60730-1 (general)**
- **EN/IEC 60730-2-9 (thermostat)**

Operation voltage	220 - 240 V, 50/60 Hz
Standby power consumption	Max. 0,25 W
Resistive load	Max 15 A (3450 W) @ 230 V
Inductive load	Max. 1 A, cos φ = 0,3
Hysteresis	± 0,4 °C
Sensing unit	NTC 15 kOhm at 25 °C
Ambient temperature	-10 °C to +30 °C
Frost protection	5 °C - ❄
Cable specification max	1 x 4 mm^2 or 2 x 2,5 mm^2
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Controller type	1 C
Storage temperature	-20 °C to +65 °C
IP class	IP 31
Protection class	Class II - ▫
Dimensions (H/W/D)	85 x 85 x 36 mm
Weight	90 g

Types

| Item no.	Product name	Frame	Temperature range	Sensor type	Marking	EAN no.
088L0034	**ECtemp 531**	ELKO	5-35 °C	Built-in room sensor	D531	5703466128992
088L0035	**ECtemp 532**	ELKO	5-35 °C room temperature; 20-50 °C floor temperature limiter (default 35 °C)	Built-in room sensor and wire sensor (3 m, NTC 15 kOhm at 25 °C)	D532	5703466129005

Connection schemes

ECtemp 531

Room t°
sensor   t°

5...35 °C

| N | N LOAD | L | L LOAD | | | |

N
230 V~
L
PE

Load.
max. 16 A

ECtemp 532

Max. floor t°
20...50 °C

Room t°
sensor   t°

5...35 °C

| N | N LOAD | L | L LOAD | NTC | | |

N
230 V~
L
PE

NTC
t°   15 kOhm/25 °C

Load.
max. 16 A
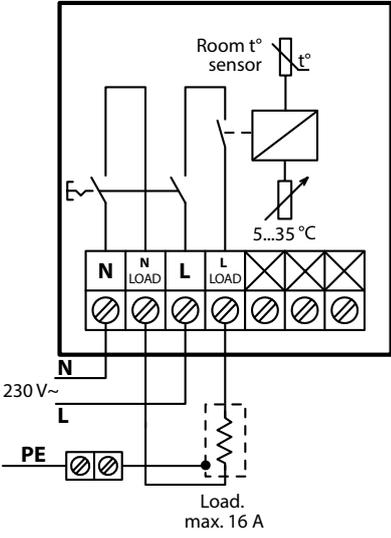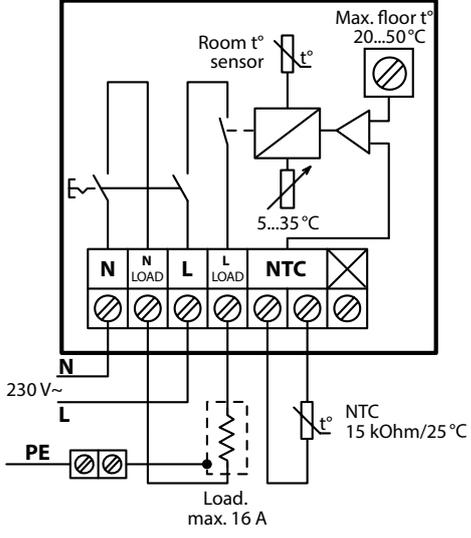
ECtemp Touch

ECtemp Touch is an intuitive programmable timer thermostat used for controlling electrical floor heating elements. The thermostat is designed for fixed installation only and due to the special designed 2-part construction it fits a wide range of frames and sensors.

ECtemp Touch is fast and intuitive to setup using the built-in wizard. It has an energy-saving programme – including an optimum start/end control ensuring the desired temperature at the correct time and thereby redusing the heating costs.

5 YEAR WARRANTY

Technical specifications

Benefits
- **Big 2" touch screen**
- **Built-in setup wizard**
- **Easy and intuitive functionalities**
- **Adaptive PWM function**
- **Fits several single and multiple frames**
- **Fits several competitor NTC sensors**
- **Optional code setup**
- **Easy online troubleshooting**

Approvals:

Intertek ЕАС 001 CE

Standard compliance
- **EN/IEC 60730-1 (general)**
- **EN/IEC 60730-2-9 (thermostat)**

Operation voltage	220 - 240 V~ 50/60 Hz
Standby power consumption	Max. 0,40 W
Relay: Resistive load Inductive load	 16 A (3680 W) @ 230 V Max. 1 A, Cos Φ = 0,3
Sensing unit	NTC 15 kΩ @ 25 °C, 3 m. (default), NTC 6,8 kΩ @ 25 °C, NTC 10 kΩ @ 25 °C, NTC 12 kΩ @ 25 °C, NTC 33 kΩ @ 25 °C, NTC 47 kΩ @ 25 °C
Regulation	PWM - Pulse Width Modulation
Ambient temperature	0 °C to 30 °C
Frost protection	5 °C to 9 °C (default 5 °C)
Floor temperature limit	Max. 20 °C to 35 °C (45 °C) Min. 10 °C to 35 °C (45 °C)
Temperature range	5 °C to 35 °C (room) 5 °C to 45 °C (floor)
Storage temperature	-20 °C to 65 °C
Cable specification max.	1 x 4 mm² or 2 x 2,5 mm²
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Controller type	1 C
Software class	A
IP class	21
Protection class	Class II - ▢
Dimensions (H/W/D)	85 x 85 x 20-24 mm (in-wall depth: 22 mm)
Weight	115 g

Types

Item no.	Product name	Type	Language	EAN no.
088L0122	**ECtemp Touch**	Pure white, RAL 9010	1	5703466235485
088L0128	**ECtemp Touch**	Pure white, RAL 9010	2	5703466241783

1 - Contains languages: Bulgarian, Czech, Danish, English, Estonian, Finnish, French, German, Latvian, Lithuanian, Norwegian, Polish, Romanian, Russian, Slovenian, Slovak, Swedish, Ukranian.

2 - Contains languages: Chinese, Croatian, Dutch, English, Hungarian, Portuguese, Serbian, Spanish.
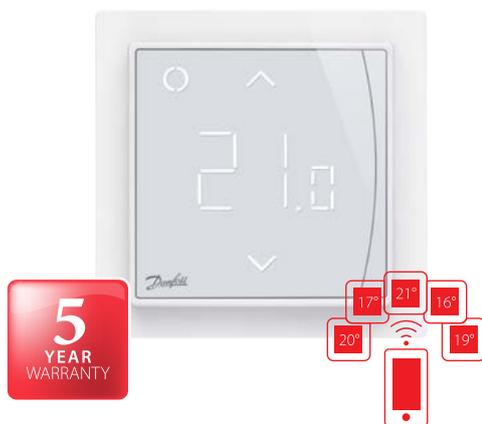
ECtemp Smart

The ECtemp Smart is an intuitive programmable timer thermostat to be connected to WIFI and ECtemp Smart App controllable from anywhere, at any time. The thermostat is primarily used for controlling electrical floor heating elements. The thermostat is designed for fixed installation only and due to the special designed 2-part construction it fits a wide range of frames and sensors.

The ECtemp Smart is fast and intuitive to setup using the App wizard. It has an open window detector and energy-saving program including an optimum start/end control ensuring the desired temperature at the correct time and thereby reducing the heating costs.

5 YEAR WARRANTY

Technical specifications

Benefits	Operation voltage	220 - 240 V~ 50/60 Hz
• **WIFI Connectivity**	Standby power consumption	max. 0,40 W
• **Remote Controllable via ECtemp Smart App**	Relay:	
• **A single ECtemp Smart thermostat can be paired with up to 10 mobile devices using ECtemp Smart App**	Resistive load	16 A (368 0W) @ 230V
	Inductive load	1 A (Cos Φ = 0,3)
• **Can communicate with two mobile devices simultaneously**	Sensing unit	NTC 15 kΩ @ 25 °C, 3 m (default),
		NTC 6,8 kΩ @ 25 °C,
• **With one ECtemp Smart App you are able to control as many locations with as many ECtemp Smart thermostats as you need**		NTC 10 kΩ @ 25 °C,
		NTC 12 kΩ @ 25 °C,
		NTC 33 kΩ @ 25 °C,
		NTC 47 kΩ @ 25 °C
• **Adaptive PWM function**	Regulation	PWM - Pulse Width Modulation
• **Fits many foreign single and multiple frames**	Ambient temperature	0 °C to 30 °C
	Frost protection	5 °C to 9 °C (default 5 °C)
• **Fits many foreign competitive NTC sensors**	Floor temperature limit	Max. 20 °C to 35 °C (45 °C) Min. 10 °C to 35 °C (45 °C)
	Temperature range	5 °C to 35 °C (room) 5 °C to 45 °C (floor)
Approvals:	Storage temperature	-20 °C to 65 °C
	Cable specification max.	1 x 4 mm^2
	Ball pressure test temperature	75 °C
	Pollution degree	2 (domestic use)
Standard compliance	Controller type	1 C
• **EN/IEC 60730-1 (general)**	Software class	A
• **EN/IEC 60730-2-9 (thermostat)**	IP class	21
• **EN 300 328 (WIFI)**	Protection class	Class II - ▣
	Dimensions (H/W/D)	85 x 85 x 20-24 mm (in-wall depth: 22 mm)
	Weight	127 g

Types

Item no.	Product name	Type	EAN no.
088L1140	**ECtemp Smart**	Polar White (RAL 9016)	5703466239667
088L1141	**ECtemp Smart**	Pure White (RAL 9010)	5703466239674
088L1143	**ECtemp Smart**	Pure Black (RAL 9005)	5703466239698

Try it!
Download the ECtemp Smart App

ECtemp Next Plus

All room thermostats are used for room temperature control in electric floor heating systems.

By controlling room temperature in accordance with the temperature desired by the user, the room thermostats provide optimal energy savings while upholding optimal thermal comfort in the room.

2 YEAR WARRANTY

Technical specifications

Benefits
- **Modern design with white backlight**
- **AWAY function**
- **Child safety lock**
- **3 selectable temperature control modes**
- **Maximum floor temperature limitation**
- **Optional room temperature display**
- **Frost protection mode**
- **Temperature calibration**
- **Advanced programmable timer.**

Approvals:

Intertek EAC D01 CE

Standard compliance
- IEC60800:2009

Supply voltage/ Output voltage	85–250 V AC
Operating room temperature	5 - 35° C
Operating floor temperature	5 - 45° C *
Ambient temperature	-10 - 60° C
Fault indication	Yes
Hysteresis	1° C, symmetrical around the setpoint temperature
LCD backlight	Yes, white
Max. load, inductive	< 3 A
Max. load, resistive	< 16 A
Temperature calibration	Yes (+/-10° C)
Power consumption	2 W
Power supply	85–250 V AC, 50/60 Hz
Sensor, floor	NTC 15K accuracy: ±1%
Shell material	ABS, non-inflammable
IP class	30
Approval	CE marking, EN 60730
Colour	White RAL9010/Dark Grey RAL7024
Dimensions	86 × 86 × 16.0 mm

Types

Item no.	Product Type	Programmable	EAN no.
088L0121	**ECtemp Next Plus**	Yes	5703466233979

Wiring connections

85-250Vac,50/60Hz
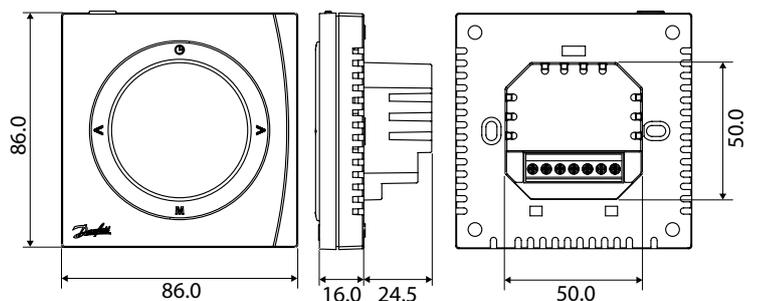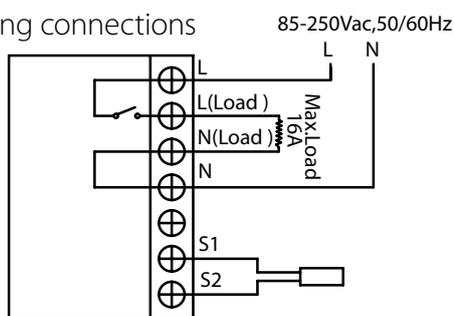
* It will be possible to set the maximum floor temperature up to 45° C. Furthermore, it will be possible to use only a room sensor. However, this option is not recommendable due to an increased risk of overheating the floor.

Please contact Danfoss how to extend the maximum floor temperature and set the only room temperature control mode.

IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35° C.

Danfoss Link CC

Danfoss Link CC – Central Controller, is the perfect solution for the regulation of electric floor heating both for apartments, family houses and multifamily buildings.

Danfoss Link is Danfoss Link™ App enabled, that offers you the unique possibility to control your electrical heating systems from a distance via an App on your smartphone.

The Danfoss Link CC (Central Controller) is the central brain in the Danfoss Link system, which includes several wireless Danfoss Link devices installed in the building. The idea of the Danfoss Link System is to link together your heating system wirelessly and control it from one central point. The Danfoss Link CC communicates wirelessly with all other Danfoss Link units in the installation. A single Danfoss Link CC can control up to 30 rooms and be connected up to totally 50 devices.

2 YEAR WARRANTY

Technical specifications

Benefits
- **Central control of the entire house**
- **Minimize energy consumption**
- **Vacation mode**
- **Controlling of ON/OFF devices**
- **Weekly heating schedule**
- **WIFI connectivity Enabled for Danfoss Link™ App**

Approvals:

Ⓢ Intertek

Standard compliance
- **EN 60730**
- **EN 300 220-2**

Operation voltage	15 V DC ±10%
Standby power consumption	Max. 2 W
Screen	3,5" TFT colour w. touch
Ambient temperature	-10 to +40°C
Storage temperature	-20 to +65°C
Ball pressure test temperature	75°C
Pollution degree	2 (domestic use)
Transmission frequency	868,42 MHz
Transmission range	Up to 30 m
Max. repeaters in a chain	3
Transmission power	Max. 1 mW
Software class	A
IP class	21
Dimensions	125 x 107 x 25 mm
Weight	179 g

Types

Item no.	Product name	Type	EAN no.
014G0286	**Danfoss Link CC**	Central Controller - Wi-Fi w/PSU GB/DK/DE/FR/ES/SE/NL	5702425112874
014G0287	**Danfoss Link CC**	Central Controller - Wi-Fi w/NSU GB/DK/DE/FR/ES/SE/NL	5702425112881
014G0288	**Danfoss Link CC**	Central Controller - Wi-Fi w/PSU GB/IT/FI/LT/LV/EE/CZ/PL	5702425120206
014G0289	**Danfoss Link CC**	Central Controller - Wi-Fi w/NSU GB/IT/FI/LT/LV/EE/CZ/PL	5702425120213

Danfoss Link system units

Item no.	Product name	Type	EAN no.
014G0158	**Danfoss Link RS**	Room sensor - Wireless - Battery Supply	5702420110295
088L1905	**Danfoss Link FT**	Floor Thermostat with ELKO frame	5703466174371
088U0230	**Danfoss Link RU**	Repeater Unit	5702420068244

Accessories

Item no.	Product name	Type	EAN no.
014G0262	**Danfoss Link Battery Pack**	Battery Supply Unit	5702420110653

Danfoss Link FT

Danfoss Link FT – Floor Thermostat with sensor to control electric floor heating. Optionally also able to function as ON/OFF devices switching. The Danfoss Link FT is a device for switching heating elements and other electrically equipment ON/OFF. All communication in the Danfoss Link System is wireless and of this reason very easy to install. When using Danfoss Link FT as heating control, it is recommended to install the device with a floor sensor to ensure the required comfort and convenience. Optionally the Danfoss Link FT is also able to be used as ON/OFF switch for other electrical equipment e.g. as electrical radiators, lights or other switching units.

2 YEAR WARRANTY

Technical specifications

Benefits
- **Heating regulation**
- **ON/OFF switching**
- **Wireless connected to Danfoss Link CC**
- **Daily/Weekly overview**
- **Daily/Weekly schedule**
- **Minimize energy consumption**

Approvals:

Intertek

Standard compliance
- **EN 60730**
- **EN 300 220-2**

Operation voltage	180-250 V AC, 50 Hz
Standby power consumption	< 1W
Resistive load	230 V ~ 15 A/3450 W
Inductive load	Max. 4 A, Cos Φ = 0,3
Regulation	PWM – Pulse Wide Modulation
Sensing unit	NTC 15 kOhm AT 25 °C
Sensing values • 0 °C • 20 °C • 50 °C	 42 kOhm 18 kOhm 6 kOhm
Ambient temperature	-10° to +30 °C
Sensor failure monitoring	The thermostat has a built-in monitoring circuit, which will switch off the heating if the sensor is disconnected or short circuited
Transmission frequency	868,42 MHz
Transmission range in normal buildings	Up to 30 m
Transmission power	Max. 1 mW
Relay switching	1 pole
IP class	31
Dimension (H/W/D)	85 mm × 85 mm × 21 mm

Types

Item no.	Product name	Type	EAN no.
088L1905	**Danfoss Link FT**	Floor Thermostat with ELKO frame	5703466174371

Danfoss Link system units

Item no.	Product name	Type	EAN no.
014G0286	**Danfoss Link CC**	Central Controller - Wi-Fi	5702425112874
014G0158	**Danfoss Link RS**	Room sensor - Wireless - Battery Supply	5702420110295
088U0230	**Danfoss Link RU**	Repeater Unit	5702420068244

IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35 °C.

Danfoss Link RS

Danfoss Link RS Room Sensor is an electronic sensor for measuring room temperature.

The Room Sensor is a part of the Danfoss Link system, which is used for wireless linking and controlling of heating systems in residential and light commercial buildings.

The Danfoss Link RS Room Sensor has a built-in temperature sensor, which measures the ambient temperature. It allows you to control the heating, based on room temperature in the room where installed. With the Danfoss Link RS you can also adjust the requested temperature.

2 YEAR WARRANTY

Technical specifications

Benefits
- **Heating regulation**
- **Wireless connected to Danfoss Link CC**
- **Actually temperature view**
- **Adjustable**
- **Daily overview**
- **Weekly schedule**
- **Minimize energy consumption**

Approvals:

intertek

Standard compliance
- **EN 60730**
- **EN 300 220-25**

Battery	2 x 1,5 V AA alkaline
Battery life	Up to 4-5 years
Backlight	White LED
Battery level	Indication in display
Ambient temperature	0° to +40° C
Transmission frequency	868,42 MHz
Transmission range in normal buildings	Up to 30 m
Transmission power	Max. 1 mW
IP class	21
ErP class	4
Dimensions	76 mm x 76 mm x 23 mm

Types

Item no.	Product name	Type	EAN no.
088L1914	**Danfoss Link RS**	Room sensor - Wireless - Battery Supply	5703466224427

Danfoss Link system units

Item no.	Product name	Type	EAN no.
014G0286	**Danfoss Link CC**	Danfoss Link™ Central Controller - Wi-Fi	5702425112874
088L1905	**Danfoss Link FT**	Floor Thermostat with ELKO frame	5703466174371
088U0230	**Danfoss Link RU**	Repeater Unit	5702420068244

Accessories

Item no.	Product name	Type	EAN no.
014G0262	**Danfoss Link Battery supply unit (BSU)**	Battery Supply Unit	5702420110653

Do not install floor heating systems without a floor sensor when the heating element is installed on or beneath wooden surfaces and other surfaces sensitive to temperature!

Danfoss Link RU

Danfoss Link RU – Repeater Unit is used for extending the wireless transmission range between Danfoss Link CC Controller, Danfoss Link RS Room thermostats, DEVIlink FT and other devices in Danfoss Link system. This may be necessary because of a weak radio link caused by widely spread installations, large distances, metal objects, special structural conditions, etc.

The system supports up to three Repeater Units installed in a chain between the relevant Danfoss Link Room thermostat and the Danfoss Link CC Controller. More parallel chains of Repeater Units from a Controller are possible.

2 YEAR WARRANTY

Technical specifications

Benefits	Operating voltage	180-250VAC, 50 Hz
• **Transmitting signals**		
• **Wireless connected to DEVIlink CC**	Transmission frequency	868,42 MHz
• **Extending the wireless transmission range**	Transmission range in normal buildings	Up to 30 m
Approvals:	Transmission power	<1 mW
CE	Protection class	IP 21
	Length of mains cable	3 m
Standard compliance	Dimension (H/W/D)	81 × 66 x 21 mm
• **EN60730**		

Types

Item no.	Product name	Type	EAN no.
088U0230	**Danfoss Link RU**	Repeater Unit	5702420068244

Danfoss Link system units

Item no.	Product name	Type	EAN no.
014G0286	**Danfoss Link CC**	Central Controller - Wi-Fi	5702425112874
014G0158	**Danfoss Link RS**	Room sensor - Wireless - Battery Supply	5702420110295
088L1905	**Danfoss Link FT**	Floor Thermostat with ELKO frame	5703466174371

Do not install floor heating systems without a floor sensor when the heating element is installed on or beneath wooden surfaces and other surfaces sensitive to temperature!

ECtemp 316 (EFET 316)

The **ECtemp 316** is an simple electronic thermostat with enhanced functionality which can be installed in electric cabinets with DIN rail attachment. The thermostat is mainly used for frost protection on roofs, in gutters and downpipes. Additionaly it can be used to control room and floor temperature, ventilation, cooling or to the control of snow melting on ground, pipe tracing and similar installations.

The main features of the thermostat is temperature range mode – with setting both an upper and a lower temperatures in between which the thermostat allows the system to heat. This mode is used primarily for controlling Frost Protection systems on roofs, in gutters and downpipes (an external outdoor air sensor must be used).

The thermostat is equipped with 2 additional buttons to adjust the hysteresis and the temperature value for levering in economy periods (an external timer must be used).

The thermostat has relay with 2 contact pairs - NO (normally opened) and NC (normally closed), and it is supposed to use thermostat for heating and cooling systems. Additionally NO and NC contact pairs are not wetted by a voltage source inside thermostat and can be used for control systems with any voltage up to 250 V.

It is designed so that the sensor circuit is galvanically separated from the high voltage part.

2 YEAR WARRANTY

Technical specifications

Benefits		
• **Night set-back**	Operation voltage	220 - 240V~ 50/60 Hz
• **Minimum temperature limiter**	Standby power consumption	Max. 0,25 W
• **Adjustable hysteresis**	Resistive load	Max. 16 A, 3680 W @ 230 V
• **DIN rail attachment**	Inductive load	Max. 1 A, cos φ = 0.3
• **Low standby consumption**	Hysteresis	0 °C to 6 °C
• **Large scope of application**	Ambient temperature	-10 °C to +45 °C
• **Protective separation**	Lowering in economy periods	0 °C to 8 °C
	Temperature range	-10 °C to +50 °C
Approvals:	Minimum temperature range	-10 °C to +5 °C
Ⓝ	Storage temperature	-20 °C to +65 °C
	IP class	IP 30
	Protection class	Class II - ☐
Standard compliance	Dimensions (H/W/D)	85 x 36 x 58 mm
• **EN/IEC 60730-1 (general)**	Weight	180 g
• **EN/IEC 60730-2-9 (thermostat)**	Marking	D316

Types

Item no.	Product name	Temperature range	Sensor type	EAN no.
088L0443	**ECtemp 316 -10<>+50°**	-10 °C to 50 °C	Wire sensor, 3 m, NTC 15 kOhm at 25 °C	5703466130339

Thermostat connection scheme
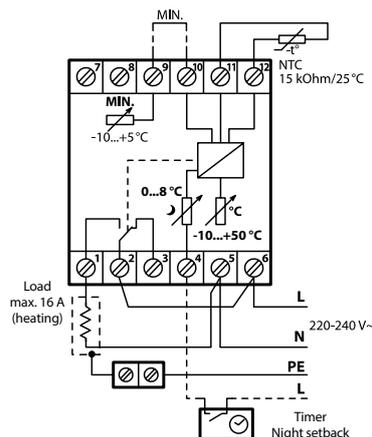
ECtemp 330 (EFET 330)

ECtemp 330 is a line of simple electronic thermostats to be installed in electric cabinets with DIN rail attachment. To measure and control the desired temperature either a wire sensor (in the set) or an external indoor/outdoor air sensor must be used. The thermostat must be installed via an all-pole disconnection switch. It has a LED indicating showing standby (green light) and heating (red light) periods.

ECtemp 330 has a relay with 2 contact pairs - NO (normally opened) and NC (normally closed), and are supposed to be used for heating and cooling systems. Additionally, NO and NC contact pairs are not wetted by a voltage source inside the thermostats, and can be used for control systems with any voltage up to 250 V.

The series is designed with thermostats in three temperature range.

ECtemp 330 (-10 - +10°C) is used primarily for controlling a lower temperature range such as frost protection. This thermostat has a button to adjust the temperature setting with a scale from -10 °C to +10 °C. Special outdoor white wire sensor included in a set.

ECtemp 330 (5 - 45°C) is used primarily for controlling lower temperature range such as frost protection and for cooling, Comfort Floor Heating, Total (Direct) Floor Heating, Ice and Snow Melting on Ground, Frost Protection on Roofs, Pipe Tracing, etc. The thermostat has a button to adjust the temperature setting with a scale from 5 °C to 45 °C. This type has temperature lowering in economy periods mode by using external timer.

2 YEAR WARRANTY

Technical specifications

Benefits		
• **For DINrail mounting**	Operation voltage	220 - 240 V, 50/60 Hz
• **Low temperature area**	Standby power consumption	Max. 0,25 W
• **Low standby consumption**	Resistive load	Max 16 A (3680 W) @ 230 V
• **LED indicator**	Inductive load	Max. 1 A, cos φ = 0,3
Approvals:	Ambient temperature	-10 °C to +50 °C
Ⓝ	Cable specification max	1 x 4 mm² or 2 x 2,5 mm²
	Storage temperature	-20 °C to +65 °C
	IP class	20
Standard compliance	Hysteresis	± 0,2 °C
• **EN/IEC 60730-1 (general)**	Protection class	Class II - ▢
• **EN/IEC 60730-2-9 (thermostat)**	Dimensions (H/W/D)	85 x 36 x 58 mm
	Weight	83 g

Types

Item no.	Product name	Temp. range	Sensor type	Night setback	Marking	EAN no.
088L0445	**ECtemp 330 (+5 – +45°C)**	5 °C to 45 °C	Wire sensor, 3 m, NTC 15 kOhm at 25 °C	5 °C	D330	5703466130353
088L0444	**ECtemp 330 (-10 – +10°C)**	-10 °C to +10 °C	Wire sensor, 3 m, NTC 15 kOhm at 25 °C	–	D330	5703466130346

Connection scheme
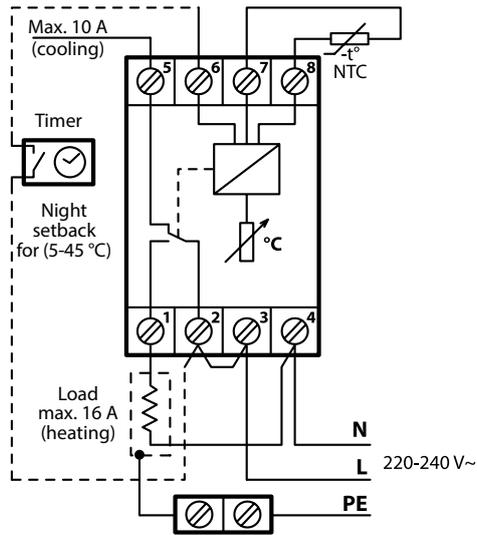
ECtemp 330 (5 - 45 °C)

ECtemp 330 (-10 - +10 °C)

ECtemp 850 (EFIT 850)

ECtemp 850 is an advanced thermostat with LED display used for outdoor ground or roof applications. The sensors provide information about both moisture level and temperature, resulting in an optimal control of the heating system.

The system can be set up in three ways; as a single system for roof or ground (1 to 4 sensors), as a dual system for roof or ground (2 - 4 sensors) or as a combination system for roof and ground (2 - 4 sensors).

In the dual / combination systems it is possible to prioritize between the zones, e.g. if only a limited power output is available.

2 YEAR WARRANTY

Technical specifications

Benefits
- **Single, combination or dual zones**
- **Up to 4 sensors**
- **Moisture and temperature sensing**
- **Self diagnosing programme**
- **Safety level adjustment**
- **Alarm function**

Approvals:

Ⓢ Intertek

Standard compliance
- **EN/IEC 60730-1 (general)**
- **EN/IEC 60730-2-9 (thermostat)**

Operation voltage	220 - 240V~ 50/60 Hz
Standby power consumption	max. 0,93 W
Relay: Resistive load Inductive load	Max 15A (3450 W) @ 230V Max. 1A, Cos Φ = 0.3
Sensing unit	DEVIbus™ connected moisture sensor(s)
Hysteresis	± 0,2 °C
Ambient temperature	-10 °C to +50 °C
Temperature range	-10 °C to +50 °C
Cable specification max	1 x 4 mm² or 2 x 2,5 mm²
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Controller type	1 C
Storage temperature	-20 °C to +65 °C
IP class	20
Protection class	Class II - ▫
Dimensions (H/W/D)	105 mm x 23,5 mm x 53 mm
Weight	720 g

Types

Item no.	Product name	Type	Power	Size, mm	Operation temperature	EAN no.
088L0449	**ECtemp 850 no sensors**	Without sensors, with PSU		105 x 23,5 x 53	-10...+50 °C	5703466130391
088L0458	**Ground sensor, 2 pcs**	For ECtemp 850, cable - 15 m	8 W	15 x 24 x 216	-50...+70 °C	5703466150283
088L0459	**Roof sensor**	For ECtemp 850, cable - 15 m	13 W	Ø 93 x 98	-30...+70 °C	5703466150290

ECtemp 850 with PSU

Ground sensor

Roof sensor

Connection scheme
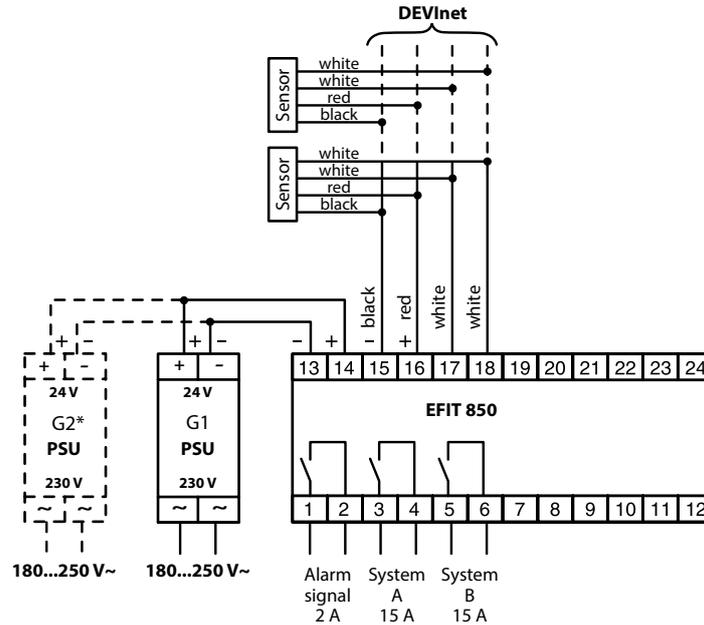
* Additional PSU, if number of sensors is 3 or 4.

System configurations
Zone support saves energy

ECtemp 850 lets you divide your area in to 2 zones, e.g. a North and South side. In this way it is possible to save energy, when the South side is free of ice and snow faster because of the heat from the sun.
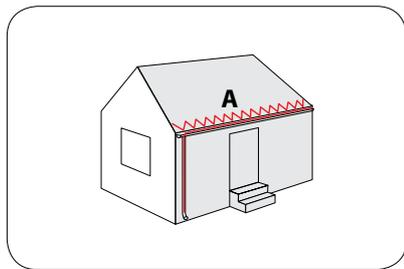


Single zone system for roofs
(system A)
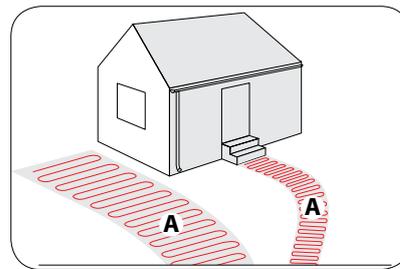
Single zone system for ground
(system A)
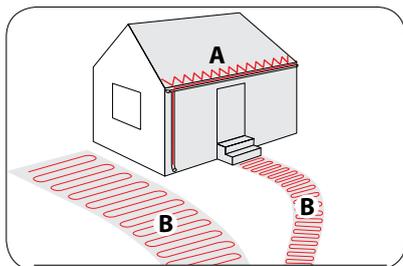
Combined system -
one zone for roof (system A),
one zone for ground (system B)
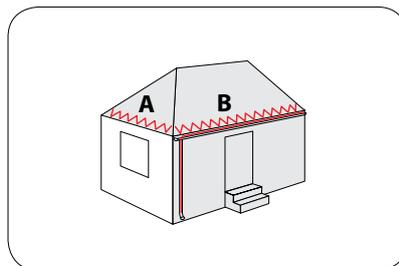
Two zone system for roofs
(systems A and B)
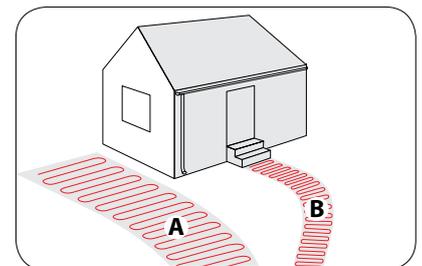
Two zone system for ground
(systems A and B)

ECtemp 610 (EFET 610)

The ECtemp 610 is an electronic IP 44, 10 Amps thermostat, suitable for many different purposes both indoor and outdoor applications. It is provided with a 2-pole switch and a wire sensor to control the desired temperature.

The thermostat has a button for adjusting the temperature setting with a scale from -10° to +50°C, and a LED indicating the current mode (heating, standby or fault).

It is water resistant and can be mounted on any plain surface indoor or outdoor.

2 YEAR WARRANTY

Technical specifications

Benefits		
• **ON/OFF switch**	Operation voltage	220 V- 240V~ 50/60 Hz
• **Terminals for NO/NC connection**	Standby power consumption	max. 0.93 W
• **LED indicator**	Relay:	
• **Mounts directly onto plain surfaces**	Resistive load	Max 10A / 2300W @ 230V
• **Low energy consumption**	Inductive load	Cos Φ = 0.3 max. 1A
• **IP44**	Sensing unit	NTC 15 kOhm at 25°C
	Hysteresis	± 0.2°C
	Ambient temperature	-30°C. to +55°C
Approvals:	Temperature range	-10°C to +50°C
Ⓢ Intertek	Cable specification max	1 x 4 mm^2 or 2 x 2,5 mm^2
	Ball pressure test temperature	75°C
	Pollution degree	2 (domestic use)
Standard compliance	Controller type	1 C
• EN/IEC 60730-1 (general)	Storage temperature	-20°C to +65°C
• EN/IEC 60730-2-9 (thermostat)	IP class	IP 44
	Protection class	Class II - ▢
	Dimensions (H/W/D)	100 mm x 69.5 mm x 45 mm
	Weight	165 g

Types

Item no.	Product name	Type	EAN no.
088L0448	**ECtemp 610**	Temp. range -10°C/+50°C incl. wire sensors	5703466130384

IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35°C.

Notes

Accessories and spare parts

Article no.	EAN no.	Name	Description	Image
088L1053	5703466214602	ECfast 5 m Metal In box		
088L1054	5703466214619	ECfast 25 m Metal In box		
088L0028	5703466161463	Danfoss Continuity tester	125 x 80 x 30 mm	
088L3002	5703466175279	Spaceclip for self-limiting cables	300 x 5 x 70 mm	
088L3001	5703466239285	RX-C Roof Clip (50 pcs in bag)		
088L0409	5703466130216	Tape aluminium 38 mm x 50 m	Self-adhesive, with 2-colour warning label Backing — Aluminium foil Adhesive — Waterbased Acrylic Liner — Monosiliconized Paper Adhesion/Steel — 8 N/ 38 mm Tensile strength — 57,5 N/ 25 mm Total thickness — 60 µm	
088L0413	5703466130247	Connecto B-A Connection	130 x 265 x 75 mm	
088L0414	5703466130254	Connecto B-C Heating tape connection	130 x 265 x 75 mm	
088L0415	5703466130261	Connecto B-E End termination	130 x 265 x 75 mm	
088L0494	5703466228067	Connecto B-E 5 pcs in plastic bag	300 x 200 x 30 mm	

Article no.	EAN no.	Name	Description	Image
088L0416	5703466130278	Connecto B-S Connection termination	130 x 265 x 75 mm	
088L0417	5703466130285	Connecto B-T Y-junction+end terminat.	130 x 265 x 75 mm	
088L0418	5703466130292	Connecto B-TE2 Y-junction+2 end terminat	130 x 265 x 75 mm	
088L0419	5703466130308	Connecto B-TE3 Y-junction+3 end terminat	130 x 265 x 75 mm	
088L0420	5703466130315	Connecto B-X X-junction+2 end terminat	130 x 265 x 75 mm	
088L0019	5703466164518	Cable Roof gutters 25 pcs		

Index

Note!
The entries marked in red throughout the Product catalogue are corrections and additions changed from the last version (April 2017).

Expand your knowledge

Danfoss is Europe's leading manufacturer of intelligent electrical cable heating systems.

This position is secured by a dedicated focus on advanced and above all user-friendly systems, developed in the world's largest competence center for floor heating.

Electrotechnical formulas

Ohm's law

$$I = \frac{U}{R}$$

$$P = \frac{U^2}{R}$$

Joule–Lenz law

Notes
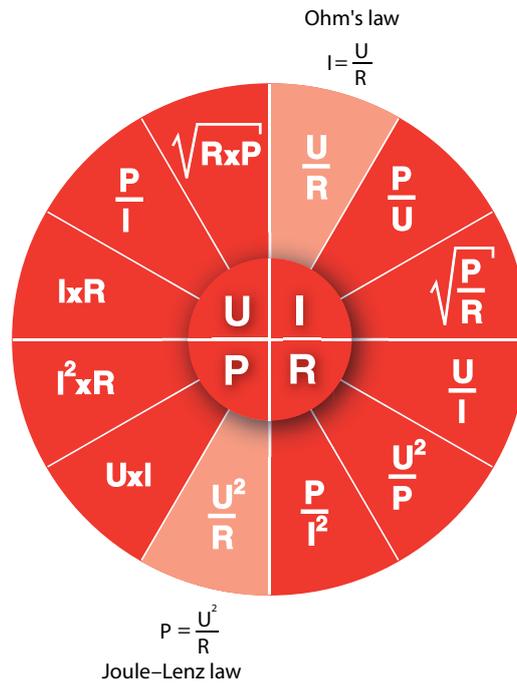
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Engineering the dreams of tomorrow – today

We play an active role in the main growth themes in a world that is rapidly changing: Infrastructure, food, energy and climate are the focus of our business. Cities for millions that touch the sky. A richer harvest to feed a growing world. Keeping food fresh and our children warm in a world that can make more out of less. This is how we are Engineering Tomorrow.

Infrastructure

By 2030, an additional 1.5 billion people will live in our cities. The demand for infrastructure to support this is massive. We help build the roads, buildings and energy systems for the world's growing cities and support progress for people, communities and businesses across the world. A well-functioning infrastructure is the vehicle for transforming low and middle income countries into emerging or developing nations. Our solutions are making a difference for the cities of tomorrow.

Food

Danfoss helps meet the growing need for an abundant and better quality food supply by improving agricultural productivity and keeping food fresh all the way to consumers in the most efficient and safe way with minimum waste. Our products are everywhere, whether you look at the workings of the cold room and conveyor belt at a slaughterhouse or behind the refrigeration counters of a supermarket.

Energy

No matter what we produce, the goal is to optimize performance, increase efficiency and minimize waste. This means that, today, we are a world leader in the field of energy-efficient technologies that enable our customers and society as a whole to get more from less. Energy that we don't use doesn't pollute and doesn't cost money. By picking the low-hanging fruits that energy efficient technologies offer, we can meet the growing energy demand, boost the economy and afford the renewable energy sources.

Climate

Danfoss combines a comfortable and healthy indoor climate with energy and cost savings, and protection of the environment. Thinking about the indoor climate is really about the future of the outdoor climate. While meeting the global climate challenge, Danfoss' products also contribute to human productivity and well-being indoors by optimizing heating, ventilation and air conditioning systems to suit individual needs and lifestyles.

Local support - when and where you need it

Contact Danfoss if you are looking for:

- finding local Danfoss wholesalers and retailers
- information on Danfoss floor heating products
- information on Danfoss control systems including thermostats
- information on Danfoss bathroom solutions
- information on Danfoss condensate pipe frost protection
- information on Danfoss accessories
- technical information
- user instructions

We provide you with excellent service, from choosing and designing the correct system, through to installation and unlimited technical support.