

ENGINEERING
TOMORROW

Danfoss

Electric Underfloor Heating

The **safe choice** in **underfloor** **heating**

Ready to lay and easy to use
the EC range offers a luxurious,
and reliable solution to electric
underfloor heating



Ultra

slim mats, only
3.5mm in height,
ensure the ECmat is
suitable for virtually
any new build or
renovation project.



www.heating.danfoss.co.uk

Warm luxury

Danfoss ECmat electric heating mat

Installing an ECmat in any room of your home creates that luxurious feeling a warm floor gives. ECmat can be installed under tiles, stone, laminate, carpet, wood and vinyl flooring giving you the ultimate choice in how you decorate your rooms.

The ECmat is ideal to use on new builds and renovations, the mats are only 3.5mm thick, limiting the raising of the floor to the bare minimum.

We recommend you install the mats on top of insulation boards to get the best out of your heating.

Danfoss Warranty

We are so confident of the quality of our Danfoss cables that every mat comes with our unique 20-year Danfoss warranty. This comprehensive warranty includes the cost of installation, the product and the flooring.

under all your floors

Reliability is the key

ECmats are exceptionally durable and fully compliant with the industry's most important product standard: IEC 60800:2009. In addition, the mats can be safely installed at temperatures as low as -5 °C, the perfect feature to extend your installation season.

Total quality control

The EC range of mats and thermostats are manufactured in our state-of-the-art factory. Before being packed ready for dispatch, every centimetre is minutely inspected and tested to ensure you get the best products to work with.

Easy to install

The mats are ultra sticky and won't move around while being laid making them easy to install. The visible cold lead connection make the mats suitable for almost any new build or renovation application. For added safety and durability, it also features a fully screened twin conductor with a single, easy-strip cold lead cable.

Electric Underfloor Heating

Luxurious. Fast. Reliable.



ECmat 100W

for timber based floors

Operation voltage:	220 - 240 V
Output:	100 W/m ²
Screen:	100% coverage; alu-foil; 0.5 mm ² tinned copper drain wire
Cold lead:	4 m DTWB, 2 x 1.0 mm ² , earthed
Outer sheath:	PVC
Min. installation temperature:	-5 °C
Standard compliance:	IEC60335-2-96
Applications:	New-build or renovation Wooden floors

Stock code	Description	Ω
088L0215	50W, area to be warmed 0.5m ²	1058
088L0216	100W, area to be warmed 1.0m ²	529
088L0217	150W, area to be warmed 1.5m ²	352
088L0218	200W, area to be warmed 2.0m ²	264
088L0219	250W, area to be warmed 2.5m ²	211
088L0220	300W area to be warmed 3.0m ²	176
088L0221	350W, area to be warmed 3.5m ²	151
088L0222	400W, area to be warmed 4.0m ²	132
088L0223	500W, area to be warmed 5.0m ²	105
088L0224	600W, area to be warmed 6.0m ²	88.1
088L0225	700W, area to be warmed 7.0m ²	75.5
088L0226	800W, area to be warmed 8.0m ²	66.1
088L0227	900W, area to be warmed 9.0m ²	58.7
088L0228	1000W, area to be warmed 10.0m ²	52.4
088L0229	1200W, area to be warmed 12.0m ²	44.1

ECmat 150W

for concrete based floors

Operation voltage:	220 - 240 V
Output:	150 W/m ²
Screen:	100% coverage; alu-foil; 0.5 mm ² tinned copper drain wire
Cold lead:	4 m DTWB, 2 x 1.0 mm ² , earthed
Outer sheath:	PVC
Min. installation temperature:	-5 °C
Standard compliance:	IEC60335-2-96
Applications:	New-build or renovation Concrete floors

Stock code	Description	Ω
088L0200	75W, area to be warmed 0.5m ²	705
088L0201	150W, area to be warmed 1.0m ²	352
088L0202	225W, area to be warmed 1.5m ²	235
088L0203	300W, area to be warmed 2.0m ²	176
088L0204	375W, area to be warmed 2.5m ²	141
088L0205	450W, area to be warmed 3.0m ²	117
088L0206	525W, area to be warmed 3.5m ²	100
088L0207	600W, area to be warmed 4.0m ²	88.1
088L0208	750W, area to be warmed 5.0m ²	70.5
088L0209	900W, area to be warmed 6.0m ²	58.7
088L0210	1050W, area to be warmed 7.0m ²	50.3
088L0211	1200W, area to be warmed 8.0m ²	44
088L0212	1350W, area to be warmed 9.0m ²	39.1
088L0213	1500W, area to be warmed 10.0m ²	35.2
088L0214	1800W, area to be warmed 12.0m ²	29.3

To heat larger areas fit a suitable sized supply contactor.
All Danfoss underfloor heating systems must be RCD protected.



ECmat 200W

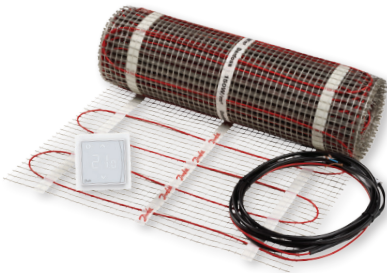
For high heat loss areas

Operation voltage:	220 - 240 V
Output:	200 W/m ²
Screen:	0.5 mm ² Cu + 100% Alu-foil with PET
Cold lead:	3 m DTWB 1,0 mm ²
Outer sheath:	PVDF
Min. installation temperature:	-5 °C
Standard compliance:	IEC60335-2-96
Applications:	New-build or renovation Concrete floors High heatloss areas Only under tile or stone

Stock code	Description	Ω
088L5400	87W, area to be warmed 0.45m ²	608
088L5405	215W, area to be warmed 1.05m ²	246
088L5410	285W, area to be warmed 1.45m ²	186
088L5415	430W, area to be warmed 2.1m ²	123
088L5420	500W, area to be warmed 2.5m ²	106
088L5425	605W, area to be warmed 3.1m ²	87.4
088L5430	695W, area to be warmed 3.45m ²	76.1
088L5435	845W, area to be warmed 4.3m ²	62.6
088L5440	990W, area to be warmed 4.95m ²	53.4
088L5445	1210W, area to be warmed 6.1m ²	43.7
088L5450	1385W, area to be warmed 7.0m ²	38.2
088L5455	1665W, area to be warmed 7.8m ²	33.8
088L5460	1715W, area to be warmed 8.8m ²	30.8
088L5465	2070W, area to be warmed 10.5m ²	25.6

To heat larger areas fit a suitable sized supply contactor.

All Danfoss underfloor heating systems must be RCD protected.



ECtemp Smart

with the ECtemp Smart™ App

The ECtemp is designed to provide optimum heating comfort, exactly where you need it. When the thermostat is combined with the ECtemp Smart App, it lets you stay in control of all your thermostats no matter your location. The thermostat has a stylish design that fits into your regular wall socket and has a number of intelligent features to reduce energy costs and make cold feet a thing of the past. Quick access to control functions, an open window detection and energy consumption notifications make this thermostat the smart way to enjoy superior thermal comfort.



ECtemp Smart Black



ECtemp Smart Polar White



ECtemp Smart Pure White

Stock code	Name	Description
088L1143	ECtemp Smart	Wi-Fi Thermostat - Pure Black
088L1140	ECtemp Smart	Wi-Fi Thermostat - Polar White
088L1141	ECtemp Smart	Wi-Fi Thermostat - Pure White



ECtemp Touch

& ECtemp Next Plus Thermostats

Danfoss heating mat

installation



ECtemp Touch - Pure White

The ECtemp Touch is the simplest, easiest-to-use controller developed for electric floor heating. It has an intuitive touch screen, the ability to work with other manufacturers' electric floor heating and several cost saving features to make it easy for you to get the best out of it. All with a simple touch.



Stock code	Name	Description
088L0122	ECtemp Touch	ECtemp Touch Pure White



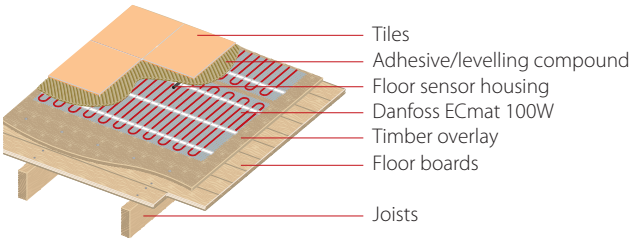
ECtemp Next Plus - Pure White

The Danfoss ECtemp Next Plus is an electronic programmable timer thermostat used for controlling electrical floor heating elements. The thermostat is designed for fixed installation only and ensures optimal energy savings whilst upholding optimal thermal comfort in the room.

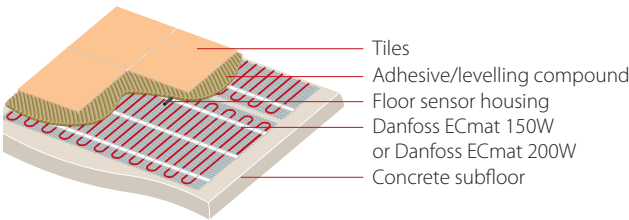


Stock code	Name	Description
088L0121	ECtemp Next Plus	ECtemp Next Plus Pure White

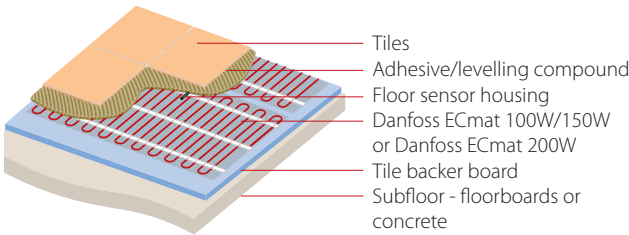
Mats on wooden floors



Mats on concrete floors



Tile backer board



Danfoss recommends the use of suitable insulation underneath our heating systems to ensure optimum performance, reducing downward heatloss and warm up time.

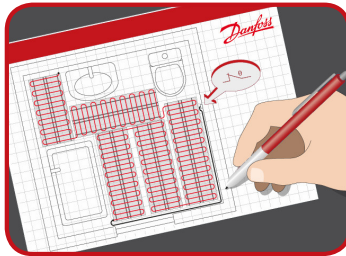
Installation

of Danfoss ECmat

Danfoss recommends the use of suitable insulation underneath our heating systems to ensure optimum performance, reducing downward heatloss and increasing heat up time.

Layout

Draw a sketch of the installation that shows the element layout, cold leads and connections, junction box, sensor and thermostat. Keep the sketch for future reference, as knowing the exact locations of these components makes troubleshooting and repair easier if ever needed. Once the heating system has been laid take a photo for future reference.



Sensor tube

Cut a groove into the floor and wall 10mm deep and 10mm wide for the floor sensor and tube. The tube allows for easy removal of the floor sensor if required. Tape up the end of the tube to stop adhesive / self-levelling compound getting in.



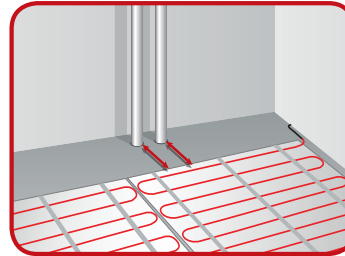
Clean subfloor

Ensure the subfloor is level, secure, smooth, dry and clean.



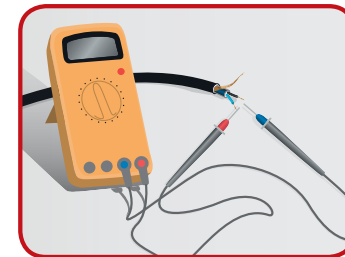
Lay mat

Start laying the mat. When you reach the end of the mat run simply cut the mesh and turn the mat. The red cable must **NOT** be cut. **Do not** tape over the cables nor install the cables less than 50mm apart to prevent overheating.



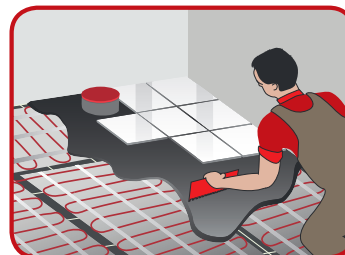
Conductive parts

The element needs to be a minimum of 30mm away from conductive parts e.g. water pipes.



Measure Ohm

Regularly measure ohmic resistance and insulation resistance during installation.



Self levelling compound

It is recommended that you cover the mats with a layer of flexible self levelling compound and allow to dry. Then use flexible adhesive and grout when tiling.

Danish quality *you can rely on*

Based in Denmark, Danfoss specialises in high-quality electric heating solutions. We have the world's largest research centre and have been a market leader since we were founded in 1942. Our extensive quality control process ensures both the quality of our products and the satisfaction of the people

who use them. And for ultimate reassurance, we offer up to 20-year product warranties on our heat mats and cables – which even include floor replacement costs!

We also offer an outstanding 5-year warranty on our ECtemp thermostats.

Danfoss Ltd

Ampthill Road, Bedford MK42 9ER

Tel: 01234 364621

Email: ukheating@danfoss.com

www.heating.danfoss.co.uk