



Danfoss DEVI Heating Cables Installation Guide

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Danfoss DEVI Heating Cables



Introduction

- In this installation manual, the phrase “heating cable” refers to heating cables in readymade lengths; heating cables on drums; heating cables on mesh; and preshaped taped heating cables.
- To get the full installation guide, warranty registration, product information, tips & tricks, addresses, etc. visit www.devi.com and www.gb.manuals.devi.com.

Safety instructions

Heating cables must always be installed according to local building regulations and wiring rules as well as the guide-lines in this installation manual.

- De-energize all power circuits before installation and service.
- Residual current device (RCD) protection is required. RCD trip rating is max. 30 mA.
- The screen from each heating cable must be earthed in accordance with local electricity regulations
- Heating cables must be connected via a switch providing all pole disconnection.
- The heating cable must be equipped with a correctly sized fuse or circuit breaker according to local regulations.
- Never exceed the maximum heat density (W/m or W/m²) for the actual application.
- Strongly recommended to use the heating cable together with an appropriate thermostat to secure against overheating.
- **Caution!** Do not use M1 classified cables in areas subject to high mechanical loads or impact, such like outdoor applications, on steel reinforcing grids, in concrete with sharp stones, roof and gutters, etc.

The presence of a heating cable must

- be made evident by affixing caution signs in the fuse box and in the distribution board or markings at the power connection fittings and/or frequently along the circuit line where clearly visible (tracing).
- be stated in any electrical documentation following the installation.

Installation guidelines

- It is not recommended to install heating cables at temperatures below -5°C.
- Heating cable bending diameter must be at least 6 times the cable diameter. Do not bend connections.
- Free end from cold lead must be protected by installer to avoid water from coming in.

Mechanical class

- **M1**— For use in applications with low risk of mechanical damage according to IEC 60800:2009, e.g. installed on even surfaces and embedded in screeds with no sharp objects.
- **M2** — Can be used in applications with high risk of mechanical damage according to IEC 60800:2009.
- High mechanical strength according to IEC 60800:1992. MMM “M” Marking for high mechanical protection class according to NF C 32-330:2002.

Warranty

A 20-year full service warranty is valid for:

20 year warranty

- heating cables incl. DEVIflex™, DEVIsafe™, DEVIsnow™, DEVIasphalt™, DEVIaqua™, DEVIbasic™, DEVImulti™, DEVIsport™ (DSM3), DEVIbasic™, DEVIcomfort™;
- heating mats incl. DEVIsnow™, DEVIasphalt™, DTCE. Not only does this warranty include costs of reparation or replacement, but also installation and floor materials, such as damage to brickwork and tiles.

A 10-year product warranty is valid for:

- DEVIcell™ insulation plates, self-limiting cables: DEVIpipeguard™ LSZH.

A 5-year product warranty is valid for:

self-limiting cables: DEVIceguard™, DEVIpipeheat™, DEVIpipeguard™, DEVIhotwatt™.

- Should you, against all expectations, experience a problem with your DEVI product, you will find that Danfoss offers DEVIwarranty valid from the date of purchase that was no later than 2 years from production date on the following conditions: During the warranty period Danfoss shall offer a new comparable product or repair the product if the product is found to be faulty by reason of defective design, materials or workmanship. The decision to either repair or replace will be solely at the discretion of Danfoss.
- In addition to repair or replacement of the defective product Danfoss will also compensate installation costs and any damage to floor/surface materials (e.g. brickwork, tiles or roof surface) if the damage is caused by the defective product or is an unavoidable result of repairing the defective product for all products with full-service warranty.
- Except for such costs and damage, Danfoss shall not be liable for any resulting losses or consequential or incidental damages including, but not limited to, damages to property or extra utility expenses. No extension of the warranty period following repairs undertaken is granted.
- The warranty shall be valid only if the WARRANTY CERTIFICATE is completed correctly and in accordance

with the instructions, the fault is submitted to the installer or the seller without undue delay and proof of purchase is provided. Please note that the WARRANTY CERTIFICATE must be filled in, stamped and signed by the authorized installer performing the installation (Installation date must be indicated). After the installation is performed, store and keep the WARRANTY CERTIFICATE and purchase documents (invoice, receipt or similar) during the whole warranty period.

- The DEVIwarranty shall not cover any damage caused by incorrect conditions of use, incorrect installation or if installation has been carried out by non-authorized electricians. All work will be invoiced in full if Danfoss is required to inspect or repair faults that have arisen as a result of any of the above. The DEVIwarranty shall not extend to products which have not been paid in full. Danfoss will, at all times, provide a rapid and effective response to all complaints and inquiries from our customers.
- All claims exceeding the above conditions are explicitly excluded from the DEVIwarranty.
- For full warranty text visit www.devi.com. devi.danfoss.com/en/warranty/

WARRANTY CERTIFICATE		
The DEVIwarranty is granted to:		
<i>The insulation resistance shall be measured by means of a DC voltage of at least 500 V for one minute. The measured value shall be no less than 50 MΩ.</i>		
Address	Stamp	
<hr/>		
Purchase date		
<hr/>		
Serial number of the product		
<hr/>		
Product	Art. No.	
<hr/>		
Installation Date & Signature	Cable resistance [Ω]	Insulation [MΩ]
<hr/>		
Connection Date & Signature	Cable resistance [Ω]	Insulation [MΩ]
<hr/>		

Application overview

	Applications															
	Cable type	Mechanical class	Pipetracing-inside	Pipetracing-outside	Joints	DEVIcell™	Thin concrete <3 cm	Concrete >3 cm	Concrete hardening	Seed beds	Existing Sport Fields	New Sport Fields	Cold stores	Ground melting	Roof and gutters	Asphalt – high temp

DEVIflex™ 6T, DEVIflex™ 10T	M2		x	x	x	x	x		x			x			
DEVIflex™ 18T, DEVIflex™ 20T	M2		x				x		x			x			
DEVlcomfort™ 10T	M1					x									
DEVIflex™ 30T	M2							x							
DEVIsafe™ 20T	M2		x				x		x	x	x	x	x		
DEVIsnow™ 20T (DTCE-20)	M2		x				x		x	x	x	x	x		x
DEVIsnow™ 30T (DTCE-30)	M2									x		x	x		x
DEVIsnow™ 300T (DTCE-300)	M2									x		x			x
DEVIsnow™ Drum (DTCE 1)	M2									x	x	x	x		x
DTCE-100	M2						x								
DTCE-150	M2						x								
DTCE-175	M2						x								
DTCE-200	M2						x					x			
DEVlbasic™ 10S (DSIG-10)	C		x	x		x	x		x		x	x			
DEVlbasic™ 20S (DSIG-20)	C		x				x		x		x	x			
DEVlbasic™ Drum (DSIG 1)	C		x	x		x	x		x		x	x			
DEVl sport™ (DSM3) 1) 2)	M M M						x		x	x		x			
DEVl multi™ PVC (DMIH) 1)	M2		x				x		x		x	x			
DEVl asphalt™ 30T (DTIK-30)	M2											x		x	x
DEVl asphalt™ 300T (DTIK-300)	M2											x		x	x
DEVl aqua™ 9T 2) 3)	M1	x													
DEVl pipeheat™ 10 (DPH-10) 1) 4)	M2		x												
DEVl pipeguard™ 1), DEVl hotwatt™ 1)	M2		x												
DEVl iceguard™ 1)	M2		x										x		

1. Heating cables/mats can be customized for the specific project, depending on voltage, required output, length of heating cable and length of cold leads.

Note: It is the full responsibility of the installer/designer to use proper cold lead dimensioned for the purpose

and assembly sets that establish sufficient mechanical strength, flammability resistance and water tightness – and to design the heating unit with correct output for the specific application to avoid overheating of the cable or building materials.


2. The heating cable shall only be installed in concrete or used while fully covered with non-flamable material e.g. soil or similar.
3. The cable are approved for use in contact with drinking water or water for human consumption – comply to Danish GDV (Godkendt til drikkevand) demands.
4. The cable are not approved for installation inside the water pipe and for use in contact with drinking water or water for human consumption, waste water, etc.!

Regarding other types of applications please contact your local DEVI sales company. More information about applications can be found at www.devi.com

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding in and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product.

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Documents / Resources

	<p>Danfoss DEVI Heating Cables [pdf] Installation Guide DEVI Heating Cables, DEVI Cables, DEVI, Cables, Heating Cables</p>
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References

- [Welcome to the new home of DEVI | Danfoss](#)
- [Електрическо отопление - Danfoss DEVI by Danfoss | Danfoss](#)
- [DEVI Električno grijanje | Danfoss Croatia Product Store](#)
- [DEVI Electric Heating slaví 80. výročí! | Danfoss](#)
- [DEVI elektrisk varme | Danfoss](#)
- [Welcome to the new home of DEVI | Danfoss](#)
- [DEVI elektriküte tähistab 80. aastapäeva! | Danfoss](#)
- [DEVI – ammattilaisten valinta jo 80 vuoden ajan! | Danfoss](#)
- [Chauffage électrique | Danfoss](#)
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- [A jövőbe tekintve elektromos fűtéssel - Danfoss DEVI | Danfoss](#)
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- [devi.fr est en vente - VosDomaines](#)
- [A jövőbe tekintve elektromos fűtéssel - Danfoss DEVI | Danfoss](#)
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