

ENGINEERING
TOMORROW



Danfoss Heat Pumps

Ground and air source **heat pumps accessory** catalogue



75%
energy savings
with heat pump
from Danfoss

Dear Danfoss Customer,

We thank you for the confidence that you have shown in us by choosing a Danfoss heating solution. As we have every confidence in the quality of our products, we are sure that you will enjoy using our heat pump and you will benefit from it for many years to come.

To make your Danfoss experience even better, we suggest that you have a look at our wide range of accessories, which we have tried to organize in the best possible way for you in the current catalogue.

Danfoss Accessories are meant to provide high quality commissioning and create a tailor-made system, specifically designed for your needs. Choosing a Danfoss accessory, you can always rely on a product of high quality, durability and functionality. In addition, all our accessories are tested and proven in real heating applications.

Therefore, you can be sure a Danfoss accessory will make your heating system solution even more efficient and easier to use.

How to make use of the Accessory Catalogue?

In the current catalogue, we have tried to organize the wide range of Danfoss accessories in the most convenient way for you, so you can easily navigate through the pages and be able to choose the most appropriate products for your specific needs.

For your ease, we have divided the accessories we offer into different categories, so you can find the ones you need faster. On each page you will find useful information about each accessory item, including the code number, images, drawings, types of application, as well as other important specifications for the particular product.

It might occur that a new accessory is being tried and tested to be introduced, so if you have any concerns or queries please do not hesitate to contact our resellers in your own country or us directly.

Should you have anything to share about our accessory catalogue or any recommendations that you think could improve the content and make your daily work easier and more efficient, please contact us directly or through any of our sales representatives.

We hope you find our catalogue a valuable tool and you enjoy using it,

Danfoss Heat Pumps

Choosing a Danfoss heating solution is one of the best choices you can make for your home as you get an efficient and durable solution of the utmost quality. Moreover by adding some Danfoss accessories you can benefit from a customized complete climate solution, that is very easy to use and maintain.

Here is what some of our installers have to share about our brand and products:



“

We started working with Danfoss products back in the seventies. Danfoss having more than 80 years' experience producing components and developing all their technology in house is a major advantage. Danfoss can deliver a complete package : heat pumps, floor heating, thermostats, balancing valves, hot water tanks, to name just a few of the superior products. All are stringently tested to work together, so when you design your installation, you can be sure you have the right solution for your needs. The knowledge, expertise and support Danfoss has to offer you will find invaluable to your company.

”

Luc Van de Velde, Ecoterm bvba, Belgium

“

Danfoss offers a range of fantastic geothermal heating systems, especially latest product, the DHP-M commercial ground source heat pump. It can be used in any system or building, managing the floor heating and radiators alike. The new inverter technology makes the DHP-M a top solution available on the market.

Anders Spiegelhauer, Finn L. & Davidsen A/S, Denmark

”



“

We have been working with the Danfoss heat pumps for over 16 years now. Throughout this time we have seen continuous improvement in their products in terms of quality and especially performance by using the latest technologies available. In conjunction with R&D we have developed heat pump solutions suitable for the Dutch market. At first using the DHP-C and later the DHP-C Opti range. The impressive range of heat pumps suits and covers all sorts of heating, cooling and domestic hot water demands, from small family houses to bigger office buildings allowing for the successful completion of dozens of projects. All of the above contributes to year round comfort and satisfied Dutch end users.

”

Harry Klein, Klein Comfort Techniek B.V., Netherlands

“

I have been cooperating with Danfoss for many years. It is very important for me to have a reliable partner, one that introduces new solutions, sometimes ahead of market needs. In addition, the knowledge and competency of the local Danfoss technical team is invaluable. They provide me with excellent support in my daily work. If you choose solutions from Danfoss you will never regret it. Their products and accessories are of the highest quality, yet simple to install and operate. You can always count on the upmost professional support before, during and after the installation.

Robert Zbierański, Ro-instal, Poland

”



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4 Commercial ground source heat pumps

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Ground source
heat pumps

DHP-H Opti Pro+ heat pump at an energy-efficient house

"After the first heating season (April 2014) we can say that our house heating with a heat pump is a trouble-free solution, giving a high standard of comfort. Our simulations of low heating costs proved to be real, says"

Joanna Furmaga-Stoczkiewicz, Poland



Ground source heat pumps – a smarter use of energy

A ground source heat pump is an environmentally friendly heating solution that guarantees you perfect indoor climate all year long and additionally, reduces the energy costs effectively.

Should you add a few Danfoss accessories to it, you can make your customer's ground source heat pump even more efficient and so easy to use and maintain! Have a look at our range of relevant accessories, discover what they can do for you and for your customers and choose the most appropriate for your specific needs.

Room thermostat	10
Room thermostat	11
Expansion card	12
Relay kit for control of external brine / circulation pump	13
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Code number

086U6003

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

Ground source heat pumps
Room thermostat

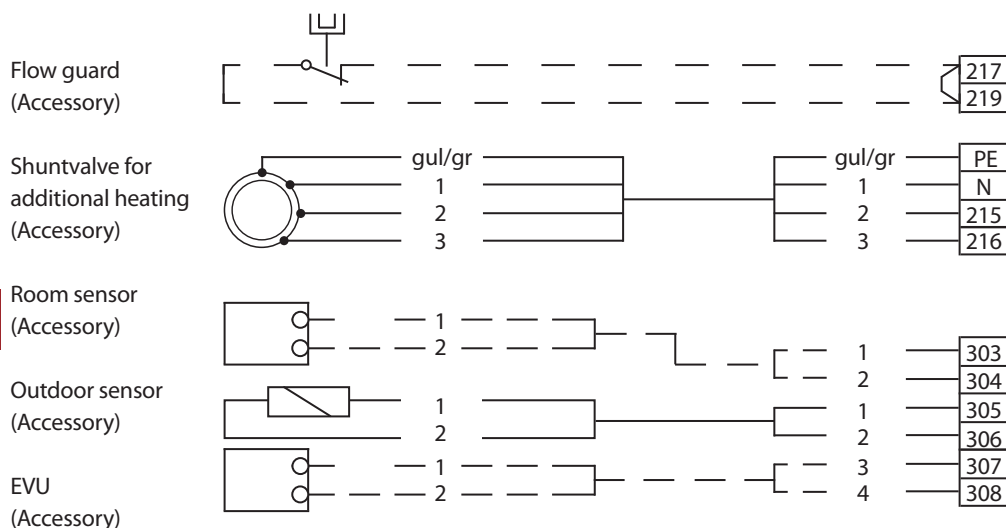


Room sensors to control room temperature with alarm indicator

The heat pump system can be equipped with a room temperature sensor as an option. In normal operation, the set room temperature (for example 20.0 C). A button shows the set value with flashing numerals and then change can be made with the + or - buttons.

The outdoor temperature is displayed for 10 seconds on both keys being pressed at the same time. If an alarm has been triggered, an A shows in the display.

The sensor is wall-mounted. It should be installed by a qualified electrician.



Code number

086L3937

Heat pumps

DHP-H/-L Varius Pro + L

DHP-M

Ground source heat pumps
Room thermostat

An active room sensor will help the heat pump to adjust the supply line temperature in situations where the indoor temperature changes as a result of unmonitored heat sources, such as separate firewood place or high solar radiation.

The Genesis Room sensor is showing the actual room temperature, and after pressing button, also desired temperature. The room sensor may also be activated and de-activated by pressing button.

Installation should be made with pair-twisted 4-membered cable (for Modbus communication and 24V AC supply that is available in the heat pump).

The room sensor is delivered with a short instruction (English and Swedish) for installation and use.

New software needed for room sensor will be made available at delivery start. Heat pumps with earlier software versions than 2.01.000 will need a software update to support the room sensor.

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumpsWater heaters and
volume tanks

Code number

086U6009

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

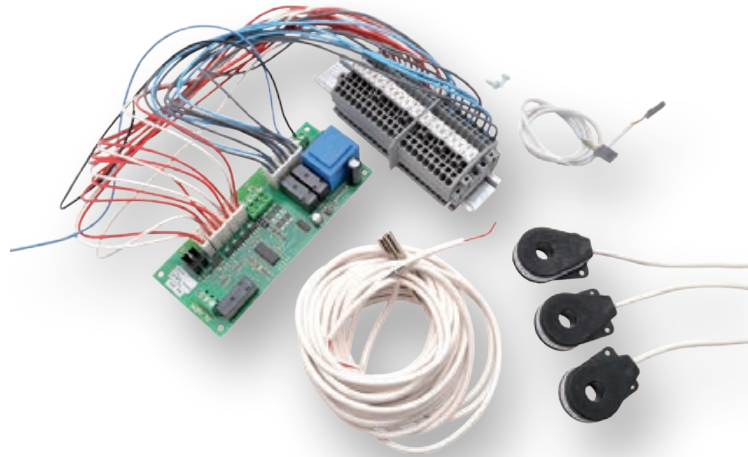
Application

Cooling (Passive/Active)

Shoutgroup

Swimming pool

Power limiter

Ground source heat pumps**Expansion card**

The accessory is designed to gain access to additional features like cooling, pool heating 2nd heat curve or reducing power of auxiliary heater.

The expansion card is an accessory, which, when connected to the heat pump, provides the following extra functions.

Power limiter

Allows reducing the auxiliary heater to a power corresponding to the maximum available start current. (To use the function power monitor as needed refer to 3 the piece toroidal transformers.)

Cooling

The heat pump can be used to produce cooling in summer. Either by passive cooling (cold retrieved from the borehole) or a combination of passive and active cooling (cooling produced by the heat pump compressor). Heat pump can produce cooling only in "heat stop mode".

Shunt

Used when the heating system needs to settle into a second temperature level, eg when you combine radiators with wet floor heating or when a shunt group is controlled by a separate heating curve (curve 2).

Swimming pool

Used to control the temperature in a swimming pool. Temperature controlled by a separate sensor regardless of the heating system and hot water.

External alarm output

Used for external alarm monitoring. Provides a floating (can be powered by max 230V) output signal at all alarms.

0-10V output

For future use.

Code number

086L0937

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

Application

Hot water circulation

Ground source heat pumps**Relay kit for control of external brine / circulation pump**

The relay kit is intended to control external brine pumps and similar (on/off) and is to be used on heat pumps with 0-10V controlled circulation pumps. The relay closes between 3-10V (configurable).

The relay kit is suitable for example in ground water applications.

The relay kit consists of:

- Relay
- Cabling (with connectors)
- Instruction manual (Swedish and English)

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumpsWater heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L1900

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

Application

Remote control

Ground source heat pumps

Danfoss OnLine - control and monitor your heat pump online



With the Danfoss OnLine accessory, you can control and monitor your heat pump from any smartphone, computer or tablet, wherever you are in the world. For example, you can lower the temperature when you are on holiday, and increase it for when you come back. If you come home earlier than expected; no problem – using OnLine, you can easily ensure that your house is warm and comfortable whenever you need it to be.

At any time of day, you can use OnLine to check that your heating system is working properly and what temperature your home is at. If anything unexpected comes up and needs to be fixed, you – or your installation engineer, where agreed – will immediately receive this information via OnLine. You can also control and monitor several locations if you need to; for example, if you have a holiday cottage with a heat pump or have relatives who need assistance.

Danfoss OnLine connects the heat pump to your existing home broadband. If there is no internet connection available, it is possible to connect using a mobile 3G/4G modem (provided by your local mobile service provider). The OnLine app is available for both Android and iPhone.

Code number

086L2381

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

Application

Link

living by Danfoss – radiator and floor heating thermostats

Ground source heat pumps
Danfoss Link 2.1



With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house.

With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house – and you can locate the control panel anywhere in the house. Danfoss Link communicates wirelessly with the heat pump and the house's other heating systems. The operation of the heat pump is optimized continuously, further reducing your heating costs.

Using the control unit touchscreen it's easy to set the temperature in every room. You can also create weekly timetables for the different rooms, with different temperatures at different times. For instance you can let Danfoss Link reduce the temperature at night, or in the middle of the day when no one is home.

Danfoss Link connects every part of the heating system, and continuously sends information to the heat pump about the house's current heating requirements. This enables the heat pump to optimize operation in exact accordance with current conditions, which minimizes energy consumption.

Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Code number

086L2948

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

Application

Link

living by Danfoss – radiator and floor heating thermostats

Remote control

Ground source heat pumps

Danfoss Link 2.1 & OnLine in one package



With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house. With Danfoss OnLine - control and monitor your heat pump online

Danfoss Link

With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house – and you can locate the control panel anywhere in the house. Danfoss Link communicates wirelessly with the heat pump and the house’s other heating systems. The operation of the heat pump is optimized continuously, further reducing your heating costs.

Using the control unit touchscreen it’s easy to set the temperature in every room. You can also create weekly timetables for the different rooms, with different temperatures at different times. For instance you can let Danfoss Link reduce the temperature at night, or in the middle of the day when no one is home.

Danfoss Link connects every part of the heating system, and continuously sends information to the heat pump about the house’s current heating requirements. This enables the heat pump to optimize operation in exact accordance with current conditions, which minimizes energy consumption.

Danfoss OnLine

With the Danfoss OnLine accessory, you can control and monitor your heat pump from any smartphone, computer or tablet, wherever you are in the world. For example, you can lower the temperature when you are on holiday, and increase it for when you come back. If you come home earlier than expected; no problem – using OnLine, you can easily ensure that your house is warm and comfortable whenever you need it to be.

At any time of day, you can use OnLine to check that your heating system is working properly and what temperature your home is at. If anything unexpected comes up and needs to be fixed, you – or your installation engineer, where agreed – will immediately receive this information via OnLine. You can also control and monitor several locations if you need to; for example, if you have a holiday cottage with a heat pump or have relatives who need assistance.

Danfoss OnLine connects the heat pump to your existing home broadband. If there is no internet connection available, it is possible to connect using a mobile 3G/4G modem (provided by your local mobile service provider). The OnLine app is available for both Android and iPhone.

Code number

086L2260

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

Application

Hot water circulation

Ground source heat pumps

Hot water circulation kit



This solution is to be used in such cases when hot water is needed to appear quicker to the tapping point, according to the statutory requirements. It is normal that this accessory is to be used if you have a long distance between the heat pump and the tapping point. It can take a long time before the hot water reaches the tapping point for instance to the bathroom, kitchen or to the washer room.

Hot water circulation kit can be used in all domestic heat pumps from Danfoss except DHP-A Opti due to the hot water sensor being mounted with a similar solution.

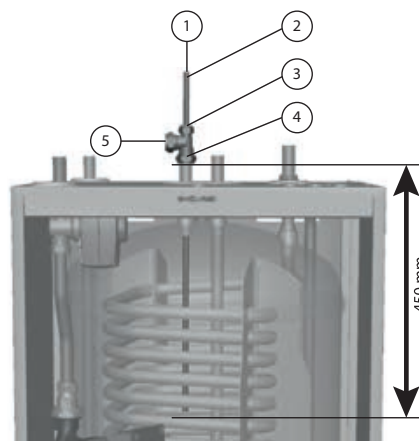
Hot water circulation kit includes the following parts:

1 piece of a 450 (mm) stainless steel pipe with a dimension of 12 (mm)

1 piece of a T-pipe 22x22x15 (mm)

1 piece of a reduction 15x12 (mm) to fit inside the T-pipe

1 installer manual,



- 1 Hot water return
- 2 Pipe Ø12
- 3 Reduction 15/12
- 4 3-way compression fittings 22x22x15
- 5 Hot water output

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Air source
heat pumps

The Jensen family have cut their heating bills in half with DHP-AQ air source heat pump

"It was an easy decision to choose a Danfoss heat pump. Our heating engineer promised us it would deliver the best performance on the market – and it certainly has proved its worth so far! We are now saving half on our yearly heating expenses and we are quite amazed about how easy the installation was and how silent the pump runs."

Ingrid Jensen, Denmark

Air source heat pumps – use cold air for heating

With a Danfoss air source heat pump you retrieve the energy directly from the surrounding air. Thus, you get a reliable and cost efficient heating solution, providing great comfort in your home for many years to come.

Should you add a few Danfoss accessories to it, you can make your air source heat pump even more efficient and so easy to use and maintain! Have a look at our range of relevant accessories, discover what they can do for you and for your customers and choose the most appropriate for your specific needs.

Room sensor Modbus	20
Expansion card	21
Twin kit DHP-AQ	22
Danfoss OnLine - control and monitor your heat pump online	23
Danfoss Link 2.1	24
Danfoss Link 2.1 & OnLine in one package	25
The dew point sensor kit	26
Intermediate Heat exchanger	27
Fix-it Foot	28
Heated drip tray	29

Code number

086U9563

Heat pumps

DHP-AQ

Air source heat pumps

Room sensor Modbus



Room sensors to control the room temperature with alarm indicator

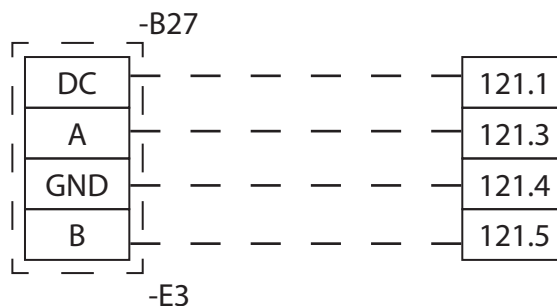
Room sensor Modbus is an accessory to the Danfoss DHP-AQ. If the room temperature drops or rises, the room sensor detects this and compensates the flow temperature to the radiators or floor heating to maintain the desired temperature in the room.

If you have an external heat source in addition to the heat pump installed in the house, the room sensor is an energy saving solution.

The room sensor also shows if the alarm occurs on the heat pump.

The room sensor can display the following information in the display window:

- Actual room temperature
- Desired room temperature
- Actual outdoor temperature
- Alarm from control center



Code number

086L0636

Heat pumps

DHP-AQ

Application

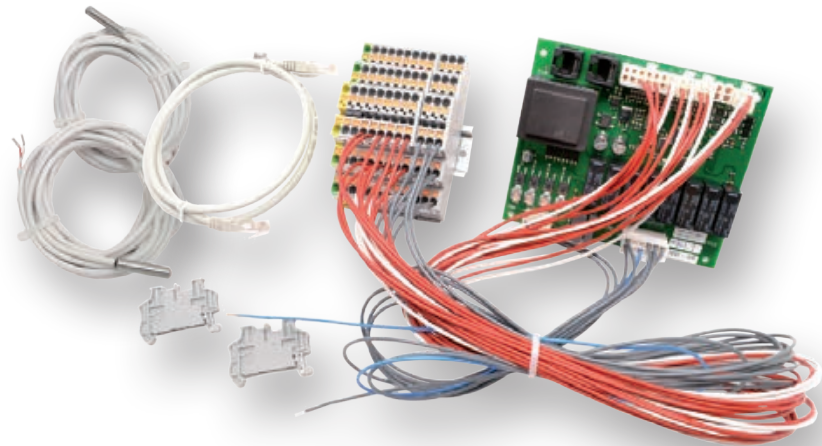
Cooling (Passive/Active)

Shoutgroup

Swimming pool

Power limiter

**Air source heat pumps
Expansion card**



The accessory is designed to gain access to additional features like cooling, pool heating 2nd heat curve or reducing the power of the auxiliary heater.

The expansion card is an accessory for customers who wish to extend the functionality of the heat pump. An expansion card and accompanying terminal block must be installed in order to connect additional equipment.

Power limiter

Allows reducing the auxiliary heater to a power corresponding to the maximum available start current. (To use the function power monitor as needed refer to 3 the piece toroidal transformers.)

086U2793



Cooling

The heat pump can be used to produce cooling in summer. Either by passive cooling (cold retrieved from the borehole) or a combination of passive and active cooling (cooling produced by the heat pump compressor). The heat pump can only produce cooling in "heat stop mode".

Shunt

Used when the heating system needs to settle into a second temperature level, eg when you combine radiators with wet floor heating or when a shunt group is controlled by a separate heating curve (curve 2).

Swimming pool

Used to control the temperature in a swimming pool. Temperature controlled by a separate sensor regardless of the heating system and hot water.

External alarm output

Used for external alarm monitoring. Provides a floating (can be powered by max 230V) output signal at all alarms.

0-10V output

For future use.

The expansion card and terminal block consists of the following components: Expansion card, Terminal block, Communications cable, Four PCB supports, Two terminal block supports, Two sensors.

Ground source
heat pumps

Air source
heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L1370

Heat pumps

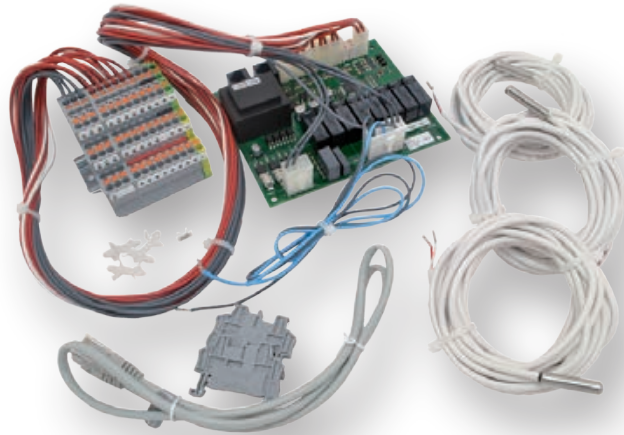
DHP-AQ

Application

Cascading option

Air source heat pumps

Twin kit DHP-AQ



Twin kit DHP-AQ allows the connecting of two heat pumps to one control unit.

A Twin kit unit means that an existing heat pump (Master), consisting of an external unit and an internal unit, can have an external unit (Slave) added. The installation includes the pipes and electrical installation, plus necessary settings in the control system.

When a Twin kit is used in a heating system, two outdoor units (Master and Slave) are communicating with each other and sharing the same control unit (installed indoors). The software in the control unit is prepared for master/slave operation and is automatically activated during the commissioning and start up procedure.

Accessories for the Twin kit installation are supplied in an enclosed cardboard box:

- Expansion card Cable harness, expansion card
- Block, expansion card
- RJ-45 communication cable, 1,000 mm
- Circuit board support (4 pieces)
- Supply line sensor 110
- Return line sensor 111
- System supply line sensor
- Installation instructions for expansion card and terminal block
- Installation instructions for Twin kit
- Rivets

Code number

086L1901

Heat pumps

DHP-AQ

Application

Remote control

Air source heat pumps

Danfoss OnLine - control and monitor your heat pump online

With the Danfoss OnLine accessory, you can control and monitor your heat pump from any smartphone, computer or tablet, wherever you are in the world. For example, you can lower the temperature when you are on holiday, and increase it for when you come back. If you come home earlier than expected; no problem – using OnLine, you can easily ensure that your house is warm and comfortable whenever you need it to be.

At any time of day, you can use OnLine to check that your heating system is working properly and what temperature your home is at. If anything unexpected comes up and needs to be fixed, you – or your installation engineer, where agreed – will immediately receive this information via OnLine. You can also control and monitor several locations if you need to; for example, if you have a holiday cottage with a heat pump or have relatives who need assistance.

Danfoss OnLine connects the heat pump to your existing home broadband. If there is no internet connection available, it is possible to connect using a mobile 3G/4G modem (provided by your local mobile service provider). The OnLine app is available for both Android and iPhone.

Ground source
heat pumpsAir source
heat pumps

Other accessories

Commercial ground
source heat pumpsWater heaters and
volume tanks

Code number

086L2382

Heat pumps

DHP-AQ

Application

Link

living by Danfoss – radiator and
floor heating thermostats

Air source heat pumps

Danfoss Link 2.1



With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house.

With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house – and you can locate the control panel anywhere in the house. Danfoss Link communicates wirelessly with the heat pump and the house's other heating systems. The operation of the heat pump is optimized continuously, further reducing your heating costs.

Using the control unit touchscreen it's easy to set the temperature in every room. You can also create weekly timetables for the different rooms, with different temperatures at different times. For instance you can let Danfoss Link reduce the temperature at night, or in the middle of the day when no one is home.

Danfoss Link connects every part of the heating system, and continuously sends information to the heat pump about the house's current heating requirements. This enables the heat pump to optimize operation in exact accordance with current conditions, which minimizes energy consumption.

Code number

086L2949

Heat pumps

DHP-AQ

Application

Link

living by Danfoss – radiator and floor heating thermostats

Remote control

Air source heat pumps

Danfoss Link 2.1 & OnLine in one package

Ground source
heat pumpsAir source
heat pumps

Other accessories

Commercial ground
source heat pumpsWater heaters and
volume tanks

With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house. With Danfoss OnLine - control and monitor your heat pump online.

Danfoss Link

With Danfoss Link connected to your heat pump, you can control the temperature in every room of the house – and you can locate the control panel anywhere in the house. Danfoss Link communicates wirelessly with the heat pump and the house's other heating systems. The operation of the heat pump is optimized continuously, further reducing your heating costs.

Using the control unit touchscreen it's easy to set the temperature in every room. You can also create weekly timetables for the different rooms, with different temperatures at different times. For instance you can let Danfoss Link reduce the temperature at night, or in the middle of the day when no one is home.

Danfoss Link connects every part of the heating system, and continuously sends information to the heat pump about the house's current heating requirements. This enables the heat pump to optimize operation in exact accordance with current conditions, which minimizes energy consumption.

Danfoss OnLine

With the Danfoss OnLine accessory, you can control and monitor your heat pump from any smartphone, computer or tablet, wherever you are in the world. For example, you can lower the temperature when you are on holiday, and increase it for when you come back. If you come home earlier than expected; no problem – using OnLine, you can easily ensure that your house is warm and comfortable whenever you need it to be.

At any time of day, you can use OnLine to check that your heating system is working properly and what temperature your home is at. If anything unexpected comes up and needs to be fixed, you – or your installation engineer, where agreed – will immediately receive this information via OnLine. You can also control and monitor several locations if you need to; for example, if you have a holiday cottage with a heat pump or have relatives who need assistance.

Danfoss OnLine connects the heat pump to your existing home broadband. If there is no internet connection available, it is possible to connect using a mobile 3G/4G modem (provided by your local mobile service provider). The OnLine app is available for both Android and iPhone.

Ground source
heat pumps

Air source
heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L0635

Heat pumps

DHP-AQ

Application

Cooling

Air source heat pumps

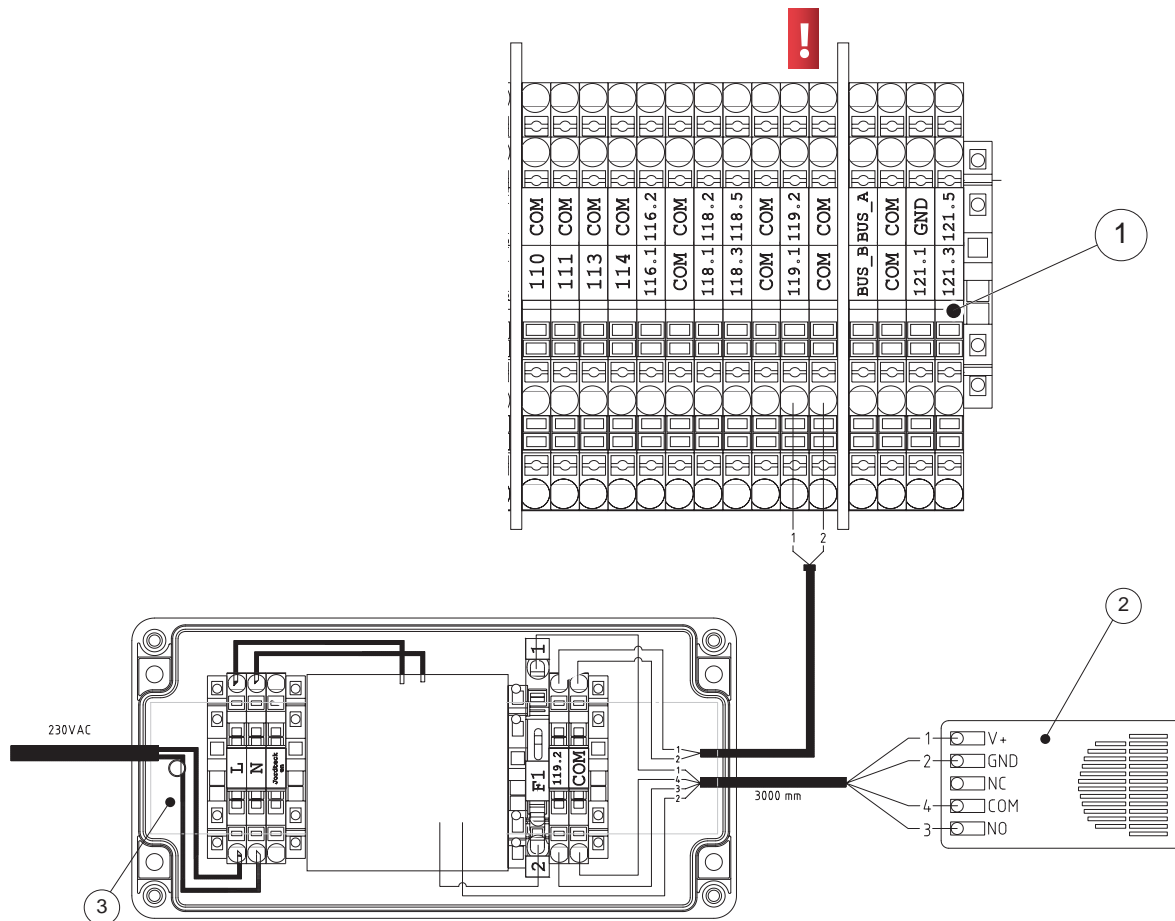
The dew point sensor kit



The dew point sensor kit is used to indicate any condensation in the pipe system during cooling production.

The dew point sensor kit is used to indicate any condensation in the supply line to the heating system early on. Condensation occurs in combination with cooling production.

The dew point sensor is placed on the supply line and is connected to the control unit's electrical cabinet.



Code number

086L0767

086L0768

086L0769

Heat pumps

DHP-AQ

Application

Antifreeze protection

Associated accessories

- 086L0455: page 47
- 086L0627: page 48

Air source heat pumps

Intermediate Heat exchanger



Kit which supports antifreeze protection (recommended at DHP-AQ)

- 086L0767 Intermediate Heat exchanger kit 6 kW
- 086L0768 Intermediate Heat exchanger kit 9 – 16 kW
- 086L0769 Intermediate Heat exchanger kit 18 kW

For the intermediate heat exchanger we recommend the following circulation pumps which connect with a separate electricity supply, the settings on the circulation pumps depend on the range between the heat pump unit and the heat exchanger, see the table below.

- 086L0455 Wilo Stratos Pico 25/1-6
- 086L0627 Wilo Stratos Para 25/1-11

- The package includes:
- Intermediate heat exchanger
 - Insulation
 - Wallbracket

	DHP-AQ 6	DHP-AQ 9	DHP-AQ 11	DHP-AQ 13	DHP-AQ 16	DHP-AQ 18
	Stratos Pico 25/1-6		Stratos Para 25/1-11			
Distance (m)	Pump setting		Pump setting			
20	1	1	2	2	2	3
10	1	1	2	2	2	2
8	1	1	1	1	1	2
6	1	1	1	1	1	2
4	1	1	1	1	1	1

Ground source
heat pumps

Air source
heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L2030

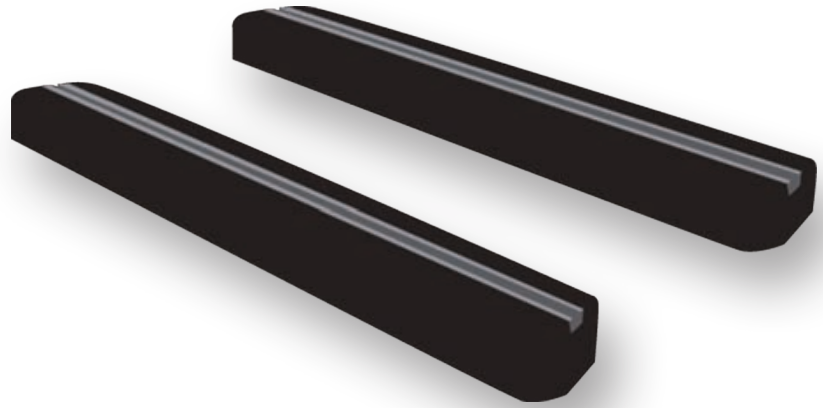
Heat pumps

DHP-AQ

DHP-A Opti

DHP-A

Air source heat pumps

Fix-it Foot**A foot system for the outdoor unit DHP-AQ and DHP-A Opti.**

Fix-it Foot is a foot system for the outdoor unit for DHP-AQ or DHP-A Opti.

The outdoor unit can be pushed back and forth on two feet and be fixed on the unit with four bolts which will be delivered with the package. The feet can be placed directly on cement flag stones or buried in a single bed or gravel.

The complete package contains: 2 two feet 2 fixing nut and bolts and tile.

Code number

086L1042

Heat pumps

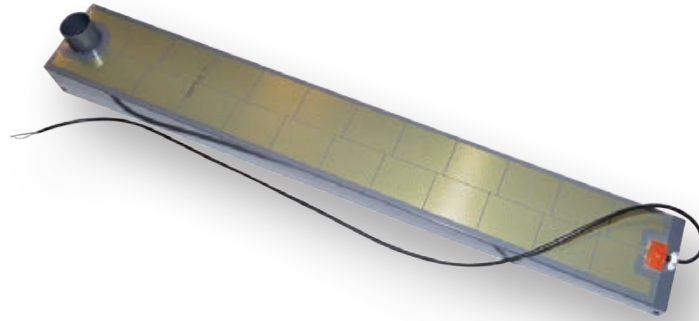
DHP-A Opti

DHP-A

Application

Defrosting

Air source heat pumps
Heated drip tray



For DHP-A outdoor unit manufactured between 2006 and 2012.

The drip tray accessory is used to collect the water from the outdoor unit's heat exchanger during defrosting and transport it to a suitable location. In order to avoid water freezing in the drip tray, it is equipped with an electric coil (200 W).

Ground source
heat pumps

Air source
heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Developer finds ideal solution for care homes with the DHP-R ground source heat pumps

A Yorkshire care home provider is reaping the benefits of renewable energy and a lower carbon footprint after specifying heat pumps for six of its homes for Ideal Care Homes across the North and Midlands.

"We set out to beat the Government's target of 10%, by generating 20% of our energy from renewable energy, so have future proofed our energy systems to meet the 2020 target. Although this has involved a major capital investment, it will be paid back within eight years, which makes good commercial sense as well as helping us become carbon neutral."

**Christine Cooper, Managing Director of LNT Construction,
United Kingdom**

Other accessories

Under this category you will find a range of additional accessories, manufactured by Danfoss or other top quality partnering producers that can find application for all models of Danfoss heat pumps.

Have a look at our range of additional accessories, discover what they can do for you and for your customers and choose the most appropriate for your specific needs.

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Flexible hose DN32	35
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Magnetite filter for heating installations	69
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Network cable 10 m	75
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Foot to HL / UL	79

Ground source
heat pumps

Code number

086L2339

086L3260

086L3261

Air source heat pumps

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Other
accessories

Application

Flexible hose – heating system

Commercial ground
source heat pumps

Water heaters and
volume tanks

Other accessories

Rubber Compensator



Extra protection - sound not transferred to the heating system

Accessory to reduce high frequency noise from heating systems

In most installations the flexible hoses supplied together with the heat pump is sufficient to ensure that no annoying sound will be transferred to the heating system. In rare and special installations it may however, despite flexible hoses being fitted, occur that high frequent noise may be transferred from the heat pump to the heating system. For these installations we recommend rubber compensators.

The accessory is primary intended to reduce high frequency/light sounds that may be described as singing/ringing/whistling sounds from in the heating system. When needed, the rubber compensators are normally fitted in pairs (one on the supply line and one on the return line). The connection points are galvanized.

- 086L2339: DN (mm) 25
- 086L3260: DN (mm) 40
- 086L3261: DN (mm) 50

Code number

086U6015

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Flexible hose – heating system

Other accessories

Flexible hose DN20



For heating system

22 mm Compression fitting EZZE KRK
Length: 600 mm

Flexible hoses are used for all pipe connections to avoid the transmission of vibrations.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U6000

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

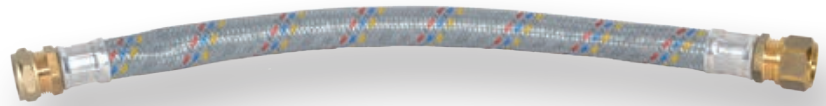
DHP-A

Application

Flexible hose – heating system

Other accessories

Flexible hose DN25



For heating system

28 mm Compressions fitting EZZE KRK

28 mm Compression fitting Conex

Length: 600 mm

Flexible hoses are used for all pipe connections to avoid the transmission of vibrations.

Code number

086U6001

Heat pumps

DHP-R

DHP-R Eco

DHP-S

DHP-S Eco

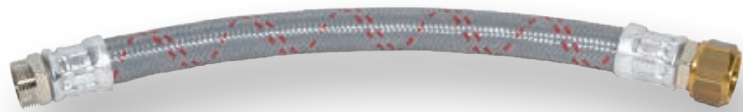
DHP-M

Application

Flexible hose – heating system

Other accessories

Flexible hose DN32



For heating system

35 mm Compressions fitting EZZE KRK

1 ¼" External thread

Length: 620 mm

Flexible hoses are used for all pipe connections to avoid the transmission of vibrations.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Code number

086U6012

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Rubber Hose – brine circuit

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Other accessories

Rubber hose DN25



For brine system

28 mm Connection for press fittings
Length: 671 mm

Code number

086L0586

Heat pumps

DHP-AQ

Application

Flexible hose – from the outdoor unit to the house

Other accessories

Flexible metal hose



Flexible hose for installation of the outdoor unit DHP-AQ

Length: 1000 mm

Connections: 28 x 28 mm, press fittings

Flexible hoses are used for all pipe connections to avoid the transmission of vibrations.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3433

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

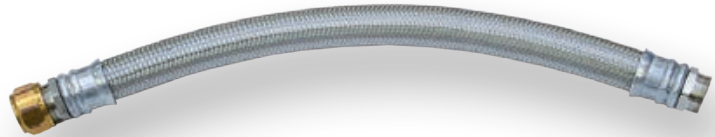
DHP-M

Application

Flexible hose – heating system

Other accessories

Flexible hose DN40



For heating system

42 mm Compressions fitting EZZE KRK

1 1/2" External tread

Length: 820 mm

Flexible hoses are used for all pipe connections to avoid the transmission of vibrations.

Code number

086L3435

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Rubber Hose – brine circuit

Other accessories

Rubber hose DN32



For brine system

35 mm Compression fitting EZZE KRK
1 1/4" External tread
Length: 620 mm

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3436

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Rubber Hose – brine circuit

Other accessories

Rubber hose DN40



For brine system

42 mm Compression fitting EZZE KRK

1 1/2" External tread

Length: 820 mm

Code number

086L3437

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Rubber Hose – brine circuit

Other accessories

Rubber hose DN50



For brine system

54 mm Compression fitting EZZE KRK
2" External tread
Length: 820 mm

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L0403

086L0404

086L1438

086L1439

Application

Filling device

Associated accessories

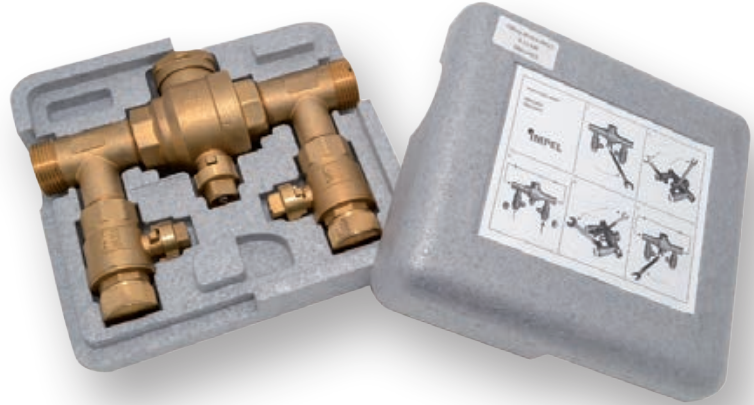
086L0400 page 43

086L0401 page 43

086L0402 page 43

Other accessories

Filling device for brine with insulation



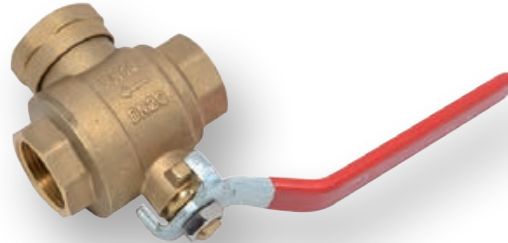
086L0403: DN 25 ext. thread
086L0404: DN 32 ext. thread

Filling device insulation:
086L1438: DN 25
086L1439: DN 32

Code number
086L0400
086L0401
086L0402
086L3431
086L3432
086L0424
086L0425
086L0426
086L1444
086L1445
Application
Shut off valve with dirt strainer
Associated accessories
086L0403 page 42
086L0404 page 42

Other accessories

Shut off valve, Dirt strainer, O-ring



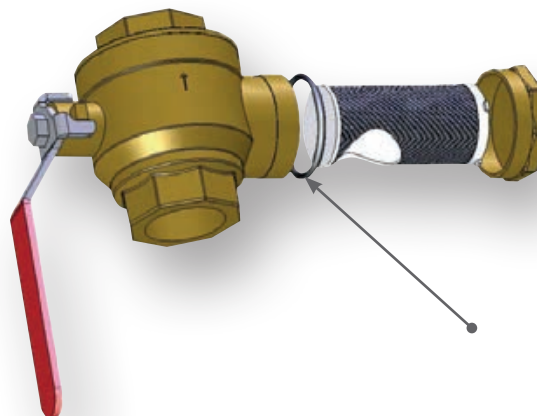
Shut off valve

086L0400: DN 20 086L3431: DN 40
 086L0401: DN 25 086L3432: DN 50
 086L0402: DN 32



Dirt strainer

086L0424: DN 20
 086L0425: DN 25
 086L0426: DN 32



O-ring

086L1444: O-ring DN25
 086L1445: O-ring DN32

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U3724

086U7402

Heat pumps

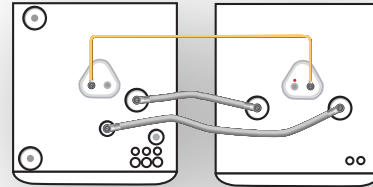
DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

Other accessories

Connector



Connecting a heat pump with integrated water heater with a separate DWH 200 / 300 water heater

Connector makes it easy to connect a heat pump with a separate DWH water heater to maintain a large hot water volume. Both hot water heaters in the heat pump and DWH are connected in series so that the DWH water heater is the primary heater and the built-in heater in the heat pump acts as a secondary heater. Most of the important hoses, pipes and connectors are included in Connector installation kit. Some pipes must, however, must be fabricated at the installation site by the installer.

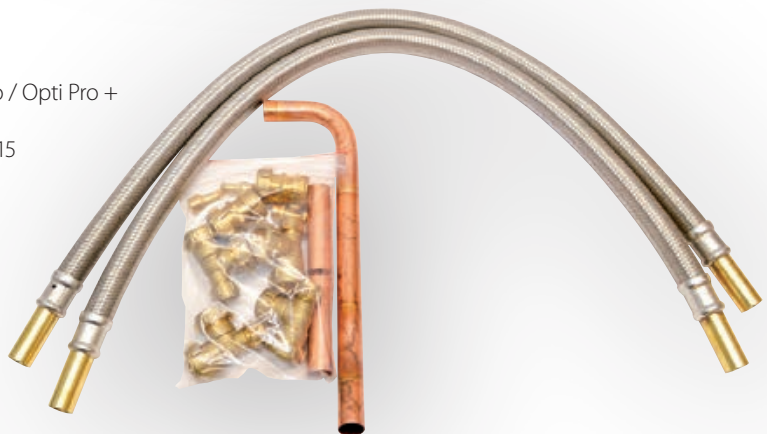
Elements included in connector installation kit:
086U3724 applies to DHP-H/-L Opti, DHP-C Opti:

- 3-way clamp ring connection,
- Bleed screw 15
- Replacement pipe, copper
- Reducer 28/22
- Straight clamp ring connector, 22x22
- Copper pipe, 22
- Seal washer
- Flexible hose
- Installation instructions,



086U7402 applies to DHP-H/-L Opti Pro / Opti Pro +
(with HGW technology):

- 3-way clamp ring connection, 22x22x15
- Bleed screw 15
- Replacement pipe, 22 copper
- Straight clamp ring connector, 22x22
- Copper pipe, 22
- Seal washer
- Flexible hose
- Installation instructions,



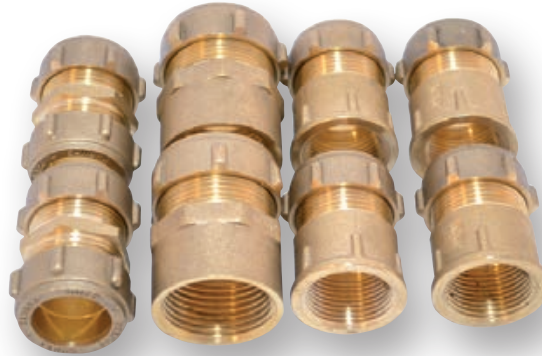
Code number

086U5669

086U5670

Other accessories

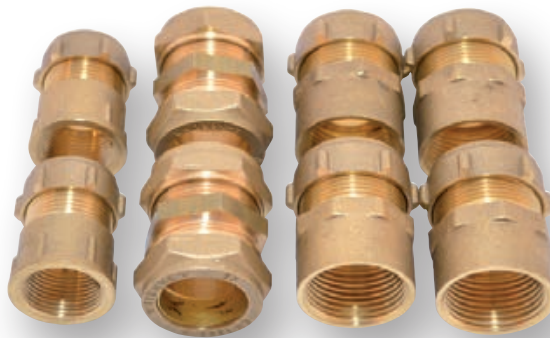
Connection kits



Connection kit contains compression fitting connections to be used instead of press fittings.

086U5669 Connection kit 4-10 kW

- 2 pcs 22mm compression fitting and DN20 internal thread for the tap water pipes
- 2 pcs 22mm straight compression fitting to connect the heating circuit flexible hoses to the heat pump
- 2 pcs 22mm compression fitting and DN20 internal thread for connecting the flexible hoses to the heating circuit
- 2 pcs 28mm compression fitting and DN25 internal thread for the brine hoses



086U5670 Connection kit 12-16 kW

- 2 pcs 22mm compression fitting and DN20 internal thread for the tap water pipes
- 2 pcs 28mm straight compression fitting to connect the heating circuit flexible hoses to the heat pump
- 2 pcs 28mm compression fitting and DN25 internal thread for connecting the flexible hoses to the heating circuit
- 2 pcs 28mm compression fitting and DN25 internal thread for the brine hoses

Ground source
heat pumps

Air source heat pumps

Other
accessoriesCommercial ground
source heat pumpsWater heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U3756

086U3757

086U3758

086U3759

086L3440

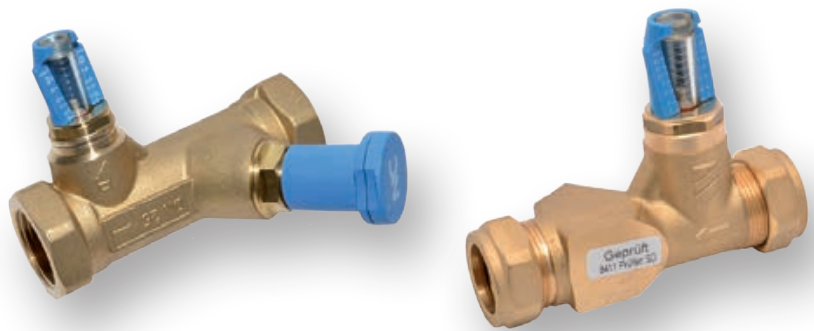
086L3441

Application

Flow Adjustment Valve

Other accessories

Flow Adjustment Valve



The flow adjustment valve is used to adjust the water flow through the hot gas circuit to a suitable low level to optimize the heat pump's efficiency. The valve that is to be selected is calculated by max 20% of the nominal condenser flow on the heat pump.

086U3756: flow adjustment valve 5-50 l/min. Anslutning = DN 25 internal thread

086U3757: flow adjustment valve 2-16 l/min. Connection = 22 mm clamp ring connection

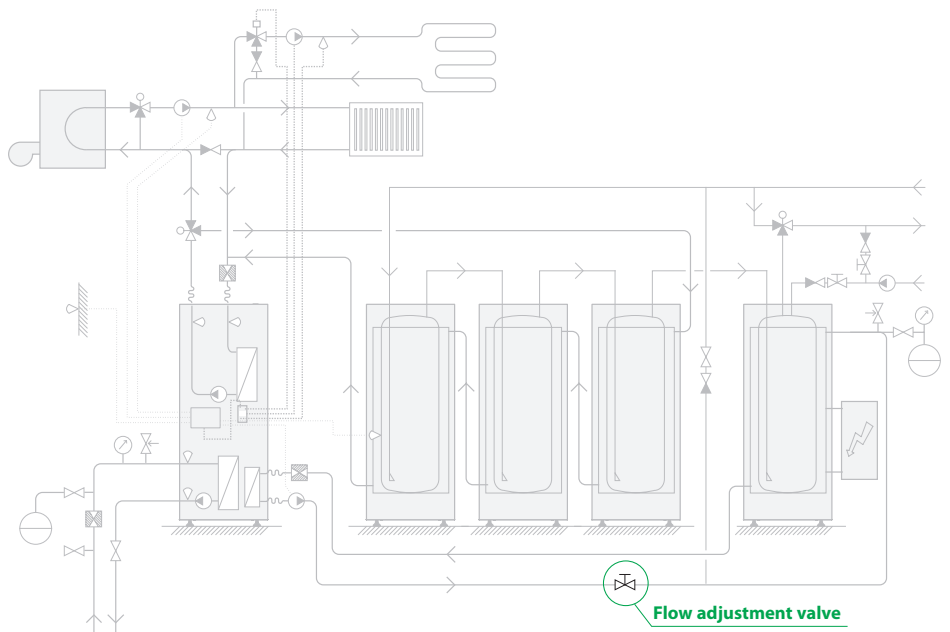
086U3758: flow adjustment valve 4-36 l/min. Connection = 22 mm clamp ring connection

086U3759: flow adjustment valve 10-80 l/min. connection = DN 32 internal thread

086L3440: flow adjustment valve DN 40, 15-120 liters

086L3441: flow adjustment valve DN 50, 20-200 liters

SYSTEM OVERVIEW



Code number

086L0455

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Antifreeze protection

Circulation Pump kit

Associated accessories

086L0767 page 27

086L0768 page 27

086L0769 page 27

Other accessories

Circulation Pump kit Wilo Stratos Pico 25/1-6



- Shut off valve 28 mm
- Gasket
- Recommendation for DHP-AQ when using intermediate heat exchanger

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L0627

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Antifreez protection

Circulation Pump kit

Associated accessories

086L0767 page 27

086L0768 page 27

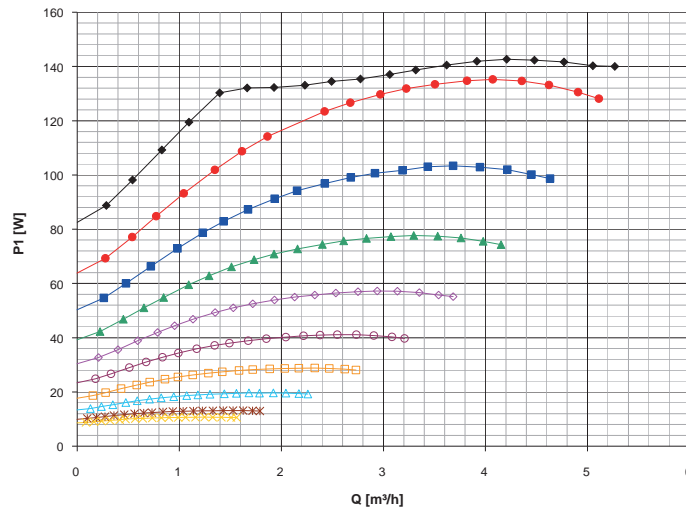
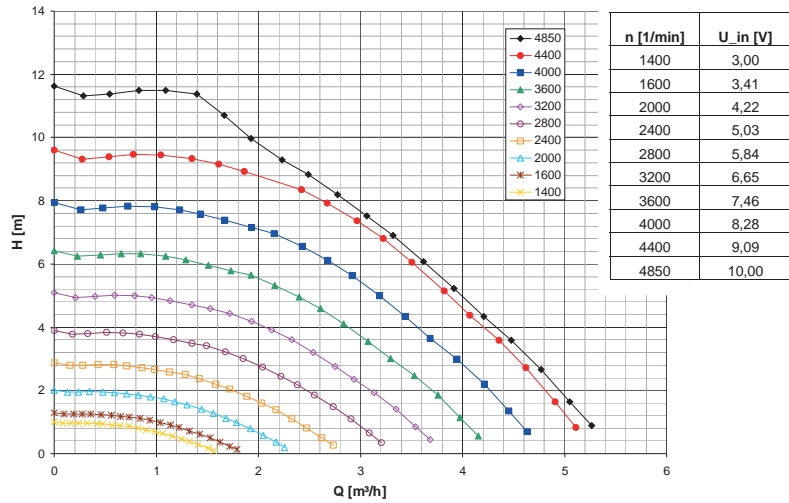
086L0769 page 27

Other accessories

Circulation Pump kit Wilo Para 25/1-11



- Shut off valve 28 mm
- Gasket
- Recommendation for DHP-AQ when using intermediate heat exchanger



Code number

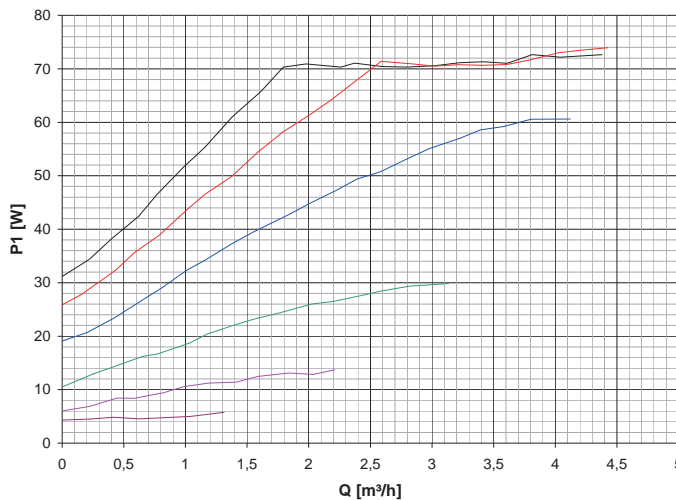
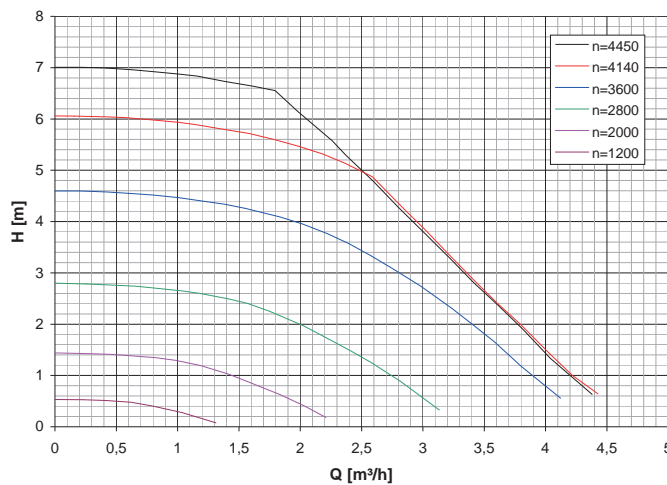
086L0626

Application

Circulation Pump kit

Other accessories

Circulation Pump kit Wilo Para 25/1-7



Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U5232

086U5265

086U5266

086U5267

086U5268

Application

Shunt valves and valve actuators

Associated accessories

086L3146 page 52

086U5269 page 52

086U5270 page 52

086U5271 page 52

086U5272 page 52

Other accessories

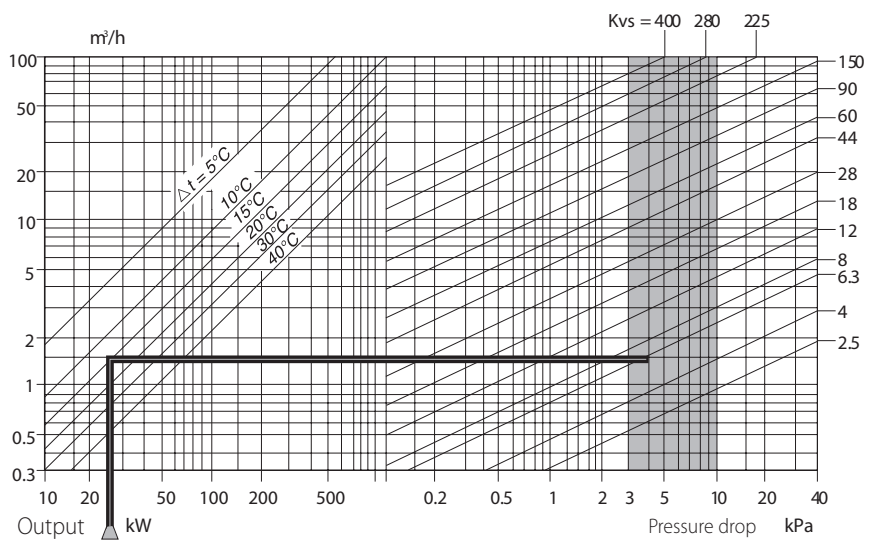
ESBE Shunt valves



ESBE shunt valves are used partly as exchange or distribution valves to control the water flow when using external heat sources, for example, oilfired boilers (shunt valve in the system image on the previous page). They are also used to control the flow to the sub-shunt groups, i.e. additions to the heating system, and regulate heating or cooling in the radiator, floor heating systems or other similar applications.

- 086U5265: 3-way shunt valve VRG 131 DN20-KVS 6,3
- 086U5266: 3-way shunt valve VRG 131 DN25-KVS 10
- 086U5267: 3-way shunt valve VRG 131 DN32-KVS 16
- 086U5268: 3-way shunt valve VRG 131 DN40-KVS 25
- 086U5232: 3-way shunt valve VRG 131 DN50-KVS 40

Dimensioning the shunt valve for boiler installations:



Code number

086U5232

086U5265

086U5266

086U5267

086U5268

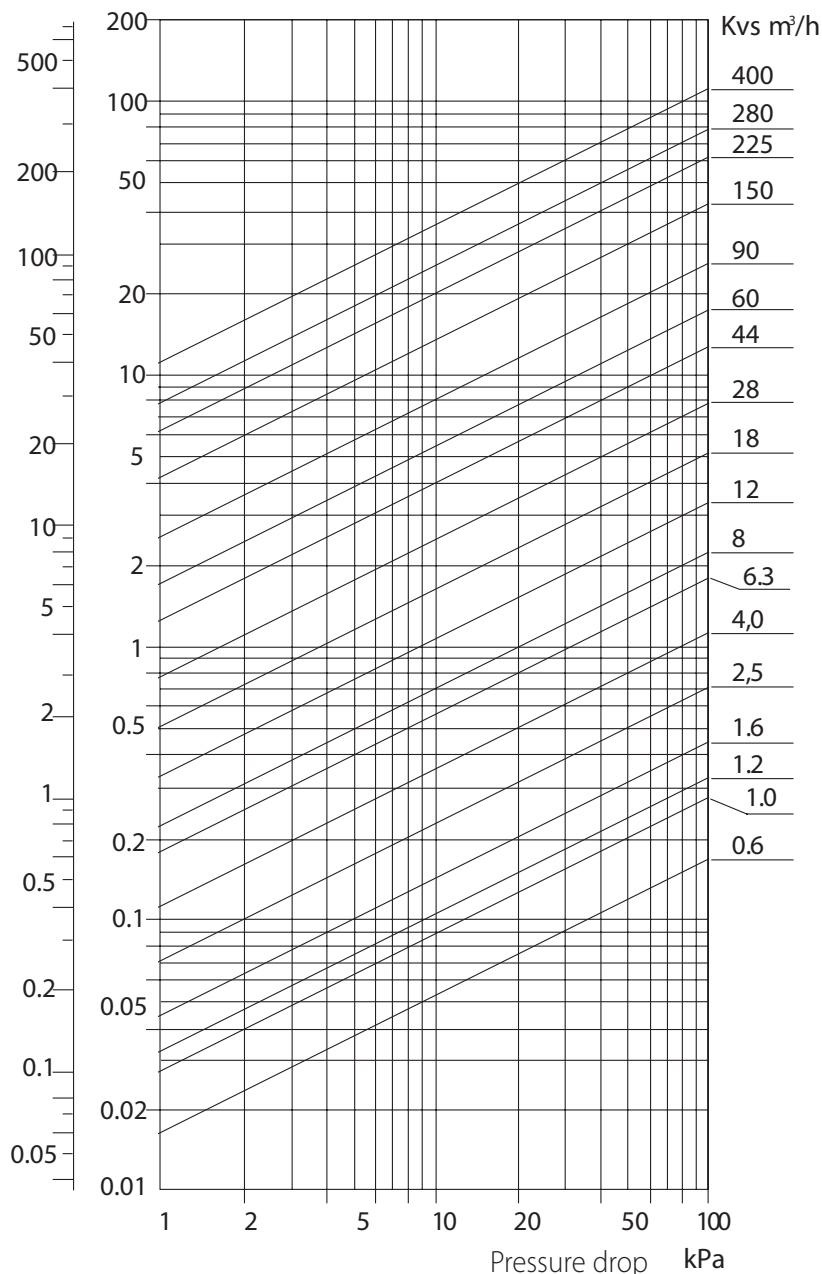


Other accessories

ESBE Shunt valves

Pressure drop chart

Flow m³/h l/s



Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3146

086U5269

086U5270

086U5271

086U5272

086U3797

Application

Shunt valves and valve actuators

Associated accessories

086U5265 page 50

086U5266 page 50

086U5267 page 50

086U5268 page 50

Other accessories

ESBE valve actuators

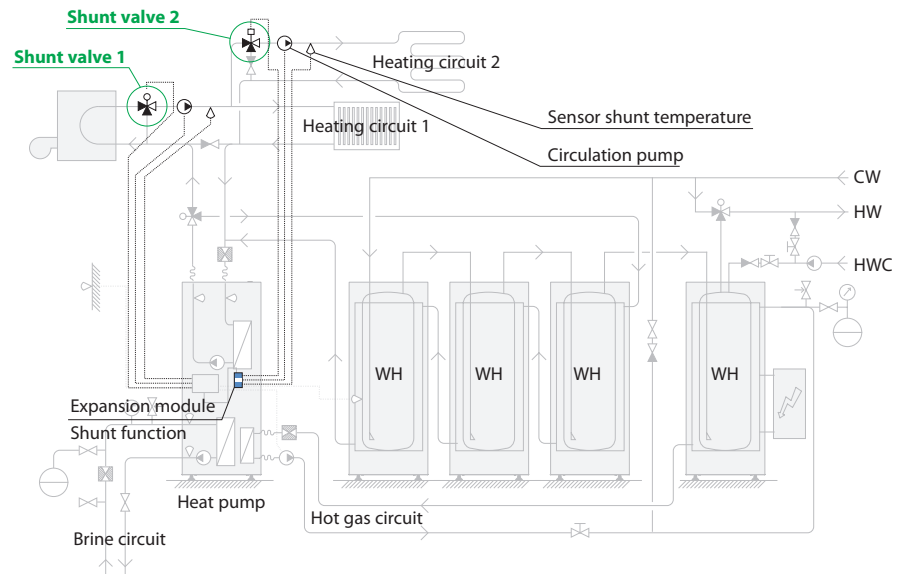


Valve actuator that is used to control ESBE shunt valves.

Valve actuator that is used to control ESBE shunt valves. Proportional or 3 or 2 step control signal. Manual control also possible. The actuator is supplied with an adapter for connection to the shunt valve, as well as a 1.5 m connection cable. The actuator is installed on the valve using an adapter. Installation instructions supplied with the valve on delivery.

- 086L3146: 3-Point 230 Volt 120 Sec ARA661
- 086U5269: 3-Point 24 Volt 240 Sec ARA 673
- 086U5270: 3-Point 230 Volt 240 Sec ARA 671
- 086U5271: 2-Point 230 Volt 15 Sec ARA 635
- 086U5272: 2-Point 24 Volt 45-120 Sec (0-10 Volt) ARA 659
- 086U3797: 2-Point Motor 97 230 Volt 15 Sec

SYSTEM OVERVIEW



Code number

086L3426

086L3427

Heat pumps

DHP-M

Application

Shunt valves and valve actuators

Other accessories

Shunt valve and valve actuator kit



086L3426: Shunt valve and valve actuator kit DN40 + 230V 15S MOTOR
086L3427: Shunt valve and valve actuator kit DN50 + 230V 15S MOTOR

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U3730

086U3731

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Application

Shunt valves and valve
actuators

Associated accessories

086U4837 page 55

Other accessories

Control valve (2-way) VVG 44



086U3730: Control valve VVG 44.25-10 (2-way). For charge output up to 110 kW.
086U3731: Control valve VVG 44.32-16 (2-way). For charge output 110-180 kW.

Code number

086U4837

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Application

Shunt valves and valve actuators

Associated accessories

086U3730 page 54

086U3731 page 54

Other accessories

Electronic Valve Actuator SQS 65.5 (35 Sec)



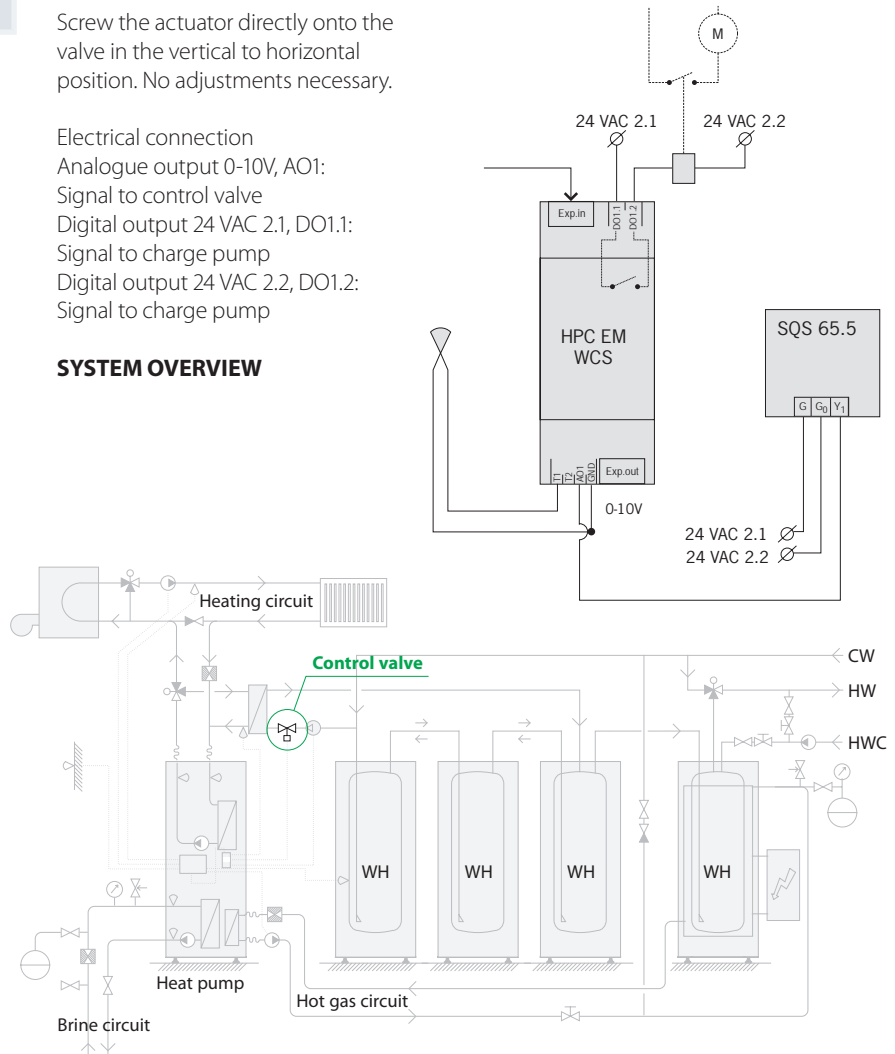
For WCS function (hot water charging)

The valve actuator controls the valve that opens the flow through the heat exchanger for hot water heating. The motor has a 35 second set-up time, DC 0-10 V control signal, AC 24 V supply voltage and mode indication. Manual setting is possible.

Screw the actuator directly onto the valve in the vertical to horizontal position. No adjustments necessary.

Electrical connection
Analogue output 0-10V, AO1:
Signal to control valve
Digital output 24 VAC 2.1, DO1.1:
Signal to charge pump
Digital output 24 VAC 2.2, DO1.2:
Signal to charge pump

SYSTEM OVERVIEW



Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U7999

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Shunt valves and valve
actuators

Swimming pool

Associated accessories

086U3754 page 59

Other accessories

3-way valve with actuator LK



Motor LK 8 Sec 230 V
Three-way valve 28 mm
Reduction 28/22 mm

Code number

086U9610

Application

Shunt valves and valve
actuators

Other accessories

The brine temperature regulation kit



The constant set for the brine is used to make sure that brine temperature is not too high.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Code number

086L3858

086L3859

086L4416

086L4417

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti

DHP-H

Application

Cooling

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Other accessories

Passive and active cooling module



The Danfoss Cooling Module enables your heat pump to deliver cooling to your home.

Passive cooling

086L3858: Cooling module DCM-P Opti (DHP-H/-L Opti Pro / Opti Pro +; DHP-H/-L Opti; DHP-H)

086L4416: Cooling module DCM-P GENESIS (DHP-H Varius Pro+ L)

The cooling module works with passive cooling – also known as free cooling – which is ideal in homes that only occasionally require cooling or if you want a cooler temperature in just a few specific rooms. By circulating the cool liquid in the collector loop (in the drill hole, ground or lake), cooling is created at a very low cost.

The Danfoss Passive Cooling Module is included as standard in DHP-C Opti. All other Danfoss heat pumps are compatible with the Module, except for pumps in the DHP-A series.

Opti module is equipped with low energy circulation pumps.

Passive / Active cooling

086L3859: Cooling module DCM-PA Opti (DHP-H/-L Opti Pro / Opti Pro +; DHP-H/-L Opti, DHP-H)

086L4417: Cooling module DCM-PA GENESIS (DHP-H Varius Pro+ L)

Cooling is produced in two steps. The first is called passive cooling and is fully sufficient for many applications. When passive cooling is not enough to keep the temperature down, step two, or active cooling, is activated. In step two, the heat pump compressor is used to produce cooling and this lowers the temperature in the house's cooling/heating loop even more.

Opti module is equipped with low energy circulation pumps.

Code number

086U3754

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

DHP-S

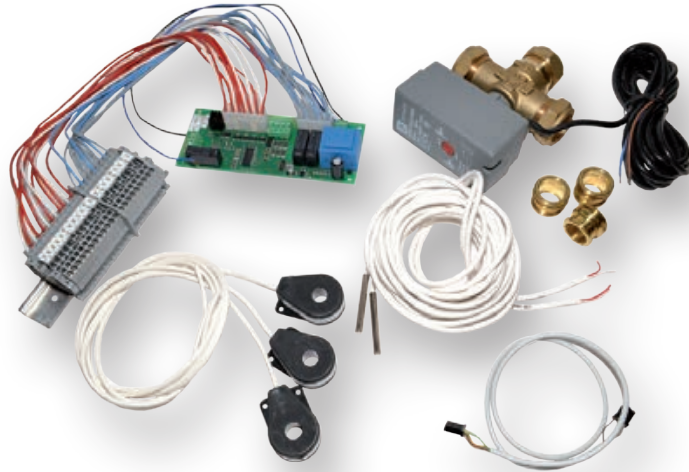
DHP-S Eco

Application

Pool

Other accessories

Swimming pool control kit



- Contains:
- Expansion card
 - 3-way valve LK 28 mm

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L5123

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

Application

Exhaust air

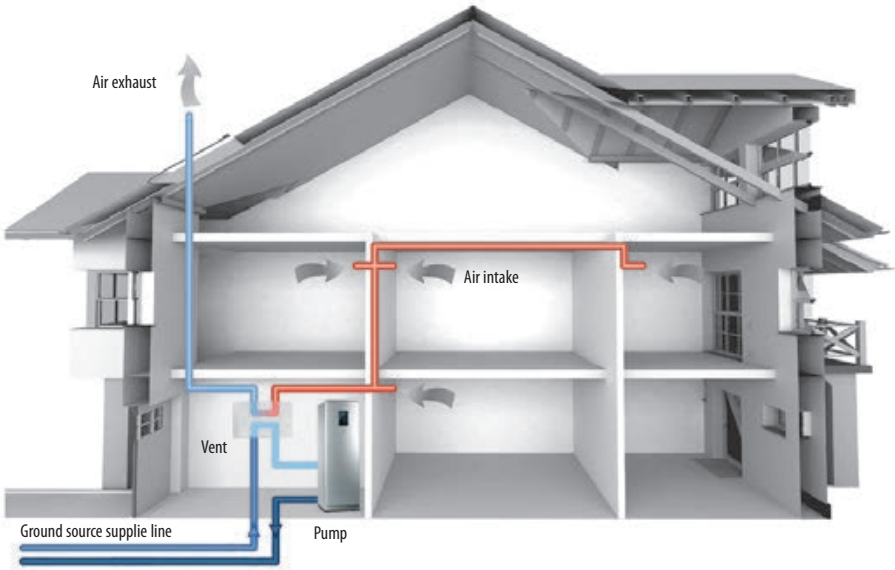
Other accessories

Danfoss Vent - exhaust air module



The Danfoss Vent is an exhaust air module – it uses the house’s exhaust air to heat the coolant to your heat pump. This means that heat is recycled instead of being wasted and that the pump’s COP increases.

The Danfoss Vent has been designed for installation on the wall next to your heat pump or elsewhere in your home.



Code number

086U2441

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

DHP-A

Application

Flow guard

Other accessories

Flow guard is UR 3K-025 230V



Solder 28 mm

The flow guard is used for ground water or lake water systems and ensures that there is a sufficiently large flow through the heat exchanger. It protects the exchanger against freezing.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U3809

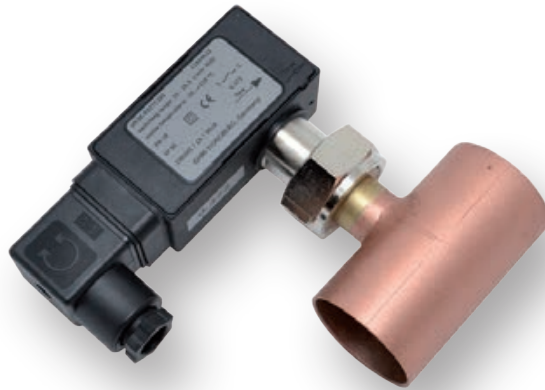
Heat pumps

DHP-S

DHP-S Eco

Application

Flow guard

Other accessories**Flow guard is UR 32CTNR 230V**

Solder 32 mm

The flow guard is used for ground water or lake water systems and ensures that there is a sufficiently large flow through the heat exchanger. It protects the exchanger against freezing.

Code number

086U6002

086U3368

Heat pumps

DHP-R

DHP-R Eco

Application

Flow guard

Other accessories**An electronic flow guard**

The flow guard is an electronic guard that does not contain any moving parts. It is used for ground water or lake water systems and ensures that there is a sufficiently large flow through the heat exchanger.

086U6002: Flow guard kit ZZ7009

086U3368: Flow guard kit ZZ7017

Electrical connection

The flow guard is connected using the connection cable to the heat pump's control computer. The three-core connection cable is connected as follows:

- Brown cable, positive terminal (+), connected to terminal block 147
- Blue cable, negative terminal (-), connected to terminal block 148
- Black cable, signal in, connected to terminal block 124

Code number

086L3461

086L3462

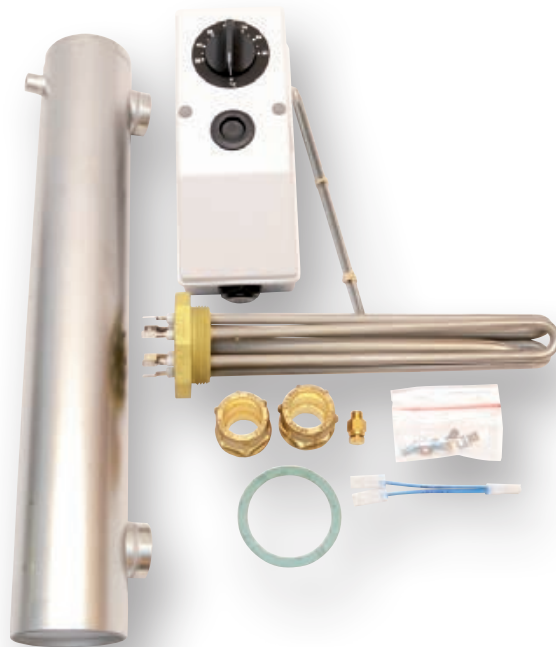
086L3463

Application

Auxiliary heater for external
mounting

Other accessories

Electric boiler Mini 3/6/9 kW



The purpose of the electric boiler Mini is to be an additional heater together with a heat pump or together with another heating system. Mini is created for a maximum system pressure of 3 bar and should be used with thermostat control box K11.

086U3461: Auxiliary heater Mini 3 kW cpl with control box
 086U3462: Auxiliary heater Mini 6 kW cpl with control box
 086U3463: Auxiliary heater Mini 9 kW cpl with control box
 086U2784: K11 Control box

Code number

086U8504

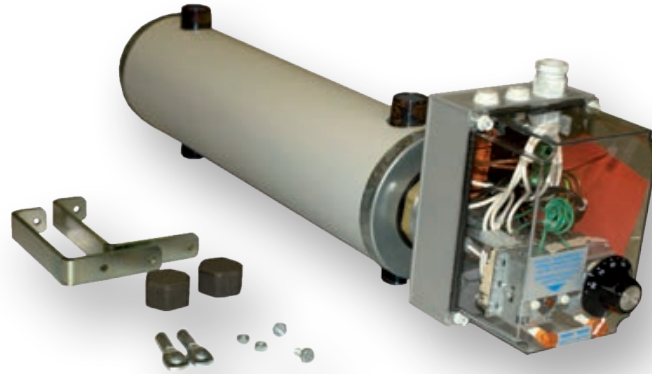
086U8668

Application

Auxiliary heater for external mounting

Other accessories

Additional auxiliary heater with control box



086U8504: auxiliary heater 400 V 9 kW
086U8668: auxiliary heater 230 V 4,5 kW

An auxiliary heater for easy installation towards an existing heating system as an additional heater. To secure water circulation a circulation pump needs to be installed.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U3645

086U3646

086U3647

Application

Auxiliary heater for external
mounting

Other accessories

Auxiliary heater 2" with control box K11

086U3645: 3 kW 2" Length = 280 mm

086U3646: 6 kW 2" Length = 410 mm

086U3647: 9 kW 2" Length = 410 mm

Control box K11 works in 3 steps: 100% / 50% / 0%. These steps can't be adjusted. If the temperature is over 98°C the electric control box will shut off. Reset can only be made after the temperature has fallen below 80°C

Code number
086U3640
086U3641
086U3642
086U3643
086U3644
Application
Auxiliary heater for external mounting

Other accessories

Auxiliary heater (flange) with control box K11



- 086U3640: Flange 3 kW Length = 320 mm
- 086U3641: Flange 4,5 kW w Length = 320 mm
- 086U3642: Flange 5,25 kW Length = 320 mm
- 086U3643: Flange 7,5 kW Length = 320 mm
- 086U3644: Flange 9 kW Length = 320 mm

Control box K11 works in 3 steps:
100% / 50% / 0% These steps can't be adjusted.
If the temperature is over 98°C the electric control box will shut off.
Reset can only be made be after the temperature has fallen below 80°C

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Code number

086L2340

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

Application

Auxiliary heater for
DHP-H heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Other accessories

Additional auxiliary heater heater 3 kW



Electric boiler used to meet BBR (Boverkets Byggregler – Swedish building regulations) demands on DHP-H series. This auxiliary heater has 1/2/3 kW and replaces the original mounted heater. Note, at lower auxiliary heater capacity the heat pump will require more time for a pasteurisation cycle (Legionella prevention).

Code number

- 086L3231
- 086L3232
- 086L3894
- 086L3895
- 086L3896

Heat pumps

- DHP-H/-L Varius Pro + L
- DHP-H/-L Opti Pro / Opti Pro +
- DHP-H/-L Opti, DHP-C Opti
- DHP-H
- DHP-AQ
- DHP-A Opti
- DHP-A
- DHP-S
- DHP-S Eco
- DHP-R
- DHP-R Eco
- DHP-M

Application

Installation accessory

Other accessories

Magnetite filter for heating installations



In-line system filter to remove contaminants from central heating system.

Fernox TF1 magnetite filters:
086L3231: Fernox TF1 filter Ø22
086L3232: Fernox TF1 filter Ø28

086L3894 Magnetite filter 1 1/4"
086L3895 Magnetite filter 1 1/2"
086L3896 Magnetite filter 2"

Deposits and debris from e.g. magnetite may affect the performance and efficiency of the heating system over time. Problems related to valves, circulation pumps and deposits in heat exchangers may often be related to magnetite. Installation of magnetite filters have by experience been found to be an efficient action against magnetite in heating systems. Fernox TF1 Total filter is an appreciated high quality filter intended to be installed on the return line from the heating system in a location where the customer can drain out the debris from the filter when needed, according to recommendations from the installer. In many heating systems the frequency needed for draining the filter will decrease some weeks after start up.

Fernox TF1 is delivered complete with shut off valves, and is available for connection to either 22 mm or 28 mm pipes. The filter does not contain a mesh strainer.

Magnetite filter for light commercial installations (DHP-M, DHP-R Eco/DHP-S Eco)

A magnetite filter contributes to:

- Maintain the heat pumps performance by reducing scaling in the heat exchanger.
- Increased reliability.
- Increased life time for valves and circulation pumps.

The magnetite filter is of Flamco vent clean smart type. The filter has built in bleeding and is of partial flow type.

Flow resistance chart from www.fernox.com



Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L2310

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-A Opti

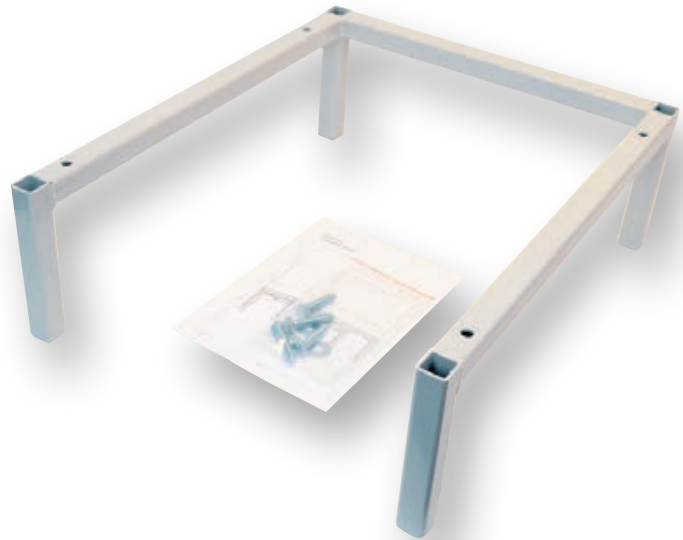
DHP-A

Application

Installation accessory

Other accessories

Stand



The stand is used when you want the tank and the heat pump installed at the same height

Code number

086U5633

Application

Installation accessory

Other accessories

Filling and mixing vessel 100 Litres



Filling and mixing vessels for the brine, 100 litres (pump 1 phase 230 Volts)

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L2866

086L2867

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ (at Maxi indoor kit)

DHP-A Opti

DHP-A

Other accessories

Top box (18 liters) Expansion vessel kit



086L2866: Expansion vessel kit 18 liters, 22 mm

086L2867: Expansion vessel kit 18 liters, 28 mm

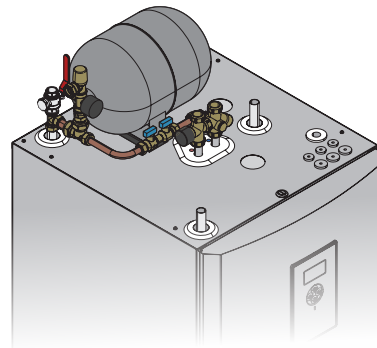
This new expansion vessel kit on 18 liters has been developed for the installer to shorten the installation time.

This kit can be placed on top or at the left or right side of the heat pump.

Top box suitable for all heat pumps with an integrated water heater.

The installation vessel kit package contains:

- 1 pcs expansion vessel, 18 liter
- 1 pcs mixing valve for hot and cold water
- 1 pcs safety valve on 10 bar
- 1 pcs safety valve on 2,5 bar
- 1 pcs filling valve with manometer
- 1 pcs of twin valves
- pipes and parts



Code number

086U1814

Application

Installation accessory

Other accessories

Volume tank 50 litres



Volume tank 50 litres to have extra heating volume and to decrease sound in the heating system.

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U9685

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Installation accessory

Other accessories

External fuse kit



Fuse kit for mounting the external component. 3 amp fuse for "DIN mounting"

Code number

086U4841

Heat pumps

DHP-H/-L Varius Pro + L

DHP-R

DHP-R Eco

DHP-M

Application

Installation accessory

Other accessories

Network cable 10 m



Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U4227

086U4228

086U4229

086U6414

086U4230

Heat pumps

DHP-R

DHP-R Eco

Application

Installation accessory

Other accessories

Modular cables and conductor joint



The modular cable is a cable that joins the various units. Connections can be made between several heat pumps or between different accessory modules internally in the heat pump. Conductor joint to connect and extend two or more modular cables.

Modular cable

- 086U4227: Modular cable 30 cm
- 086U4228: Modular cable 110 cm
- 086U4229: Modular cable 10 cm
- 086U6414: Modular cable 500 cm



Conductor joint

086U4230

Code number
086U1878
086U1879
086U1880
086U1881
Application
Fan convector
Associated accessories
086U1877 page 79

Other accessories

Aermec UL - fan convector



The Aermec UL is a fan convector that helps you maintain an even and comfortable indoor temperature all year round. Explained in rather simple terms, the fan convector is a “heater” that blows hot or cold air, depending on your needs at the time.

- 086U1878: AERMEC UL11
- 086U1879: AERMEC UL16
- 086U1880: AERMEC UL26
- 086U1881: AERMEC UL36

Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Code number

086U1882

086U1883

086U1884

086U1885

Application

Fan convector

Associated accessories

086U1876 page 79

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Other accessories

Aermec HL - fan convector



The Aermec HL is a fan convector that effectively helps you maintain an even and comfortable indoor temperature all year round. Explained in rather simple terms, the fan convector is a "heater" that can blow hot and cold air.

The built-in fan is speed-controlled and adjusts its speed automatically to the current requirements. This guarantees minimum energy consumption, high efficiency and precise control of the indoor temperature.

The Aermec HL fan convector has a built in room temperature sensor and supply line temperature sensor, also featuring an adjustable air delivery louver.

- 086U1882: AERMEC HL11
- 086U1883: AERMEC HL16
- 086U1884: AERMEC HL26
- 086U1885: AERMEC HL36

Code number

086U1876

086U1877

Application

Fan convector

Other accessories

Foot to HL / UL



086U1876 foot to HL
086U1877 foot to UL

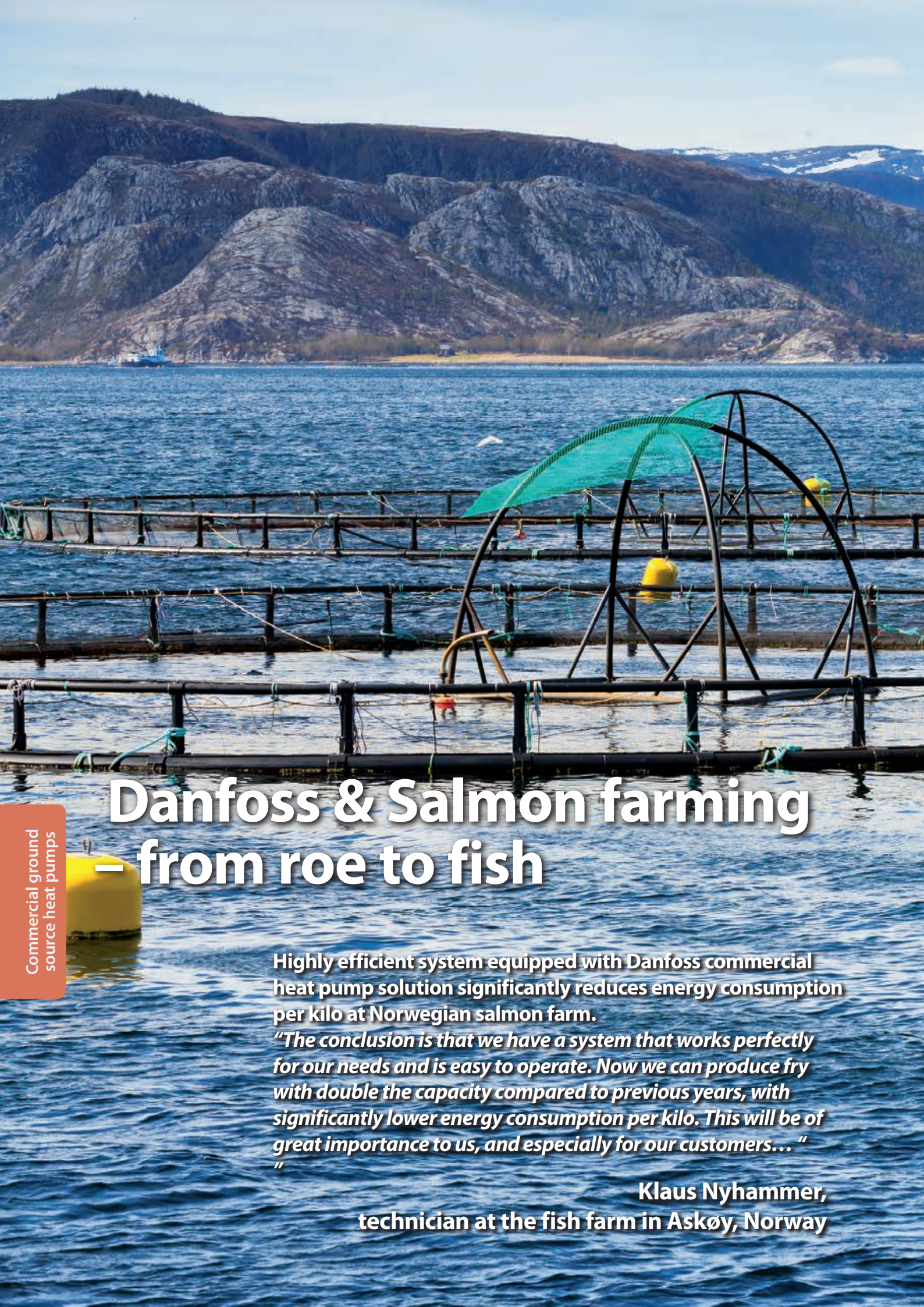
Ground source
heat pumps

Air source heat pumps

Other
accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks



Commercial ground
source heat pumps

Danfoss & Salmon farming – from roe to fish

Highly efficient system equipped with Danfoss commercial heat pump solution significantly reduces energy consumption per kilo at Norwegian salmon farm.

“The conclusion is that we have a system that works perfectly for our needs and is easy to operate. Now we can produce fry with double the capacity compared to previous years, with significantly lower energy consumption per kilo. This will be of great importance to us, and especially for our customers...”

**Klaus Nyhammer,
technician at the fish farm in Askøy, Norway**

Commercial ground source heat pumps – the natural choice for larger properties

Danfoss has long experience in developing and manufacturing large capacity heat pumps. Residential, schools, industries, retail premises, churches; our solutions can be adapted for all types of buildings.

Investing in a commercial heat pump for your property pays for itself very quickly which benefits your economy and the environment.

With our several accessories for commercial heat pumps, you can optimize even more the operation and efficiency of your large capacity heating solution.

Room sensor	82
HPC EM - expansion module: Water Charge System function	83
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Code number

086U3354

Heat pumps

DHP-R

DHP-R Eco

Commercial ground source heat pumps**Room sensor****Room sensors for commercial heat pumps manufactured since 2008**

The room sensor is an active wall mounted sensor for room temperature.
Electrical connection 24VAC supply voltage.

The room sensor is connected to WM HPC, analogue input 0-10V, AI1.
Measurement range: Temperature: 0 - 50°C.

Code number

086U3395

Heat pumps

DHP-R

DHP-R Eco

Application

Shunt (extra shunt group heating / cooling)

TWC (Tap Water Control)

WCS (Water Charging System)

Associated accessories

086U3364: page 94

• 086U3730: page 54

• 086U3731: page 54

• 086U4837: page 55

• 086U4227: page 77

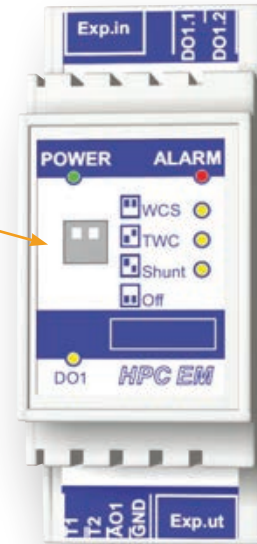
• 086U4228: page 77

• 086U4229: page 77

Commercial ground source heat pumps

**HPC EM - expansion module:
Water Charge System function**

The expansion module in WCS function mode manages hot water charging for hot water heaters. The WCS function is achieved by moving the switch to the side. See below figure.



Associated accessories

Submersible sensor return VVX, Thermokon-Danelko AKF1004140, part no. 086U3364

One of the following modular cables:
Modular cable 0.3 m, part no. 086U4227
Modular cable 1.1 m, part no. 086U4228
Modular cable 10.0 m, part no. 086U4229

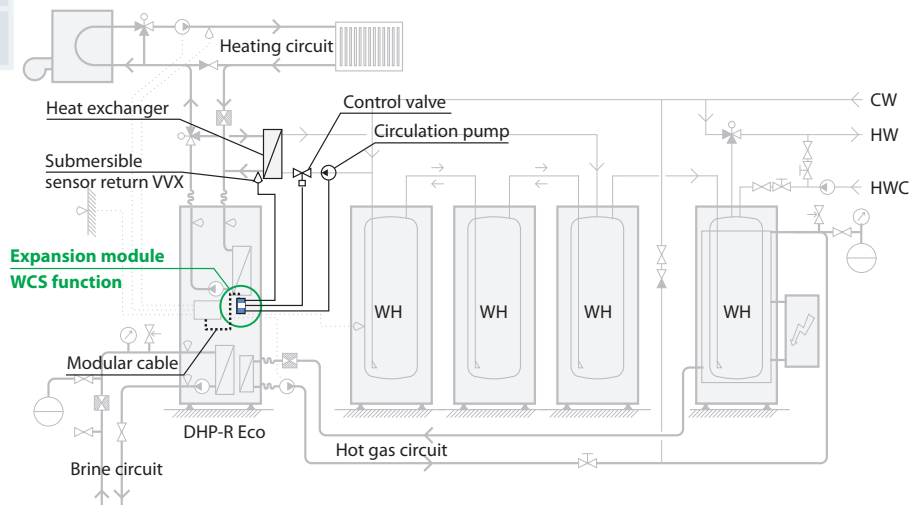
Electrical connection WCS

Temperature input, T1: Submersible sensor, return VVX
Temperature input, T2: -
Analogue output 0-10V, AO1: Signal to control valve Relay, DO1: Signal to circulation pump, (potential free connection, max 6A)

Other accessories

Control valve VVL (2-way), heat exchanger (tap water exchanger), circulation pump.
086U3730, 086U3731, 086U4837.

SYSTEM OVERVIEW



Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Code number

086U3395

Heat pumps

DHP-R

DHP-R Eco

Application

Shunt (extra shunt group heating / cooling)

TWC (Tap Water Control)

WCS (Water Charging System)

Associated accessories

086U3365: page 95

• 086U4227: page 77

• 086U4228: page 77

• 086U4229: page 77

Commercial ground source heat pumps

**HPC EM - expansion module:
Tap Water Control Function**

The expansion module in TWC function mode ensures that outgoing tap water and hot water circulation maintain sufficiently high temperatures as to prevent Legionella bacteria.

The TWC function is achieved by moving the switch to the side. See below figure.

Associated accessories

2 x PT1000 strap on sensors with 2 m cable, part no. 086U3365 (regards 1 x sensor)

One of the following modular cables:

Modular cable 0.3 m, part no. 086U4227

Modular cable 1.1 m, part no. 086U4228

Modular cable 10.0 m, part no. 086U4229

Electrical connection TWC

Temperature input, T1: Sensor, HW heater

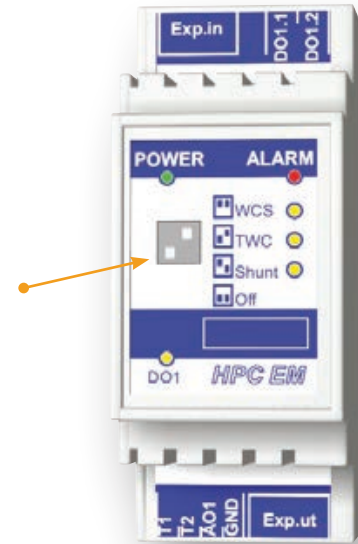
Temperature input, T2: Sensor, HW return

Analogue output 0-10V, AO1: -

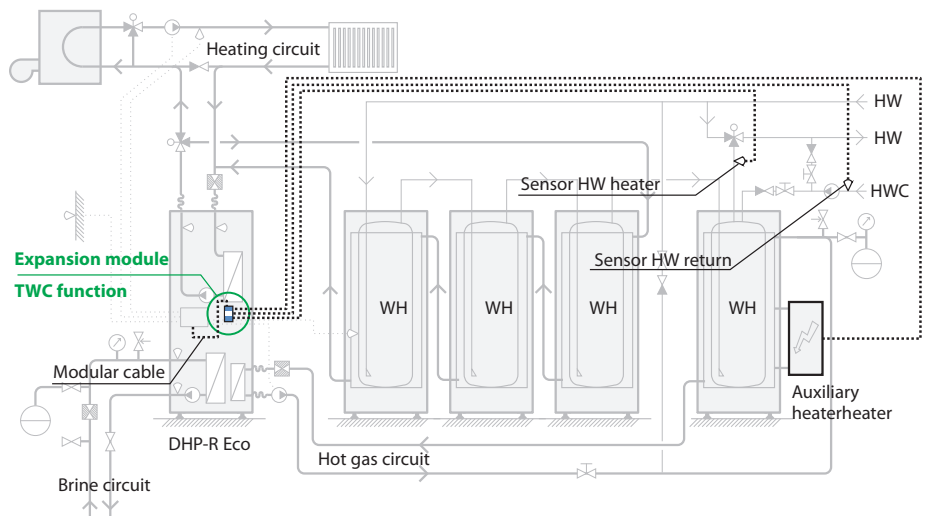
Relay, DO1: Signal to immersion heater, hot water (potential free connection, max 6A)

Other accessories

Shunt valve, circulation pump.



SYSTEM OVERVIEW



Code number

086U3395

Heat pumps

DHP-R

DHP-R Eco

Application

Shunt (extra shunt group heating / cooling)

TWC (Tap Water Control)

WCS (Water Charging System)

Associated accessories

086U3365: page 95

• 086U4227: page 77

• 086U4228: page 77

• 086U4229: page 77

Commercial ground source heat pumps

**HPC EM - expansion module:
Shunt Function**

The expansion module in the Shunt function mode maintains the desired temperature for another heating circuit.

The Shunt function is achieved by moving the switch to the side. See below figure.



Associated accessories

1 x PT1000 strap on sensor part no. 086U3365

One of the following modular cables:

Modular cable 0.3 m, part no. 086U4227

Modular cable 1.1 m, part no. 086U4228

Modular cable 10.0 m, part no. 086U4229

Electrical connection Shunt function

Temperature input, T1: Sensor, shunt temperature

Temperature input, T2: -

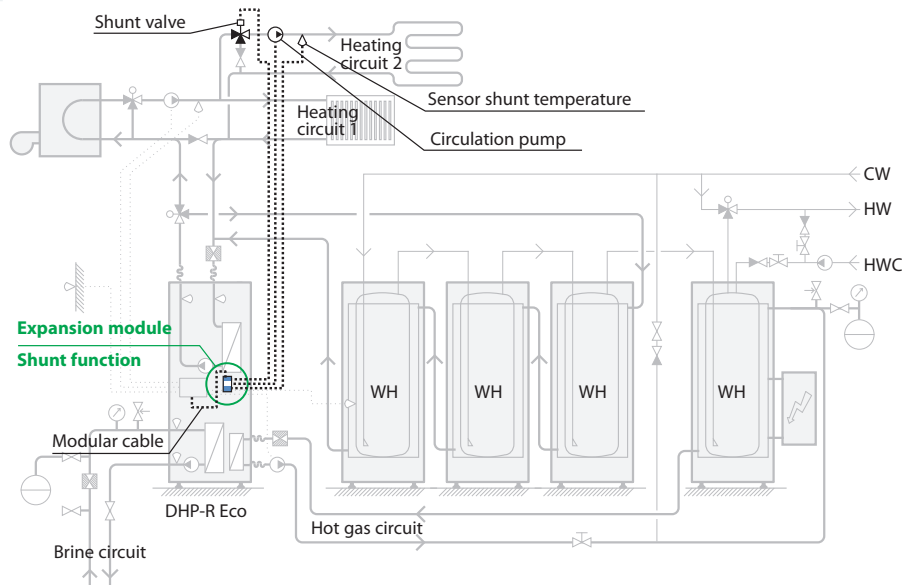
Analogue output 0-10V, AO1: Signal to shunt valve

Relay, DO1: Signal to circulation pump, (potential free connection, max 6A)

Other accessories

Shunt valve, circulation pump.

SYSTEM OVERVIEW



Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Code number

086U3394

Heat pumps

DHP-R

DHP-R Eco

Application

Cooling

Associated accessories

086U3365: page 95

086U3396: page 96

• 086U4227: page 77

• 086U4228: page 77

• 086U4229: page 77

Commercial ground source heat pumps
HPC CM - Cooling Module



Passive cooling means that coolant circulates through the bore hole and the coolant tank without any heat pump starting.

Only circulation pumps for coolant transfer are used. The heat from the coolant tank is transported down into the rock. A condition for passive cooling to work is that the coolant is colder than the coolant tank.

Active cooling means that a heat pump starts which then lowers the temperature of the coolant before it enters the coolant tank. If the integral continues to rise, more heat pumps start. The valve for active cooling shifts position and disconnects from the borehole. The coolant therefore only circulates through the cooling tank and heat pump so that all of the cooling produced can be used.

An extra function that can be activated in the cooling module is dew point control. This function is not necessary, but if it is to be activated more information can be found under the accessory Dew point sensor.

Associated accessories

4 x PT1000 strap on sensors with 2 m cable, part no. 086U3365 (regards 1 x sensor)

One of the following modular cables:

Modular cable 0.3 m, part no. 086U4227

Modular cable 1.1 m, part no. 086U4228

Modular cable 10.0 m, part no. 086U4229

Dew point sensor for wall mounting, part no. 086U3396 (if the dew point function is to be used)

Electrical connection

Temperature input, T1: Sensor, cooling tank

Temperature input, T2: Sensor, coolant cooler

Temperature input, T3: Sensor, output cooling tank

Temperature input, T4: Sensor, cooling circuit

Analogue input 0-10V, AI1: Signal from dew point sensor, room temperature 0 - 50°C

Analogue input 0-10V, AI2: Signal from dew point sensors, rel. Humidity 0 - 100%

Analogue output 0-10V, AO1: Signal to control valve cooling circuit

Analogue output 0-10V, AO2: Signal to cooling fans

Code number

086U3394

Commercial ground source heat pumps
HPC CM - Cooling Module

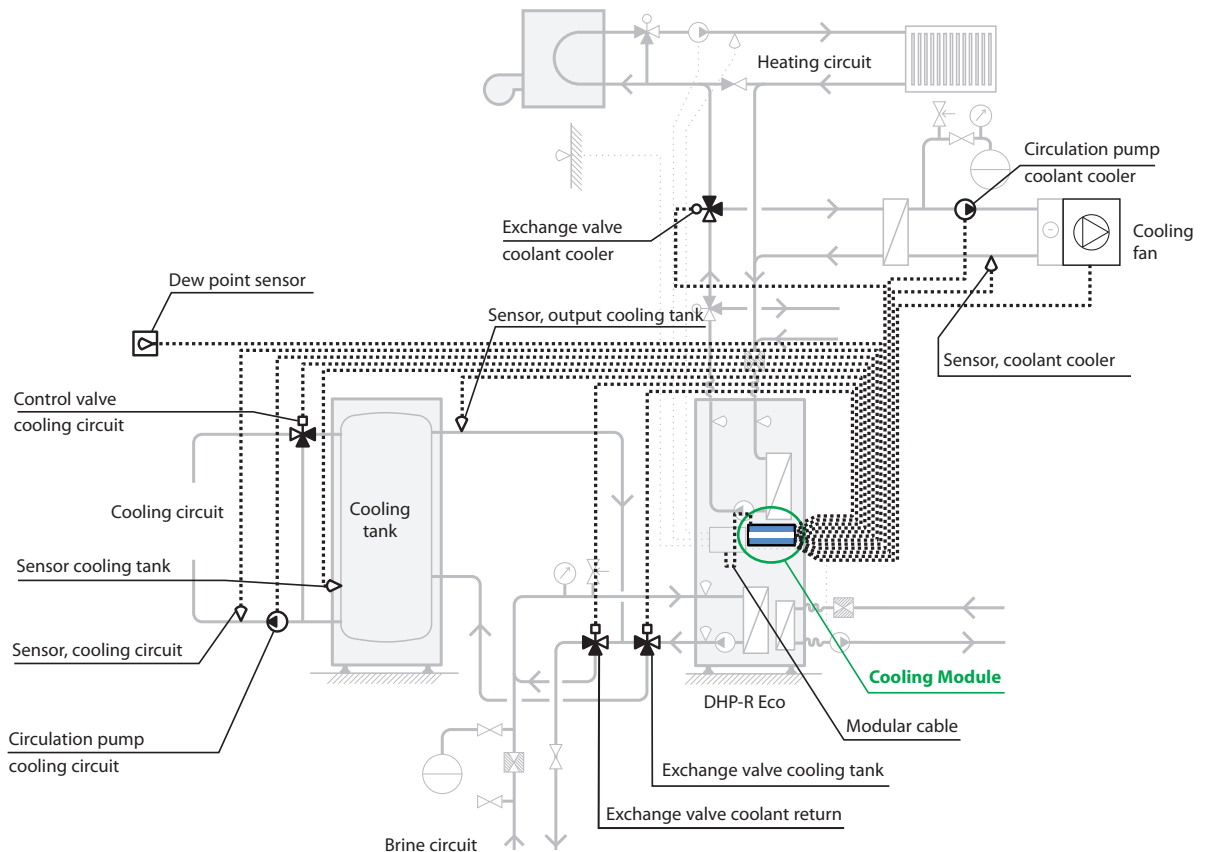


Relay 24VAC, DO1: Signal to exchange valve, cooling tank (passive cooling)
 Relay 24VAC, DO2: Signal to exchange valve, coolant return (active cooling)
 Relay 24VAC, DO3: Signal to circulation pump coolant cooler
 Relay 24VAC, DO4: Signal to exchange valve, coolant cooler
 Relay 24VAC, DO5: Signal to circulation pump, cooling circuit

Other accessories

Control valve, exchange valves, circulation pumps.

SYSTEM OVERVIEW



Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3443

Heat pumps

DHP-M

Application

TWC (Tap Water Control)

Shunt (extra shunt group
heating)WCS (Water Charging
System)

Commercial ground source heat pumps

EM 1 Modul - control cabinet

EM 1 module is an additional accessory for DHP-M to control TWC (tap water control) or WCS (water charging system) or extra shunt groups.

Code number

086L1516

086L3629

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

Commercial ground source heat pumps

Soft start - used to limit the current when the heat pump is started



Used to limit the current when the heat pump is started. Soft start distributes the current consumption for a few seconds and enables the heat pump to start slower, to prevent peaks in current in the electrical network.



The soft starter handles larger fluctuations that can appear in some electrical grids.

The soft starter shall be used in DHP-R 42/ DHP-R Eco 42 and DHP-S 42/ DHP-S Eco 42. This soft starter is also suitable for the smaller sizes in applications where an over dimensioned soft starter is required.

The kit consists of:

- Soft starter
- Cabling
- Fixture
- Mounting instruction

Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Code number

086L3004

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Commercial ground source heat pumps

A circulation pump for the hot gas circuit

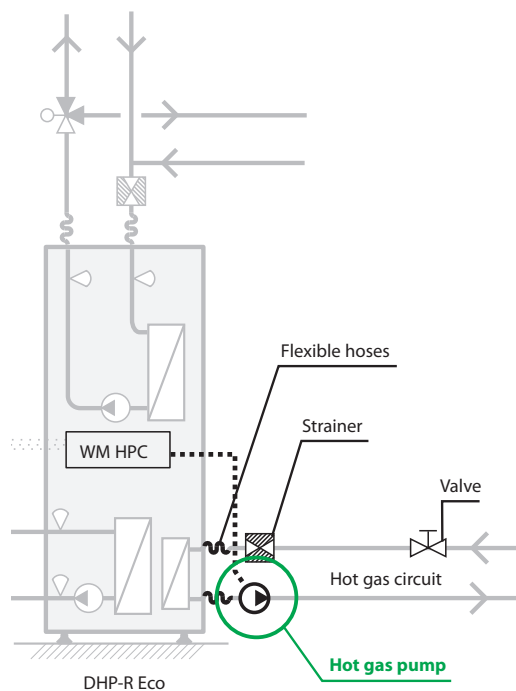


The hot gas pump is a circulation pump for the hot gas circuit.

Kit contains:

- Pump Wilo Yonos Para GT 15 / 6-130
- Shut off valve 28 mm
- Gasket

SYSTEM OVERVIEW



Code number

086U2471

086U9938

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

Commercial ground source heat pumps

Switching valve for hot water



The exchange valve is of the ball exchange valve type. It is used to control the flow of hot water to either the heating system or hot water heaters depending on the heating demand.

The exchange valve's motor connects to HPC RM, digital output 24 VAC, DO4.

086U2471 - 24 V motor

086U9938 - 230V motor

Exchange valve DN 32 internal thread:

Valve:	body Brass	
Ball:	Chromed brass	
Fluid temperature:	0°C to 100°C	
Max. Differential pressure:	6 bar	
Seal valve housing:	PTFE	
O-rings:	EPDM	

Motor:

Supply voltage:	24V/50Hz	230 V/50Hz
Output:	5 VA	3 VA
Rotation time:	15 seconds	15 seconds
Torque:	6 Nm	4 Nm
Potential free contact:	5A/230V	5A/230V
Protection class:	IP54	IP54

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Code number

086U3365

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Commercial ground source heat pumps

Strap on PT 1000 temperature sensor with 2 m cable



Strap on sensor used in several places in the system to read the temperature. The sensor lies against the pipe and senses temperatures in the range 0-160°.

Code number

086U3356

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Commercial ground source heat pumps

Strap on temperature sensor with connection box PT1000



Strap on sensor used in several places in the system to read the temperature. The sensor lies against the pipe and senses temperatures in the range 0-160°.

Electrical connection

15-24VDC/24VAC supply voltage. The strap on sensor is connected to WM HPC, Temperature input T1 or T2 and GND.

Technical data - Resistance Table:

Temperature	Ohm	Temperature	Ohm	Temperature	Ohm
-40	842,7	10	1039,0	60	1232,4
-35	862,5	15	1058,5	65	1251,6
-30	882,2	20	1077,9	70	1270,7
-25	901,9	25	1097,3	75	1289,9
-20	921,6	30	1116,7	80	1309,0
-15	941,2	35	1136,1	85	1328,0
-10	960,8	40	1155,4	90	1347,1
-5	980,4	45	1174,7	95	1366,1
0	1000,0	50	1194,0	100	1385,1
5	1019,5	55	1213,2		

Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks

Code number

086U3364

Heat pumps

DHP-R

DHP-R Eco

DHP-M

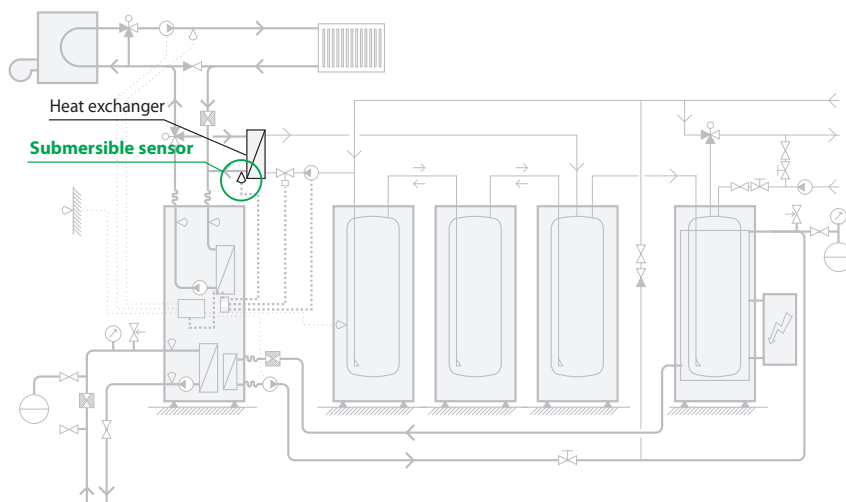
Commercial ground source heat pumps
Submersible sensor PT1000



Submersible sensor used to read the temperature in the return line.

Submersible sensor used to read the temperature in the return line from the heat exchanger, see the system image below.
The sensor is installed inside the pipe and senses temperatures in the range 0-160°.

SYSTEM OVERVIEW



Technical data - Resistance Table:

Temperature	Ohm	Temperature	Ohm	Temperature	Ohm
-40	842,7	10	1039,0	60	1232,4
-35	862,5	15	1058,5	65	1251,6
-30	882,2	20	1077,9	70	1270,7
-25	901,9	25	1097,3	75	1289,9
-20	921,6	30	1116,7	80	1309,0
-15	941,2	35	1136,1	85	1328,0
-10	960,8	40	1155,4	90	1347,1
-5	980,4	45	1174,7	95	1366,1
0	1000,0	50	1194,0	100	1385,1
5	1019,5	55	1213,2		

Code number

086U3350

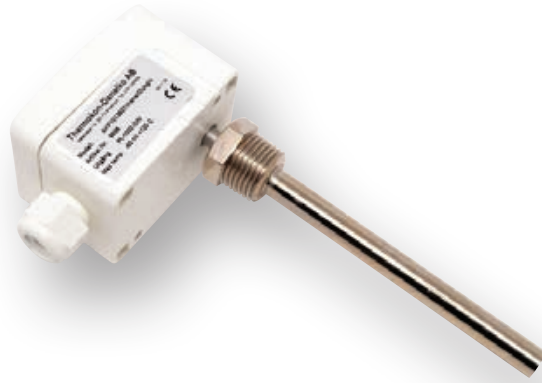
Heat pumps

DHP-R

DHP-R Eco

DHP-M

Commercial ground source heat pumps
Hot water sensor PT1000



Hot water sensor used to read temperature from the hot water tank.

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3396

Heat pumps

DHP-R

DHP-R Eco

Application

Cooling

Commercial ground source heat pumps

Dew Point Sensor

Dew point control is an extra function that ensures that condensation precipitation cannot occur in the cooling circuit. If the temperature and humidity reaches the dew point, the supply set point is adjusted upwards. The sensor is wallmounted.

Electrical connection

24VAC supply voltage.

The dew point sensor is connected to HPC CM (cooling module) to the inputs AI1 (temperature) and AI2 (humidity).

Measurement range: Rel. humidity: 5 - 95%.

Temperature: 0 - 50°C.

Code number

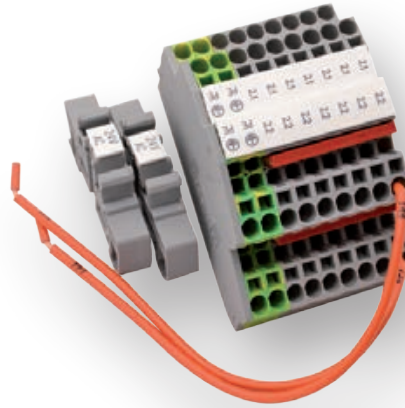
086U5121

Heat pumps

DHP-R

DHP-R Eco

Commercial ground source heat pumps
Terminal block 24 volt circuit



Terminal block for additional 24V supply

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number
086U4840
Heat pumps
DHP-R
DHP-R Eco
DHP-M
Application
Remote control

Commercial ground source heat pumps
Router for Web Access



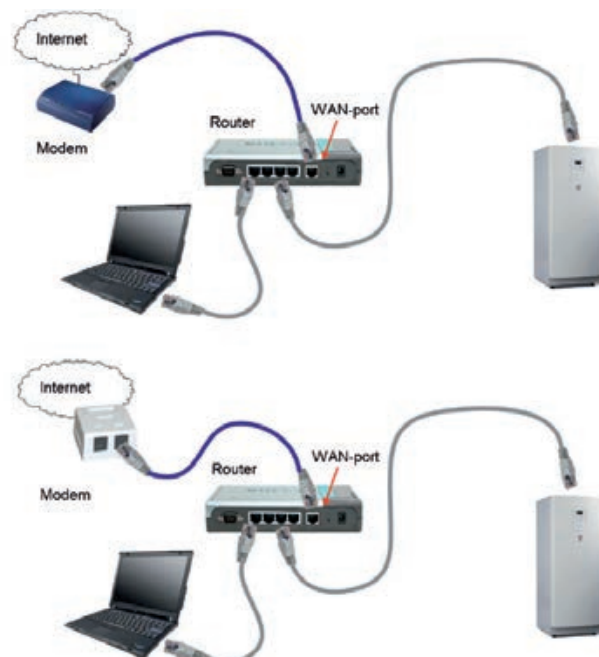
Used to connect to the heat pump via the Internet. The router directs the network traffic between the local network where the heat pump is and the Internet. It also limits the amount of incoming traffic from the Internet. The router is pre-configured and ports out 10.0.48.94 and 10.0.48.101 to 10.0.48.109, which means that no settings need to be made on connection.

Supplied accessories

10 + 2 metre network cable supplied with router.

Connection

The router has a WAN port which is connected to a broadband modem or a broadband socket, see images below. It also has four network sockets for a local network, to which you can connect your heat pumps. If four sockets are not enough, use a switch. The network cable must be connected from the Ethernet socket on WM HPC in the heat pump and to a spare port on the router.



Code number

086U9011

Heat pumps

DHP-R

DHP-R Eco

Application

Communication via Modbus with building management system

Commercial ground source heat pumps

Moxa converter (RS-232 to RS-422/485)



Converter moxa

The differences between the RS-232, RS-422, and RS-485 serial interfaces can cause compatibility issues for industrial communication systems. Moxa's serial converter is equipped with intelligent features; the portpowered operation for example, allows devices with different serial interfaces to communicate effortlessly.

Converts RS-232 to RS-422/485 interface. Use if you do not have the opportunity to connect the RS-232, but only the ability to connect RS-422/485 interface. Can be installed on DIN rail.

Electrical connections

RS-232 is connected to the RS-232 connection on the upper side of the WM HPC. If the device mounting inside the control cabinet can be supplied with 24 V at terminal 147 (V+) and 148 (V-).

Delivery consists of:

- Moxa TCC 100
- 9 pin connector for connection to the HPC-WM


Ground source heat pumps

Air source heat pumps

Other accessories

Commercial ground source heat pumps

Water heaters and volume tanks



A comfortable drive into major savings. Now that's excellence in motion with DHP-R Eco ground source heat pump.

“There are certainly some cheaper solutions than heat pumps at the investment stage of a project’s implementation. However, during operation, Danfoss heat pumps are in a class of their own. Costs are really low. In my opinion, no other heat source can provide such significant savings, ”

**says Wiesław Barański,
the driving centre investor, Poland**

Water heaters and volume tanks

– new product range for highly efficient heat transfer

Danfoss new product range of water heaters with volume tanks was launched in May 2014. The new product range consists of 11 products which have been designed to meet the requests and wishes we have received from the market.

This broadens our range of products and enables us to offer our customers a more complete overall solution.

Water heater DWH 200 / DWH 300	102
Water heater DWH 200 / DWH 300 (DHP-H Opti Pro +)	103
Water heater DWH 200 / DWH 300 (DHP-H/-L Varius Pro + L)	104
Volume tank WT-V 100	105
Volume tank WT-V 200	106
Volume tank WT-V 300	107
Volume tank WT-V 500	108
Volume tank WT-V 1000	109
Water heater WT-C 500	110
Water heater WT-C 750	111
Water heater WT-S 500	112
Water heater WT-S 1000	113
Water heater WT-T 300	114
Water heater WT-T 500	115

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086U5057

086U5058

Heat pumps

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

Application

Water heaters

Water heaters and volume tanks

Water heater DWH 200 / DWH 300



The Danfoss DWH is an extremely efficient water heater designed for compatibility with the Danfoss heat pumps.

086U5057: DWH 200

086U5058: DWH 300

The water heater's TWS technology* assures highly efficient heat transfer and better layering of the water than traditional technology. This means your water is heated quicker, less energy is consumed and the hot water lasts longer when using large amounts. The water heater is available in two sizes, 200 and 300 litres, and has a stainless steel tank.

*TWS = Tap Water Stratificator. Patented heating technique for water heaters, developed by Danfoss.

DWH	200	300
Volume prim	7	7
Rated pressure, prim (bar)	1,5	1,5
Volume sec. (liters)	180	286
Rated pressure, sec. (bar)	10	10
Weight (kg)	84,5	103
Weight, filled (kg)	268	386
Height (mm)	1528 (±10)	1825 (±10)
Dimension (mm)	596 x 690	596 x 690

Code number

086U8619

086U8620

Heat pumps

DHP-H/-L Opti Pro / Opti Pro +

Application

Water heaters

Water heaters and volume tanks

Water heater DWH Opti 200 / DWH Opti 300



The Danfoss DWH is an extremely efficient water heater designed for compatibility with the Danfoss heat pumps.

086U8619: DWH Opti 200

086U8620: DWH Opti 300

The water heater's TWS technology* assures highly efficient heat transfer and better layering of the water than traditional technology. This means your water is heated quicker, less energy is consumed and the hot water lasts longer when using large amounts. The water heater is available in two sizes, 200 and 300 litres, and has a stainless steel tank.

*TWS = Tap Water Stratificator. Patented heating technique for water heaters, developed by Danfoss.

DWH	200	300
Volume prim	7	7
Rated pressure, prim (bar)	1,5	1,5
Volume sec. (liters)	180	286
Rated pressure, sec. (bar)	10	10
Weight (kg)	84,5	103
Weight, filled (kg)	268	386
Height (mm)	1528 (±10)	1825 (±10)
Dimension (mm)	596 x 690	596 x 690

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L4214

086L4217

Heat pumps

DHP-H/-L Varius Pro + L

Application

Water heaters

Water heaters and volume tanks

**Water heater DWH 200 / DWH 300
(DHP-H/-L Varius Pro + L)**



The Danfoss DWH is an extremely efficient water heater designed for compatibility with the Danfoss heat pumps.

DWH 200/300 Varius Pro + design is equipped with PT1000 temperature sensors

086L4214: DWH 200 Varius Pro + design

086L4217: DWH 300 Varius Pro + design

The water heater's TWS technology* assures highly efficient heat transfer and better layering of the water than traditional technology. This means your water is heated quicker, less energy is consumed and the hot water lasts longer when using large amounts. The water heater is available in two sizes, 200 and 300 litres, and has a stainless steel tank.

* TWS = Tap Water Stratificator. Patented heating technique for water heaters, developed by Danfoss.

DWH	200	300
Volume prim	7	7
Rated pressure, prim (bar)	1,5	1,5
Volume sec. (liters)	180	286
Rated pressure, sec. (bar)	10	10
Weight (kg)	84,5	103
Weight, filled (kg)	268	386
Height (mm)	1528 (±10)	1845 (±10)
Dimension (mm)	596 x 690	596 x 690

Code number

086L3070

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

Application

Volume tanks

Water heaters and volume tanks

Volume tank WT-V 100

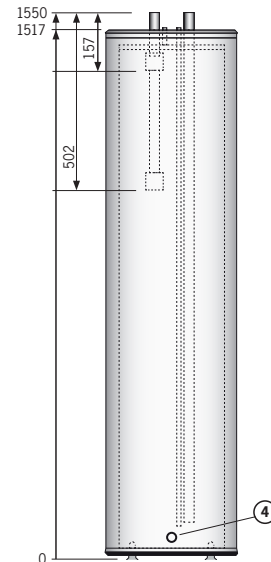
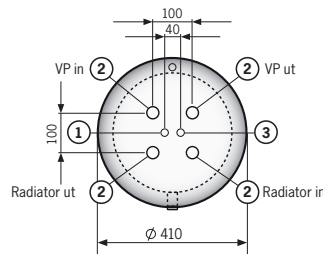


WT-V	100
Volume hot water accumulator	102 liters
Test pressure	4,3 bar
Working pressure	3 bar
Rated temperature	100 °C
Weight	44 kg
Height (mm)	1550 mm
Diameter	ø 410 mm
Connections	4

WT-V a volume tank especially designed for heat pump operation

WT-V 100 is a 100-litre volume tank especially designed for heat pump operation. It can be used for volume boost, flow equalisation and reducing potential clicking in the heating system.

WT-V 100 consists of one insulated steel container with four connections at the top for various operating alternatives, which make it extra easy to adapt to various types of heating systems.



- ① Expansion/Venting, 1/8" int.
- ② Connections (4x), DN 25 int.
- ③ Sensor connection, ø9
- ④ Drainage, DN20 int.

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3071

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Volume tanks

Water heaters and volume tanks

Volume tank WT-V 200

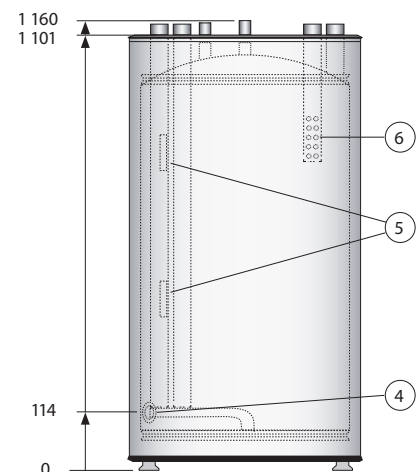
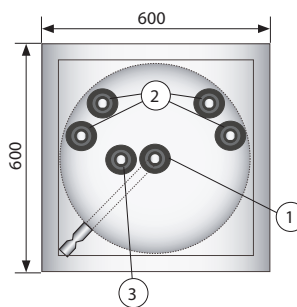


WT-V	200
Volume hot water accumulator	200 liters
Test pressure	4,3 bar
Working pressure	3 bar
Rated temperature	100 °C
Weight	60 kg
Height	1160 mm
Width	600 mm
Depth	600 mm
Connections	4

WT-V a volume tank especially designed for heat pump operation

WT-V 200 is a 200-litre volume tank especially designed for heat pump operation. It can be used for volume boost, flow equalisation and reducing potential clicking in the heating system.

WT-V 200 consists of one insulated steel container with four connections at the top, for various operating alternatives, which makes it extra easy to adapt to various types of heating systems.



- ① Expansion/Venting, DN25 int.
- ② Connections (4x), DN32 int.
- ③ Temperature sensor conn. DN20 int.
- ④ Drainage, DN20 int.
- ⑤ Temperature sensor pipe (2x), ø9 int.
- ⑥ Diffuser

Code number

086L3072

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Volume tanks

Water heaters and volume tanks

Volume tank WT-V 300

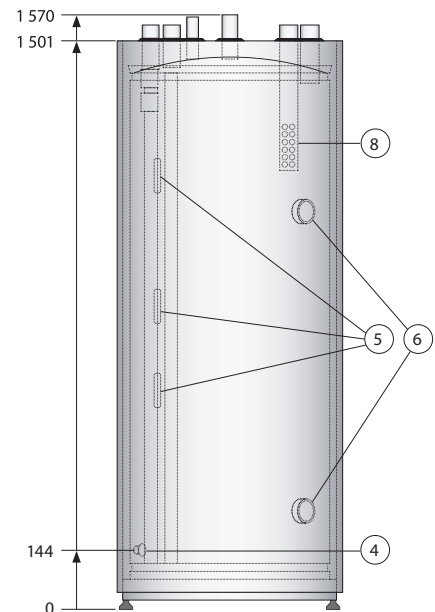
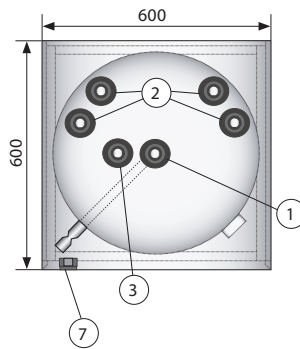


WT-V	300
Volume hot water accumulator	300 liters
Test pressure	4,3 bar
Working pressure	3 bar
Rated temperature	100 °C
Weight	72 kg
Height	1570 mm
Width	600 mm
Depth	600 mm
Connections	4

WT-V a volume tank especially designed for heat pump operation

WT-V 300 is a 300-litre volume tank especially designed for heat pump operation. It can be used for volume boost, flow equalisation and reducing potential clicking in the heating system.

WT-V 300 consists of one insulated steel container with four connections at the top, for various operating alternatives, which makes it extra easy to adapt to various types of heating systems. It can also be used to connect the electric heating element.



- ① Expansion/Venting, DN25 int.
- ② Connections (4x), DN32 int.
- ③ Temperature sensor conn. DN20 int.
- ④ Drainage, DN20 int.
- ⑤ Temperature sensor pipe (3x), ø9 int.
- ⑥ Immersion heater conn. (2x) DN50 int.
- ⑦ Drainage valve, DN15
- ⑧ Diffuser

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3073

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Volume tanks

Water heaters and volume tanks

Volume tank WT-V 500

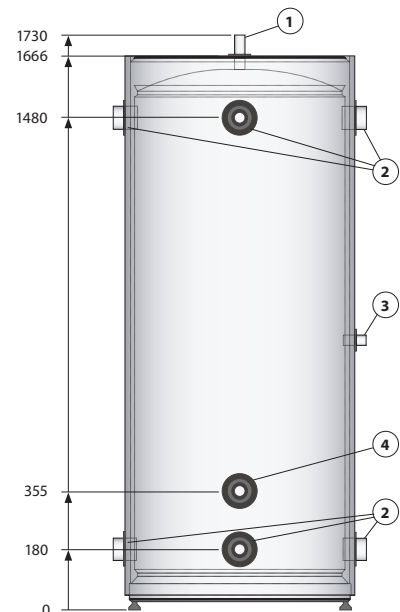
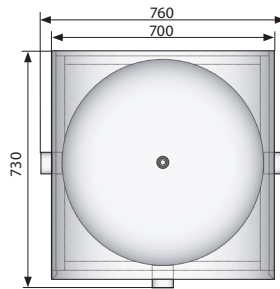


WT-V	500
Volume hot water accumulator	500 liters
Test pressure	4,3 bar
Working pressure	3 bar
Rated temperature	100 °C
Weight	96 kg
Height	1730 mm
Width	700 mm
Depth	700 mm
Connections	6

WT-V a volume tank especially designed for heat pump operation

WT-V 500 is a 500-litre volume tank especially designed for heat pump operation. It can be used for volume boost, flow equalisation and reducing potential clicking in the heating system.

WT-V 500 consists of one insulated steel container with six connections, providing various installation options, which makes it extra easy to adapt to all types of heating systems. It can also be used to connect the electric heating element.



- 1 Expansion/Venting, DN25 ext.
- 2 Connections (6x), DN50 int.
- 3 Temperature sensor conn. DN20
- 4 Immersion heater conn. DN50 int

Code number

086L3074

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Volume tanks

Water heaters and volume tanks

Volume tank WT-V 1000



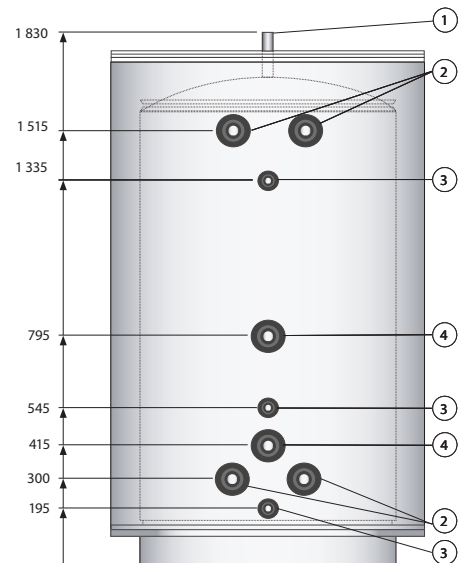
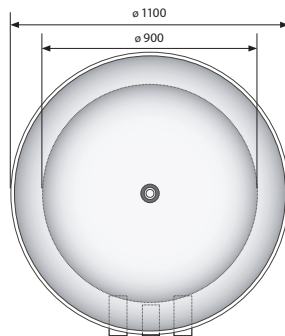
WT-V	1000
Volume hot water accumulator	1000 liters
Test pressure	4,3 bar
Working pressure	3 bar
Rated temperature	100 °C
Weight	113 kg
Height	1830 mm
Diameter with insulation	ø 1100 mm
Diameter without insulation	ø 900 mm
Connections	6

WT-V a volume tank especially designed for heat pump operation

WT-V 1000 is a 1000-litre volume tank especially designed for heat pump operation. It can be used for volume boost, flow equalisation and reducing potential clicking in the heating system.

WT-V 1000 consists of one insulated steel container with six connections, with two sockets which can be used to connect the electric heating element. A number of connection options make it extremely easy to adapt to different kinds of heating systems.

By removing the insulation, the diameter can be reduced to 900 mm, which facilitates transportation through narrow passages.



- 1 Expansion/Venting, DN25 ext.
- 2 Connections (6x), DN50
- 3 Temperature sensor conn. DN20
- 4 Immersion heater conn. DN50 int.

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3076

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-A Opti

DHP-A

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Water heaters

Water heaters and volume tanks

Water heater WT-C 500



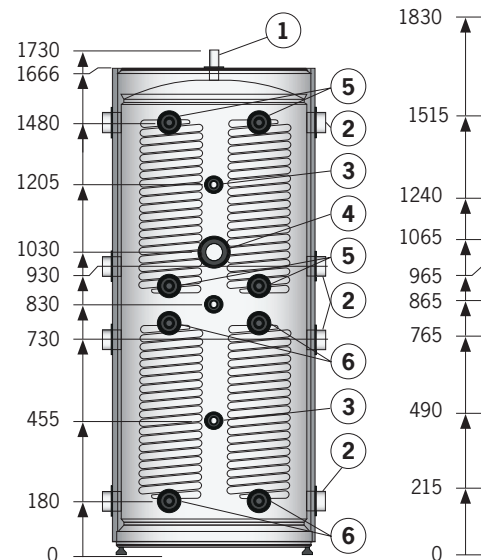
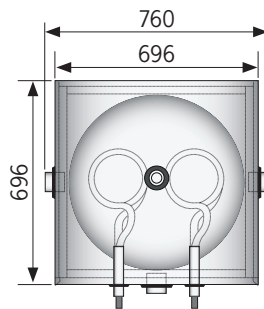
WT-C	500
Corrosion protection, coil copper	
Volume hot water accumulator	500 liters
Length, coil (m)	4 x 12
Working pressure	3 bar
Test pressure	4,3 bar
Max. pressure, coil	10 bar
Rated temperature	100 °C
Immersion heater, max. output*	9 kW
Max. immersion heater length	670 mm
Weight	142 kg
Height	1730 mm
Width	696 mm
Depth	696 mm
Required ceiling height for tilting:	min. 1840 mm

* – optional

WT-C a coil water heater for effective heating of domestic hot water

WT-C is a coil water heater which provides effective heating of tap water. It is available in 500 litre sizes and can be cascade-connected where there is high demand for hot tap water. Tap water is heated using cam flange coils via direct exchange with the radiator water.

WT-C 500 contains four coils (each coil measures 12 metres in length). The WT-C 500 is able to supply water required for up to 10 apartments.



- 1 Expansion/Venting, DN25 ext.
- 2 Connections (8x), DN50 int.
- 3 Temperature sensor conn. DN20 int.
- 4 Immersion heater conn. DN50 int.
- 5 Hot water coil (2x12m), Ø22
- 6 Preheat coil/Hot water coil (2x12m), Ø22

Code number

086L3077

Heat pumps

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

DHP-M

Application

Water heaters

Water heaters and volume tanks

Water heater WT-C 750



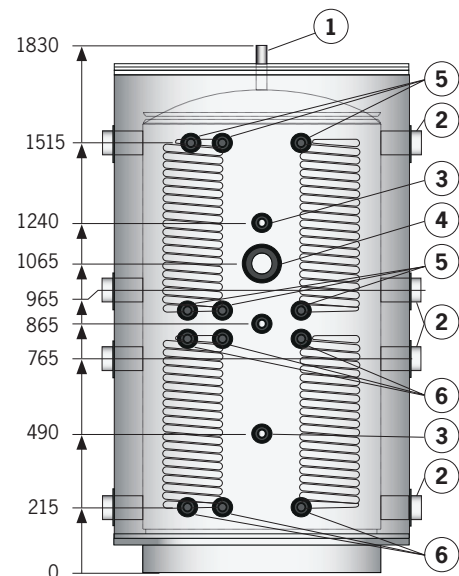
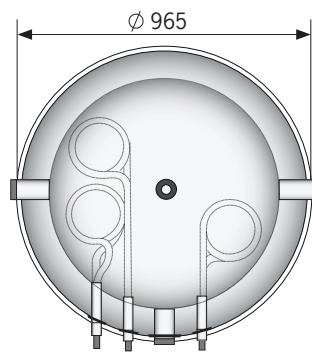
WT-C	750
Corrosion protection, coil copper	
Volume hot water accumulator	750 liters
Length, coil	6 x 12 m
Working pressure	3 bar
Test pressure	4,3 bar
Max. pressure, coil	10 bar
Rated temperature	100 °C
Immersion heater, max. output*	2x9 kW
Max. immersion heater length	850 mm
Weight	157 kg
Height	1830 mm
Width	965 mm
Depth	965 mm
Required ceiling height for tilting:	min. 2085 mm

* - optional

WT-C a coil water heater for effective heating of domestic hot water

WT-C is a coil water heater which provides effective heating of tap water. It is available in 750 litre sizes and can be cascade-connected where there is high demand for hot tap water. Tap water is heated using cam flange coils via direct exchange with the radiator water.

WT-C 750 contains six coils (each coil measures 12 metres in length). The WT-C 750 is able to supply water required for up to 15 apartments.



- 1 Expansion/Venting, DN25 ext.
- 2 Connections (8x), DN50 int.
- 3 Temperature sensor conn. DN20 int.
- 4 Immersion heater conn. DN50 int.
- 5 Hot water coil (3x12m), Ø22
- 6 Preheat coil/Hot water coil (3x12m), Ø22

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3079

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Application

Water heaters

Water heaters and volume tanks

Water heater WT-S 500



WT-S	500
Volume hot water accumulator	500 liters
Test pressure	14,3 bar
Working pressure	10 bar
Rated temperature	95 °C
Weight	63 kg
Height	1850
Dimension	Ø 734 mm
Insulation	EPS
Insulation	50 mm
Heat loss DIN44532	3,09 kWh/24h
Immersion heater, max. output*	9 kW
Max. immersion heater length	640 mm

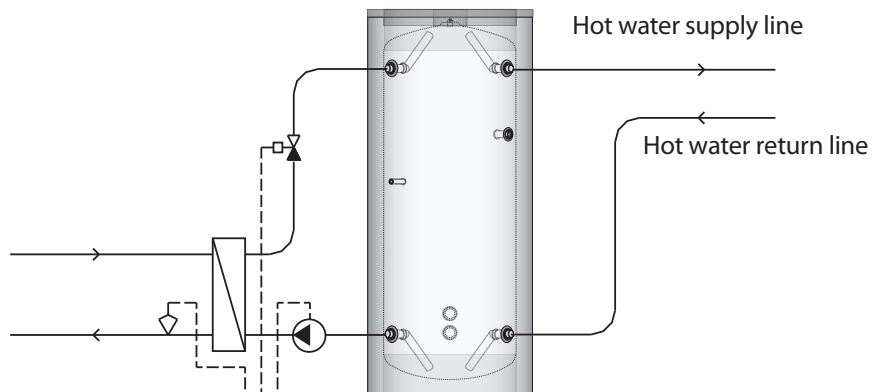
* – optional

WT-C is a stainless steel hot water heater for large hot water requirements

WT-S is a single-coated, non-corrosive water heater which effectively heats tap water using a heat pump or other heat source. The water is heated using heat exchangers or an electric heating element.

The WT-S is the perfect solution for any heat pump and high hot water demand combination. The water heater's non-corrosive, tempered design makes it extra corrosion-proof, with no cathodic protection required in the tank.

WT-S has an outlet for an immersion heater and HWC (hot water circulation). It can be cascade-connected if greater volumes are required.



Required ceiling height for tilting:
min. 1960 mm

Code number

086L3080

Heat pumps

DHP-R

DHP-R Eco

DHP-M

Application

Water heaters

Water heaters and volume tanks

Water heater WT-S 1000



WT-S	1000
Volume hot water accumulator	1000 liters
Test pressure	14,3 bar
Working pressure	10 bar
Rated temperature	95 °C
Weight	95 kg
Height	2295 mm
Dimension	Ø 990 mm
Insulation	Softfoam
Insulation	100 mm
Heat loss DIN44532	3,84 kWh/24h
Immersion heater, max. output*	2x9 kW
Max. immersion heater length	850 mm

* – optional

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

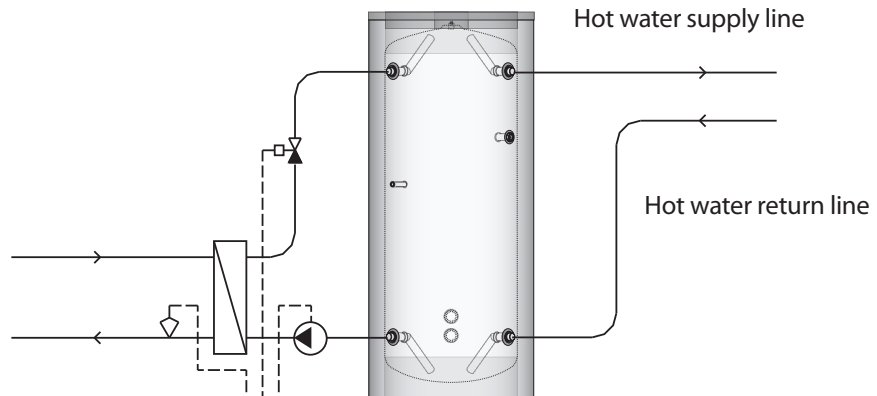
Water heaters and
volume tanks

WT-C is a stainless steel hot water heater for large hot water requirements

WT-S is a single-coated, non-corrosive water heater which effectively heats tap water using a heat pump or other heat source. The water is heated using heat exchangers or an electric heating element.

The WT-S is the perfect solution for any heat pump and high hot water demand combination. The water heater's non-corrosive, tempered design makes it extra corrosion-proof, with no cathodic protection required in the tank.

WT-S has an outlet for an immersion heater and HWC (hot water circulation). It can be cascade-connected if greater volumes are required.



Required ceiling height for tilting:
min. 2500 mm

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

Code number

086L3082

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

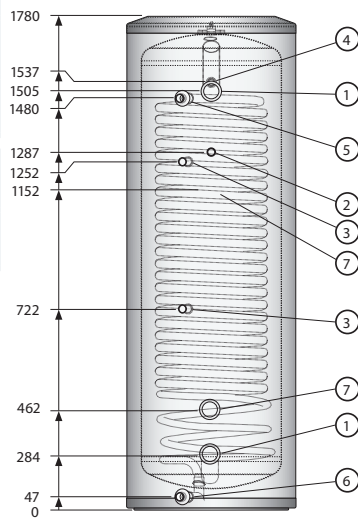
DHP-M

Application

Water heaters

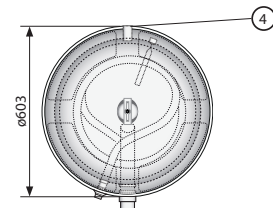
Water heaters and volume tanks

Water heater WT-T 300



WT-T	300
Volume hot water accumulator	300 liters
Test pressure	14,3 bar
Working pressure	10 bar
Max. pressure, coil	10 bar
Rated temperature	95 °C
Weight	63 kg
Height	1780 mm
Dimension	Ø 603 mm
Insulation	EPS
Insulation	50 mm
Heat loss DIN44532	2,28 kWh/24h
Heating surface	2,9 m ²
Length, coil	30 m
Hot water flow	2/3 m ³ /h
Pressure loss	132/276 mbar
Immersion heater, max. output*	6 kW
Max. immersion heater length	460 mm

* - optional



WT-T is a stainless steel hot water heater with a TWS coil

- 1 Connections (2x), DN50 int.
- 2 Circulation, DN25 int.
- 3 Temperature sensor conn. DN15 int.
- 4 Temperature sensor conn. DN15 int. (located on the "backside")
- 5 Coil supply, DN25 int.
- 6 Coil return, DN25 int.
- 7 Immersion heater conn. DN50 int.

WT-T is a water heater with a TWS coil providing highly effective heating of hot tap water. The water heater's non-corrosive, tempered design makes it extra corrosion-proof, with no cathodic protection required in the tank. The heater's TWS technology* provides extremely effective heat transfer and enables better water stratification than traditional technology. Hot water production using hot gas converters means even greater benefits are reaped from the TWS technology.

WT-T has a socket for the electric heating element and hot water circulation. This is a useful closure device in building solutions as it ensures that the temperature of running hot tap water is correct. WT-T can be cascade-connected if demand is high.

Can be used with heat pumps with a hot gas circuit and with DHP-AQ 16 and 18

* TWS = Tap Water Stratificator. Patented heating technology for hot water production, developed by Danfoss.

Code number

086L3083

Heat pumps

DHP-H/-L Varius Pro + L

DHP-H/-L Opti Pro / Opti Pro +

DHP-H/-L Opti, DHP-C Opti

DHP-H

DHP-AQ

DHP-S

DHP-S Eco

DHP-R

DHP-R Eco

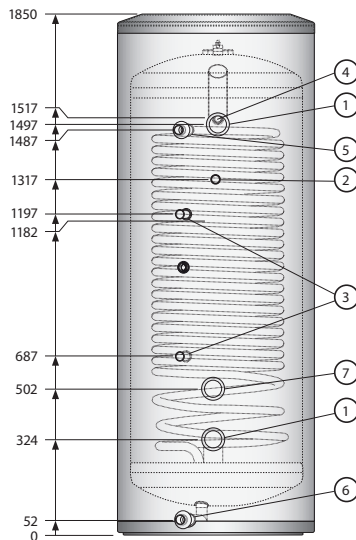
DHP-M

Application

Water heaters

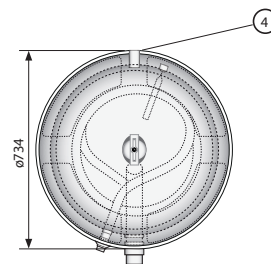
Water heaters and volume tanks

Water heater WT-T 500



WT-T	500
Volume hot water accumulator	500 liters
Test pressure	14,3 bar
Working pressure	10 bar
Max. pressure, coil	10 bar
Rated temperature	95 °C
Weight	88 kg
Height	1850 mm
Dimension	Ø 734 mm
Insulation	EPS
Insulation	50 mm
Heat loss DIN44532	3,09 kWh/24h
Heating surface	3,7 m ²
Length, coil	30 m
Hot water flow	2/3 m ³ /h
Pressure loss	165/342 mbar
Immersion heater, max. output*	9 kW
Max. immersion heater length	570 mm

* – optional



WT-T is a stainless steel hot water heater with a TWS coil

WT-T is a water heater with a TWS coil providing highly effective heating of hot tap water. The water heater's non-corrosive, tempered design makes it extra corrosion-proof, with no cathodic protection required in the tank. The heater's TWS technology* provides extremely effective heat transfer and enables better water stratification than traditional technology. Hot water production using hot gas converters means even greater benefits are reaped from the TWS technology.

WT-T has a socket for the electric heating element and hot water circulation. This is a useful closure device in building solutions as it ensures that the temperature of running hot tap water is correct. WT-T can be cascade-connected if demand is high.

Can be used with heat pumps with a hot gas circuit and with DHP-AQ 16 and 18

* TWS = Tap Water Stratificator. Patented heating technology for hot water production, developed by Danfoss.

- 1 Connections (2x), DN50 int.
- 2 Circulation, DN25 int.
- 3 Temperature sensor conn. DN15 int.
- 4 Temperature sensor conn. DN15 int. (located on the "backside")
- 5 Coil supply, DN25 int.
- 6 Coil return, DN25 int.
- 7 Immersion heater conn. DN50 int.

Ground source
heat pumps

Air source heat pumps

Other accessories

Commercial ground
source heat pumps

Water heaters and
volume tanks

C. Glossary - order according to the chapters

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Danfoss Heat Pumps

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Danfoss Heat Pumps

Product name	Product code	DHP-H/L Various Pro + L	DHP-H/L Opti Pro +	DHP-H/L Opti Pro	DHP-C Opti	DHP-H/L Opti	DHP-H/L	DHP-AQ	DHP-A Opti	DHP-A	DHP-S	DHP-S Eco	DHP-R	DHP-R Eco	DHP-M	Page
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Passive cooling module (GENESIS)	086L4416	•														58
Passive and active cooling module (GENESIS)	086L4417	•														58
Swimming pool control kit	086U3754		•	•	•	•	•		•	•	•	•				59
Vent - exhaust air module	086L5123	•	•	•	•	•	•		•	•						60
Flow guard is UR 3K-025 230V	086U2441	•	•	•	•	•	•		•	•						61
Flow guard is UR 32CTNR 230V	086U3809											•	•	•	•	62
An electronic flow guard	086U3368												•	•		63
An electronic flow guard	086U6002												•	•		63
Electric boiler Mini 3/6/9 kW	086L3461															64
Electric boiler Mini 3/6/9 kW	086L3462															64
Electric boiler Mini 3/6/9 kW	086L3463															64
Additional auxiliary heater with control box	086U8504															65
Additional auxiliary heater with control box	086U8668															65
Auxiliary heater 2" with control box K11	086U3645															66
Auxiliary heater 2" with control box K11	086U3646															66
Auxiliary heater 2" with control box K11	086U3647															66
Auxiliary heater (flange) with control box K11	086U3640															67
Auxiliary heater (flange) with control box K11	086U3641															67
Auxiliary heater (flange) with control box K11	086U3642															67
Auxiliary heater (flange) with control box K11	086U3643															67

Danfoss Heat Pumps

Product name	Product code	DHP-H/L Various Pro + L	DHP-H/L Opti Pro +	DHP-H/L Opti Pro	DHP-C Opti	DHP-H/L Opti	DHP-H/L	DHP-AQ	DHP-A Opti	DHP-A	DHP-S	DHP-S Eco	DHP-R	DHP-R Eco	DHP-M	Page
Auxiliary heater (flange) with control box K11	086U3644															67
Additional auxiliary heater heater 3 kW	086L2340		•	•	•	•	•									68
Magnetite filter for heating installations	086L3231	•	•	•	•	•	•	•	•	•						69
Magnetite filter for heating installations	086L3232	•	•	•	•	•	•	•	•	•						69
Magnetite filter for heating installations	086L3894										•	•	•	•	•	69
Magnetite filter for heating installations	086L3895										•	•	•	•	•	69
Magnetite filter for heating installations	086L3896										•	•	•	•	•	69
Stand	086L2310	•	•	•	•	•	•		•	•						70
Filling and mixing vessel 100 Litres	086U5633															71
Top box (18 liters) Expansion vessel kit	086L2866	•	•	•	•	•	•	•	•	•						72
Top box (18 liters) Expansion vessel kit	086L2867	•	•	•	•	•	•	•	•	•						72
Volume tank 50 litres	086U1814															73
External fuse kit	086U9685	•	•	•	•	•	•	•	•	•						74
Network cable 10 m	086U4841	•											•	•	•	75
Modular cable	086U4227												•	•		76
Modular cable	086U4228												•	•		76
Modular cable	086U4229												•	•		76
Modular cable	086U6414												•	•		76
Conductor joint	086U4230												•	•		76
Aermec UL - fan convector	086U1878															77
Aermec UL - fan convector	086U1879															77
Aermec UL - fan convector	086U1880															77
Aermec UL - fan convector	086U1881															77
Aermec HL - fan convector	086U1882															78
Aermec HL - fan convector	086U1883															78
Aermec HL - fan convector	086U1884															78
Aermec HL - fan convector	086U1885															78
Foot to HL / UL	086U1876															79
Foot to HL / UL	086U1877															79
Room sensor	086U3354												•	•		82
HPC EM - expansion module: Water Charge System function	086U3395												•	•		83
HPC EM - expansion module: Tap Water Control Function	086U3395												•	•		84
HPC EM - expansion module: Shunt Function	086U3395												•	•		85
HPC CM - Cooling Module	086U3394												•	•		86

Danfoss Heat Pumps

Product name	Product code	DHP-H/-L Varius Pro + L	DHP-H/-L Opti Pro +	DHP-H/-L Opti Pro	DHP-C Opti	DHP-H/-L Opti	DHP-H/-L	DHP-AQ	DHP-A Opti	DHP-A	DHP-S	DHP-S Eco	DHP-R	DHP-R Eco	DHP-M	Page
EM Modul - control cabinet	086L3443														•	88
Soft start - used to limit the current when the heat pump is started	086L1516										•	•	•	•		89
Soft start - used to limit the current when the heat pump is started	086L3629										•	•	•	•		89
A circulation pump for the hot gas circuit	086L3004										•	•	•	•	•	90
Switching valve for hot water	086U2471										•	•	•	•		91
Switching valve for hot water	086U9938										•	•	•	•		91
Strap on temperature sensor with 2 m cable	086U3365												•	•	•	92
Strap on temperature sensor with connection box PT1000	086U3356												•	•	•	93
Submersible sensor PT1000	086U3364												•	•	•	94
Hot water sensor PT1000	086U3350												•	•	•	95
Dew Point Sensor	086L3396												•	•		96
Terminal block 24 volt circuit	086U5121												•	•		97
Router for Web Access	086U4840												•	•	•	98
Moxa converter (RS-232 to RS-422/485)	086U9011												•	•		99
Water heater DWH 200 / DWH 300	086U5058				•	•	•	•								102
Water heater DWH 200 / DWH 300	086U5057				•	•	•	•								102
Water heater DWH G3 200 / DWH G3 300	086U8619		•	•												103
Water heater DWH G3 200 / DWH G3 300	086U8620		•	•												103
Water heater DWH 200 / DWH 300 (DHP-H/-L Varius Pro + L)	086L4214	•														104
Water heater DWH 200 / DWH 300 (DHP-H/-L Varius Pro + L)	086L4217	•														104
Volume tank WT-V 100	086L3070	•	•	•	•	•	•	•	•	•						105
Volume tank WT-V 200	086L3071	•	•	•	•	•	•	•	•	•	•	•	•	•	•	106
Volume tank WT-V 300	086L3072	•	•	•	•	•	•	•	•	•	•	•	•	•	•	107
Volume tank WT-V 500	086L3073	•	•	•	•	•	•	•	•	•	•	•	•	•	•	108
Volume tank WT-V 1000	086L3074										•	•	•	•	•	109
Water heater WT-C 500	086L3076	•	•	•	•	•	•	•	•	•	•	•	•	•	•	110
Water heater WT-C 750	086L3077										•	•	•	•	•	111
Water heater WT-S 500	086L3079												•	•	•	112
Water heater WT-S 1000	086L3080												•	•	•	113
Water heater WT-T 300	086L3082	•	•	•	•	•	•	•			•	•	•	•	•	114
Water heater WT-T 500	086L3083	•	•	•	•	•	•	•			•	•	•	•	•	115

Danfoss DHP-AQ Air source heat pump



Danfoss Heat Pumps

Product name	Product code	DHP-AQ	Page
Room sensor Modbus	086U9563	•	20
Expansion card	086L0636	•	21
Twin kit DHP-AQ	086L1370	•	22
Danfoss OnLine - control and monitor your heat pump online	086L1901	•	23
Link 2.1	086L2382	•	24
Link 2.1 & OnLine in one package	086L2949	•	25
The dew point sensor kit	086L0635	•	26
Intermediate Heat exchanger	086L0767	•	27
Intermediate Heat exchanger	086L0768	•	27
Intermediate Heat exchanger	086L0769	•	27
Fix-it Foot	086L2030	•	28
Rubber Compensator	086L2339	•	32
Flexible hose DN20	086U6015	•	33
Flexible hose DN25	086U6000	•	34
Rubber hose DN25	086U6012	•	36
Flexible metal hose	086L0586	•	37
Circulation Pump kit Wilo Stratos Pico 25/1-6	086L0455	•	47
Circulation Pump kit Wilo Para 25/1-11	086L0627	•	48
3-way valve with actuator LK	086U7999	•	56
Magnetite filter for heating installations	086L3231	•	69
Magnetite filter for heating installations	086L3232	•	69
Top box (18 liters) Expansion vessel kit	086L2866	•	72
Top box (18 liters) Expansion vessel kit	086L2867	•	72
External fuse kit	086U9685	•	74
Water heater DWH 200 / DWH 300	086U5058	•	102
Water heater DWH 200 / DWH 300	086U5057	•	102
Volume tank WT-V 100	086L3070	•	105
Volume tank WT-V 200	086L3071	•	106
Volume tank WT-V 300	086L3072	•	107
Volume tank WT-V 500	086L3073	•	108
Water heater WT-C 500	086L3076	•	110
Water heater WT-T 300	086L3082	•	114
Water heater WT-T 500	086L3083	•	115



DHP-A Opti / DHP-A Air source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-A Opti	DHP-A	Page
Room thermostat	086U6003	•	•	10
Expansion card	086U6009	•	•	12
Danfoss OnLine - control and monitor your heat pump online	086L1900	•	•	14
Link 2.1	086L2381	•	•	15
Link 2.1 & OnLine in one package	086L2948	•	•	16
Fix-it Foot	086L2030	•	•	28
Heated drip tray	086L1042	•	•	29
Rubber Compensator	086L2339	•	•	32
Flexible hose DN20	086U6015	•		33
Flexible hose DN25	086U6000	•		34
Rubber hose DN25	086U6012	•	•	36
Circulation Pump kit Wilo Stratos Pico 25/1-6	086L0455	•	•	47
Circulation Pump kit Wilo Para 25/1-11	086L0627	•	•	48
3-way valve with actuator LK	086U7999	•	•	56
Swimming pool control kit	086U3754	•	•	59
Vent - exhaust air module	086L5123	•	•	60
Flow guard is UR 3K-025 230V	086U2441	•	•	61
Magnetite filter for heating installations	086L3231	•	•	69
Magnetite filter for heating installations	086L3232	•	•	69
Stand	086L2310	•	•	70
Top box (18 liters) Expansion vessel kit	086L2866	•	•	72
Top box (18 liters) Expansion vessel kit	086L2867	•	•	72
External fuse kit	086U9685	•	•	74
Volume tank WT-V 100	086L3070	•	•	105
Volume tank WT-V 200	086L3071	•	•	106
Volume tank WT-V 300	086L3072	•	•	107
Volume tank WT-V 500	086L3073	•	•	108
Water heater WT-C 500	086L3076	•	•	110



DHP-H/-L Varius Pro + L Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-H/-L Varius Pro + L	Page
Room thermostat	086L3937	•	11
Hot water circulation kit	086L2260	•	17
Rubber Compensator	086L2339	•	32
Flexible hose DN25	086U6000	•	34
Rubber hose DN25	086U6012	•	36
Circulation Pump kit Wilo Stratos Pico 25/1-6	086L0455	•	47
Circulation Pump kit Wilo Para 25/1-11	086L0627	•	48
Passive cooling module (GENESIS)	086L4416	•	58
Passive and active cooling module (GENESIS)	086L4417	•	58
Vent - exhaust air module	086L5123	•	60
Flow guard is UR 3K-025 230V	086U2441	•	61
Magnetite filter for heating installations	086L3231	•	69
Magnetite filter for heating installations	086L3232	•	69
Stand	086L2310	•	70
Top box (18 liters) Expansion vessel kit	086L2866	•	72
Top box (18 liters) Expansion vessel kit	086L2867	•	72
External fuse kit	086U9685	•	74
Network cable 10 m	086U4841	•	75
Water heater DWH 200 / DWH 300 (DHP-H/-L Varius Pro + L)	086L4214	•	104
Water heater DWH 200 / DWH 300 (DHP-H/-L Varius Pro + L)	086L4217	•	104
Volume tank WT-V 100	086L3070	•	105
Volume tank WT-V 200	086L3071	•	106
Volume tank WT-V 300	086L3072	•	107
Volume tank WT-V 500	086L3073	•	108
Water heater WT-C 500	086L3076	•	110
Water heater WT-T 300	086L3082	•	114
Water heater WT-T 500	086L3083	•	115



DHP-H/-L Opti Pro / DHP-H/-L Opti Pro+ Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-H/-L Opti Pro+	DHP-H/-L Opti Pro	Page
Room thermostat	086U6003	•	•	10
Expansion card	086U6009	•	•	12
Relay kit for control of external brine / circulation pump	086L0937	•	•	13
Danfoss OnLine - control and monitor your heat pump online	086L1900	•	•	14
Link 2.1	086L2381	•	•	15
Link 2.1 & OnLine in one package	086L2948	•	•	16
Hot water circulation kit	086L2260	•	•	17
Rubber Compensator	086L2339	•	•	32
Flexible hose DN20	086U6015	•	•	33
Flexible hose DN25	086U6000	•	•	34
Rubber hose DN25	086U6012	•	•	36
Connector	086U3724	•	•	44
Connector	086U7402	•	•	44
Circulation Pump kit Wilo Stratos Pico 25/1-6	086L0455	•	•	47
Circulation Pump kit Wilo Para 25/1-11	086L0627	•	•	48
3-way valve with actuator LK	086U7999	•	•	56
Passive cooling module (Opti)	086L3858	•	•	58
Passive and active cooling module (Opti)	086L3859	•	•	58
Swimming pool control kit	086U3754	•	•	59
Vent - exhaust air module	086L5123	•	•	60
Flow guard is UR 3K-025 230V	086U2441	•	•	61
Additional auxiliary heater heater 3 kW	086L2340	•	•	68
Magnetite filter for heating installations	086L3231	•	•	69
Magnetite filter for heating installations	086L3232	•	•	69
Stand	086L2310	•	•	70
Top box (18 liters) Expansion vessel kit	086L2866	•	•	72
Top box (18 liters) Expansion vessel kit	086L2867	•	•	72
External fuse kit	086U9685	•	•	74
Water heater DWH G3 200 / DWH G3 300	086U8619	•	•	103
Water heater DWH G3 200 / DWH G3 300	086U8620	•	•	103
Volume tank WT-V 100	086L3070	•	•	105
Volume tank WT-V 200	086L3071	•	•	106
Volume tank WT-V 300	086L3072	•	•	107
Volume tank WT-V 500	086L3073	•	•	108
Water heater WT-C 500	086L3076	•	•	110
Water heater WT-T 300	086L3082	•	•	114
Water heater WT-T 500	086L3083	•	•	115



DHP-H/L Opti / DHP-H/-L Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-C Opti	DHP-H/L Opti	DHP-H/-L	Page
Room thermostat	086U6003	•	•	•	10
Expansion card	086U6009	•	•	•	12
Relay kit for control of external brine / circulation pump	086L0937	•	•	•	13
Danfoss OnLine - control and monitor your heat pump online	086L1900	•	•	•	14
Link 2.1	086L2381	•	•	•	15
Link 2.1 & OnLine in one package	086L2948	•	•	•	16
Hot water circulation kit	086L2260	•	•	•	17
Rubber Compensator	086L2339	•	•	•	32
Flexible hose DN20	086U6015	•	•	•	33
Flexible hose DN25	086U6000	•	•	•	34
Rubber hose DN25	086U6012	•	•	•	36
Connector	086U3724	•	•	•	44
Connector	086U7402	•	•	•	44
Circulation Pump kit Wilo Stratos Pico 25/1-6	086L0455	•	•	•	47
Circulation Pump kit Wilo Para 25/1-11	086L0627	•	•	•	48
3-way valve with actuator LK	086U7999	•	•	•	56
Passive cooling module (Opti)	086L3858	•	•	•	58
Passive and active cooling module (Opti)	086L3859	•	•	•	58
Swimming pool control kit	086U3754	•	•	•	59
Vent - exhaust air module	086L5123	•	•	•	60
Flow guard is UR 3K-025 230V	086U2441	•	•	•	61
Additional auxiliary heater heater 3 kW	086L2340	•	•	•	68
Magnetite filter for heating installations	086L3231	•	•	•	69
Magnetite filter for heating installations	086L3232	•	•	•	69
Stand	086L2310	•	•	•	70
Top box (18 liters) Expansion vessel kit	086L2866	•	•	•	72
Top box (18 liters) Expansion vessel kit	086L2867	•	•	•	72
External fuse kit	086U9685	•	•	•	74
Water heater DWH 200 / DWH 300	086U5058	•	•	•	102
Water heater DWH 200 / DWH 300	086U5057	•	•	•	102
Volume tank WT-V 100	086L3070	•	•	•	105
Volume tank WT-V 200	086L3071	•	•	•	106
Volume tank WT-V 300	086L3072	•	•	•	107
Volume tank WT-V 500	086L3073	•	•	•	108
Water heater WT-C 500	086L3076	•	•	•	110
Water heater WT-T 300	086L3082	•	•	•	114
Water heater WT-T 500	086L3083	•	•	•	115



Danfoss DHP-M Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-M	Page
Room thermostat	086L3937	•	11
Rubber Compensator	086L3260	•	32
Rubber Compensator	086L3261	•	32
Flexible hose DN32	086U6001	•	35
Flexible hose DN40	086L3433	•	38
Rubber hose DN32	086L3435	•	39
Rubber hose DN40	086L3436	•	40
Rubber hose DN50	086L3437	•	41
Shunt valve and valve actuator kit	086L3426	•	53
Shunt valve and valve actuator kit	086L3427	•	53
Control valve (2-way) VVG 44	086U3730	•	54
Control valve (2-way) VVG 44	086U3731	•	54
Electronic Valve Actuator SQS 65.5 (35 Sec)	086U4837	•	55
Magnetite filter for heating installations	086L3894	•	69
Magnetite filter for heating installations	086L3895	•	69
Magnetite filter for heating installations	086L3896	•	69
Network cable 10 m	086U4841	•	75
EM Modul - control cabinet	086L3443	•	88
A circulation pump for the hot gas circuit	086L3004	•	90
Strap on temperature sensor with 2 m cable	086U3365	•	92
Strap on temperature sensor with connection box PT1000	086U3356	•	93
Submersible sensor PT1000	086U3364	•	94
Hot water sensor PT1000	086U3350	•	95
Router for Web Access	086U4840	•	98
Volume tank WT-V 200	086L3071	•	106
Volume tank WT-V 300	086L3072	•	107
Volume tank WT-V 500	086L3073	•	108
Volume tank WT-V 1000	086L3074	•	109
Water heater WT-C 500	086L3076	•	110
Water heater WT-C 750	086L3077	•	111
Water heater WT-S 500	086L3079	•	112
Water heater WT-S 1000	086L3080	•	113
Water heater WT-T 300	086L3082	•	114
Water heater WT-T 500	086L3083	•	115



DHP-R Eco / DHP-R Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-R Eco	DHP-R	Page
Rubber Compensator	086L3260	•	•	32
Rubber Compensator	086L3261	•	•	32
Flexible hose DN32	086U6001	•	•	35
Flexible hose DN40	086L3433	•	•	38
Rubber hose DN32	086L3435	•	•	39
Rubber hose DN40	086L3436	•	•	40
Rubber hose DN50	086L3437	•	•	41
Control valve (2-way) VVG 44	086U3730	•	•	54
Control valve (2-way) VVG 44	086U3731	•	•	54
Electronic Valve Actuator SQS 65.5 (35 Sec)	086U4837	•	•	55
Flow guard is UR 32CTNR 230V	086U3809	•	•	62
An electronic flow guard	086U3368	•	•	63
An electronic flow guard	086U6002	•	•	63
Magnetite filter for heating installations	086L3894	•	•	69
Magnetite filter for heating installations	086L3895	•	•	69
Magnetite filter for heating installations	086L3896	•	•	69
Network cable 10 m	086U4841	•	•	75
Modular cable	086U4227	•	•	76
Modular cable	086U4228	•	•	76
Modular cable	086U4229	•	•	76
Modular cable	086U6414	•	•	76
Conductor joint	086U4230	•	•	76
Room sensor	086U3354	•	•	82
HPC EM - expansion module: Water Charge System function	086U3395	•	•	83
HPC EM - expansion module: Tap Water Control Function	086U3395	•	•	84
HPC EM - expansion module: Shunt Function	086U3395	•	•	85
HPC CM - Cooling Module	086U3394	•	•	86
Soft start - used to limit the current when the heat pump is started	086L1516	•	•	89
Soft start - used to limit the current when the heat pump is started	086L3629	•	•	89
A circulation pump for the hot gas circuit	086L3004	•	•	90
Switching valve for hot water	086U2471	•	•	91
Switching valve for hot water	086U9938	•	•	91
Strap on temperature sensor with 2 m cable	086U3365	•	•	92
Strap on temperature sensor with connection box PT1000	086U3356	•	•	93
Submersible sensor PT1000	086U3364	•	•	94
Hot water sensor PT1000	086U3350	•	•	95
Dew Point Sensor	086L3396	•	•	96
Terminal block 24 volt circuit	086U5121	•	•	97
Router for Web Access	086U4840	•	•	98
Moxa converter (RS-232 to RS-422/485)	086U9011	•	•	99
Volume tank WT-V 200	086L3071	•	•	106
Volume tank WT-V 300	086L3072	•	•	107
Volume tank WT-V 500	086L3073	•	•	108
Volume tank WT-V 1000	086L3074	•	•	109
Water heater WT-C 500	086L3076	•	•	110
Water heater WT-C 750	086L3077	•	•	111
Water heater WT-S 500	086L3079	•	•	112
Water heater WT-S 1000	086L3080	•	•	113
Water heater WT-T 300	086L3082	•	•	114
Water heater WT-T 500	086L3083	•	•	115



DHP-S Eco / DHP-S Ground source heat pump

Danfoss Heat Pumps

Product name	Product code	DHP-S Eco	DHP-S	Page
Room thermostat	086U6003	•	•	10
Expansion card	086U6009	•	•	12
Danfoss OnLine - control and monitor your heat pump online	086L1900	•	•	14
Link 2.1	086L2381	•	•	15
Link 2.1 & OnLine in one package	086L2948	•	•	16
Rubber Compensator	086L3260	•	•	32
Rubber Compensator	086L3261	•	•	32
Flexible hose DN32	086U6001	•	•	35
Flexible hose DN40	086L3433	•	•	38
Rubber hose DN32	086L3435	•	•	39
Rubber hose DN40	086L3436	•	•	40
Rubber hose DN50	086L3437	•	•	41
Swimming pool control kit	086U3754	•	•	59
Flow guard is UR 32CTNR 230V	086U3809	•	•	62
Magnetite filter for heating installations	086L3894	•	•	69
Magnetite filter for heating installations	086L3895	•	•	69
Magnetite filter for heating installations	086L3896	•	•	69
Soft start - used to limit the current when the heat pump is started	086L1516	•	•	89
Soft start - used to limit the current when the heat pump is started	086L3629	•	•	89
A circulation pump for the hot gas circuit	086L3004	•	•	90
Switching valve for hot water	086U2471	•	•	91
Switching valve for hot water	086U9938	•	•	91
Volume tank WT-V 200	086L3071	•	•	106
Volume tank WT-V 300	086L3072	•	•	107
Volume tank WT-V 500	086L3073	•	•	108
Volume tank WT-V 1000	086L3074	•	•	109
Water heater WT-C 500	086L3076	•	•	110
Water heater WT-C 750	086L3077	•	•	111
Water heater WT-T 300	086L3082	•	•	114
Water heater WT-T 500	086L3083	•	•	115

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