

# Product Range Overview 2012



## Renewable Energies

Heat Pumps

Solar Thermal Systems

## Domestic Heating Products

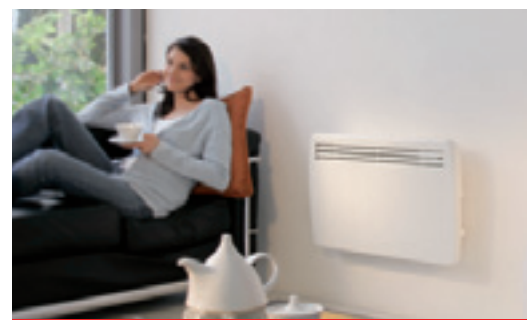
# 2012



Heat Pumps



Solar Thermal Systems



Domestic Heating Systems

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### Heating and domestic hot water preparation package

Max. flow temperature 60 °C

Casing colour White aluminium (similar to RAL 9006)

#### Heat pump and HWK 332 Econ-E Hydro Tower



HPL 6TUW

The Hydro Tower with integrated WPM EconPlus regulation enables the fast and simple connection of a high-efficiency air-to-water heat pump installed outdoors to a heating system with an unmixed heating circuit. The following components are mounted in a space-saving way and wired ready to use.

- Switchable pipe heater (2/4/6 kW) for supplementary heating
- Safety valve incl. connection for an expansion vessel
- Buffer tank (100 l) with installation option for an additional immersion heater (up to CTHK 634)
- Domestic hot water cylinder 300 l with 3.2 m<sup>2</sup> tube heat exchanger and 1.5 kW flange heater for thermal disinfection
- Electronically regulated circulating pump (energy efficiency class A) wired ready to use for unmixed heating circuits (consumer circuit)
- Unregulated auxiliary circulating pump for generator circuit and domestic hot water loading pump
- The hydraulic isolation of the generator circuit and the consumer circuit is carried out via two differential pressureless manifolds (bypass pipes), which are each fitted with a check valve.

To reduce the run times, the unregulated auxiliary circulating pump in the generator circuit is only operated when the compressor is running and when there is a risk of frost. The uniform flow through the buffer tank connected in series extends the runtimes of the compressor and ensures the required heating water flow rate in all operating modes.

**Electrical connection cable EVL . . UE between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C;

Refrigerant R410A; Connection heating 1"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output kW	Features	Weight kg	
HPL 6TUW	364230	5.1	Heat pump and LA 6TU with Hydro Tower HWK 332 Econ-E	375	

Heat output according to EN 14511 at A2/W35.

The technical data for the heat pump can be found on the following pages. The sales package consists of a high-efficiency heat pump without WPM EconPlus-E and the HWK 332 Econ Hydro Tower with integrated heat pump manager.

The HWK 332 Hydro Tower (without integrated HPM) can be ordered for use in combination with air-to-water heat pumps for outdoor installation LA 6-17TU, LA 11-22PS and LA 11TAS. If the heating water connection lines are more than 10 m long, the free compression values stated in the device information must be observed (minimum pipe diameter for volume flows of more than 1.5 m<sup>3</sup>/h: DN 32).

### Heating and domestic hot water preparation package

Max. flow temperature 58 °C

Casing colour White aluminium (similar to RAL 9006)

#### Heat pump and HWK 332 Econ Hydro Tower



HPL ..TUW

The Hydro Tower with integrated WPM EconPlus regulation enables the fast and simple connection of a high-efficiency air-to-water heat pump installed outdoors to a heating system with an unmixed heating circuit. The following components are mounted in a space-saving way and wired ready to use.

- Switchable pipe heater (2/4/6 kW) for supplementary heating
- Safety valve incl. connection for an expansion vessel
- Buffer tank (100 l) with installation option for an additional immersion heater (up to CTHK 634)
- Domestic hot water cylinder 300 l with 3.2 m<sup>2</sup> tube heat exchanger and 1.5 kW flange heater for thermal disinfection
- Electronically regulated circulating pump (energy efficiency class A) wired ready to use for unmixed heating circuits (consumer circuit)
- Unregulated auxiliary circulating pump for generator circuit and domestic hot water loading pump
- The hydraulic isolation of the generator circuit and the consumer circuit is carried out via two differential pressureless manifolds (bypass pipes), which are each fitted with a check valve.

To reduce the run times, the unregulated auxiliary circulating pump in the generator circuit is only operated when the compressor is running and when there is a risk of frost. The uniform flow through the buffer tank connected in series extends the runtimes of the compressor and ensures the required heating water flow rate in all operating modes.

**Electrical connection cable EVL . . U between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C for HPL 12-17TUW, -20 °C for HPL 9TUW; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output kW	Features	Weight kg	
HPL 9TUW	362630	7.5	LA 9TU package with HWK 332 Econ Hydro Tower	418	
HPL 12TUW	362640	9.4	LA 12TU package with HWK 332 Econ Hydro Tower	490	
HPL 17TUW	362650	14.6	LA 17TU package with HWK 332 Econ Hydro Tower	651	

Heat output according to EN 14511 at A2/W35.

The technical data for the heat pump can be found on the following pages. The sales package consists of a high-efficiency heat pump without WPM EconPlus and the HWK 332 Econ Hydro Tower with integrated heat pump manager.

The HWK 332 Hydro Tower (without integrated HPM) can be ordered for use in combination with air-to-water heat pumps for outdoor installation LA 6-17TU, LA 11-22PS and LA 11TAS. If the heating water connection lines are more than 10 m long, the free compression values stated in the device information must be observed (minimum pipe diameter for volume flows of more than 1.5 m<sup>3</sup>/h: DN 32).

### High-efficiency air-to-water heat pump

Max. flow temperature 60 °C

Casing colour White aluminium (similar to RAL 9006)

#### For installation close to walls



LA 6TU

Heat pump for heating purposes for outdoor installation with wall-mounted WPM EconPlus heat pump manager. Sound-optimised through the use of slow-running "owl's wing" EC fans with a low natural sounding noise, an encapsulated compressor housing with swivelling compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator, electronic expansion valve and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The minimum clearance from the wall is only 50 cm on the air intake side, which allows installation close to walls. Universal design for low temperature heating systems with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 56 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**Electrical connection cable EVL . . UE between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R410A; Control voltage ~230 V; Connection heating 1"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
LA 6TU	364050	5.1 / 3.8	3/N/PE ~400 V, 50 Hz	1350 x 940 x 600	165	

Heat output and COP according to EN 14511 at A2/W35.

In snowy areas, the foundation must be of a sufficient height to guarantee a free air intake.

### High-efficiency air-to-water heat pump

Max. flow temperature 58 °C

Casing colour White aluminium (similar to RAL 9006)



LA 9TU

Heat pump for heating purposes for outdoor installation with wall-mounted WPM EconPlus heat pump manager. Sound-optimised through the use of slow-running "owl's wing" ventilators with a low natural sounding noise, an encapsulated compressor housing with free-swinging compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). Access for service work on the outlet side; the minimum clearances must be observed for installation close to walls. Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**Electrical connection cable EVL . . U between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C for LA 12TU, -20 °C for LA 9TU; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
LA 9TU	358520	7.5 / 3.7	3/N/PE ~400 V, 50 Hz	910 x 1460 x 750	208	
LA 12TU	358530	9.4 / 3.7		1250 x 1810 x 750	280	

Heat output and COP according to EN 14511 at A2/W35.

The air outlet must be positioned at a right angle to the main wind direction if unsheltered outdoor installation is carried out.

If this is not possible, a weather-proof protective cover must be installed!



LA 12TU

### High-efficiency air-to-water heat pump

Max. flow temperature 58 °C

Casing colour White aluminium (similar to RAL 9006)

#### With two performance levels



LA 17TU



LA 40TU

Heat pump for heating purposes for outdoor installation, with wall-mounted WPM EconPlus heat pump manager and two compressors for output reduction when operating at partial load. Sound-optimised through the use of slow-running "owl's wing" ventilators with a low natural sounding noise, an encapsulated compressor housing with free-swinging compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). Access for service work on the outlet side; the minimum clearances must be observed for installation close to walls. Universal design with two compressors for modulating operation, optional domestic hot water preparation and flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
  - Distribution systems with unmixed and mixed heating circuits
- Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**Electrical connection cable EVL . . U between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Width x Height x Depth mm	Weight kg	
LA 17TU	358540	8.2 / 3.8	14.6 / 3.7	1600 x 1940 x 952	436	
LA 25TU	358550	11.3 / 3.8	19.6 / 3.7		510	
LA 40TU	358560	16.8 / 3.9	29.3 / 3.8	1735 x 2100 x 952	585	

Heat output and COP according to EN 14511 at A2/W35.

The air outlet must be positioned at a right angle to the main wind direction if unsheltered outdoor installation is carried out.

If this is not possible, a weather-proof protective cover must be installed!

### High-efficiency air-to-water heat pump

Max. flow temperature 65 °C

Casing colour White aluminium (similar to RAL 9006)

#### With two performance levels



LA 60TU

Heat pump for heating purposes for outdoor installation, with wall-mounted WPM EconPlus heat pump manager and two compressors for output reduction when operating at partial load. Sound-optimised through the use of two slow-running EC-3D fans, an encapsulated compressor housing and a free-swinging compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator, electronic expansion valve and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). Access for service work on the outlet side; the minimum clearances must be observed for installation close to walls. Can be easily transported with a lift truck (accessible from underneath) or lifting lugs. Universal design with two compressors for modulating operation, optional domestic hot water preparation and flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 60 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**Electrical connection cable EVL . . UE between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R417A; Control voltage ~230 V; Connection heating 2"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Width x Height x Depth mm	Weight kg	
LA 60TU	362330	26.4 / 3.7	50.0 / 3.6	1900 x 2300 x 1000	915	

Heat output and COP according to EN 14511 at A2/W35.

The flow temperatures that can be achieved depending on the heat source temperature can be derived from the operating limits diagram.

Note:

Dimplex heat pumps for heating purposes are designed for use in a domestic environment and conform to the low voltage directive.

They are thus also intended for use by non-professionals for heating shops, offices, hotels and other similar working environments, in agricultural establishments and other residential buildings. The LA 60TU and SI 130TE heat pumps can be supplied, according to the machinery directive with an external switch box upon request (order reference: LA 60TU-MD, SI 130TE-MD).

## Electric connection line heat pump – heat pump manager

### Essential accessory for heat pumps with electronic expansion valve



EVL 10UE

Three separate control lines between the WPM EconPlus heat pump manager and the high-efficiency air-to-water heat pump with electronic expansion valve for outdoor installation. Wired ready for use with coded plug connections (non-confusable thanks to identical connections at both ends of the cable) for installation in a protective tube (minimum tube Ø 70 mm).

Order reference	Art.-no.	For device type	Length m	Weight kg	
EVL 10UE	363520	LA 6TU LA 60TU	10	5.5	
EVL 20UE	363530		20	10.0	
EVL 30UE	363540		30	15.5	
EVL 40UE	363550		40	21.0	

Essential accessory for high-efficiency air-to-water heat pumps. The control line must be laid separately from the mains cable. Extension of the control line by the customer is not permissible and may void the warranty. The max. length of the hydraulic connection should not exceed 30 m.

### Weather-proof protective cover for LA...TU air-to-water heat pumps



WSH 40

Design weather-proof protective cover for retrofitting high-efficiency air-to-water heat pumps; required for uncovered outdoor installation, when the air intake or the air outlet side is exposed to strong winds.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
WSH 9	362110	LA 9TU	856 x 724 x 370	12.5	
WSH 12	362120	LA 12TU	1195 x 1063 x 460	17.0	
WSH 25	358970	LA 17TU LA 25TU	1600 x 1225 x 568	28.0	
WSH 40	358240	LA 40TU LA 35TUR+	1734 x 1385 x 628	32.0	

### Pipe assembly for LA...TU air-to-water heat pumps

#### For connection from the side



RBS ..U

The pipe assembly which can be screwed directly onto the heat pump consists of two pipes which are specially curved and matched to the high-efficiency air-to-water heat pumps; these pipes have connecting flanges for the connection to the heating water system. When the heat pump is installed close to the outer wall, these pipe assemblies – which are fed out from the side of the heat pump (base frame on the air outlet side, on the right and below the fan, for LA 6TU on the left) – can be used to create an above-ground infeed into the building (thermal insulation required for frost protection). In this case, the underground pipework routing for feeding the pipes into the cellar is not required.

Order reference	Art.-no.	For device type	Connection heating	Weight kg	
RBS 6U	365040	LA 6TU	1	2.2	
RBS 9U	358820	LA 9TU	1¼	2.3	
RBS 12U	358830	LA 12TU		2.5	
RBS 17U	358840	LA 17TU			
RBS 25U	358850	LA 25TU		2.7	
RBS 40U	358860	LA 40TU LA 35TUR+	1½	3.0	
RBS 40ZWT	358330	Additional heat exchanger LA 35TUR+			
RBS 60U	362470	LA 60TU	2	5.2	

When planning the heat pump foundation, observe the insulation thickness for flow and return, the wall clearance and the pipe slope.



## Reversible high-efficiency air-to-water heat pump

### Optimised for heating and cooling

Max. flow temperature 60 °C  
Flow temperature cooling min. 9 °C  
Casing colour White aluminium (similar to RAL 9006)



LA 35TUR+

Heat pump for heating and cooling purposes for outdoor installation with wall-mounted heat pump manager and two compressors for output reduction when operating at partial load. Sound-optimised by electronically controlled fans and an encapsulated compressor housing with free-swinging compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Optimised heating and cooling operation via an external four-way reversing valve which is activated by the controller (special accessory). High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconR heat pump manager). Reversible refrigeration circuit with additional heat exchanger for higher domestic hot water temperatures in heating operation and waste heat recovery in cooling operation. Access for service work on the outlet side; the minimum clearances must be observed for installation close to walls. Can be easily transported with a lift truck (accessible from underneath) or lifting lugs. Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 56 °C. Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**Electrical connection cable EVL . . U between heat pump and heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 40 °C; Lower operating limit heat source (cooling operation) 10 °C; Upper operating limit heat source (cooling operation) 45 °C; Refrigerant R417A; Control voltage ~230 V; Connection heating 1½"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Cooling capacity 1 compressor / EER A27/W7	Cooling capacity 2 compressor / EER A27/W18	Width x Height x Depth mm	Weight kg
LA 35TUR+	358570	13.6 / 4.0	23.6 / 3.7	15.0 / 4.2	32.0 / 3.9	1735 x 2100 x 980	595

Heat output and COP according to EN 14511 at A2/W35.

Cooling capacity and coefficient of performance (EER) according to EN 14511.

At external temperatures above 0 °C, a maximum flow temperature of 60 °C is available, which can also be used for domestic hot water preparation. The flow temperatures that can be achieved depending on the heat source temperature can be derived from the operating limits diagram.

The performance levels stated can only be achieved in combination with the external four-way valve available as a special accessory.

## Four-way reversing valve for reversible heat pumps

### Special hydraulic accessories for cooling



VWU ..



EMS VWU

Four-way reversing valve (1¼" internal thread or 1½" internal thread) for integration into the flow, allows optimised heating and cooling operation of the LA 35TUR+ reversible air-to-water heat pump. Switching takes place via an electromotive actuator (essential accessory) which is activated by the WPM EconR heat pump manager. The actuator is fitted to the reversing valve using a mounting set which is included in the scope of supply of the EMS VWU.

Order reference	Art.-no.	For device type	Recommended volume flow m³/h	Features	Weight kg
VWU 32	358600	LA 35TUR+	3.5	Four-way reversing valve for switching from heating to cooling operation in flow and return. Essential accessories: EMS VWU	2.6
VWU 40	358610		5.5		2.9
EMS VWU	358580	VWU 32 VWU 40		Actuator for 4-way reversing valves VWU, 3-point control signal, 1/N/PE ~230 V, 50/60 Hz for short switching times (set time 30 s at 50 Hz), delivery includes mounting set.	1.5

## Electric connection line heat pump – heat pump manager

### Essential accessories



EVL ..U

Two separate control lines between the WPM EconPlus/EconR heat pump manager and the high-efficiency air-to-water heat pump for outdoor installation. Wired ready for use with coded plug connections (non-confusable thanks to identical connections at both ends of the cable) for installation in a protective tube (minimum tube Ø 70 mm).

Order reference	Art.-no.	For device type	Length m	Weight kg
EVL 10U	355900	LA 9TU - LA 40TU LA 35TUR+	10	5
EVL 20U	355910		20	9
EVL 30U	355920		30	14
EVL 40U	355930		40	16

Essential accessory for high-efficiency air-to-water heat pumps. The control line must be laid separately from the mains cable. Extension of the control line by the customer is not permissible and may void the warranty. The max. length of the hydraulic connection should not exceed 30 m.

### Heating package

#### Heat pump and HPK 200S hydraulic tower



HPL ...

The hydraulic tower (W = 680 mm; H = 1660; D = 775) with integrated WPM 2006 plus controller facilitates quick and easy connection of an air-to-water heat pump installed outdoors to a heating system with an unmixed heating circuit. The following components are mounted and wired in a space saving way in the white sheet steel casing, which has a red-brown design screen:

- Switchable pipe heater (2/4/6 kW)
- Buffer tank (200 l) with installation option for an additional immersion heater (up to CTHK 634)
- Electronically regulated circulating pump (energy class A) for unmixed heating circuits (consumer circuit)
- Expansion vessel (24 l) with safety module
- The hydraulic isolation of the generator circuit and the consumer circuit is carried out via two differential pressureless manifolds (bypass pipes), which are each fitted with a check valve.

To reduce the run times, the unregulated auxiliary circulating pump in the generator circuit is only operated when the compressor is running and when there is a risk of frost. The uniform flow through the buffer tank connected in series extends the runtimes of the compressor and ensures the required heating water flow rate in all operating modes. Integration option for a domestic hot water load pump (inside micrometer 180 mm, DN 25) and an additional mixed heating circuit (special accessories).

**The EVL ... electric cable for connecting the heat pump and the hydraulic tower must be ordered separately.**

Order reference	Art.-no.	Features	Weight kg	
HPL 11MAS	363970	LA 11MAS heating package and HPK 200S hydraulic tower	376	
HPL 16MAS	363980	LA 16MAS heating package and HPK 200S hydraulic tower	414	
HPL 11TAS	362690	LA 11TAS heating package and HPK 200S hydraulic tower	380	
HPL 16TAS	362700	LA 16TAS heating package and HPK 200S hydraulic tower	416	
HPL 20AS	356750	LA 20AS heating package and HPK 200S hydraulic tower	471	
HPL 24AS	356760	LA 24AS heating package and HPK 200S hydraulic tower	538	
HPL 28AS	356770	LA 28AS heating package and HPK 200S hydraulic tower	542	
HPL 8PMS	363310	LA 8PMS heating package and HPK 200S hydraulic tower	419	
HPL 11PS	356790	LA 11PS heating package and HPK 200S hydraulic tower	446	
HPL 14PMS	363830	LA 14PMS heating package and HPK 200S hydraulic tower	443	
HPL 17PS	356800	LA 17PS heating package and HPK 200S hydraulic tower	517	
HPL 22PS	356810	LA 22PS heating package and HPK 200S hydraulic tower	547	
HPL 26PS	356820	LA 26PS heating package and HPK 200S hydraulic tower	558	
HPL 26HS	356840	LA 26HS heating package and HPK 200S hydraulic tower	605	

The hydraulic tower cannot be ordered separately due to the integrated heat pump manager. For every combinable heat pump, there is a sales package consisting of the heat pump without the controller and the hydraulic tower.

The technical data for the heat pump can be found on the following pages.

**If the heating water connection lines are more than 10 m long, the free compression values stated in the device information must be observed (minimum pipe diameter for volume flows of more than 1.5 m³/h: DN 32).**

### Hydro Tower with external heat pump manager

#### Compact installation for heating and domestic hot water preparation



HWK 332

The Hydro Tower enables the fast and simple connection of a heat pump for heating purposes to a heating system with an unmixed heating circuit. The heat pump manager included in the scope of supply of the heat pump is used for the electronic control of the components (external wiring required). The following components are installed in a space-saving way and wired ready for use:

- Switchable pipe heater (2/4/6 kW) for supplementary heating
- Buffer tank (100 l) with installation option for an additional immersion heater (up to CTHK 634)
- Domestic hot water cylinder 300 l with 3.2 m² tube heat exchanger and 1.5 kW flange heater for thermal disinfection
- Electronically regulated circulating pump (energy efficiency class A) wired ready to use for unmixed heating circuits (consumer circuit)
- Unregulated auxiliary circulating pump for generator circuit and domestic hot water loading pump
- The hydraulic isolation of the generator circuit and the consumer circuit is carried out via two differential pressureless manifolds (bypass pipes), which are each fitted with a check valve.

To reduce the run times, the unregulated auxiliary circulating pump in the generator circuit is only operated when the compressor is running and when there is a risk of frost. The uniform flow through the buffer tank connected in series extends the runtimes of the compressor and ensures the required heating water flow rate in all operating modes. NTC-10M temperature sensor pre-installed, NTC-2M in scope of supply.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
HWK 332	362360	LA 6 - 17TU, LA 11TAS(MAS), LA 8 - 22P(M)S LI 9 / 11TES; LI 9 / 12TU SIH 6 - 11TE; SI 6 - 11TU WI 10 / 14TU	710 x 1890 x 950	210	

**If the heating water connection lines are more than 10 m long, the free compression values stated in the device information must be observed (minimum pipe diameter for volume flows of more than 1.5 m³/h: DN 32). When using the Hydro Tower with LA 8PMS or LA 11PS heat pumps, the pre-mounted sensors must be replaced by the NTC-2 sensors included in the scope of supply.**



## Low temperature air-to-water heat pump

### Low temperature air-to-water heat pump

Max. flow temperature 55 °C

Casing colour White aluminium (similar to RAL 9006)

#### For installation close to walls



LA 11MAS

Air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 plus heat pump manager. Sound-optimised through the use of low-noise, owl's wings' ventilator blades. Energy-efficient defrosting by reverse circulation. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

The minimum clearances must be observed for installation close to walls. Integrated flow sensor and soft starter; return sensor and external temperature sensor included in the scope of supply.

**The EVL . . . electric cable for connecting the heat pump and the heat pump manager, must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1 °; Connection voltage 1/N/PE ~230 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
LA 11MAS	363760	7.9 / 3.4	1/N/PE ~230 V, 50 Hz	1050 x 1340 x 852	189	
LA 16MAS	363770	11.9 / 3.1		1074 x 1550 x 852	229	

Heat output and COP according to EN 14511 at A2/W35.

The air outlet must be positioned at a right angle to the main wind direction if unsheltered outdoor installation is carried out.

### Low temperature air-to-water heat pump

Max. flow temperature 58 °C

Casing colour White aluminium (similar to RAL 9006)

#### For installation close to walls



LA 11TAS

Air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 plus heat pump manager. Sound-optimised through the use of low-noise, owl's wings' ventilator blades. Energy-efficient defrosting by reverse circulation. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

The minimum clearances must be observed for installation close to walls. Integrated flow sensor and soft starter; return sensor and external temperature sensor included in the scope of supply.

**The EVL . . . electric cable for connecting the heat pump and the heat pump manager, must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1 °; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
LA 11TAS	362570	8.6 / 3.4	3/N/PE ~400 V, 50 Hz	1050 x 1340 x 852	193	
LA 16TAS	362580	11.7 / 3.2		1075 x 1550 x 852	231	

Heat output and COP according to EN 14511 at A2/W35.

The air outlet must be positioned at a right angle to the main wind direction if unsheltered outdoor installation is carried out.

### Reversible air-to-water heat pump

Max. flow temperature 58 °C

Flow temperature cooling min. 7 °C

Casing colour White aluminium (similar to RAL 9006)

#### Optimised for heating operation



LA 11MSR

Air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 R heat pump manager and reversible refrigeration circuit for heating and cooling. Sound-optimised through the use of low-noise crescent wing axial fans and deflector hoods. Energy-efficient defrosting by reverse circulation und diagonally positioned evaporator. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent operation (bivalent-renewable not possible)
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits

Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room.

**The EVL . . . R electric cable for connecting the heat pump and the heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Lower operating limit heat source (cooling operation) 15 °C; Upper operating limit heat source (cooling operation) 40 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1 °; Connection voltage 1/N/PE ~230 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Cooling capacity 1 compressor / EER A27/W7	Connection heating °	Width x Height x Depth mm	Weight kg	
LA 11MSR	342690	8.8 / 3.3	8.8 / 2.8	1	1360 x 1360 x 860	224	

Heat output and COP according to EN 14511 at A2/W35.

Cooling capacity and coefficient of performance (EER) according to EN 14511.

If sound protection requirements are very high, we recommend installing double-sphere rubber expansion joints between the heat pump and the heating system in order to optimise solid-borne sound insulation. KOMP expansion joints available as special accessories.

## Reversible air-to-water heat pump

Max. flow temperature 58 °C

**Optimised for heating operation with waste heat recovery** Flow temperature cooling min. 7 °C Casing colour White aluminium (similar to RAL 9006)



LA 11ASR

Air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 R heat pump manager and reversible refrigeration circuit for heating and cooling. Sound-optimised through the use of low-noise crescent wing axial fans and deflector hoods. Energy-efficient defrosting by reverse circulation und diagonally positioned evaporator. Reversible refrigeration circuit with additional heat exchanger for higher domestic hot water temperatures in heating operation and waste heat recovery in cooling operation. Universal design with flexible expansion options for:

- Bivalent operation (bivalent-renewable not possible)
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits

Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**The EVL . . . R electric cable for connecting the heat pump and the heat pump manager must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Lower operating limit heat source (cooling operation) 15 °C; Upper operating limit heat source (cooling operation) 40 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Cooling capacity 1 compressor / EER A27/W7	Connection heating	Width x Height x Depth mm	Weight kg	
LA 11ASR	342730	8.8 / 3.1	8.8 / 2.8	1	1360 x 1360 x 850	241	
LA 16ASR	340090	12.7 / 3.2	12.5 / 2.6		1550 x 1570 x 850	289	

Heat output and COP according to EN 14511 at A2/W35.

Cooling capacity and coefficient of performance (EER) according to EN 14511.

The use of waste heat for domestic hot water preparation produces higher coefficients of performance (COP) in cooling operation.

Special accessories are listed in the regulation section for avoiding condensate in cooling operation.

## Air-to-water heat pump – higher flow temperature

### Medium temperature air-to-water heat pump

Max. flow temperature 65 °C

Casing colour White aluminium (similar to RAL 9006)



LA 8PMS



LA 11PS

Medium temperature air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 plus heat pump manager. Sound-optimised through the use of noise-reducing crescent wing axial fans and air deflector hoods; energy-efficient hot gas defrosting for optimum operation in combination with radiators. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated flow sensor and soft starter; return sensor and external temperature sensor included in the scope of supply.

**The EVL . . . electric cable for connecting the heat pump and the heat pump manager, must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R290; Control voltage ~230 V; Connection heating 1¼"

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
LA 8PMS	362350	6.0 / 3.1	1/N/PE ~230 V, 50 Hz	1362 x 1361 x 852	232	
LA 11PS	353320	8.7 / 3.0	3/N/PE ~400 V, 50 Hz	1550 x 1570 x 850	259	

Heat output and COP according to EN 14511 at A2/W35.

The higher flow temperatures are available for domestic hot water preparation all year round.

## Medium temperature air-to-water heat pump

Max. flow temperature 65 °C

### With two performance levels

Casing colour White aluminium (similar to RAL 9006)



LA 17PS



LA 14PMS

Medium temperature air-to-water heat pump for outdoor installation with external temperature controlled WPM 2006 plus heat pump manager and two compressors for flexible output adjustment. Sound-optimised through the use of noise-reducing crescent wing axial fans and air deflector hoods; energy-efficient hot gas defrosting for optimum operation in combination with radiators. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
  - Distribution systems with unmixed and mixed heating circuits
- Integrated flow sensor and soft starter; return sensor and external temperature sensor included in the scope of supply.

**The EVL . . . electric cable for connecting the heat pump and the heat pump manager, must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R290; Control voltage ~230 V; Connection heating 1½". Connection voltage 1/N/PE ~230 V, 50 Hz for LA 14PMS; Connection voltage 3/N/PE ~400 V, 50 Hz for heat pumps LA 17-26PS

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Width x Height x Depth mm	Weight kg	
LA 14PMS	363820	5.8 / 2.9	10.2 / 3.1	1552 x 1571 x 852	256	
LA 17PS	353330	8.3 / 3.0	14.3 / 3.0	1550 x 1570 x 850	330	
LA 22PS	348420	10.5 / 3.0	16.5 / 3.0	1680 x 1710 x 1000	360	
LA 26PS	351890	11.5 / 3.0	18.6 / 3.0		371	

Heat output and COP according to EN 14511 at A2/W35.

The higher flow temperatures are available for domestic hot water preparation all year round.

## High temperature air-to-water heat pump

Max. flow temperature 75 °C

### With low temperature and high temperature levels

Casing colour White aluminium (similar to RAL 9006)



LA 26HS

High temperature air-to-water heat pump for outdoor installation with external temperature controlled heat pump manager.

Sound-optimised through the use of low-noise crescent wing axial fans and deflector hoods. Energy-efficient defrosting by reverse circulation and diagonally positioned evaporator. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

In the summer a maximum flow temperature of 58 °C is available for domestic hot water preparation. Integrated flow sensor and soft starter; return sensor and external temperature sensor included in the scope of supply.

**The EVL . . . electric cable for connecting the heat pump and the heat pump manager, must be ordered separately.**

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Refrigerant R134a; Control voltage ~230 V; Connection heating 1½"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A-7/W45	Width x Height x Depth mm	Weight kg	
LA 26HS	340130	15.7 / 3.0	15.2 / 2.2	1680 x 1710 x 1000	418	

Heat output and COP according to EN 14511 at A2/W35.

Heat output with 2 compressors and coefficient of performance (COP) according to EN 14511 at A7/W45 (A7 = air intake temperature -7 °C, W45 = heating water outlet temperature +45 °C)

The maximum flow temperature of 75 °C is reached at an air intake temperature from -25 °C to +10 °C (high temperature level).

At outdoor temperatures above 10 °C, the maximum flow temperature is +58 °C (low temperature level)

### Electric connection line heat pump – heat pump manager



EVL ...

Control line between the heat pump manager and the air-to-water heat pump for outdoor installation. Wired ready for use and with coded plug connections at both ends for installation in a protective tube (minimum diameter 70 mm, non-confusable: round plug for connection to the heat pump).

Order reference	Art.-no.	For device type	Length m	Weight kg	
EVL 996-1	321990	LA ..P(M)S LA ..MS LA ..TAS/MAS	10	2.9	
EVL 997-1	322000		20	4.6	
EVL 998-1	322010		30	8.7	
EVL 999-1	359120		40	12.8	

The control line must be laid separately from the mains cable. Extension of the control line by the customer is not permissible and may void the warranty. The max. length of the hydraulic connection should not exceed 30 m.

### Electric connection line heat pump – heat pump manager



EVL 10...30R

Control line between the WPM 2006 R heat pump manager and a reversible air-to-water heat pump for outdoor installation. Wired ready for use and with coded plug connections on both ends (non-confusable) for installation in a protective conduit (diameter min. 70 mm).

Order reference	Art.-no.	For device type	Length m	Weight kg	
EVL 10R	342510	LA ..R	10	5.0	
EVL 20R	342520		20	9.0	
EVL 30R	342530		30	14.0	
EVL 40R	363720		40	18.0	

The control line must be laid separately from the mains cable. Extension of the control line by the customer is not permissible and may void the warranty. The max. length of the hydraulic connection should not exceed 30 m.

### Electric band heater

Self-regulating band heater for heating the condensate drain hose of air-to-water heat pumps. Pre-installed cooling conductor for connecting to the power supply of the heat pump. For installation in the condensate drain hose (heated length 1.5 m). Delivery including installation material for parallel operation with the nozzle ring heater.

Order reference	Art.-no.	Length m	Rated power W	Connection voltage	
KAH 150	366630	1.5	38	1/N/PE ~230 V, 50 Hz	

Recommended accessories if frost-free condensate drain cannot be ensured outside of the heat pump (for example, in colder regions with long frost periods).

### Heating water connection line, heat pump heating system

#### Optimised for connection to a heat pump



HVL ..

Isolated 2-pipe system suitable for ground-laying with ready-to-use 90° bend (bend radius 200 mm) for vertical connection to a heat pump installed outdoors. Suitable for heat pumps for heating and cooling; max. operating temperature 95 °C; max. operating pressure 6 bar (at 65 °C – 9 bar); loading capacity SWL 60 (33 kN/m²). Consists of PE-Xa medium pipes with EVOH barrier layer to prevent oxygen diffusion, closed-cell crosslinked PE foam and a highly-flexible corrugated PE-HD cover pipe; includes a ready-to-use 90° connection pipe (length 1.2 m) for quick and easy connection to the heat pump, including two PE end caps, hazard-warning tape, 'Caution district heating' and four screw fittings (2 x 1¼" internal thread, 2 x 1¼" external thread).

Order reference	Art.-no.	Connection heating "	Features	Weight kg	
HVL 25-50	358650	1¼	Length 5 m + 1.2 m connection pipe, 2 x 32/2.9 Ø cover pipe, 145 mm	29	
HVL 25-75	358660		Length 7.5 m + 1.2 m connection pipe, 2 x 32/2.9 Ø cover pipe, 145 mm	33	
HVL 25-100	358670		Length 10 m + 1.2 m connection pipe, 2 x 32/2.9 Ø cover pipe, 145 mm	38	
HVL 25-150	358880		Length 15 m + 1.2 m connection pipe, 2 x 32/2.9 Ø cover pipe, 145 mm	42	

Additional transitional screw connections (1¼" thread-sealing to 1½" flat-sealing) are required for high-efficiency heat pumps. The pressure drops required for pump dimensioning can be found in the installation instructions.

## Connection heat pump - heating water connection line

### Optimised for connection to a heat pump



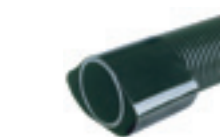
VSF ..

Flexible hose connection set, length 250 mm, for fast and simple connection of an air-to-water heat pump (installed outdoors) to a heating water connection line laid under the ground. Consists of two insulated stainless steel Wellflex pipes with cap nuts and screw connections.

Order reference	Art.-no.	For device type	Connection heating	Features	Weight kg	
VSF 25	361790	LA 9 - 17TU LA 11PS	1 1/4	Stainless steel Wellflex DN 25	1.4	
VSF 32	361800	LA 25TU LA 17 - 26PS LA 26HS		Stainless steel Wellflex DN 32		

## House infeeds for heating water connection line

### For pressuring and non-pressuring water



MDM ..



MDF ..

House infeeds as an accessory for HVL 25 heating water connection lines. The MDM sealing collars, consisting of a protection tube with shrink hose, are suitable for non-pressuring water (rain water, surface water and leakage water). The MDF sealing flange (stainless steel V2A) is suitable for pressuring water (slope water, ground water, plain tracts and water veins).

Order reference	Art.-no.	Short text	Features	Weight kg	
MDM 145	358890	Wall-sealing collar (protection tube with shrink hose)	Sealing collar for HVL 25 (cover Ø 145 mm) as a house infeed (recommended drilling Ø 220 mm) through brickwork	1.3	
MDF 145	358910	Wall-sealing flange (stainless steel V2A)	Wall-sealing flange for HVL 25 (cover Ø 145 mm), sealing width 80 mm, recommended drilling Ø 250 mm	2.3	

For brickwork walls:

So that water cannot penetrate the house infeeds, these must be painted with a bitumen-based protective coating.

The house feed-through (MDF) must additionally be stabilised with a casing tube to seal it against pressuring water.

## General installation material

### for connecting the heat pump to the heating system



SMF ..



AS ...



TUE ...



SCHT ...

Order reference	Art.-no.	Short text	Connection heating	Features	Weight kg	
SMF 25	362130	DN 25 dirt trap	1	Mesh size 0.6 mm for LA 8 - LA 16AS(R)/PS	1.0	
SMF 32	362140	DN 32 dirt trap	1¼	Mesh size 0.6 mm for LA 17 - 28PS/AS/HS	1.2	
AS 976	322180	Connecting hose 1" (25 x 4.5 mm)	1	Flexible, compression-proof hose for connecting the heat pump to the heating system, max. permissible temperature 80 °C, length 10 m, can be cut to length, without insulation.	7.0	
AS 976-1	330530	Connecting hose 1¼" (32 x 5.5 mm)	1¼		8.5	
SCHT 975-1	322250	1" external thread hose nozzle for 1" connecting hose	1	Hose nozzle with external thread and hose clip for connecting hose (for connection to the heating system e.g. compact manifold).	0.2	
SCHT 975-3	322260	1¼" external thread hose nozzle for 1" connecting hose	1¼		0.3	
SCHT 975-4	330540	1¼" external thread hose nozzle for 1¼" connecting hose				
TUE 430	337430	1" nozzle for 1" connecting hose	1	Nozzle with cap nut (internal thread) for connecting hose (for connection to heat pump).	0.2	
TUE 440	337440	1¼" nozzle for 1¼" connecting hose	1¼		0.3	

Their allocation to heat pumps and further information concerning the recommended use of the expansion joints can be found in the product section on heat pump distribution systems.

### Air-to-water heat pump in split design

Max. flow temperature 55 °C  
Casing colour White



LIA 7-9IM



LIA 12-16IM

Heat pump for heating with hydraulic unit (indoor) – and an outdoor unit, which are connected via a refrigerant pipe (special accessory). The outdoor unit with an output-regulated compressor (inverter) adapts the heat output to the heat consumption of the building and can be installed close to walls. The electrical connection between the indoor and outdoor units is via a 4-wire cable not included in the scope of supply. The hydraulic unit contains the following components:

- Heat exchanger for connecting an unmixed heating circuit
- Circulating pump for heating and domestic hot water preparation
- Integrated pipe heater 3 kW (LIA 7-9IM)
- Integrated pipe heater 6 kW (LIA 12-16IM)
- Safety valve and expansion vessel 10 l
- Display with segment display

Simplified regulation for heating and domestic hot water preparation with external temperature-led heating regulation for mono energy operation and definable time windows for domestic hot water preparation. Bivalent connection as return temperature lowering without domestic hot water preparation. External, flow and return sensors integrated in the heat pump.

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R410A; Connection heating ¾"; Connection voltage 1/N/PE ~230 V, 50 Hz

Order reference	Art.-no.	Heat output with 1 compressor / COP A7/W35	Outdoor component weight kg	Indoor component weight kg	Indoor component width x Height x Depth mm	Outdoor component width x Height x Depth mm
LIA 7IM	365180	7.0 / 4.4	66	34	504 x 644 x 295	900 x 795 x 320
LIA 9IM	365190	9.0 / 4.1				
LIA 12IM	365200	12.0 / 4.6	106	50	502 x 892 x 353	900 x 1340 x 320
LIA 14IM	365210	14.0 / 4.5				
LIA 16IM	365220	16.0 / 4.2				

Heat output and coefficient of performance (COP) according to EN 14511 at A7/W35 (A7 = air intake temp. +7 °C, W35 = heating water outlet temp. +35 °C)

It is absolutely essential that the commissioning of the split heat pump takes place via after-sales service (IN 30 WPS) owing to the cooling technology training required to connect the indoor and outdoor units. Dimplex split heat pumps feature a single-phase electrical connection (230 V). They do not automatically meet the applicable **technical connection conditions (TCC)**. Consent should therefore be obtained from the utility company prior to connection. A utility block can be implemented via a contactor provided by the customer which disconnects all power to the heat pump.

### Refrigerant pipes for split heat pump



SKML ...

Empty refrigerant pipes according to EN-12735-1 with protective caps, including UV-resistant polyethylene-based insulation; wall thickness Cu 0.8 – 1.0 mm; Insulation thickness 9 mm.

Order reference	Art.-no.	For device type	Length m	Cross section refrigerant pipe
SKML 725	365760	LIA 7-9IM	25	¼"/½"
SKML 1225	365770	LIA 12-16IM	25	¾"/1"

### Electric band heater

#### For heating the condensate tray



KWH 60

Thermostatically regulated band heater for heating the metal condensate tray (on/off temperature: 5 °C/10 °C), power supply from external unit of the split heat pump.

Order reference	Art.-no.	Length m	Rated power W	Connection voltage
KWH 60	365270	1.5	60	1/N ~230 V, 50 Hz

A condensate drain heater must be installed if the split heat pump is used beneath the frost line.

### Split air-to-water heat pump wall bracket



WKS 357

Order reference	Art.-no.	For device type	Features
WKS 357	343230	LIA 7-9IM	Wall bracket for mounting the outdoor component e.g. on an external wall incl. damping elements and fixing material. (Set of 2 brackets)

### Dirt trap



SMF ..

Dirt trap for installation into the heating circuit (return to the heat pump), suitable for all non-corrosive substances up to 150 °C. To protect the heat pump against damage caused by impurities and thus extend its service life.

Order reference	Art.-no.	For device type	Connection heating	Mesh size mm	Weight kg
SMF 25-04	363840	LIA 7-9IM	1	0.4	1.0
SMF 32-04	364030	LIA 12-16IM	1¼		1.2



### Air-to-water swimming pool heat pump

Casing colour White aluminium (similar to RAL 9006)

#### With titanium heat exchanger



LAS 10-22M(T)T

Air-to-water heat pump for outdoor installation for heating swimming pool water. Titanium heat exchanger for safe operation, also suitable for salt water and any type of water preparation; efficient use of environmental energy thanks to the scroll compressor; year-round operation thanks to integrated automatic defrosting as standard, soft starter as standard; control via wired remote control included in the scope of supply; stainless steel upright support; powder-coated sheet steel casing.

Lower operating limit heat source (heating operation) -10 °C; Upper operating limit heat source (heating operation) 35 °C;

Refrigerant R407C; Control voltage ~230 V; Connection heating 1 "

Order reference	Art.-no.	Heat output 1 compressor / COP A20/W24	Connection voltage	Width x Height x Depth mm	Weight kg	
LAS 10MT	352060	12.1 / 4.2	1/N/PE ~230 V, 50 Hz	1285 x 880 x 695	147	
LAS 15MT	352070	16.6 / 4.7			155	
LAS 22TT	352080	22.3 / 5.1	3/N/PE ~400 V, 50 Hz		162	

Heat output and coefficient of performance (COP) at A20/W24.

### High-efficiency air-to-water heat pump

Max. flow temperature 60 °C

Casing colour White (similar to RAL 9003)

#### With variable air circuit



LI 12TU

Heat pump for heating purposes for indoor installation with integrated WPM EconPlus. Sound-optimised through the use of slow-running EC 3D radial fans, an encapsulated compressor housing and a free-swinging compressor baseplate for solid-borne sound insulation. High coefficients of performance (COP) through high-performance evaporator, electronic expansion valve and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. High operational safety through sensor monitoring of the refrigeration circuit for energy-efficient defrosting; integrated thermal energy metering (display of the thermal energy volume for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The integrated air circuit with 90° air deflection enables installation in a corner without air ducts or wall installation with air ducts on the air outlet side. Variable installation thanks to air intake from the rear, flexible air outlet to the right, left or top, and the option of making the hydraulic connections from right to left. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design for low temperature heating systems with flexible expansion options for:

- Room temperature control via Smart RTC (special accessory)
- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 56 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R410A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg	
LI 9TU	364060	6.8 / 3.9	Right / left / top	960 x 1560 x 780	256	
LI 12TU	364070	9.4 / 4.0			270	

Heat output and COP according to EN 14511 at A2/W35.

## Air-to-water heat pump with variable air circuit

### Air-to-water heat pump for indoor installation

Max. flow temperature 58 °C

Casing colour White (similar to RAL 9003)

#### With variable air circuit



LI 15TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. Sound-optimised through a low-noise, low-speed 3D radial fan and free-swinging compressor baseplate; energy-efficient defrosting via reverse circulation. The integrated air circuit with 90° air deflection enables installation in a corner without air ducts or wall installation with air ducts on the air outlet side. Variable installation thanks to air intake from the rear, flexible air outlet to the right, left or top, and the option of making the hydraulic connections from right to left. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg	
LI 15TE	363590	12.0 / 3.2	Right / left / top	960 x 1560 x 780	270	

Heat output and COP according to EN 14511 at A2/W35.

### Built-under buffer tank



PSP 120E

Nominal capacity 120 l; in air-to-water heat pump design to enable space-saving installation on top of the built-under buffer tank; PU insulation with minimal downtime losses (can be used for heating and cooling), including 1 x 1½" sleeve for immersion heaters (up to CTHK 636); 1¼" heating water connections; 4 supporting feet; colour white/design screen brown-red.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
PSP 120E	363750	LI 9/12TU LI 15TE	960 x 600 x 780	83	

### Low temperature air-to-water heat pump

Max. flow temperature 60 °C  
Casing colour White (similar to RAL 9003)

#### Compact design



LIK 8TES

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit with 90° air deflection enables installation in a corner without air ducts or wall installation with air ducts on the air outlet side. Sound-optimised through low-noise axial fan and vibration-isolated compressor. High coefficients of performance (COP) using an evaporator optimised for heating operation and energy-efficient defrosting by reverse circulation. Compact design with optional domestic hot water preparation and integrated components for direct connection of an unmixed heating circuit (must not be used for bivalent systems):

- Expansion vessel (24 l)
- Heat circulating pump (efficiency class A, note the free compression)
- Overflow valve and safety module
- Buffer tank (50 l) with integrated 2 kW heating element

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 53 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) and 3 flexible connecting hoses (1", 500 mm) included in the scope of supply. Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R410A; Control voltage ~230 V; Connection heating 1"

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Air outlet	Width x Height x Depth mm	Weight kg	
LIK 8TES	366030	6.6 / 3.5	3/PE ~400 V, 50 Hz	Right	750 x 1900 x 680	236	

Heat output and COP according to EN 14511 at A2/W35.  
Available for delivery from May 2012 onwards.

### Low temperature air-to-water heat pump

Max. flow temperature 60 °C  
Casing colour White (similar to RAL 9003)

#### Universal design



LI 9TES

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit with 90° air deflection enables installation in a corner without air ducts or wall installation with air ducts on the air outlet side. Sound-optimised through low-noise axial fan and vibration-isolated compressor. High coefficients of performance (COP) using an evaporator optimised for heating operation and energy-efficient defrosting by reverse circulation. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits
- Built-in pipe heater (2/4/6 kW)

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 53 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply. Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R410A; Control voltage ~230 V; Connection heating 1"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg	
LI 9TES	366040	6.6 / 3.5	Right	750 x 1250 x 680	181	

Heat output and COP according to EN 14511 at A2/W35.  
Available for delivery from June 2012 onwards.

## Medium temperature air-to-water heat pump

Max. flow temperature 65 °C

Casing colour White (similar to RAL 9003)

### Compact design



LIKI 14TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit with 90° air deflection enables installation in a corner without air ducts or wall installation with air ducts on the air outlet side. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side, optimised high-performance evaporator for heating operation and dual differential pressureless manifold for reducing pump operating time. Sound-optimised through low-noise fan and insulated metal casing; integrated solid-borne sound insulation for direct connection to the heating system with free-swinging compressor base plate.

Compact design with optional domestic hot water preparation and integrated components for direct connection of an unmixed heating circuit (must not be used for bivalent systems):

- Circulating pump (observe the free compression)
- Expansion vessel (24 l)

120 l buffer tank (can be dismantled) with integrated switchable supplementary heating 3/6 kW, safety module. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply. A heat circulating pump not included in the scope of supply is required for the distribution system.

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C;

Refrigerant R417A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg
LIKI 14TE	356010	9.9 / 3.4	Right	960 x 2100 x 780	365

Heat output and COP according to EN 14511 at A2/W35.

For the air circuit, varying duct dimensions must be used (air intake side 800, air outlet side 600). Transport heights when disassembled: Heat pump with hydraulics approx. 1.65 m, buffer tank approx. 55 cm.

## Air connection plate for air outlet side LIKI 14TE

### For modification of the air circuit



ABL 14

Air connection plate for mounting on the LIKI 14TE air-to-water heat pump. By mounting the side covering panel onto the left side of the heat pump, the air outlet side can be moved from the standard right-side air circuit to the opposing left side; side wall painted (white, similar to RAL 9003) assembly material included.

Order reference	Art.-no.	For device type	Weight kg
ABL 14	358210	LIKI 14 - outlet	3.5

## Air-to-water heat pump with straight air circuit

## Low temperature air-to-water heat pump

Max. flow temperature 60 °C

Casing colour White (similar to RAL 9003)

### Universal design



LI 11TES

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit enables corner or wall installation with air ducts at the air intake and the air outlet side. Sound-optimised through low-noise axial fan and vibration-isolated compressor. High coefficients of performance (COP) using an evaporator optimised for heating operation and energy-efficient defrosting by reverse circulation. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits
- Built-in pipe heater (2/4/6 kW)

At an external temperature of -10 °C, the maximum flow temperature that can be achieved is 53 °C. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) -20 °C; Upper operating limit heat source (heating operation) 35 °C;

Refrigerant R410A; Connection heating 1¼"

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Connection voltage	Air outlet	Width x Height x Depth mm	Weight kg
LI 11TES	366050	8.3 / 3.6	3/N/PE ~400 V, 50 Hz	Right	750 x 1360 x 880	216
LI 16TES	366060	12.6 / 3.2			750 x 1570 x 880	245

Heat output and COP according to EN 14511 at A2/W35.

LI 16TES available from October 2012 onwards.

## Built-under buffer tank



PSP 140E

Nominal capacity 140 l; in air-to-water heat pump design to enable space-saving installation on top of the built-under buffer; polyurethane insulation with minimal downtime losses (can be used for heating and cooling), incl. 2½" sleeves for immersion heaters (up to CTHK 636); 1" heating water connections; colour: white; brown red design screen.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
PSP 140E	353970	LI 11 - LI 20TE(S)	750 x 600 x 880	72	

## Low temperature air-to-water heat pump

Max. flow temperature 58 °C

Casing colour White (similar to RAL 9003)

### Universal design with two performance levels

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit enables corner or wall installation with air ducts at the air intake and the air outlet side. Sound-optimised through low-noise axial fan and vibration-isolated compressor. High coefficients of performance (COP) using an evaporator optimised for heating operation and energy-efficient defrosting by reverse circulation. Universal design with two compressors for output reduction when operating at partial load, optional domestic hot water preparation and flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg	
LI 20TE	352670	8.6 / 3.1	14.6 / 3.0	Right	750 x 1570 x 880	255	
LI 24TE	352690	10.5 / 3.0	18.7 / 3.1		750 x 1710 x 1030	310	
LI 28TE	352710	12.4 / 3.0	20.8 / 3.1			314	

Heat output and COP according to EN 14511 at A2/W35.

## High temperature air-to-water heat pump

Max. flow temperature 75 °C

Casing colour White (similar to RAL 9003)

### Universal design with low temperature and high temperature levels

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). The integrated air circuit enables corner or wall installation with air ducts at the air intake and the air outlet side. Sound-optimised through low-noise axial fan and vibration-isolated compressor. High coefficients of performance (COP) using an evaporator optimised for heating operation and energy-efficient defrosting by reverse circulation. Universal design with low temperature and high temperature levels, optional domestic hot water preparation and the possibility of flexible expansion for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

In the summer a maximum flow temperature of 58 °C is available for domestic hot water preparation. Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Refrigerant R134a; Control voltage ~230 V; Connection heating 1¼"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output with 2 compressor / COP A-7/W45	Width x Height x Depth mm	Weight kg	
LIH 26TE	352740	15.7 / 3.0	15.2 / 2.2	750 x 1710 x 1030	377	

Heat output and COP according to EN 14511 at A2/W35.

Heat output with 2 compressors and coefficient of performance (COP) according to EN 14511 at A7/W45.

The maximum flow temperature of 75 °C is reached at an air intake temperature from -25 °C to +10 °C (high temperature level).

At outdoor temperatures above 10 °C, the maximum flow temperature is +58 °C (low temperature level).

## Low temperature air-to-water heat pump

Max. flow temperature 58 °C

Casing colour White

### For wall installation with two performance levels



LI 40AS

Heat pump for heating purposes for indoor installation with wall-mounted WPM 2006 Plus heat pump manager and two compressors for output reduction when operating at partial load. The air is drawn in via the heat pump installed directly in front of the wall. The air circuit on the air outlet side is established via air ducts. Sound-optimised through low-noise, low-speed axial fan and encapsulated compressor housing; energy-efficient defrosting by reverse circulation. High coefficients of performance (COP) through high-performance evaporator and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Universal design with two compressors for modulating operation, optional domestic hot water preparation and flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter and flow sensors; return and external sensors (standard NTC-2) included in the scope of supply.

Electrical connection line EVL 996-1 (10 m) between heat pump and heat pump manager included in the scope of supply.

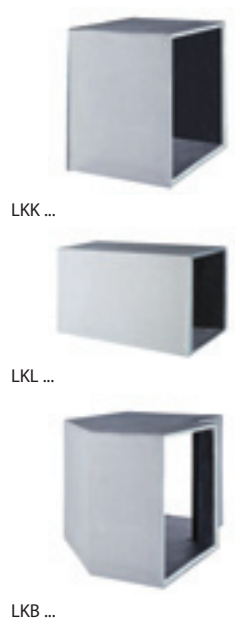
Lower operating limit heat source (heating operation) -25 °C; Upper operating limit heat source (heating operation) 35 °C; Refrigerant R404A; Control voltage ~230 V; Connection heating 1½"; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP A2/W35	Heat output 2 compressors / COP A2/W35	Air outlet	Width x Height x Depth mm	Weight kg	
LI 40AS	358300	16.8 / 3.9	30.0 / 3.8	Fan side	1735 x 2100 x 890	590	

Heat output and COP according to EN 14511 at A2/W35.

### Air duct

Optimally suited for air-to-water heat pump air circuits; GFRc exterior; thermally insulated and sound-insulated on the inside to prevent the formation of condensate and considerably reduce sound transmission. The ducts must be protected against driving rain and can, if necessary, be cut to length and/or painted with waterproof emulsion paint on site. Minor damage to the outer surface does not affect functionality and can be repaired with standard plaster.



Order reference	Art.-no.	Short text	For device type	Length mm	Width x Height mm	Weight kg	
LKK 500	339720	Short air duct	LIK 8 LI 9	625	500 x 500	12	
LKL 500	339710	Long air duct		1250		23	
LKB 500	339730	90° air duct bend		800		17	
LKK 600	339750	Short air duct	LI 11 LIKI 14 - outlet LI 9/12TU - outlet LI 15TE - outlet	625	600 x 600	14	
LKL 600	339740	Long air duct		1250		28	
LKB 600	339760	90° air duct bend		1100		25	
LKK 700	339780	Short air duct	LI 16 LI 20	625	694 x 694	16	
LKL 700	339770	Long air duct		1250		32	
LKB 700	339790	90° air duct bend		1244			
LKK 800	339810	Short air duct	LI(H) 22 - 28 LIKI 14 - intake LI 9/12TU - intake LI 15TE - intake	625	769 x 769	17	
LKL 800	339800	Long air duct		1250		34	
LKB 800	339820	90° air duct bend		1319		36	
LKK 900	358250	Short air duct	LI 40	625	950 x 950	19	
LKL 900	358260	Long air duct		1250		37	
LKB 900	358270	90° air duct bend		1100		40	

For solid-borne sound insulation, the air ducts are not screwed directly onto the heat pump. They must be mounted (i. e. suspended) on site. The dimension drawings of the air ducts are available at [www.dimplex.de/luftkanaele](http://www.dimplex.de/luftkanaele) for downloading. Phase out: LKL and LKK

### Installation hardware

Installation hardware for sealing sawn-off duct edges. Consists of channel-section frame (U profile) and fitting compound.

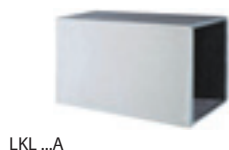


Order reference	Art.-no.	For device type	Weight kg	
VSK 500	341200	Air ducts 500	2.0	
VSK 600	341210	Air ducts 600	3.0	
VSK 700	341220	Air ducts 700	3.5	
VSK 800	341230	Air ducts 800	4.0	
VSK 900	358310	Air ducts 900	4.5	



## Air duct with sound damping

### Plug-in system for easy transport



LKL ...A

Air duct optimally suited for air circuits of air-to-water heat pumps installed indoors; plug-in system consisting of 4 GFRC side panels with thermal insulation and sound insulation on the inside to prevent the formation of condensate and considerably reduce sound transmission (sound insulation factor ~1 dB(A) per running metre, bend ~3 dB(A)). 2 adaptor bases give the air duct increased stability and allow simple assembly of the side panels. The ducts must be protected against driving rain and can, if necessary, be cut to length and/or painted with waterproof emulsion paint on site. Delivery includes multi-purpose adhesive.

Order reference	Art.-no.	Short text	For device type	Length mm	Width x Height mm	Weight kg	
LKL 500A	364620	Air duct, straight - 500	LI 9 LIK 8	1000	500 x 500	23	
LKB 500A	366140	90° air duct bend	LIK 8 LI 9	800		17	
LKL 600A	364630	Air duct, straight - 600	LI 11 LIK 14 - outlet LI 9/12TU - outlet LI 15TE - outlet	1000	600 x 600	28	
LKB 600A	366150	90° air duct bend		1100		25	
LKL 700A	364640	Air duct, straight - 700	LI 16 LI 20	1000	694 x 694	32	
LKB 700A	366160	90° air duct bend		1244			
LKL 800A	364650	Air duct, straight - 800	LI(H) 22 - 28 LIK 14 - intake LI 9/12TU - intake LI 15TE - intake	1000	769 x 769	34	
LKB 800A	366170	90° air duct bend		1319		36	
LKL 900A	364660	Air duct, straight - 900	LI 40	1000	950 x 950	37	
LKB 900A	366180	90° air duct bend		1100		40	

For solid-borne sound insulation, the air ducts are not screwed directly onto the heat pump. They must be mounted (i. e. suspended) on site. The dimension drawings of the air ducts are available at [www.dimplex.de/luftkanaele](http://www.dimplex.de/luftkanaele) for downloading. LKB 700A and LKB 800A available for delivery from May 2012 onwards.

## Sealing collars for air intake and air outlet sides



DMK ...

All-round rubber gasket for vibration-free connection of the air duct to the air intake and/or air outlet side of the heat pump. The component is attached via screwed fastening frames.

Order reference	Art.-no.	For device type	Weight kg	
DMK 500-1	340260	Air ducts 500	4.0	
DMK 600-1	356120	Air ducts 600	4.5	
DMK 600	340270		9.0	
DMK 700-1	356130	Air ducts 700	5.0	
DMK 700	340280		10.0	
DMK 800-1	356140	Air ducts 800	6.0	
DMK 800	340290		12.0	
DMK 900-1	358280	Air ducts 900	14.0	

One sealing collar each (packaging unit 1 item) must be ordered for the air intake and air outlet of air-to-water heat pumps with differing duct dimensions (e. g. LIKI 14TE).

## Air duct hose kit



LUS ...

Air circuit for air-to-water heat pumps installed indoors for use in rooms with low temperatures and low humidity. The set contains a 5 m length of thermally-insulated and sound-insulated air hose which can be used for both the air intake and the air outlet side. The air intake and air outlet can be established via a light well or wall opening which must be constructed and insulated on site. Mounting plates for the heat pump and the wall opening for the air intake and air outlet as well as all the required installation materials are included in the scope of supply.

Order reference	Art.-no.	For device type	Diameter mm	Length m	Weight kg	
LUS 11	337390	LI 11	500	5	50	
LUS 16	337400	LI 16	630			

Cannot be used for reversible heat pumps and in rooms with high humidity.

## Heat pump rain guard



RSG 500

Rain guard for air-to-water heat pumps for protection against driving rain, with low pressure drop of approx. 5 Pa; the permissible overall pressure drop is not exceeded in case of standard integration with the air hose kit and/or air ducts; aluminium frame (width 25 mm) for wall mounting; painted grey white (RAL 9002).

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
RSG 500	340220	Air ducts 500	650 x 650 x 50	3.0	
RSG 600	340230	Air ducts 600	750 x 750 x 50	4.5	
RSG 700	340240	Air ducts 700	840 x 840 x 50	6.0	
RSG 800	340250	Air ducts 800	920 x 920 x 70	7.0	
RSG 900	358290	Air ducts 900	1128 x 1128 x 70	9.0	
RSG 1500	358350	LI 40AS air intake side	1726 x 1440 x 70	14.0	

## Deflector hood, air-to-water heat pump, indoor installation



LUH ..

Deflector hood for reducing the air outlet noise of air-to-water heat pumps installed indoors; fastening frame (included in the scope of supply) mounted for fitting the deflector hood to the external building wall (rain guard not required), casing colour: white aluminium structured (similar to RAL 9006), can be painted.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
LUH 600	358620	LI 11 LIK 8 LI 9 LIKI 14TE	879 x 758 x 343	16	
LUH 700	358630	LI 16 LI 20	879 x 968 x 441	19	
LUH 800	358640	LI 24 - 28TE LIH 26TE	1029 x 1108 x 503	25	

## Elasticated sound insulation strip



SYL 250

For solid-borne sound insulation of heat pumps for indoor installation and compensation of floor unevenness; strip-shaped support for the base frame; 12 mm thick (deformation approx. 1 mm); max. load 140 kg/RM; 2.5 m long (can be cut to appropriate length), colour: green.

Order reference	Art.-no.	Length mm	Width x Height mm	Weight kg	
SYL 250	352260	2500	30 x 12	0.3	

## Heating water hose connection set



SAS ...

Hydraulic connection kit to facilitate installation of air-to-water heat pumps. Consists of:

- two metal braided hoses (500 mm)
- two double nipples
- two 90° brackets
- two flat gaskets

Order reference	Art.-no.	For device type	Connection heating °C	Weight kg	
SAS 100	340320	LI 9TES	1	2.2	
SAS 110	340330	LI(H) 11 - 28	1¼	3.5	

### High-efficiency brine-to-water heat pump

Max. flow temperature 62 °C  
Casing colour White (similar to RAL 9003)

#### Universal design with solid-borne sound insulation



SI 11TU

Heat pump for heating purposes for indoor installation with integrated WPM EconPlus. Variable connection options for brine and heating connections on the back board of the casing. Integrated solid-borne sound insulation for direct connection to the heating system. Sound-optimised through encapsulated compressor housing and free-swinging compressor baseplate. High coefficients of performance (COPs) thanks to electronic expansion valve, COP booster and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

**High-efficiency brine package with electronic control of the brine pump and the brine circuit manifold must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R410A

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
SI 6TU	364080	6.1 / 4.7	3/PE ~400 V, 50 Hz	650 x 845 x 565	119	
SI 8TU	364090	8.1 / 4.8			128	
SI 11TU	364100	10.9 / 4.9			134	
SI 14TU	364110	13.9 / 5.0			140	
SI 18TU	364120	17.5 / 4.7		650 x 845 x 665	163	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

If commissioning is carried out by the after-sales service and the antifreeze contains 30% monoethylene glycol, the lower operating limit can be expanded to -10 °C!

### Supporting feet for high-efficiency brine-to-water heat pump



STF 4

Supporting feet for fitting to the brine-to-water heat pumps and the water-to-water heat pumps in the TU series. The supporting feet are fitted to the bottom of the heat pump, enabling it to be installed level, even if the floor is uneven. Scope of supply: 4 units.

Order reference	Art.-no.	For device type	Weight kg	
STF 4	364960	WI 10TU - WI 14TU SI 6TU - SI 18TU	1	

Using the supporting feet increases the sound power level of the heating pump by 3 dB(A).

### Low temperature brine-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

#### Universal design



SI 22TU

Heat pump for heating purposes for indoor installation with integrated WPM EconPlus. Variable connection options for brine and heating connections on the back board of the casing. Integrated solid-borne sound insulation for direct connection to the heating system. Sound-optimised through insulated metal casing and double vibration-isolated compressor. High coefficients of performance (COP) with economiser and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, load contactor for brine circulating pump, integrated flow and return sensor; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

**Brine package and brine circuit manifold must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R407C

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
SI 22TU	362340	22.9 / 4.3	3/PE ~400 V, 50 Hz	650 x 845 x 665	184	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

## High-efficiency brine package for brine-to-water heat pump

### With electronically controlled brine circulating pump

High-efficiency brine circuit accessory package consisting of a pre-assembled connection module (expansion vessel connection, quick-vent valve, 2.5 bar safety valve and pressure gauge) with cap valve that can be shut off for easy installation of the SWPR 200 low-pressure switch for the leakage monitoring of the brine circuit (available as special accessories), 18 litre/0.5 bar admission pressure expansion vessel, ball valves, large-capacity breather with micro air bubble deposition and an electronically-controlled brine pump controlled by the heat pump manager WPM EconPlus (0–10 V output signal, energy efficiency class A, incl. coupling relay and thermal insulation jacket) for ground heat collectors according to the planning documentation (brine circuit manifold and pipework not included in the scope of supply). The free compression must be checked if the dimensions deviate or if borehole heat exchangers are used.



SZB: large-capacity breather



SZB: expansion vessel

Order reference	Art.-no.	For device type	Circulating pump	Weight kg	
SZB 140E	362090	SI 6 - 14TU	Stratos 25/1-8	25	
SZB 180E	365990	SI 18TU	Stratos 30/1-8		
SZB 220E	362840	SI 22TU	Stratos 30/1-12	27	

With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)!

### Heating and domestic hot water preparation package

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

### Heat pump and WWSP 229E built-under domestic hot water cylinder

Consists of compact brine-to-water heat pump, WWSP 229E built-under domestic hot water cylinder and connection kit for quick and easy connection of the individual components to the heating system.

#### Compact brine-to-water heat pump

Heat pump for heating purposes for indoor installation with integrated WPM EconPlus. Sound-optimised through insulated metal casing and double vibration-isolated compressor. Integrated solid-borne sound insulation for direct connection to the heating system. Economiser for high coefficients of performance (COP). Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Compact design with domestic hot water preparation and integrated components for direct connection of an unmixed heating circuit (must not be used for bivalent systems):

- Built-in pipe heater (2/4/6 kW) can be used for reheating domestic hot water up to 60 °C and as a stand-by for heating operation
- Electronically regulated heat circulating pump (energy efficiency class A, observe the free compression)
- Domestic hot water loading pump
- Expansion vessel (24 l) and safety module

Integrated brine components enable direct connection of the heat source:

- Brine circulating pump (observe the free compression)
- Expansion vessel (8 l)
- Safety valve and pressure gauge

#### Built-under domestic hot water cylinder

Nominal capacity 227 l, bare-tube heat exchanger (internal) – heat exchange surface 2.9 m<sup>2</sup>, steel cylinder (with special internal enamelling) with protection anode, polyurethane insulation with minimal standby losses. Soft starter (from 9 kW), integrated flow and return sensor; external sensor (standard NTC-2), dirt filter for brine circuit included in the scope of supply.

#### Brine circuit manifold must be ordered separately.

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R407C

HPK ..TEW



Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Features	Width x Height x Depth mm	Weight kg	
HPK 7TEW	362590	6.8 / 4.1	Package SIK 7TE-2, WWSP 229E, VS TEW	650 x 2150 x 690	289	
HPK 9TEW	362600	9.0 / 4.2	Package SIK 9TE-2, WWSP 229E, VS TEW		290	
HPK 11TEW	362610	11.7 / 4.2	Package SIK 11TE-2, WWSP 229E, VS TEW		301	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

HPK 11TEW: Brine temperatures over 10 °C are likely during operation and the use of a SIK 11TE with a 400 l domestic hot water cylinder (WWSP 880, WWSP 442E) is recommended. With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)! Note: A minimum buffer volume of the heating system of 10% of the heating water flow rate must be ensured either by a buffer tank or other suitable measures. In heat pump heating systems, the underfloor heating can assume the function of the buffer tank connected in series if no individual room regulation is required or if regulation is carried out **based on the room temperature**. In this case, the heating surface of the reference room must guarantee the minimum heating water flow rate.

## Reference room regulation

### Smart RTC (Room Temperature Controller)

The reference room controller measures the temperature difference between the actual room temperature and the set temperature, and communicates this to the heat pump manager. The return set temperature is calculated on the basis of this difference. The ~230 V voltage supply (2-core) and the bus cable (2-core, screened) must be provided by the customer.

Additional functions:

- „Operating mode“ button - switches between automatic and summer operating mode
- „Rapid heating“ button - 20, 40 and 60-minute rapid heating (blocks domestic hot water)
- Warning signal displayed if a heat pump fault occurs

RT Econ U



Order reference	Art.-no.	For device type	Features	Width x Height x Depth mm	
RT Econ U	362660	HPK ..TEW LI ..TU SI 6 - 18TU	Flush-mounting version	86 x 86 x 28	
RT Econ A	363340	WI 10 - 14TU	Surface-mounting version	143 x 86 x 36	

The reference room must be a living area which is permanently heated.

The RWPM interface card and a software version of L04 onwards must be installed to use the smart-RTC.

## Passive cooling station for WPM EconPlus

### Passive cooling station

Module for passive cooling via borehole heat exchangers. Consists of heat exchanger, brine circulating pump, temperature sensor, passive cooling controller and included 3-way distribution valve (DN 25) with electrothermal actuator. Cooling operating mode is added to the existing heat pump manager by an electronic connection between the heating and cooling controller. The components are permanently mounted in a white sheet metal casing, which can be mounted vertically or horizontally.



PKS .. Econ

Order reference	Art.-no.	Short text	For device type	Width x Height x Depth mm	Weight kg	
PKS 14 Econ	362930	Passive cooling station with cooling module	HPK 7 - 14TE(W) SI 22TU SI 30 - 75TER+ SIK 7 - 14	650 x 400 x 320	30	

## Basic package for heating – low temperature

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

### Heat pump and buffer tank

Consists of compact brine-to-water heat pump, built-under buffer tank PSP 100E and connection kit VSH KS for quick and easy connection of the individual components to the heating system.

**Brine circuit manifold must be ordered separately.**



HPK 7-14TE

Order reference	Art.-no.	Heat pump	Heat output kW	Width x Height x Depth mm	Weight kg	
HPK 7TE	353420	SIK 7TE	6.8	652 x 1660 x 688	238	
HPK 9TE	353430	SIK 9TE	9.0		239	
HPK 11TE	353440	SIK 11TE	11.7		250	
HPK 14TE	353450	SIK 14TE	14.4		262	

Heat output according to EN 14511 at B0/W35.

The descriptions of the individual components can be found on the next pages.

## Passive cooling station and connection kit

### Passive cooling station

Module for passive cooling via borehole heat exchangers. Consists of heat exchanger, brine circulating pump, temperature sensor, passive cooling controller and included 3-way distribution valve (DN 25) with electrothermal actuator. Cooling operating mode is added to the existing heat pump manager by an electrical connection between the heating and cooling controller; (software update may be necessary). The components are permanently mounted in a white sheet metal casing, which can be mounted vertically or horizontally.



PKS .. Econ



VS PKS

Order reference	Art.-no.	Short text	For device type	Weight kg	
PKS 14 Econ	362930	Passive cooling station with cooling module	HPK 7 - 14TE(W) SI 22TU SI 30 - 75TER+ SIK 7 - 14	30	
RWPM	363370	Interface card for HPM for connection of Smart RTC and WPM Econ PK/PSK 14/25 Econ	WPM 2006/2007 PKS 14/25 Econ WPM Econ PK Smart RTC (Room Temperature Controller)		
VS PKS	348630	Extension hose kit for passive cooling station	VSH KS with PKS	17	

The descriptions of the individual components can be found on the next pages.

## Supplementary package for domestic hot water preparation

### Domestic hot water cylinder

The 400 l domestic hot water cylinder is heated by the heat pump for heating purposes and offers convenient domestic hot water preparation, also during longer shut-off times. It matches the height and design of the compact brine-to-water heat pump with built-under buffer tank.



HPK ... WWSP 442E

Order reference	Art.-no.	Short text	Features	Width x Height x Depth mm	Weight kg	
WWSP TE	353460	Supplementary package for domestic hot water preparation	Domestic hot water preparation with short reheating times and adjustable time programs; sales package consisting of WWSP 442E domestic hot water cylinder with UP 80 circulating pump for domestic hot water preparation and VSW KS domestic hot water connection kit.	650 x 1660 x 680	190	

The descriptions of the individual components can be found on the next pages.



### Low temperature brine-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

#### Compact design



SIK 7TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Integrated brine components enable direct connection of the heat source:

- Brine circulating pump (observe the free compression)
- Expansion vessel (8 l)
- Safety valve and pressure gauge

Sound-optimised through insulated metal casing and double vibration-isolated compressor. Integrated solid-borne sound insulation for direct connection to the heating system. Economiser for high coefficients of performance (COP). Compact design with optional domestic hot water preparation and integrated components for direct connection of an unmixed heating circuit (must not be used for bivalent systems):

- Circulating pump (observe the free compression)
- Overflow valve and safety module
- Expansion vessel (24 l)

Soft starter (from SI(K) 9 upwards), integrated flow and return sensors; external sensor (standard NTC-2), dirt filter and large-capacity breather (1½") with micro air bubble deposition for brine circuit included in the scope of supply.

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Refrigerant R407C

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
SIK 11ME	352990	11.7 / 4.2	1/N/PE ~230 V, 50 Hz	650 x 1115 x 680	191	
SIK 16ME	353000	15.6 / 4.0			203	
SIK 7TE	352810	6.8 / 4.1	3/N/PE ~400 V, 50 Hz		179	
SIK 9TE	352820	9.0 / 4.2			180	
SIK 11TE	352830	11.7 / 4.2			191	
SIK 14TE	352840	14.4 / 4.3			203	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

**With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)!**

## Design tank for compact brine-to-water heat pump

### Design built-under buffer tank



PSP 100E

Nominal capacity 100 l; in brine-to-water heat pump design to enable space-saving installation on top of the built-under buffer tank; polyurethane insulation for minimal downtime losses (can be used for heating and cooling); 1½" sleeves for immersion heaters (up to CTHK 635); 1¼" heating water connections; colour: white; brown red design screen.

Order reference	Art.-no.	Short text	For device type	Width x Height x Depth mm	Weight kg	
PSP 100E	353360	Built-under buffer tank	SIK 7 - 14 SI 6 - 14TU SIH 6 - 11TE WI 10 - 14TU	650 x 550 x 653	54	

### Design domestic hot water cylinder



WWSP 442E

Nominal capacity 400 l, in brine-to-water heat pump design, bare-tube heat exchanger (internal), three supporting feet, steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimal standby losses (approx. 2.7 kWh/24 h), integrated temperature sensor for connection to the heat pump manager, colour white, brown red design screen.

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m²	Con- nection heating "	Con- nection circula- tion "	Connection DHW "	Width x Height x Depth mm	Weight kg	
WWSP 442E	353370	SIK 7 - 14 SI(H) 20 - 30	353	4.2	1¼	¾	1	650 x 1660 x 680	187	

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Design built-under domestic hot water cylinder



WWSP 229E

Nominal capacity 227 l, in brine-to-water heat pump design to enable space-saving installation on the built-under domestic hot water cylinder, bare-tube heat exchanger (internal), steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimum standby losses; integrated temperature sensor for connection to the heat pump manager, colour: white, brown red design screen.

Permissible operating pressure 10 bar; Flange TK150/DN110;

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m <sup>2</sup>	Con- nection heating "	Con- nection circulation "	Connection DHW "	Width x Height x Depth mm	Weight kg	
WWSP 229E	353380	Up to SI(K) 9	206	2.9	1 1/4	3/4	1	650 x 1040 x 680	110	

Recommended for service areas without shut-off times or with reduced domestic hot water consumption.

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Compact brine-to-water heat pump connection kit



VSH KS



VSW KS



VS PKS



VSW 229

Order reference	Art.-no.	For device type	Short text	Features	
VSH KS	343110	SIK ..	Heating, connection kit	Hose kit for easy connection of the compact brine-to-water heat pump and built-under buffer tank to the heating system (minimum distance from wall 20 cm). Consists of four elbow unions with three manual breathers, buffer connection with filling and drain cock and two corrugated stainless steel pipes with high-and-low temperature insulation. 1" internal thread connection to the heating system.	
VSW KS	343120	VSH KS with WWSP	Domestic hot water expansion kit	Domestic hot water extension hose kit for using the heating connection kit (VSH KS) in addition to the domestic hot water cylinder and a circulating pump. Consists of 3 elbow unions with 2 manual breathers, 1 T joint, pump shut-offs for the domestic hot water circulating pump (pump not included in the scope of supply) and 2 corrugated stainless steel pipes with high and low temperature insulation.	
VS PKS	348630	VSH KS with PKS	Extension hose kit for passive cooling station	Passive cooling station extension hose kit, to enable the use of the heating connection kit (VSH KS) in addition to the heating and brine circuit connection of the passive cooling station PKS 14, situated on the compact brine-to-water heat pump. Consists of 2 elbow unions with manual breather, crosspiece and 4 corrugated stainless steel pipes with high and low temperature insulation.	
VSW 229	356050	SIK with WWSP 229E	Connection kit, domestic hot water	Hose set for easy connection of the compact brine-to-water heat pump and the built-under domestic hot water cylinder to the heating system. Consists of 2 corrugated stainless steel tubes with high and low temperature insulation, 2 elbow unions with manual breather and an installation option for the domestic hot water circulating pump (pump not included in the scope of supply).	

### Low temperature brine-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

#### Universal design



SI 5ME

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Sound-optimised through insulated metal casing and double vibration-isolated compressor. Economiser for high coefficients of performance (COP). Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter (from 9 kW), integrated flow and return sensor; external sensor (standard NTC-2), dirt filter for brine circuit included in the scope of supply.

**Brine package and brine circuit manifold must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R407C

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
SI 5ME	353010	4.9 / 3.8	1/N/PE ~230 V, 50 Hz	650 x 805 x 462	109	
SI 7ME	353020	6.3 / 4.0			111	
SI 9ME	353030	8.9 / 4.0			118	
SI 11ME	353040	11.0 / 4.1			122	
SI 14ME	353050	15.6 / 4.1			130	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

### High-temperature brine-to-water heat pump

Max. flow temperature 70 °C  
Casing colour White (similar to RAL 9003)

#### Universal design with high coefficients of performance (COP)



SIH 6TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Sound-optimised through insulated metal casing and double vibration-isolated compressor. High coefficients of performance (COP) with economiser and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

**Brine package and brine circuit manifold must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R134a

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Connection voltage	Width x Height x Depth mm	Weight kg		
SIH 6ME	355170	6.0 / 4.1	1/N/PE ~230 V, 50 Hz	650 x 805 x 462	118		
SIH 9ME	355180	8.9 / 4.0			130		
SIH 11ME	355190	10.7 / 4.5			133		
SIH 6TE	355140	6.1 / 4.5	3/N/PE ~400 V, 50 Hz		118		
SIH 9TE	355150	8.9 / 4.4			130		
SIH 11TE	355160	10.9 / 4.5			133		

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

The maximum flow temperatures (up to 70 °C) are available for domestic hot water preparation all year round, and allow domestic hot water temperatures of up to 60 °C to be achieved without electrical reheating using a flange heater.

### Brine-to-water heat pump connection kit



VSH BS

Hose kit for connecting a heat pump to the KPV 25 compact manifold or the VTB 25 manifold bar. The set contains two flexible Wellflex pipes (length 1190 mm and 710 mm) with high and low temperature insulation for fast and easy installation and 1¼" cap nut (can also be used for connecting the brine circuit). Two double nipples 1¼" external thread to 1" external thread included in the scope of supply.

Order reference	Art.-no.	For device type	
VSH BS	347790	SI(H) 6 - 18 heating circuit SIH 6 - 11TE brine circuit	

## Design built-under buffer tank



PSP 100E

Nominal capacity 100 l; in brine-to-water heat pump design to enable space-saving installation on top of the built-under buffer tank; polyurethane insulation for minimal downtime losses (can be used for heating and cooling); 1½" sleeves for immersion heaters (up to CTHK 635); 1¼" heating water connections; colour: white; brown red design screen.

Order reference	Art.-no.	Short text	For device type	Width x Height x Depth mm	Weight kg	
PSP 100E	353360	Built-under buffer tank	SIK 7 - 14 SI 6 - 14TU SIH 6 - 11TE WI 10 - 14TU	650 x 550 x 653	54	

## Design built-under domestic hot water cylinder



WWSP 229E

Nominal capacity 227 l, in brine-to-water heat pump design to enable space-saving installation on the built-under domestic hot water cylinder, bare-tube heat exchanger (internal), steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimum standby losses; integrated temperature sensor for connection to the heat pump manager, colour: white, brown red design screen.

Permissible operating pressure 10 bar; Flange TK150/DN110;

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m²	Con- nection heating "	Con- nection circulation "	Con- nection DHW "	Width x Height x Depth mm	Weight kg	
WWSP 229E	353380	Up to SI(K) 9	206	2.9	1¼	¾	1	650 x 1040 x 680	110	

Recommended for service areas without shut-off times or with reduced domestic hot water consumption.

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Brine package for brine-to-water heat pump

### With one performance level



SZB: safety module



SZB: large-capacity breather

Brine circuit accessory package consisting of an installation-friendly, premounted safety module with connection for an expansion vessel (18 litres/0.5 bar admission pressure), 1½" main breather and brine pump for ground heat collectors according to the project planning documentation incl. two 1½" ball valves (without brine circuit manifold and pipework). The free compression must be checked if the dimensions deviate or if borehole heat exchangers are used.

Order reference	Art.-no.	For device type	Circulating pump	Weight kg	
SZB 680	336680	SI(H) 6 - SI 14	Top-S 25/7,5	24	
SZB 700	336700	SI 17TE	Top-S 30/10	21	

With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)!

## Elasticated sound insulation strip



SYL 250

For solid-borne sound insulation of heat pumps for indoor installation and compensation of floor unevenness; strip-shaped support for the base frame; 12 mm thick (deformation approx. 1 mm); max. load 140 kg/RM; 2.5 m long (can be cut to appropriate length), colour: green.

Order reference	Art.-no.	Length mm	Width x Height mm	Weight kg	
SYL 250	352260	2500	30 x 12	0.3	

## Low temperature brine-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

### Universal design with two performance levels



SI 24-37TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearances required on the sides. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) with economiser and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

**Brine package and brine circuit manifold must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Refrigerant R404A; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Heat output 2 compressors / COP at B0/W35	Width x Height x Depth mm	Weight kg	
SI 24TE	352910	12.7 / 4.3	23.7 / 4.1	1000 x 1660 x 775	282	
SI 30TE	355640	14.1 / 4.1	30.3 / 4.3		365	
SI 37TE	352920	18.3 / 4.4	35.4 / 4.3		371	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

### Design domestic hot water cylinder



SI 24-30TE with WWSP 442E

Nominal capacity 400 l, in brine-to-water heat pump design, bare-tube heat exchanger (internal), three supporting feet, steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimal standby losses (approx. 2.7 kWh/24 h), integrated temperature sensor for connection to the heat pump manager, colour white, brown red design screen. Permissible operating pressure 10 bar; Flange TK150/DN110;

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m²	Connection heating °C	Connection circulation °C	Connection DHW °C	Width x Height x Depth mm	Weight kg	
WWSP 442E	353370	SIK 7 - 14 SI(H) 20 - 30	353	4.2	1¼	¾	1	650 x 1660 x 680	187	

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Low temperature brine-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

### Universal design with two performance levels



SI 50-130TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearance required on the sides, accessible from underneath with a lift truck. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) with economiser and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

**Brine package must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Refrigerant R404A; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Heat output 2 compressors / COP at B0/W35	Width x Height x Depth mm	Weight kg	
SI 50TE	352930	23.2 / 4.3	45.8 / 4.3	1350 x 1890 x 775	486	
SI 75TE	352940	36.1 / 4.1	72.7 / 4.2		571	
SI 100TE	352950	46.3 / 4.3	92.3 / 4.4		652	
SI 130TE	352960	60.8 / 4.1	122.0 / 4.1		860	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

A water-to-water heat pump must be used if borehole heat exchangers are used which work using water as the heat transfer medium.

In combination with borehole heat exchangers, brine-to-water heat pumps can also be used for passive cooling. SI 30TE and SI 75TE are also available as reversible heat pumps for active cooling.

## High temperature brine-to-water heat pumps

Max. flow temperature 70 °C

Casing colour White (similar to RAL 9003)

### Universal design with two performance levels

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearances required on the sides. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) with economiser and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side.

Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
  - Distribution systems with unmixed and mixed heating circuits
- Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

**Brine package must be ordered separately.**

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Refrigerant R134a; Connection voltage 3/N/PE ~400 V, 50 Hz



SIH 20TE



SIH 40TE

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Heat output 2 compressors / COP at B0/W35	Width x Height x Depth mm	Weight kg
SIH 20TE	352970	11.5 / 4.6	21.4 / 4.4	1000 x 1660 x 775	307
SIH 40TE	352980	17.9 / 4.3	34.2 / 4.1	1350 x 1890 x 775	502

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

The maximum flow temperatures (up to 70 °C) are available for domestic hot water preparation all year round, and allow domestic hot water temperatures of up to 60 °C to be achieved without electrical reheating using a flange heater.

### Connecting flange for heating and brine circuits

Coupling from the external thread of the heat pump to a standard flange (DIN 2501); scope of supply: 2 units.



AF 40 ... 80

Order reference	Art.-no.	Connection heating	Nominal width
AF 40	351900	1½	DN 40
AF 50	351910	2	DN 50
AF 65	351920	2½	DN 65
AF 80	351930	3	DN 80

### Brine package for brine-to-water heat pump

#### With two performance levels

Brine accessory package for ground heat collectors consisting of membrane safety valve, large-capacity breather with micro air bubble deposition, low-noise brine circulating pump with flange connection, pressure gauge, expansion vessel, cap valve, ball valves, couplings and seals.

Order reference	Art.-no.	For device type	Expansion vessel	Large-capacity breather	Circulating pump
SZB 250	352490	SI 21/24 SIH 20TE	18	1½	Top-S 40/10
SZB 300	355990	SI 30	18	2	Top-S 40/10

With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)!



SZB: large-capacity breather



SZB: expansion vessel

### Brine package for brine-to-water heat pump

#### Flange connection

Brine accessory package for ground heat collectors consisting of membrane safety valve, large-capacity breather with micro air bubble deposition and flange connection, low-noise brine circulating pump with flange connection, pressure gauge, expansion vessel, cap valve, ball valves, couplings and seals.

Order reference	Art.-no.	For device type	Expansion vessel	Large-capacity breather	Circulating pump
SZB 400	352500	SI 37 / SIH 40	18	DN 50	Top-S 40/10
SZB 500	352270	SI 50TE	25	DN 65	Top-S 50/10
SZB 750	352280	SI 75	35	DN 80	Top-S 65/13
SZB 1000	352290	SI 100TE	50	DN 100	Top-S 65/13
SZB 1300	352300	SI 130	50	DN 100	Top-S 65/15

With borehole heat exchangers, the free compression values in the device information are to be adhered to (max. heat exchanger depth at DN 32: 80 m)!



SZB 500



### Connection package brine circuit manifold



AP SVT



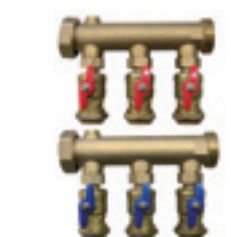
AP SVT 16

The AP SVT connection package makes the connection of a maximum of 8 circuits possible.

The AP SVT 16 connection package makes the connection of a maximum of 2 x 8 circuits possible using a T joint.

Order reference	Art.-no.	Features	Weight kg	
AP SVT	348900	Brine circuit manifold connection package consisting of two 1½" ball valves, two end caps with 2" seals and two filling and drain cocks; 1½" internal thread connection to the heat pump.	3.0	
AP SVT16	356060	Connection package brine circuit manifold consisting of: 2 ball valves 2"; 2 T joints 2"; 4 end caps with seals 2"; 4 filling and drain cocks; heat pump connections 2" internal thread.	4.0	

### Brine circuit manifold with clamping ring fitting



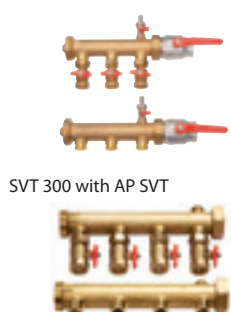
SVT 300KV

Brine circuit manifold with ball valves and clamping ring fittings for direct connection of the collector/heat exchanger pipes; consisting of a brine collector and manifold, 2" external thread/internal thread, 1" screw connections with ball valves and clamping ring fittings DN 32, material MS58.

**Connection package AP SVT up to max. eight circuits or AP SVT 16 up to max. 2 x 8 circuits must be ordered separately.**

Order reference	Art.-no.	Number of brine circuits	Heat source connection	Length mm	Weight kg	
SVT 200KV	363860	2	2	170	5.0	
SVT 300KV	363870	3		250	7.3	
SVT 400KV	363880	4		330	9.2	

### Brine circuit manifold



SVT 300 with AP SVT

SVT 400

Brine circuit manifold with ball valves (1" internal thread), brine collector (1" external thread), max. eight circuits can be screwed together (flat seal), MS58 material.

**Connection package AP SVT up to max. eight circuits or AP SVT 16 up to max. 2 x 8 circuits must be ordered separately.**

Order reference	Art.-no.	Number of brine circuits	Heat source connection	Length mm	Weight kg	
SVT 200	348910	2	2	160	4.0	
SVT 300	348920	3		240	4.2	
SVT 400	348930	4		320	5.1	

### Low-pressure brine switch



SWPR 500

Pipe assembly internal thread/external thread with connecting plug for installation in the brine circuit – installation length 190 mm (SWPR 500) and 150 mm (SWPR 200). When a pressure drop occurs in the brine circuit, a digital blocking signal is transmitted to the heat pump manager. The built-in PS3-W pressure switch complies with the DIN 32 733 / EN 12 263 standard type examination. Switch-on point/switch-off point 0.5/1.3 bar

Order reference	Art.-no.	Heat source connection	Weight kg	
SWPR 500	337500	1½	1.1	
SWPR 200	359470	¾	0.6	

A low pressure brine switch is only necessary if legally required.

### Brine circuit antifreeze



AFN 825

Pure monoethylene glycol without anticorrosive for mixing with water, 25 vol % antifreeze for frost protection to -14 °C.

Order reference	Art.-no.	Nominal capacity l	Weight kg	
AFN 825	328610	20	22	
AFN 824	324610	200	220	



WI 14TU + PSP 100 E

### High-efficiency water-to-water heat pump with stainless steel coil heat exchanger

Max. flow temperature 62 °C  
Casing colour White (similar to RAL 9003)

Heat pump for heating purposes for indoor installation with integrated WPM EconPlus. Variable connection options for the ground water and heating connections on the back board of the casing. Integrated solid-borne sound insulation for direct connection to the heating system. Sound-optimised through encapsulated compressor housing and free-swinging compressor baseplate. High coefficients of performance (COPs) thanks to electronic expansion valve, COP booster and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Integrated corrosion-proof and freeze-proof stainless steel coil evaporator. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). If the evaporation temperatures are too low (e. g. water flow too low) the heat pump switches off; no flow rate switch is necessary. A flow rate switch (available as a special accessory) can be installed for well systems with an uncertain water supply. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD).

Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter (from WI 14 upwards); integrated load contactor for well water pump; flow sensor, return sensor, external sensor (standard NTC-2) and dirt filter for ground water included in the scope of supply.

Lower operating limit heat source (heating operation) 7 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R410A

Order reference	Art.-no.	Heat output 1 compressor / COP W10/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
WI 10TU	364190	9.6 / 5.9	3/PE ~400 V, 50 Hz	650 x 845 x 665	142	
WI 14TU	364200	13.3 / 6.1			151	

Heat output and coefficient of performance (COP) according to EN 14511 at W10/W35.

**Important information concerning coil heat exchangers:**

at water temperatures below 13 °C, no water analysis with regard to corrosion is necessary.

**Note on the heat source systems:**

if the limits for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, there is danger of ochre formation in the heat source system. This is also true for coil heat exchangers.

### Supporting feet for high-efficiency water-to-water heat pump



STF 4

Supporting feet for fitting to the brine-to-water heat pumps and the water-to-water heat pumps in the TU series. The supporting feet are fitted to the bottom of the heat pump, enabling it to be installed level, even if the floor is uneven. Scope of supply: 4 units.

Order reference	Art.-no.	For device type	Weight kg	
STF 4	364960	WI 10TU - WI 14TU SI 6TU - SI 18TU	1	

Using the supporting feet increases the sound power level of the heating pump by 3 dB(A).

### High-efficiency ground water pump



UWE 200-95

High-efficiency well water pump with stainless steel casing for low energy use (motor power consumption 0.3 kW) and high performance factors. Can be used in the cold water circuit (primary circuit) of a water-to-water heat pump up to a maximum of 10 kW, maximum delivery height 26 m, range of operating temperatures 3–40 °C, maximum well water pump diameter 100 mm, pressure connection Rp 1¼", supply connection 3/PE ~400 V, 50 Hz, including connection cable 4 x 1.5 mm² (length 15 m), degree of protection IP68.

Order reference	Art.-no.	For device type	Nominal width	Features	Weight kg	
UWE 200-95	364730	WI 10TU	32	Maximum delivery height 11 m with a volume flow of 3.2 m³/h	12.5	

Pump dimensioning must be checked according to the pressure drop and volume flow.

## High-efficiency water-to-water heat pump

Max. flow temperature 58 °C  
Casing colour White (similar to RAL 9003)

### With two performance levels



WI 50TU



WI 100TU

Water-to-water heat pump for indoor installation with integrated WPM EconPlus regulation and two compressors for output reduction when operating at partial load. Variable connection options for the water and heating connections on the back board of the casing. Access for service work from the front, no minimum clearances required on the sides. Sound-optimised through insulated metal casing and double vibration-isolated compressor. Integrated solid-borne sound insulation for direct connection to the heating system. High coefficients of performance (COP) thanks to economiser, electronic expansion valve and compliance with the requirements of EN 14511 for larger volume flows on the heat consumption side. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). If the evaporation temperatures are too low (e. g. water flow too low) the heat pump switches off; no flow rate switch is necessary. A flow rate switch (available as a special accessory) can be installed for well systems with an uncertain water supply. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Soft starter, integrated flow and return sensors; external sensor (standard NTC-2) included in the scope of supply.

Lower operating limit heat source (heating operation) 7 °C; Upper operating limit heat source (heating operation) 25 °C;

Refrigerant R404A

Order reference	Art.-no.	Heat output 1 compressor / COP W10/W35	Heat output 2 compressors / COP W10/W35	Width x Height x Depth mm	Weight kg	
WI 50TU	361650	25.1 / 5.9	47.3 / 5.7	1000 x 1660 x 775	373	
WI 100TU	361660	51.7 / 5.8	95.5 / 5.3	1350 x 1890 x 775	593	

Heat output and coefficient of performance (COP) according to EN 14511 at W10/W35.

A water-to-water heat pump must be used if borehole heat exchangers are used which work using water as the heat transfer medium.

**A ground water analysis for the copper-soldered stainless steel heat exchanger is mandatory (see the project planning documentation)!**

## Water-to-water heat pump

### Water-to-water heat pump

Max. flow temperature 55 °C  
Casing colour White (similar to RAL 9003)

### with stainless steel coil heat exchanger



WI 18-27TE

Heat pump for heating purposes for indoor installation with integrated WPM 2007 plus controller. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for the ground water and heating connections on the back board of the casing. Sound-optimised through insulated metal casing and double vibration-isolated compressor. Economiser for high coefficients of performance (COP). Integrated corrosion-proof and freeze-proof stainless steel coil evaporator. Universal design with optional domestic hot water preparation and flexible expansion possibilities for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits

Integrated soft starter (from WI 14), integrated flow rate switch and load contactor for a well water pump; flow sensor, return sensor, external sensor (standard NTC-2) and dirt filter for ground water included in the scope of supply.

Lower operating limit heat source (heating operation) 7 °C; Upper operating limit heat source (heating operation) 25 °C; Refrigerant R407C

Order reference	Art.-no.	Heat output 1 compressor / COP W10/W35	Connection voltage	Width x Height x Depth mm	Weight kg	
WI 9ME	353340	8.2 / 4.8	1/N/PE ~230 V, 50 Hz	650 x 1445 x 575	156	
WI 14ME	353350	13.5 / 4.7			165	
WI 18TE	353140	16.9 / 5.2	3/N/PE ~400 V, 50 Hz		187	
WI 22TE	353150	21.3 / 5.3			189	
WI 27TE	353160	26.1 / 4.9			259	

Heat output and coefficient of performance (COP) according to EN 14511 at W10/W35.

**Important information concerning coil heat exchangers:**

at water temperatures below 13 °C, no water analysis with regard to corrosion is necessary.

**Note on the heat source systems:**

if the limits for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, there is danger of ochre formation in the heat source system. This is also true for coil heat exchangers.

### Low temperature brine-to-water heat pump package

Max. flow temperature 60 °C

Casing colour White (similar to RAL 9003)

#### Using ground water as a heat source



WSI ...

The package solution for indirect use of water as a heat source with intermediate heat exchanger and brine-to-water heat pump (intermediate circuit with monoethylene glycol). To utilise water as a heat source in case of pollution and/or to expand the temperature operating range to also include lower temperatures when water temperatures vary and thereby increase the operational safety of the heat generator. Consists of brine-to-water heat pump, WTE stainless steel plate heat exchanger, SZB brine circuit accessory package and a safety thermostat (RAT 060I strap-on thermostat) in order to ensure that the heat exchanger does not freeze.

Order reference	Art.-no.	Heat pump	Heat exchanger	Brine circuit accessories	Heat output with 2 compressors / COP B7/W35	Weight kg	
WSI 36TE	361540	SI 30TE	WTE 30	SZB 300	36.0 / 4.9	480	
WSI 44TE	361550	SI 37TE	WTE 37	SZB 400	44.0 / 5.2	510	
WSI 55TE	361560	SI 50TE	WTE 50	SZB 500	55.0 / 4.9	714	
WSI 85TE	361570	SI 75TE	WTE 75	SZB 750	85.0 / 4.9	866	
WSI 110TE	361580	SI 100TE	WTE 100	SZB 1000	113.0 / 5.1	963	
WSI 150TE	361590	SI 130TE	WTE 130	SZB 1300	145.0 / 4.9	1266	

The descriptions of the individual components can be found on the next pages.

Heat output and coefficient of performance (COP) in accordance with EN 14511 at B7/W35.

**Important information for stainless steel plate heat exchangers:**

At water temperatures below 13 °C, no water analysis with regard to corrosion is necessary.

**Note for heat source systems:**

if the limit values for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, there is a danger of ochre formation in the heat source system. This also applies to stainless steel heat exchangers. An online planner, which can be used to calculate the seasonal performance factor (including intermediate heat exchangers), is available at [www.dimplex.de/betriebskostenrechner](http://www.dimplex.de/betriebskostenrechner).

### High temperature brine-to-water heat pump package

Max. flow temperature 70 °C

Casing colour White (similar to RAL 9003)

#### Using ground water as a heat source



WSI ...

The package solution for indirect use of water as a heat source with intermediate heat exchanger and brine-to-water heat pump (intermediate circuit with monoethylene glycol). To utilise water as a heat source in case of pollution and/or to expand the temperature operating range to also include lower temperatures when water temperatures vary and thereby increase the operational safety of the heat generator. Consists of brine-to-water heat pump, WTE stainless steel plate heat exchanger, SZB brine circuit accessory package and a safety thermostat (RAT 060I strap-on thermostat) in order to ensure that the heat exchanger does not freeze.

Order reference	Art.-no.	Heat pump	Heat exchanger	Brine circuit accessories	Heat output with 2 compressors / COP B7/W35	Weight kg	
WSIH 26TE	361600	SIH 20TE	WTE 20	SZB 250	26.0 / 5.0	416	
WSIH 44TE	361610	SIH 40TE	WTE 40	SZB 400	44.0 / 4.9	715	

The descriptions of the individual components can be found on the next pages.

Heat output and coefficient of performance (COP) in accordance with EN 14511 at B7/W35.

**Important information for stainless steel plate heat exchangers:**

At water temperatures below 13 °C, no water analysis with regard to corrosion is necessary.

**Note for heat source systems:**

if the limit values for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, there is a danger of ochre formation in the heat source system. This also applies to stainless steel heat exchangers. An online planner, which can be used to calculate the seasonal performance factor (including intermediate heat exchangers), is available at [www.dimplex.de/betriebskostenrechner](http://www.dimplex.de/betriebskostenrechner).

### Reversible brine-to-water heat pump package

Max. flow temperature 55 °C

Flow temperature cooling min. 8 °C

Casing colour White (similar to RAL 9003)

#### Using ground water as a heat source



WSI ...

The package solution for indirect use of water as a heat source with intermediate heat exchanger and brine-to-water heat pump (intermediate circuit with monoethylene glycol). To utilise water as a heat source in case of pollution and/or to expand the temperature operating range to also include lower temperatures when water temperatures vary and thereby increase the operational safety of the heat generator. Consists of brine-to-water heat pump, WTE stainless steel plate heat exchanger, SZB brine circuit accessory package and a safety thermostat (RAT 060I strap-on thermostat) in order to ensure that the heat exchanger does not freeze.

Order reference	Art.-no.	Heat pump	Heat exchanger	Brine circuit accessories	Heat output with 2 compressors / COP B7/W35	Weight kg	
WSI 34TER+	361620	SI 30TER+	WTE 30	SZB 300	34.0 / 4.2	480	
WSI 77TER+	361630	SI 75TER+	WTE 75	SZB 750	77.0 / 3.8	953	

The descriptions of the individual components can be found on the next pages.

Heat output and coefficient of performance (COP) in accordance with EN 14511 at B7/W35.

Cooling capacity in accordance with EN 14511 at B20/W10.

The use of waste heat for domestic hot water preparation produces higher coefficients of performance (COP) in cooling operation.

**Important information for stainless steel plate heat exchangers:**

At water temperatures below 13 °C, no water analysis with regard to corrosion is necessary.

**Note for heat source systems:**

if the limit values for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, there is a danger of ochre formation in the heat source system. This also applies to stainless steel heat exchangers.

### Stainless steel plate heat exchanger

#### Use of water heat source in the event of contamination

Screwed stainless steel plate heat exchanger. Max. operating pressure 10 bar, max. temperature 80 °C. Intermediate heat exchanger for polluted heat sources or heat sources with poor water quality. Connections for the cold and warm side with external thread (exception: WTE 130 - connection flange with rubber bushing).

Order reference	Art.-no.	For device type	Heat source connection	Width x Height x Depth mm	Weight kg	
WTE 20	358400	SI 22 / SIH 20	1 ¼	200 x 748 x 270	74	
WTE 30	358410	SI 30		200 x 748 x 320	80	
WTE 37	358420	SI 37		200 x 748 x 420	87	
WTE 40	358430	SIH 40TE	2	300 x 994 x 437	143	
WTE 50	358440	SI 50TE			147	
WTE 75	358450	SI 75		300 x 994 x 537	167	
WTE 100	358460	SI 100TE			181	
WTE 130	358470	SI 130	2 ½	395 x 946 x 443	284	

Delivery time 3–4 weeks.

The general water quality requirements according to the project planning manual for welded stainless steel coil heat exchangers apply. If an intermediate heat exchanger is required due to the quality of the water, brine-to-water heat pumps are usually used to expand the temperature operating range to include lower temperatures (intermediate circuit with monoethylene glycol). **General information:** The screw-fixed stainless steel/titanium plate heat exchangers can only be distributed within the EU due to customs regulations.

### Titanium plate heat exchanger

#### Heat source sea water

Screwed titanium plate heat exchanger for using corrosive heat sources (e.g. saline liquids such as sea water) in combination with brine-to-water heat pumps. Connection flange for the cold and warm side with rubber bushing.

Order reference	Art.-no.	For device type	Heat source connection	Width x Height x Depth mm	Weight kg	
WTT 40	358480	SIH 40TE	2 ½	395 x 946 x 443	223	
WTT 50	358490	SI 50TE			227	
WTT 75	358500	SI 75			234	
WTT 100	358510	SI 100TE			240	

Delivery time 6–8 weeks.

**Note on the heat source system:**

When the limit values for iron (Fe up to 0.2 mg/l) or manganese (Mn up to 0.1 mg/l) are exceeded, the heat source system is in danger of iron ochre formation. This is also true for titanium heat exchangers.

**General information:**

The screw-fixed stainless steel/titanium plate heat exchangers can only be distributed within the EU due to customs regulations.



WTE 20



WTT ..

### Passive cooling station with cooling controller



PKS .. Econ

Module for passive cooling via borehole heat exchangers. Consists of heat exchanger, brine circulating pump, temperature sensor, passive cooling controller, 3-way distribution valve with electrothermal actuator included. Cooling operating mode is added to the existing heat pump manager by an electronic connection between the heating and cooling controller. The components are permanently mounted in a white sheet metal casing, which can be mounted vertically or horizontally.

Order reference	Art.-no.	For device type	Cooling capacity kW	Features	Width x Height x Depth mm	Weight kg	
PKS 14 Econ	362930	HPK 7 - 14TE(W) SI 22TU	14	Three-way distribution valve: DN 25	650 x 400 x 320	30	
PKS 25 Econ	362940	SI 30 - 75TER+ SIK 7 - 14	25	Three-way distribution valve: DN 40		32	

Transferrable cooling capacity at a brine inlet temperature of approx. 10 °C and a cooling water inlet temperature of 20 °C.

An RWPM interface is required to use the passive cooling station (PKS 14/25 Econ) in connection with a WPM 2007.

Commissioning (subject to charge) by the after-sales service is required. For more information, visit [www.dimplex.de/kundendienst](http://www.dimplex.de/kundendienst)

### Passive cooling controller



WPM Econ PK

Wall-mounted cooling controller with temperature sensors to record the flow and return temperatures. The passive cooling controller adds the cooling operating mode to the existing heat pump manager. Both controllers are operated within the network and control a combined system for heating and passive cooling with brine-to-water or water-to-water heat pumps. The cooling capacity is transferred via a heat exchanger not included in the scope of supply. This heat exchanger must be dimensioned according to the cooling capacity to be transferred, the volume flow and the water quality.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
WPM Econ PK	360000	SI 30 - 75TER+ SI 130TUR+ WI 50 - 100TU	200 x 489 x 120	4.0	

An RWPM interface is required to use the passive cooling controller WPM Econ PK in connection with a WPM 2007.

Commissioning (subject to charge) by the after-sales service is required. For more information, visit [www.dimplex.de/kundendienst](http://www.dimplex.de/kundendienst)

### Plate heat exchanger, copper-soldered



WTU ...

Copper-soldered stainless steel plate heat exchanger. Max. operating pressure 25 bar, max. operating temperature 185 °C. As an intermediate heat exchanger for passive cooling. Connection for the cold and warm side with 2½" external thread.

Order reference	Art.-no.	Primary volume flow m³/h	Secondary volume flow m³/h	Cooling capacity kW	Heat source connection	Width x Height x Depth mm	Weight kg	
WTU 50	362370	16.1	14.3	50	2 ½	238 x 611 x 145	40	
WTU 75	362380	24.1	21.4	75		238 x 611 x 201	63	
WTU 100	362390	32.2	28.6	100		238 x 611 x 257	80	
WTU 130	362400	41.9	37.1	130		238 x 611 x 341	110	

Delivery time on request.

Transferrable cooling capacity at a brine inlet temperature of approx. 10 °C and a cooling water inlet temperature of 20 °C.

The general water quality requirements according to the project planning manual for copper-soldered stainless steel plate heat exchangers apply.

### Hydraulic accessories for passive cooling



DWU ..



ZWU ..



ETS DWU

Order reference	Art.-no.	Pressure drop	Dimensions	Features	Weight kg	
DWU 25	347760	14,000 Pa at 2.5 m³/h	DN 25	Three-way distribution valve for switching the return in passive cooling operation. Essential accessories: actuator ETS DWU.	1.1	
DWU 40	347770	14,000 Pa at 3.5 m³/h	DN 40		2.1	
ZWU 25	348940	14,000 Pa at 1.3 m³/h	DN 25	Two-way valve for blocking the flow in passive cooling operation. Parallel cooling operation and domestic hot water preparation is possible due to hydraulic separation of the cooling circuit. Essential accessories: actuator ETS DWU.	0.7	
ZWU 32	348950	14,000 Pa at 1.5 m³/h	DN 32		1.1	
ETS DWU	347780			Electrothermal actuator for two-way valve and three-way distribution valve. ~230 V, 50 Hz, de-energised in heating operation, switching time approx. 3.5 min.	0.2	



### Reversible brine-to-water heat pump

#### Optimised for cooling operation

Max. flow temperature 58 °C  
Flow temperature cooling min. 7 °C  
Casing colour White (similar to RAL 9003)



SI 11MER

Heat pump for heating and cooling with integrated regulation installed indoors. Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearance required on the sides, accessible from underneath with a lift truck. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side. Reversible refrigeration circuit with 2 performance levels. Universal design with flexible expansion options for:

- Bivalent operation (bivalent-renewable not possible)
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits

Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room. Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C;

Lower operating limit heat source (cooling operation) 5 °C; Upper operating limit heat source (cooling operation) 25 °C;

Refrigerant R407C; Connection voltage 1/N/PE ~230 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP at B0/W35	Cooling capacity 1 compressor / EER B20/W18	Connection voltage	Width x Height x Depth mm	Weight kg	
SI 5MER	353070	4.8 / 3.9	6.4 / 5.3	1/N/PE ~230 V, 50 Hz	650 x 805 x 462	115	
SI 7MER	353080	6.3 / 3.9	8.4 / 5.2			117	
SI 9MER	353090	9.1 / 3.9	11.9 / 5.2			124	
SI 11MER	353100	11.4 / 4.0	13.9 / 5.2			128	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

Cooling capacity and coefficient of performance (EER) at B20/W18.

Commissioning should be carried out by authorised after-sales service personnel, especially when the system is used for heating and cooling.

More information is available at: [www.dimplex.de/kundendienst](http://www.dimplex.de/kundendienst)

### Reversible brine-to-water heat pump

#### Optimised for cooling with waste heat recovery

Max. flow temperature 55 °C  
Flow temperature cooling min. 7 °C  
Casing colour White (similar to RAL 9003)



SI 30TER+



SI 75TER+

Heat pump for heating and cooling with integrated regulation installed indoors. The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearances required on the sides. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side. Reversible refrigeration circuit with additional heat exchanger for higher domestic hot water temperatures in heating operation and waste heat recovery in cooling operation. Universal design with flexible expansion options for:

- Bivalent operation (bivalent-renewable not possible)
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits

Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room. Integrated soft starter and load contactor for brine circulating pump, integrated flow and return sensors; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Lower operating limit heat source (cooling operation) 5 °C; Upper operating limit heat source (cooling operation) 30 °C; Refrigerant R404A; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP B0/W35	Heat output 2 compressors / COP B0/W35	Cooling capacity 2 compressor / EER B20/W10	Width x Height x Depth mm	Weight kg	
SI 30TER+	355650	15.2 / 4.2	28.6 / 3.8	35.3 / 5.3	1000 x 1660 x 775	385	
SI 75TER+	354480	34.0 / 3.7	64.0 / 3.4	75.5 / 4.5	1350 x 1890 x 750	658	

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

Cooling capacity and coefficient of performance (EER) according to EN 14511.

The use of waste heat for domestic hot water preparation produces higher coefficients of performance (COP) in cooling operation.

## Reversible brine-to-water heat pump

### Optimised for heating and cooling with waste heat recovery

Max. flow temperature 58 °C  
Flow temperature cooling min. 7 °C  
Casing colour White (similar to RAL 9003)



SI 130TUR+

Heat pump for heating and cooling with integrated regulation installed indoors. Variable connection options for brine and heating connections on the back board of the casing. Access for service work from the front, no minimum clearance required on the sides, accessible from underneath with a lift truck. A sound-optimised insulated metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. High coefficients of performance (COP) thanks to compliance with EN 14511 for larger volume flows on the heat consumption side. Optimised heating and cooling operation via an external four-way reversing valve which is activated by the controller (special accessory). Reversible refrigeration circuit with additional heat exchanger for higher domestic hot water temperatures in heating operation and waste heat recovery in cooling operation. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating and domestic hot water preparation on the WPM EconPlus heat pump manager). The control panel is integrated into a brown-red design screen and can also be used as wired remote control using the wall mounting set (special accessories MS PGD). Universal design with flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Combined distribution systems for heating and cooling
- Unmixed and mixed heating and cooling circuits
- Combination of active and passive cooling (special accessory)

Silent cooling via panel heating/cooling systems requires the use of the room climate station (special accessory) to regulate the flow temperature on the basis of the air temperature and humidity of a reference room. Soft starter, load contactor for brine circulating pump, integrated flow and return sensor; external sensor (standard NTC-2) and dirt filter for brine circuit included in the scope of supply.

Lower operating limit heat source (heating operation) -5 °C; Upper operating limit heat source (heating operation) 25 °C; Lower operating limit heat source (cooling operation) 10 °C; Upper operating limit heat source (cooling operation) 30 °C; Refrigerant R410A; Connection voltage 3/N/PE ~400 V, 50 Hz

Order reference	Art.-no.	Heat output 1 compressor / COP B0/W35	Heat output 2 compressors / COP B0/W35	Cooling capacity 2 compressor / EER B20/W10	Width x Height x Depth mm	Weight kg
SI 130TUR+	361770	57.6 / 4.4	108.5 / 4.2	129.0 / 5.6	1350 x 1890 x 775	830

Heat output and coefficient of performance (COP) according to EN 14511 at B0/W35.

Cooling capacity and coefficient of performance (COP) according to EN 14511.

A water-to-water heat pump must be used for borehole heat exchangers with water as the heat transfer medium. The SI 130TUR+ is also available upon request in a WI 140TUR+ version, which works with water as the heat source.

The performance levels stated can only be achieved in combination with the external four-way valve available as a special accessory.

Delivery time on request.

## Four-way reversing valve, rev. brine-to-water heat pump

### Special hydraulic accessories for cooling



VWU 65

The four-way reversing valve (DN 65 flange or DN 80 flange) for integration into the flow allows optimised heating and cooling operation of the SI 130TUR+ reversible brine-to-water heat pump. Switching takes place via a pre-assembled electromotive actuator (1/N/PE ~230 V) which is activated by the WPM EconR heat pump manager.

Order reference	Art.-no.	For device type	Maximum volume flow m³/h	Features	Weight kg
VWU 65	362760	SI 130TUR+	20	Four-way reversing valve for switching from heating to cooling operation in flow and/or return. Actuator, 3-point control signal, 1/N/PE ~230 V, 50 Hz for short switching times.	15
VWU 80	362770		25		23

## Flow switch

### SI 130TUR+ brine-to-water heat pump



DFS 80

DN 80 external thread/external thread pipe assembly with flow switch (switch point at 6.5 m³/h ± 10%) for SI 130TUR+ brine-to-water heat pumps. Can be used for flow rate monitoring in the heating circuit and in the brine circuit.

Order reference	Art.-no.	For device type	Switch point m³/h	Connection heating	Weight kg
DFS 80	361840	SI 130TUR+	6.5	3.0	3

### Built-under buffer tank



PSP 100E

Order reference	Art.-no.	For device type	Features	Width x Height x Depth mm	Weight kg	
PSP 100E	353360	SIK 7 - 14 SI 6 - 14TU SIH 6 - 11TE WI 10 - 14TU	Nominal capacity 100 l; in brine-to-water heat pump design to enable space-saving installation on top of the built-under buffer tank; polyurethane insulation for minimal downtime losses (can be used for heating and cooling); 1½" sleeves for immersion heaters (up to CTHK 635); 1¼" heating water connections; colour: white; brown red design screen.	650 x 550 x 653	54	
PSP 120E	363750	LI 9/12TU LI 15TE	Nominal capacity 120 l; in air-to-water heat pump design to enable space-saving installation on top of the built-under buffer tank; PU insulation with minimal downtime losses (can be used for heating and cooling), including 1 x 1½" sleeve for immersion heaters (up to CTHK 636); 1¼" heating water connections; 4 supporting feet; colour white/design screen brown-red.	960 x 600 x 780	83	
PSP 140E	353970	LI 11 - LI 20TE(S)	Nominal capacity 140 l; in air-to-water heat pump design to enable space-saving installation on top of the built-under buffer; polyurethane insulation with minimal downtime losses (can be used for heating and cooling), incl. 2½" sleeves for immersion heaters (up to CTHK 636); 1" heating water connections; colour: white; brown red design screen.	750 x 600 x 880	72	

### Free-standing buffer tank

Casing colour white (similar to RAL 9010)

Permissible operating pressure 3 bar; Max. operating temperature 95 °C;



PSW 100



PSW 200



PSW 500

Order reference	Art.-no.	For device type	Features	Diameter x Height mm	Weight kg	
PSW 100	351090	Up to LI 11 Up to LA 11 LIA 7 - 16IM	Nominal capacity 100 l, polyurethane insulation for minimal downtime losses (can be used for heating and cooling), incl. 2 x 1½" sleeves for immersion sleeves (to CTHK 634), 1" heating water connections.	512 x 850	32	
PSW 200	339830	Up to SI 37 Up to WI 27	Nominal capacity 200 l, polyurethane insulation for minimal downtime losses (can be used for heating and cooling), incl. 3 x 1½" sleeves for immersion heaters (to CTHK 634), 1¼" heating water connections, 3 supporting feet (adjustable).	600 x 1300	60	
PSW 500	339210	Up to LA 60 Up to SI 75 Up to WI 50	Universal buffer tank, nominal capacity 500 l, polyurethane insulation for minimal downtime losses (can be used for heating and cooling), including 3 x 1½" sleeves for immersion heaters (to CTHK 635), 2½" heating water connections, DN 180 flange for installation of an RWT 500 finned tube heat exchanger, 3 supporting feet (adjustable).	700 x 1950	115	
PSW 1000	361640	Up to SI 130 Up to WI 100 Up to LA 60	Nominal capacity 1000 litres, including 6 1½" sleeves for immersion heaters (up to CTHK 636), 3½" immersion sleeves for temperature sensors, 2½" heating water connections and 3 supporting feet. Separate polyurethane insulation (100 mm insulation thickness) for low downtime losses, removable (can be used for heating), colour white aluminium (similar to RAL 9006); diameter (without insulation) 790 mm, tilting dimension (without insulation) 2023 mm.	790 x 1983	112	

To prevent condensate from forming on the buffer tank during cooling operation, the sleeves for the immersion heaters, the flange (hand hole cover in the PSW 500) and all heating water connections must be insulated on site with an additional steam-resistant thermal insulation. The removable PU insulation of the PSW 1000 buffer tank (1000 litres) is not suitable for cooling.

## Floor-mounted buffer tank, solar



PSW 1000 SOL

Nominal capacity 1000 litres, including six 1½" sleeves for immersion heaters (up to CTHK 636), 3 m² solar heat exchanger (for a solar collector area of up to 16 m²), three ½" immersion sleeves for temperature sensors, 2½" heating water connections and 3 supporting feet. Separate polyurethane insulation (100 mm insulation thickness) for low downtime losses, removable (can be used for heating), colour white aluminium (similar to RAL 9006); diameter (without insulation) 790 mm, tilting dimension (without insulation) 2018 mm.

Order reference	Art.-no.	For device type	Diameter x Height mm	Weight kg	
PSW 1000 SOL	363660	Up to SI 130 Up to WI 100 Up to LA 60	790 x 1970	139	

**Note: Observe the basic dimensions of the cylinder!** The connecting stubs of the cylinder extend a further 100 mm beyond the tank container itself (diameter 790 mm).

## Immersion heater



CTHK ...

For electrical supplementary heating in mono-energy operation; consists of individual heating elements with temperature controller, safety temperature limiter, degree of protection IP54, 1½" external thread with plastic cover, fulfils the requirements of EN 60335, Part 1. Not suitable for enamelled domestic hot water cylinders.

Order reference	Art.-no.	Connection voltage	Heat output kW	Immersion depth mm	Unheated length mm	Weight kg	
CTHK 630	363610	1/N/PE ~230 V, 50 Hz	4.5	400	95	1.9	
CTHK 631	336180		2.0	250		1.4	
CTHK 632	335910		2.9			1.5	
CTHK 633	322140	3/PE ~400 V, 50 Hz	4.5	350	110	1.7	
CTHK 634	322150		6.0	450		1.8	
CTHK 635	322160		7.5	550		1.9	
CTHK 636	322170		9.0	650		2.1	

## Solar heat exchanger for universal buffer PSW 500



RWT 500

For connection of an external supplementary heating system with required system separation (e.g. solar) in connection with the PSW 500 universal buffer tank. Consists of a flange cover with anti-twist protection and 2.3 m² heat exchanger (for a solar collector area of up to approximately 10 m²), ¾" external thread connection, TK 210/8.

Order reference	Art.-no.	For device type	Immersion depth mm	Heat exchange surface m²	Collector surface m²	Transmission capacity kW	Weight kg	
RWT 500	339840	PSW 500	590	2.3	10.0	9.0	11.1	

## Immersion heater pipe assembly



HDLR 450

Insulated pipe assembly for screwing in a 1½" immersion heater (CTHK 631, CTHK 632, CTHK 633 or CTHK 634); integration into the flow for volume flows up to 2.5 m³/h; 1¼" heating water connection; installation material for wall mounting included in the scope of supply.

**Immersion heater (CTHK ...) must be ordered separately.**

Order reference	Art.-no.	For device type	Weight kg	
HDLR 450	337450	CTHK 630-634	5.0	

## Pipe heater



HCT 300

Insulated built-in 3 kW heating element for the flow (1" flat sealing), max. volume flow 1.5 m³/h, control range 20–75 °C, degree of protection IP44, safety temperature limiter, 16 A fuse protection.

Order reference	Art.-no.	Connection voltage	Heat output kW	Weight kg	
HCT 300	351210	1/N/PE ~230 V, 50 Hz	3.0	3.5	



WWSP 332

### Domestic hot water cylinder with foil cladding and temperature sensor

Steel cylinder (special inside enamelling) with protection anode and 3 supporting feet, polyurethane insulation with minimal standby losses, temperature sensor for connection to the heat pump manager included in the scope of supply, colour white, heating connection 1½", domestic hot water connection 1" external thread, circulation connection ¾".

Permissible operating pressure 10 bar; Flange TK150/DN110;

Order reference	Art.-no.	For device type	Features	Diameter x Height mm	Weight kg	
WWSP 332	346610	up to LI 20 excluding LI 15/16, up to LA 22 excluding LA 16, up to SI 11/WI 14 LIA 7 - 16IM	Nominal capacity 300 l, usable capacity 277 l, heat exchange surface 3.2 m² for a transmission capacity up to approx. 16 kW, standby loss approx. 2.4 kWh/24 h	700 x 1294	130	
WWSP 880	337880	up to LI 28 excluding LIH 26TE, up to LA 26PS/LA 25TU, up to SI 30 excluding SI 22TU, up to WI 18	Nominal capacity 400 l, usable capacity 350 l, heat exchange surface 4.2 m² for a transmission capacity up to approx. 20 kW, standby loss approx. 2.8 kWh/24 h	700 x 1591	159	
WWSP 900	339220	up to LI 40 up to LA 40 up to SI 50 up to WI 50	Nominal capacity 500 l, usable capacity 430 l, heat exchange surface 5.7 m² for a transmission capacity up to approx. 30 kW, standby loss approx. 3.3 kWh/24 h	700 x 1920	180	

The SST 25 solar station can be used in combination with all domestic hot water cylinders to support domestic hot water preparation.

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

### Domestic hot water cylinder with foil cladding

#### Universal design



WWSP 885S

800 litre cylinder for universal use (780 litre usable capacity), for domestic water heating, steel (special inside enamelling according to DIN 4753, primer-coated on the outside) with 3 bare-tube heat exchangers (internal). 2 bare-tube heat exchangers at the top (internal and external), each with 3 m² heat exchange surface (parallel connection via T-joint; lower bare-tube heat exchanger (2.0 m²) can be used individually for domestic water heating or as a solar heat exchanger. Non-corroding Correx anode for supplementing the cathode corrosion protection, temperature sensor can be positioned variably with sensor terminal strips (temperature sensor NTC-2M and NTC 10M for connecting the heat pump manager in the scope of supply); installation option for TK150/DN 110 flange heater, water connection 1½", 1" return, circulation ¾" (all connections with external thread flat-sealing); diameter without insulation 795 mm; tilting dimension 1950 mm. Separate custom-fitted 2-part thermal insulation with polyester mat thermal insulation (100 mm thickness) with polyester outer surface including base insulation for minimal heat loss in scope of supply, fire protection class B2, colour white aluminium (RAL 9006). Permissible operating pressure 10 bar;

Order reference	Art.-no.	For device type	Features	Diameter x Height mm	Weight kg	
WWSP 885S	364270	up to LA 60 up to SI 75 up to WI 50	Usable capacity 780 litres, 8 m² Total heat exchange surface, corrosion-free Correx anode made from titanium, polyester fibre fabric insulation with improved insulation properties (fire protection classification B2), retrofittable, standby energy loss approx. 3.0 kWh/24 h	795 x 1870	415	

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

### Solar domestic hot water cylinders

#### For heat pumps



WWSP 432 SOL

Solar domestic hot water cylinder made of steel (special inside enamelling) with protection anode, two integrated bare-tube heat exchangers for solar and heating. Thanks to the temperature stratification, even small solar gains are sufficient to feed energy into the lower cold water section of the cylinder. The upper part of the cylinder is kept at the comfort temperature. Thermometer, polyurethane insulation for low standby losses, colour white, flange TK 150/DN 110. An NTC 10 and an NTC 2 sensor are included in the scope of supply.

Permissible operating pressure 10 bar;

Order reference	Art.-no.	For device type	Features	Diameter x Height mm	Weight kg	
WWSP 432 SOL	361080	up to LI 20 excluding LI 15/16, up to LA 22 excluding LA 16, up to SI 11 up to WI 14	400 l nominal capacity, 346 l usable capacity, 3.2 m² heat exchange surface (heating), 1.3 m² heat exchange surface (solar), 2.9 kWh/24 h standby loss, 1½" solar and heating connections, 1" domestic hot water connection, ¾" circulation connection	700 x 1631	182	
WWSP 540 SOL	361090	up to LI 28 excluding LIH 26TE, up to LA 28 up to SI 30 up to WI 22	500 l nominal capacity, 427 l usable capacity, 4.0 m² heat exchange surface (heating), 1.6 m² heat exchange surface (solar), 3.2 kWh/24 h standby loss, 1½" solar and heating connections, 1" domestic hot water connection, ¾" circulation connection	700 x 1961	218	

WWSP 540 SOL not suitable for SI 22TU

## Design domestic hot water cylinder



WWSP 442E

Nominal capacity 400 l, in brine-to-water heat pump design, bare-tube heat exchanger (internal), three supporting feet, steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimal standby losses (approx. 2.7 kWh/24 h), integrated temperature sensor for connection to the heat pump manager, colour white, brown red design screen.

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m <sup>2</sup>	Con- nection heating ~	Con- nection circulation ~	Con- nection DHW ~	Width x Height x Depth mm	Weight kg	
WWSP 442E	353370	SIK 7 - 14 SI(H) 20 - 30	353	4.2	1¼	¾	1	650 x 1660 x 680	187	

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Design built-under domestic hot water cylinder



WWSP 229E

Nominal capacity 227 l, in brine-to-water heat pump design to enable space-saving installation on the built-under domestic hot water cylinder, bare-tube heat exchanger (internal), steel cylinder (special inside enamelling) with protection anode, polyurethane insulation with minimum standby losses; integrated temperature sensor for connection to the heat pump manager, colour: white, brown red design screen.

Permissible operating pressure 10 bar; Flange TK150/DN110;

Order reference	Art.-no.	For device type	Usable capacity l	Heat exchange surface m <sup>2</sup>	Con- nection heating ~	Con- nection circulation ~	Con- nection DHW ~	Width x Height x Depth mm	Weight kg	
WWSP 229E	353380	Up to SI(K) 9	206	2.9	1¼	¾	1	650 x 1040 x 680	110	

Recommended for service areas without shut-off times or with reduced domestic hot water consumption.

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Flange heater for domestic hot water cylinders



FLH 60

For reheating and thermal disinfection; temperature controller, adjustable from 30–80 °C; safety temperature limiter, suitable for all hot water cylinders (WWSP), unheated length 105 mm, diameter 185 mm.

Order reference	Art.-no.	Connection voltage	Heat output kW	Flange	Immersion depth mm	
FLH 25M	349430	1/N/PE ~230 V, 50 Hz	2.5	TK150/8	360	
FLHU 70	338070	3/N/PE ~400 V, 50 Hz	4.0	TK150/8	360	
FLH 60	338060	3/PE ~400 V, 50 Hz	6.0	TK150/8	360	
FLH 90	366130	3/PE ~400 V, 50 Hz	9.0	TK150/8	580	

FLH 90 available for delivery from June 2012 onwards.

## Accessories for domestic hot water cylinders



SVK 852



KRRV 003

Order reference	Art.-no.	Short text	Features	Weight kg	
SVK 852	326660	Safety valve combination	For the cold water connection of domestic water cylinders to the supply network according to DIN 1988. 1" external thread connection; DN 20, 8 bar, yellow.	1.5	
KRRV 003	322070	Thermostat for heating and domestic hot water	Capillary tube controller setting range: 0–70 °C switching capacity at 230 V, 50 Hz, 10 A switching temperature difference: 1.0–2.0 K, sheath tube length: 200 mm.	0.5	



### Hydro Tower with external heat pump manager

#### Compact installation for heating and domestic hot water preparation



HWK 332

The Hydro Tower enables the fast and simple connection of a heat pump for heating purposes to a heating system with an unmixed heating circuit. The heat pump manager included in the scope of supply of the heat pump is used for the electronic control of the components (external wiring required). The following components are installed in a space-saving way and wired ready for use:

- Switchable pipe heater (2/4/6 kW) for supplementary heating
- Buffer tank (100 l) with installation option for an additional immersion heater (up to CTHK 634)
- Domestic hot water cylinder 300 l with 3.2 m<sup>2</sup> tube heat exchanger and 1.5 kW flange heater for thermal disinfection
- Electronically regulated circulating pump (energy efficiency class A) wired ready to use for unmixed heating circuits (consumer circuit)
- Unregulated auxiliary circulating pump for generator circuit and domestic hot water loading pump
- The hydraulic isolation of the generator circuit and the consumer circuit is carried out via two differential pressureless manifolds (bypass pipes), which are each fitted with a check valve.

To reduce the run times, the unregulated auxiliary circulating pump in the generator circuit is only operated when the compressor is running and when there is a risk of frost. The uniform flow through the buffer tank connected in series extends the runtimes of the compressor and ensures the required heating water flow rate in all operating modes. NTC-10M temperature sensor pre-installed, NTC-2M in scope of supply.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
HWK 332	362360	LA 6 - 17TU, LA 11TAS(MAS), LA 8 - 22P(M)S LI 9 / 11TES; LI 9 / 12TU SIH 6 - 11TE; SI 6 - 11TU WI 10 / 14TU	710 x 1890 x 950	210	

If the heating water connection lines are more than 10 m long, the free compression values stated in the device information must be observed (minimum pipe diameter for volume flows of more than 1.5 m<sup>3</sup>/h: DN 32). When using the Hydro Tower with LA 8PMS or LA 11PS heat pumps, the pre-mounted sensors must be replaced by the NTC-2 sensors included in the scope of supply.

#### Combination tank heating and domestic hot water preparation



PWS 332

Upright cylinder for optimum use of floor space, consisting of a 100 l buffer tank and a 300 l domestic hot water cylinder. Tank and cylinder hydraulically decoupled; buffer tank with 1½" sleeves for immersion heaters (to CTHK 635), 1¼" heating connection; usable capacity of the domestic hot water cylinder 277 l, heat exchange surface 3.2 m<sup>2</sup> bare tube (internal), 1¼" heating connection, 1" hot water connection, ¾" circulation connection, temperature sensor enclosed, installation of flange heater possible; colour white aluminium.

Order reference	Art.-no.	For device type	Diameter x Height mm	Weight kg	
PWS 332	348620	Up to LI 11 Up to LA 11 Up to SI (H) 11/WI 14 LIA 7 - 16IM	700 x 1800	185	

#### Radiators for the PWS 332 combination tank



CTHK ...



FLH 60

Order reference	Art.-no.	Short text	Connection voltage	Heat output kW	Weight kg	
CTHK 635	322160	Immersion heater 7.5 kW; ~400 V	3/PE ~400 V, 50 Hz	7.5	1.9	
FLH 60	338060	Flange heater for domestic hot water		6.0	3.5	

The following immersion heaters can also be used for supplementary heating: CTHK 631, 632, 633 and 634.

## Combo tank for integrating solar energy

### Domestic hot water heating in flow principle



PWD 750



PWD 900

Upright cylinder for heating and domestic hot water preparation with central flow, with three internally tin-plated heat exchangers (external pipework necessary); consisting of a buffer tank for heating and a buffer tank for domestic hot water; heating buffer tank used as a preheating stage for domestic hot water preparation. A circular plate prevents the different water layers with varying temperatures from becoming mixed together; integrated heat riser pipes distribute the energy from an additional heat generator (e.g. solar, wood boiler) to the supplementary heating system and the domestic hot water preparation according to the temperature; flange connection for integration of an optional solar heat exchanger (special accessory RWT); NTC-2 and NTC-10 temperature sensors included in the scope of supply; 125 mm PE foam insulation delivered separately; colour: white.

#### PWD 750 combo tank:

200 l buffer tank for heating and 550 l buffer tank for domestic hot water; one 1½" sleeve each for immersion heaters in the heating buffer tank and the domestic hot water buffer tank (CTHK 635 and 636); tank charging for domestic hot water preparation up to a maximum of 2.5 m³/h and 30 kW heat output; tilting dimension 1920 mm. The VS PWD special accessory is available for the external pipework required by the PWD 750.

#### PWD 900 combo tank:

250 l buffer tank for heating and 650 l buffer tank for domestic hot water; 1½" sleeves for immersion heaters (two in the heating buffer tank and one in the domestic hot water buffer tank - CTHK 635 and 636); tank charging for domestic hot water preparation up to a maximum of 3.0 m³/h and 40 kW heat output; tilting dimension 2205 mm.

#### PWD 1250 combo tank:

400 l buffer tank for heating and 850 l buffer tank for domestic hot water; 1½" sleeves for immersion heaters (two in the heating buffer tank and one in the domestic hot water buffer tank (CTHK 635 and 636); tank charging for domestic hot water preparation up to a maximum of 3.5 m³/h and 60 kW heat output; tilting dimension 2200 mm.

**Observe the basic dimensions of the PWD 1250: Tank diameter 1000 mm (without insulation).**

Order reference	Art.-no.	For device type	Diameter with insulation mm	Diameter x Width x Height x Depth mm	Weight kg	
PWD 750	349100	Up to a heat output max. 30 kW Up to a volume flow of max. 2.5 m³/h	1040	1040 x 790 x 1730 x 790	246	
PWD 900	362860	Up to a heat output max. 40 kW Up to a volume flow of max. 3.0 m³/h		1040 x 790 x 2050 x 790	296	
PWD 1250	362890	Up to a heat output max. 60 kW Max. volume flow of 3.5 m³/h	1200	1250 x 1000 x 1950 x 1000	407	

Cannot be used with reversible heat pumps and water hardness above 14° dH. Dimensional specifications for width, height and depth refer to the cylinder without insulation. The pouring output can be found in the device information, which can be downloaded at [www.dimplex.de](http://www.dimplex.de).

### Connection kit for PWD heat exchanger



VS PWD

For easy installation of the external pipework of the 3 integrated domestic hot water heat exchangers of the PWD. Consists of two flexible pre-assembled corrugated stainless steel DN 16 pipes (1000/500 mm), insulation thickness 13 mm, ¾" cap nut on both ends, transitional screw connections and seal; maximum operating pressure 7 bar.

Order reference	Art.-no.	For device type	Weight kg	
VS PWD	354030	PWD	5.0	

### Immersion heater for PWD combo tank



CTHK ...

For PWD combo tanks, immersion heaters with an unheated length of 110 mm are used to support heating and domestic hot water preparation.

Order reference	Art.-no.	Connection voltage	Heat output kW	Immersion depth mm	Unheated length mm	Weight kg	
CTHK 635	322160	3/PE ~400 V, 50 Hz	7.5	550	110	1.9	
CTHK 636	322170		9.0	650		2.1	

## Reversing valve for PWD combo tank



DWUS 25

Three-way reversing valve for switching from heating to domestic hot water preparation in the flow or return. Motor operated for short switching times (set time open 12 s, set time closed 6 s); for a maximum volume flow of 2 m<sup>3</sup>/h; max. differential pressure 0.6 bar; temperature operating range for heating water 5–88 °C; max. ambient temperature 50 °C.

Order reference	Art.-no.	Connection heating	Nominal width	
DWUS 25	355630	1	DN 25	

## Hydraulic accessories for PWD combo tank



DWK ..



EMS DWK

Order reference	Art.-no.	Connection heating	Kvs value m <sup>3</sup> /h	Features	Weight kg	
DWK 25	364680	1	10	Three-way ball valve for universal use: in passive cooling operation for switching the return, in the heating circuit as flow temperature mixer and as mixer in bivalent-renewable systems. Brass ball valve with internal thread connections, k <sub>vs</sub> value control load 10/16/25/40 m <sup>3</sup> /h (DWK25/32/40/50). Essential accessories: EMS DWK actuator.	0.7	
DWK 32	364690	1¼	16		1.0	
DWK 40	364700	1½	25		1.4	
DWK 50	364710	2	40		2.3	
EMS DWK	364670			Actuator for DWK 3-way ball valves, 2/3-point control signal, ~230 V, 50 Hz for short switching times (set time 30 s at 50 Hz). Delivery includes cable, length 1 m.	0.7	

## Solar heat exchanger for PWD combo tank



RWT 750

For connection of a solar energy system for supplementary domestic hot water preparation and supplementary heating in combination with the PWD combo tank. Consists of a flange cover with anti-twist protection (Ø 240 mm - TK 220/16), 3/4" external thread connection, max. operating pressure 20 bar.

Order reference	Art.-no.	For device type	Immersion depth mm	Heat exchange surface m <sup>2</sup>	Collector surface m <sup>2</sup>	Transmission capacity kW	Weight kg	
RWT 750	351640	PWD 750	570	2.3	15	9.0	10.0	
RWT 900	363690	PWD 900	785	3.2	22	12.5	13.5	
RWT 1250	363700	PWD 1250	965	4.1	28	16.0	15.8	

## Main heat pump circuit

### Compact manifold with overflow valve

#### Pump inside micrometer 180 mm

##### Compact manifold

Combinable module with insulation jackets for installation-friendly connection of the heat pump, buffer tank, domestic hot water cylinder and heat distribution system. Consists of one overflow valve, four ball valves, two integrated thermometers, one check valve, immersion sleeve for return sensor, safety module with pressure gauge and connection possibilities for expansion vessel. Installation option for circulating pump, inside micrometer 180 mm, DN 25 (pump not included in the scope of supply). Recommended for connection of heat pumps with a heating water flow of up to 1.3 m<sup>3</sup>/h in combination with the EB KPV expansion module to 2.0 m<sup>3</sup>/h (max. volume flow 2.5 m<sup>3</sup>/h). The expansion module should generally be used for systems with different volume flows in the generator and consumer circuits (i. e. radiators).

##### Expansion module

For connecting to the KPV 25 compact manifold, enabling decoupling from the consumer circuit without differential pressure. Consists of a corrugated stainless steel pipe with union and connecting pieces. Recommended for connection of heat pumps with a heating water flow of up to 2.0 m<sup>3</sup>/h. The consumer circuit requires a separate circulating pump due to the hydraulic isolation.



KPV with UP 60



EB KPV

Order reference	Art.-no.	For device type	Recommended volume flow m <sup>3</sup> /h	Connection heating "	Weight kg	
KPV 25	346590	up to LI 11 up to LA 11 SI 18 up to WI 18	1.3	1	7.7	
EB KPV	348650	up to LI/LA 22 with KPV 25 up to SI 22 with KPV 25 up to WI 22 with KPV 25	2.0		2.4	

### Dual differential pressureless manifold

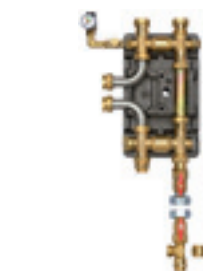
#### DDV 25/DDV 32

Combinable module with insulation jackets for installation-friendly connection of the heat pump, buffer tank, domestic hot water cylinder (using the T-joint included) and heating system. Consists of 2 isolation valves, 2 bypass pipes with return inhibitor (2000 Pa start-to-leak pressure), safety module with pressure gauge and connection option for an expansion vessel. Installation option for a circulating pump (pump not included in the scope of supply) with 1¼" pump pipe unions for DDV 25 and 1½" for DDV 32.

Recommended for connecting heat pumps with a heating water flow of up to 2.0 m<sup>3</sup>/h (DDV 25) or 2.5 m<sup>3</sup>/h (DDV 32) and external energy infeed (e. g. wood/solar) into the buffer tank connected in series (see project planning documentation). To reduce the pump operating times, it is only possible to operate the auxiliary circulating pump with the compressor. In this case, the return sensor included in the scope of supply must be installed and connected in the immersion sleeve provided. The consumer circuit requires a separate circulating pump due to the hydraulic isolation.

#### DDV 50

Combinable module for easy connection of the heat pump, buffer tank, domestic hot water cylinder and heating system. Consists of a 3-chamber manifold bar with an inspection and maintenance opening for plug-in check valves (bypass), 2" connections for a heating circuit, 2½" buffer tank connection, safety module with manometer (4 bar) and safety valve (¾"), filling and drain cock and connection option for an expansion vessel. Delivery incl. thermal insulation jackets wall mounting set. Recommended for connection of heat pumps with a heating water flow of up to 7.5 m<sup>3</sup>/h and for external energy infeed (e. g. wood/solar) into the buffer tank connected in series (see project planning documentation). To reduce the pump operating times, it is only possible to operate the auxiliary circulating pump with the compressor. In this case, the return sensor included in the scope of supply must be installed and connected in the immersion sleeve provided. The consumer circuit requires a separate circulating pump due to the hydraulic isolation (pump not in scope of supply).



DDV 25 / 32



DDV 50

Order reference	Art.-no.	For device type	Recommended volume flow m <sup>3</sup> /h	Connection heating "	Weight kg	
DDV 25	358390	up to LI 20 up to LA 20 up to SI 22/SIH 20 up to WI 22	2.0	1½	11.2	
DDV 32	348450	up to LI(H) 28 up to LA 28 up to SI 24 up to WI 27	2.5		12.2	
DDV 50	364240	LI 40 LA 40 / 60TU SI 24 - SI 100TE WI 50 / 100TU	7.5	2	12.8	

With regard to reversible heat pumps, the factory-fitted EPP insulation of the DDV must be removed and the customer must fit additional steam-resistant thermal insulation.

### Circulating pumps for main heat pump circuits

Heat circulating pump to ensure the minimum heating water flow rate through the heat pump, inside micrometer 180 mm. In connection with KPV 25 and EB KPV or a DDV 25, the UP 60 can be used up to LI/LA 20, SI 22 and WI 22. The UP 70-32 circulating pump ensures the minimum heating water flow rate in connection with DDV 32 to LI/LA 28, SI 24 and WI 27. In combination with the DDV 50 (up to LA 60, SI 75 and WI 100), the UPE 120-32 regulated high-efficiency pump ensures the minimum heating water flow rate. Connection voltage: 1/N/PE ~230 V, 50 Hz



UP 80

Order reference	Art.-no.	For device type	Nominal width	Features	Weight kg	
UP 60	340300	KPV 25 DDV 25	DN 25	Delivery height max. 3.5 m at a volume flow of 2 m <sup>3</sup> /h.	2.4	
UP 80	340310			Delivery height max. 4.0 m at a volume flow of 5 m <sup>3</sup> /h.	4.5	
UP 60-32	355970	DDV 32	DN 32	Delivery height max. 3.5 m at a volume flow of 2 m <sup>3</sup> /h.	2.6	
UP 70-32	354020			Delivery height max. 4.0 m at a volume flow of 5 m <sup>3</sup> /h.	5.0	
UPE 120-32	362830	DDV 50	DN 32	Maximum delivery height 8.5 m at a volume flow of 7 m <sup>3</sup> /h.	6.5	

Pump dimensioning must be checked according to the pressure drop and volume flow. Electronically regulated circulating pumps in the main heat pump circuit must be operated with constant volume in order to ensure the minimum heating water flow rate. The pump forerun must be set to at least 60 seconds.

### Heating distribution system modules

#### Pump inside micrometer 180 mm

##### Unmixed heating circuit module

Combinable module with insulation jackets for connection of an unmixed heating circuit or domestic hot water or swimming pool water preparation system. Can be used for a heating water flow of up to 2.5 m³/h (WWM 25) or 7.5 m³/h (WWM 50). Consists of two ball valves with check valve, 2 integrated thermometers, pump ball valve, insulation jackets, installation option for a circulating pump, inside micrometer 180 mm (WWM 25)/280 mm (WWM 50). Pump not included in the scope of supply.

##### Mixed heating circuit module

Combinable module with insulation jackets for connecting a mixed heating circuit. Can be used for a heating water flow of up to 2 m³/h (MMH 25) or 7.5 m³/h (MMH 50). Consists of two ball valves with check valve, 2 thermometers, a 3-way mixer with actuator and 140 s runtime, connection voltage ~230 V, degree of protection IP40, strap-on sensor and insulation jackets, installation option for a regulated circulating pump, inside micrometer 180 mm (MMH 25) or 280 mm (MMH 50) which must be set according to the pressure drop in the heating system (pump not included in the scope of supply).

##### Manifold bar

Combinable module with insulation jackets for simultaneous connection of several heating distribution system modules, with two 1½" (external/internal thread) connecting pairs each to the top and bottom, universally combinable with KPV 25, MMH 25 and WWM 25, complete with union and connecting pieces (flat sealing).

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg	
WWM 25	346600	Domestic hot water module/unmixed heating circuit module	245 x 420 x 240	3.9	
MMH 25	348640	Mixed heating circuit module with temperature sensor	250 x 420 x 250	5.0	
VTB 25	339870	Manifold bar	500 x 180 x 135	7.1	

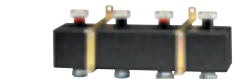
If the domestic hot water distribution system is used for heating and cooling, the water-bearing pipes must be fitted with thermal insulation within the insulation jackets.



WWM 25 with UP ..



MMH 25 with UP ..



VTB 25



UPE 60

### Electronic circulating pump for consumer circuit

#### Electronically controlled circulating pump UPE 60

Electronically controlled heat circulating pump with integrated output adjustment through infinitely variable rotational speed, inside micrometer 180 mm, low energy consumption thanks to energy efficiency class A (complies with the requirements of EnEV, §14 (3)), adjustment of the type of regulation (proportional pressure, constant pressure, constant curves) and the control curve possible via soft touch, incl. pump plug for easy installation of the electric connection cable; connection voltage: 1/N/PE ~230 V, 50 Hz

#### Electronically controlled circulating pumps UPE 70, UPE 80, UPE 120

High-efficiency wet running pump with integrated thermally decoupled electronic power regulation. Can be used in heating systems and heat pump brine circuits, temperature range of the medium to be pumped -10–95 °C, range of operating temperatures -10–40 °C. Types of regulation selectable via operating button for optimum load adjustment (differential pressure regulation constant (Δp-c) and variable (Δp-v) and speed adjustment via control input). Low energy consumption thanks to energy efficiency class A (complies with the requirements of EnEV, §14 (3)), inside micrometer 180 mm, including mains and control cable (length 1.5 m); connection voltage: 1/N/PE ~230 V, 50 Hz Relay for decoupling the control and load circuits, including relay base and retaining clip in the scope of supply.

Order reference	Art.-no.	Nominal width	Features	Weight kg	
UPE 60	358870	DN 25	Maximum delivery height 3.2 m at a volume flow of 2 m³/h	2.3	
UPE 70-25	362790		Maximum delivery height 5.9 m at a volume flow of 2 m³/h	2.8	
UPE 70-32	362800	DN32			3.0
UPE 80-25	362810	DN25	Maximum delivery height 5.2 m at a volume flow of 5 m³/h	4.2	
UPE 80-32	362820	DN32			
UPE 120-32	362830			Maximum delivery height 8.5 m at a volume flow of 7 m³/h	6.5

The use of an electronically-regulated circulating pump in the consumer circuit requires a differential pressureless manifold.

An unregulated circulating pump must be used in the main heat pump circuit in order to ensure the minimum heating water flow.

Pump dimensioning must be checked according to the pressure drop and volume flow.

### Domestic hot water preparation distribution system modules

#### Pump inside micrometer 180 mm

##### Domestic hot water module

Combinable module with insulation jackets for connecting domestic hot water or swimming pool water preparation. Can be used for a heating water flow of up to 2.5 m³/h. Consists of two ball valves with check valve, two integrated thermometers, pump ball valve, insulation jackets, installation option for circulating pump, inside micrometer 180 mm, DN25, which is to be dimensioned according to the pressure drop of the heating system (not included in the scope of supply).

##### Manifold bar

Combinable module with insulation jackets for connecting to a KPV 25 compact manifold and WWM 25 domestic hot water module. Each with two connecting pairs 1½" (external thread/internal thread) upwards and downwards, for a domestic heating water flow of up to max. 2.5 m³/h (flat sealing).

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg	
WWM 25	346600	Domestic hot water module/unmixed heating circuit module	245 x 420 x 240	3.9	
VTB 25	339870	Manifold bar	500 x 180 x 135	7.1	



WWM 25 with UP ..



VTB 25



## Domestic hot water pump unit



WPG 32

Pump unit for direct mounting of the domestic hot water loading pump on the rear of the domestic hot water cylinder (pump not included in the scope of supply). Consists of: Elbow union with manual breather, installation option for a circulating pump with two ball valves and gravity control. Extra WPG 32: 1¼" elbow union with drainage for domestic hot water return.

Order reference	Art.-no.	For device type	Connection heating	Weight kg	
WPG 25	356030	UP 60 UP 80	1¼	1.9	
WPG 32	356040	UP 60-32 UP 70-32	1½	4.4	

## Circulating pumps for domestic hot water preparation

Unregulated circulating pump, can be used for the domestic hot water load circuit, inside micrometer 180 mm.



UP 80

Order reference	Art.-no.	Nominal width	Features	Weight kg	
UP 60	340300	DN 25	Delivery height max. 3.5 m at a volume flow of 2 m³/h.	2.4	
UP 60-32	355970	DN 32		2.6	
UP 80	340310	DN 25	Delivery height max. 4.0 m at a volume flow of 5 m³/h.	4.5	

The achievable hot water temperatures are dependent on the maximum heat output of the heat pump, the heat exchange surface and the volume flow in the load circuit (dimensioned for max. hot water temperatures of 45 °C according to the project planning documentation). For heat pumps with two performance levels, domestic hot water preparation is achieved with a compressor.

## Mixer module for bivalent systems

Combinable mixer module for connecting a second heat generator (e.g. oil boiler) or a renewable heat generator with heat accumulator. Can be used for a heating water flow of up to 2 m³/h. Consists of a 4-way mixer with actuator and 140 s runtime, connection voltage ~230 V, degree of protection IP40.



MMB 25

Order reference	Art.-no.	Width x Height x Depth mm	Weight kg	
MMB 25	348880	190 x 365 x 160	5.3	

## Solar station for domestic hot water

### Solar back-up for domestic hot water preparation

Heat exchanger solar station consisting of a solar separation system and pump assembly with insulation jackets for integrating solar installations up to 10 m² into the domestic hot water heating system. The solar station enables efficient hot water heating via the heat pump and the solar installation. Modules with a primary and secondary circuit consisting of: 2 circulating pumps (WILO- STAR-ST 25/6 and STAR-RS 24/4); 4 ball valves 1" with thermometer, return inhibitor, safety module with safety valve and 0–10 bar pressure gauge, connection options for expansion vessel (solar controller not included in scope of supply).



SST 25

Order reference	Art.-no.	Width x Height x Depth mm	Weight kg	
SST 25	348430	320 x 1050 x 320	19	

## Heating distribution system modules

### Inside micrometer 280 mm (flange) and 180 mm (thread)

#### Unmixed heating circuit module

Combinable module (DN 50) with insulation jackets for connection of an unmixed heating circuit or domestic hot water or swimming pool water preparation system. Can be used for a heating water flow of up to 7.5 m³/h. Consists of three isolation valves, integrated gravity control, two thermometers, three KFE ball valves, dirt trap, pipework installation option for a circulating pump (nominal width DN 32 – inside micrometer 180 mm; pump not included in the scope of supply).

#### Mixed heating circuit module

Combinable module (DN 50) with insulation jackets for connecting a mixed heating circuit. Can be used for a heating water flow of up to 7.5 m³/h. Consists of two ball valves with check valve, 3 KFE ball valves, 2 thermometers, dirt trap, pipework and connection components, three-way mixer with actuator motor, connection voltage ~230 V, degree of protection IP 40, sensor and insulation jackets, installation option for regulated circulating pump, inside micrometer 280 mm with flange and levelling piece for installing a threaded pump (nominal width DN 32 – inside micrometer 180 mm) to be dimensioned according to the pressure drop in the heating system (pump not included in scope of supply).



WWM 50



MMH 50

Order reference	Art.-no.	For device type	Recommended volume flow m³/h	Connection heating	Weight kg	
WWM 50	364250	DDV 50	8	2	35.5	
MMH 50	364260				41.1	

As an option, it is also possible to install a circulating pump with a DN 50 flange connection (inside micrometer 280 mm) in the mixed and unmixed heating circuit module. If the domestic hot water distribution system is used for heating and cooling, the water-bearing pipes must be fitted with thermal insulation within the insulation jackets.



## Dirt trap



SMF ..

Dirt trap for installation into the heating circuit (return to the heat pump), suitable for all non-corrosive substances up to 150 °C. To protect the heat pump against damage caused by impurities and thus extend its service life.

Order reference	Art.-no.	For device type	Connection heating	Mesh size mm	Weight kg	
SMF 25	362130	LA 11 - 16ASR LA 11 - 16TAS/MAS LA 11PS LI(K)8 - 9 TES	1	0.6	1.0	
SMF 32	362140	LA 17 - 28PS, LA 26HS LI 11 - 28TE(S) SI 6 - 18TU, SI(K/H) 6 - 22 WI 10 - 14TU	1¼		1.2	
SMF 40	362150	LI 40AS SI(H) 40 - 50TE WI 50TU	1½		1.5	
SMF 50	362160	SI 75 - 100TE(R+) WI 100TU	2		2.3	
SMF 65	362170	SI 130TE	2½		3.7	

## Expansion joints



KOMP ..

Double-sphere rubber expansion joint for solid-borne sound insulation of heat pumps and heating systems. Absorbs oscillations and movements caused by pumps, compressors, fittings and other sources, reduces noise output and evens out internal strain (axial and lateral deviations) stemming from imprecisions in assembly. EPDM sphere, galvanised C-steel internal thread connections, service temperature -10 °C to 110 °C. Scope of supply: 2 items

Order reference	Art.-no.	For device type	Connection heating	Weight kg	
KOMP 25	362050	LA 11 - 16ASR/PS LA 11 - 16TAS/MAS LI(K)8 - 9 TES	1	2.1	
KOMP 32	362060	LA 9 - 17TU, LA 17 - 28PS/HS LI 11 - 28TE(S) SI(K/H) 6 - 22 WI 10,14TU, WI 18 - 27TE	1¼	2.8	
KOMP 40	362070	LA 25 - 40TU LI 40AS SI(H) 40 - 50TE WI 50TU	1½	4.9	
KOMP 50	362080	SI 75 - 100TE(R+) WI 100TU	2	6.3	

The installation of double-sphere rubber expansion joints between the heat pump and the heating system is strongly recommended for solid-borne sound insulation purposes. The following heat pumps are equipped with integrated solid-borne sound insulation: LA 9 - 60TU, LIKI 14TE, SI 22TU, SI(K/H) compact brine-to-water heat pumps, brine-to-water and water-to-water heat pumps with two performance levels. The installation of an additional expansion joint is also recommended for these heat pumps, in order to optimise solid-borne sound insulation.

## Stainless steel Wellflex connection kit



VSE 32-...

Flexible DN 32 stainless steel Wellflex pipe available in different lengths with 1½" cap nut, seals and 1½" external thread - 1¼" external thread transitional screw connection for quick and easy connection of heat pump, domestic hot water cylinder and buffer tank to the heat distribution system.

Order reference	Art.-no.	Connection heating	Features	Weight kg	
VSE 32-50	362520	1½	DN 32, length 500 mm	0.9	
VSE 32-100	362530		DN 32, length 1000 mm	1.2	
VSE 32-150	362540		DN 32, length 1500 mm	2.5	
VSE 32-200	362550		DN 32, length 2000 mm	2.7	
VSE 32-300	362560		DN 32, length 3000 mm	3.3	

### Heating controller - heat pump manager



WPM 2006 plus



WPM EconPlus

Controller for heat pump heating systems for installation in frost-free rooms, with backlit LCD, time-controlled lowering and raising of the heating characteristic curve, timer functions for domestic hot water preparation according to need by heat pump, with optional targeted reheating by flange heater. 'Bivalent-renewable' operating mode for combining the heat pump with additional renewable energy sources such as wood or solar heat; dynamic input menus with different levels for technicians and users. Two independent mixer outputs for controlling an additional heat generator and a maximum of two mixed heating circuits. Automatic program for targeted heat drying of screed floors. PC, modem and bus connection via plug-in modules (special accessories); external sensor (standard NTC-2) included in the scope of supply.

Order reference	Art.-no.	Features	Width x Height x Depth mm	Weight kg	
WPM 2006 plus	352550	Delivered as a wall mounted controller in the scope of supply of the air-to-water heat pump for outdoor installation.	370 x 330 x 90	4.1	
WPM EconPlus	355950	Delivered as a wall mounted controller in the scope of supply of the air-to-water heat pump for outdoor installation. Integrated thermal energy meter with separate evaluation for heating and domestic hot water preparation. Simplified electrical connection with separate terminal blocks for 24 V and 230 V.	303 x 489 x 120	5.0	

### Heat pump manager for heating and cooling



WPM EconR.

Controller for heat pump heating systems for installation in frost-free rooms, with backlit LCD, time-controlled lowering and raising of the heating characteristic curve, timer functions for domestic hot water preparation according to need by heat pump, with optional targeted reheating by flange heater. 'Bivalent-renewable' operating mode for combining the heat pump with additional renewable energy sources such as wood or solar heat; dynamic input menus with different levels for technicians and users. Two independent mixer outputs for controlling an additional heat generator and a maximum of two mixed heating circuits. Automatic program for targeted heat drying of screed floors. PC, modem and bus connection via plug-in modules (special accessories); external sensor (standard NTC-2) included in the scope of supply.

Order reference	Art.-no.	Features	Width x Height x Depth mm	Weight kg	
WPM EconR	358380	Delivered as a wall mounted controller in the scope of supply of the air-to-water heat pump for outdoor installation. Integrated thermal energy meter with separate evaluation for heating and domestic hot water preparation. Simplified electrical connection with separate terminal blocks for 24 V and 230 V.	504 x 489 x 120	12	

### Heat pump manager expansion modules



NWPM



EWPM

The NWPM expansion module acts as an interface between the heat pump manager and an Ethernet network. This extension allows the remote setting and remote monitoring of the heat pump. A PC with a network card or a home network is required for this. The module can record and save data. This extension is independent of the operating system. Data exchange with a KNX/EIB bus system, and the connection of the heat pump manager to a building management system is provided via the EWPM extension module. This extension makes it possible to set and monitor the heat pump via an installation bus.

Order reference	Art.-no.	For device type	Features	
NWPM	356960	WPM 2004 / 2006 / 2007 WPM EconPlus	Heat pump manager expansion module for connection to an Ethernet network.	
EWPM	356970	WPM 2006 / 2007 WPM EconPlus	Heat pump manager expansion module for connection to the KNX/EIB bus.	
LWPM 410	339410	WPM 2006 / 2007 WPM EconPlus	Expansion module (RS485) for the heat pump manager for data transfer via Modbus interface protocol.	
RWPM	363370	WPM 2006/2007 PKS 14/25 Econ WPM Econ PK Smart RTC (Room Temperature Controller)	Expansion module for heat pump manager for the connection of a Smart-RTC (reference room controller), a PKS 14/25 Econ passive cooling station or WPM Econ PK to a WPM 2006/2007/Econ.	

Expansion modules can be used from software version H\_H5x onwards.

The heat pump manager only has one slot for NWPM, EWPM or LWPM 410 expansion cards. Parallel operation with several cards is not possible.

### Thermal energy meter

#### Connection to the heat pump manager



WMZ ..

Thermal energy meter, consists of a hydraulic assembly for flow and return (heating circuit) and electronic flow rate and temperature detection. Low pressure drop thanks to flow measurement via Kármán vortex street in the flow and integrated temperature sensor in the return (immersion sleeve). Electronics module for connection to the heat pump manager with separate evaluation for preparation of heating water, domestic hot water (exception: compact heat pumps) and swimming pool water. Transitional screw connections for direct connection of the WMZ 25 to the KPV 25/DDV 25 or of the WMZ 32 to the DDV 32 included in the scope of supply.

Order reference	Art.-no.	Nominal width	Features	Weight kg	
WMZ 25	358220	25	For volume flows of 0.5–2.5 m³/h	2.1	
WMZ 32	358810	32	For volume flows of 1.0–5.0 m³/h	3.0	

Note: The thermal energy meter complies with the quality requirements of the BAFA (= German Federal Office of Economics and Export Control) market incentive programme subsidizing efficient heat pumps (max. measurement tolerance  $\pm 30\%$ ). The thermal energy meter is not subject to obligatory calibration, and can thus not be used for the heating cost billing procedure!

## Reference room regulation

### Smart RTC (Room Temperature Controller)



RT Econ U

The reference room controller measures the temperature difference between the actual room temperature and the set temperature, and communicates this to the heat pump manager. The return set temperature is calculated on the basis of this difference. The ~230 V voltage supply (2-core) and the bus cable (2-core, screened) must be provided by the customer.

Additional functions:

- „Operating mode“ button - switches between automatic and summer operating mode
- „Rapid heating“ button - 20, 40 and 60-minute rapid heating (blocks domestic hot water)
- Warning signal displayed if a heat pump fault occurs

Order reference	Art.-no.	For device type	Features	Width x Height x Depth mm	
RT Econ U	362660	HPK ..TEW LI ..TU SI 6 - 18TU	Flush-mounting version	86 x 86 x 28	
RT Econ A	363340	WI 10 - 14TU	Surface-mounting version	143 x 86 x 36	

The reference room must be a living area which is permanently heated.

The RWPM interface card and a software version of L04 onwards must be installed to use the smart-RTC.

### Solar controller for heat pump manager



WPM Econ SOL

Wall-mounted solar controller with temperature sensors for recording the flow and return temperatures. The extension module is connected to the existing heat pump manager and provides the additional inputs and outputs required for solar control. Can be used with a heat pump heating system with solar infeed in a 1 cylinder system - 1 collector field and one tank/cylinder (buffer tank, domestic hot water cylinder, combo tank or combination tank). Graphic display on the heat pump manager with display of the cylinder temperature and collector temperature. Adjustable collector cooling function, maximum cylinder temperature, switch-on/switch-off temperature differences and pump kick function for optimum, efficient operation. Combination of the WPM Econ SOL solar controller with the heat pump manager requires at least software version J\_01. Delivery includes the PT 1000 temperature sensors and NTC 10.

Order reference	Art.-no.	For device type	Features	Width x Height x Depth mm	
WPM Econ SOL	363950	WPM EconPlus WPM EconPlus-E WPM EconR	2 inputs: Temperature detection for collector (PT 1000) and solar cylinder (NTC-10), 1 output: Switching output for brine pump (maximum switching capacity 400 W [230 V]).	200 x 489 x 120	
PT 1000	364290	WPM Econ SOL BWP 30HS BWP 30HSD	Temperature sensor for registering solar collector temperatures (1000 $\Omega/0^\circ\text{C}$ ), diameter ( $\varnothing$ ) 6 mm, cable length 1.5 m, sensor lead can be extended up to 100 m with a cable cross-section of 1.5 mm <sup>2</sup> .		

The software version „J“ or onwards and the RWPM expansion modules are required for the combination of the heat pump manager WPM 2006/2007

### General accessories for heat pump managers



AP PGD



FG 3115



RBG WPM

Order reference	Art.-no.	Short text	Features	
AP PGD	356570	Remote control for WPM 2006/2007/EconPlus/R	For connection to the wall-mounted WPM 2006 heat pump manager with integrated display or as an additional remote control for WPM 2007/EconPlus/R. The remote control has an LCD with identical menu navigation and backlight. The AWPM 900 connecting line must be ordered separately.	
AWPM 900	340210	Connection line for AP PGD	Heat pump manager/remote control connecting cable, 6-core. Can also be used as a connection cable for the removable control panel of the WPM 2007. (Length 15 m)	
FG 3115	336620	External temperature sensor with casing	Standard NTC-2 temperature sensor (2.43 kOhm/20 $^\circ\text{C}$ ) according to DIN 44574 with weather proof casing for surface mounting, terminal connection.	
RBG WPM	339700	Swimming pool/remote fault indicator relay module	For connecting the swimming pool circulating pump (M19) and the output of a 230 V signal if a system fault occurs (not required for heating and cooling systems and WPM EconPlus).	

### Special accessories for WPM 2006 heat pump managers



NTC-2M



WPM 2006 with integrated display



FA 550



EVL ...

Order reference	Art.-no.	Short text	Features
NTC-2M	363710	Temperature sensor NTC-2 with metal sleeve	For connection to the wall-mounted WPM 2006 plus heat pump manager with integrated display. Can be used as a strap-on sensor for mixed heating circuits, as a flow or cylinder sensor for the bivalent-renewable operating mode, as a domestic hot water and room temperature sensor (for on-site installation in a wall casing), standard NTC-2 sensor according to DIN 44574, diameter of 6 mm, connection cable 6 m.
FA 550	338550	Strap-on sensor	Temperature sensor for the heating circuit or domestic hot water cylinder with 6 m connection cable, diameter 9.7 mm. Connection to the heat pump manager (standard NTC-2 sensor according to DIN 44574).
EVL 996-1	321990	10 m control line	Coded connecting cable between the heat pump manager (heating controller) and an air-to-water heat pump installed outdoors. Wired ready for use with non-confusable plug connections (ductwork at least 70 mm).
EVL 997-1	322000	20 m control line	Coded connecting cable between the heat pump manager (heating controller) and an air-to-water heat pump installed outdoors. Wired ready for use with non-confusable plug connections (ductwork at least 70 mm).
EVL 998-1	322010	30 m control line	Coded connecting cable between the heat pump manager (heating controller) and an air-to-water heat pump installed outdoors. Wired ready for use with non-confusable plug connections (ductwork at least 70 mm).
EVL 999-1	359120	40 m control line	Coded connecting cable between the heat pump manager (heating controller) and an air-to-water heat pump installed outdoors. Wired ready for use with non-confusable plug connections (ductwork at least 70 mm).

### Special accessories for WPM 2007 / WPM Econ heat pump managers



NTC-10M



WPM 2007 with removable control panel



MS PGD

Order reference	Art.-no.	Short text	Features
NTC-10M	363600	Temperature sensor NTC-10 with metal sleeve	For connection to the WPM 2007 or the WPM Econ heat pump manager with removable control panel. Can be used as a strap-on sensor for mixed heating circuits, as a flow or cylinder sensor for the bivalent-renewable operating mode, as a domestic hot water and room temperature sensor (for on-site installation in a wall casing), diameter of 6 mm, connection cable 6 m.
MS PGD	353810	MS PGD wall mounting kit	For using the WPM 2007's removable control panel as a remote control or for installation at an optimum operating height. Consists of plastic frames for wall mounting, incl. fixing material, 6 m connecting cable and brown red plastic covers for the design screen.

### Telephone remote control device

Two separately controlled output contacts (floating) for blocking the heat pump (input ID4 on the heat pump manager, frost protection of the heat pump is ensured) via a telephone audio signal; remote query, access protection (code), manual control of the switching contacts, compatible with answering machines; Cetecom certified, connection to analogue telephone line (tested for Germany). Voltage supply L, N, PE ~230 V/50 Hz, 2 x relay contacts 5 (1) A/AC, 250 V for manifold set-up on top hat rail (5HP).



TVS 400

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg
TVS 400	336330	Telephone remote control device	87 x 53 x 58	0.3

### Room climate station for temperature and humidity measurement



RKS WPM

This accessory is essential for silent cooling using panel heating/cooling systems. Connection to a cooling controller to control the flow temperature based on the measured room temperature and humidity in a reference room.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	Weight kg	
RKS WPM	342220	WPM	127 x 80 x 30	0.2	

### Dew point monitor and dew point sensors

#### Dew point monitor

Switching relay for electronic evaluation of up to 5 connectable dew point sensors to interrupt cooling operation of the complete system when condensation forms at vulnerable points in the cooling distribution system; TPF 341 dew point sensors must be ordered separately; connection to the cooling controller; operating voltage 24 V~ / 50 Hz.

#### Dew point sensor

Flexible PCB which sends a signal to the dew point monitor (TPW WPM) when it comes into contact with moisture, connection cable (10 m, 2 x 0.25 mm<sup>2</sup>).



TPW WPM



TPF 341

Order reference	Art.-no.	Short text	For device type	Width x Height x Depth mm	
TPW WPM	350970	Dew point monitor	WPM	35 x 86 x 60	
TPF 341	350980	Dew point sensor	RTK 601U	38 x 40	

When the dew point sensor comes into contact with condensation, cooling operation of the complete system is interrupted!

### Heating/cooling ON/OFF room temperature controller

#### Room temperature controller

Electronic ON/OFF room temperature controller for heating/cooling; switchable between heating and cooling operating modes via the external changeover contact on the heat pump manager; flat switch mounting frame for flush mounting as standard; can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer; switch ON/frost protection; control range 5–30 °C; thermostat dial; temperature range limitation in the casing cover; operating voltage 24 V ~/50 Hz; switching capacity 24 V AC ~/1A, can control up to 5 valve actuators (24 V~ closed when de-energised), IP30 when flush-mounted, colour alpine white (similar to RAL 9010). Dew point sensor TPF 341 for interrupting cooling operation when there is risk of condensate, optional connection (dew point sensors are not included in the scope of supply).

#### Dew point sensor

Flexible PCB which transmits a signal to the room temperature controller (RTK 601U) when it comes into contact with moisture, connection lead (10 m, 2 x 0.25 mm<sup>2</sup>).



RTK 601U

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg	
RTK 601U	355610	Room temperature controller heating/cooling	82 x 86 x 45	0.2	
TPF 341	350980	Dew point sensor	38 x 40	0.1	

When the dew point sensor comes into contact with condensation, cooling operation is interrupted for the room by the motors connected to the room temperature controller. Further room temperature controllers are listed in the chapter on control and regulation devices.

### Fan convectors heating

Casing colour white (similar to RAL 9010)

Connection voltage 1/N/PE ~230 V, 50 Hz

#### SmartRad



SRX ...M

Wall-mounted Smart Rad fan convector with integrated electronic thermostat. Manual and automatic operation, maximum fan level can be preset; automatic regulation of the 3 fan levels according to heat consumption. Water connection can be on the left or right. The convectors can be used from a flow temperature of min. 25 °C; they can thus be integrated directly into an underfloor heating circuit (flow temperature min. 14 °C, max. 85 °C) without an additional mixer. Rated power corresponds to the 2nd fan level – the 3rd fan level serves as a boost function and increases the rated power by approximately 39%. Heating and lowering times as well as frost protection can be individually adjusted using various RX or RMT2 programming cassettes (special accessory) which can be inserted into the device.

Order reference	Art.-no.	Rated power (35 °C flow/ 30 °C return temperature) W	Rated power (45 °C flow/ 40 °C return temperature) W	Rated power (55 °C flow/ 47 °C return temperature) W	Air volume flow m³/h	Width x Height x Depth mm	Weight kg	
SRX 080M	359080	358	695	956	125	503 x 530 x 145	13.5	
SRX 120M	359090	561	1119	1541	190	670 x 530 x 145	17.0	
SRX 140M	359100	631	1329	1828	225	740 x 530 x 145	18.0	
SRX 180M	359110	893	1760	2424	300	911 x 530 x 145	22.0	

### Fan convectors for heating/cooling



SRX ..CM

Smart Rad wall-mounted fan convector for heating and cooling with integrated electronic thermostat. Automatic operation, maximum fan level can be preset; automatic switching between heating and cooling in automatic mode/regulation of 3 fan levels according to heat consumption. Water connection for flow and return (external diameter 15 mm) possible on the right or left. Hose connection (length 2 m) for draining condensate that forms during cooling operation. The convectors can be operated with a minimum flow temperature of 25 °C in heating operation (without an additional mixer for underfloor heating circuits) and a maximum flow temperature of 17 °C in cooling operation (minimum flow temperature 14 °C, maximum flow temperature 85 °C). Rated power corresponds to the 2nd fan level – the 3rd fan level serves as a boost function and increases the rated power by approximately 39%. Heating and lowering times as well as frost protection can be individually adjusted using various RX or RMT 2 programming cassettes (special accessory) which can be inserted into the device.

Order reference	Art.-no.	Rated power (35 °C flow/30 °C return temperature) W	Rated power (45 °C flow/40 °C return temperature) W	Cooling capacity 7/12 °C W	Air volume flow m³/h	Width x Height x Depth mm	Weight kg	
SRX 70CM	363990	271	540	410	125	503 x 530 x 145	15	
SRX 120CM	364000	595	1180	959	225	740 x 530 x 145	19	
SRX 160CM	364010	801	1631	1225	300	911 x 530 x 145	23	

### Programming cassette EPX, GFP, SRX convectors



RX PW 1



RX TI RB

Order reference	Art.-no.	Features	
RX TI 24	RXTI24	24 h programming cassette with LCD, connectable to EPX wall convectors and SRX fan convectors. Four ON and OFF times freely programmable, backlit display, key lock. Where several devices are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	
RX PW 1	RXPW1	Week programming cassette with LCD, connectable to EPX wall convectors and SRX fan convectors. Up to four programs can be set for a weekend block (Sat-Sun) or a workday block (Mon-Fri), the ON and OFF times are then set. With backlit display and key lock. Where several devices are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	
RX TI RB	RXTIRB	Limited specified heating period; programming cassette for setting a heating period from 0.5 h to 4.0 h, adjustable in 0.5 hour increments, when the specified heating period ends, the device shuts off or switches to frost protection mode. Where several EPX devices or SRX fan convectors are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	

### Programming cassette RMT

#### Incl. master function



RMT 2

Order reference	Art.-no.	Features	
RMT 2	362920	Programming cassette connectable to radiant panel heaters and convectors of the GPE, GFP, FPE, EPX, KSE and KLE series or fan convectors of the SRX series. Clearly laid out LCD; seven specified programs and an individual program to set the heating and lowering times which can be assigned for each weekday. Where several ecomfort devices are used together with a common control line, a programming cassette can be used to control up to 20 devices.	



## Domestic hot water heat pump – heat source indoor air/cellar air/outside air

### Domestic hot water heat pump

#### Additional heat exchanger with solar function

Domestic hot water temperature up to max. 60 °C  
Lower operating limit heat source (heating operation) 8 °C  
Upper operating limit heat source (heating operation) 45 °C



BWP 30HS

Heat pump for domestic water heating, with LCD and extensive control functions (e.g. fast heating button, solar control, time program for increasing the solar energy output by blocking domestic hot water preparation). Digital input for the use of privately generated electricity through combination with photovoltaic systems. EC radial fan, exhaust air and extract air stubs for optional connection of a duct system with a maximum length of 10 m, mean heat pump output 1870 W (A15/W45), domestic hot water temperature selectable during heat pump operation (25–60 °C); heating up to 65 °C possible via time programs with standard heating element (1.5 kW), refrigerant designation R 134a. Steel cylinder with a usable capacity of 290 l, enamelled according to DIN 4753, protection anode against corrosion, integrated additional heat exchanger (approx. 1.45 m<sup>2</sup> for the connection of an external heat generator (e.g. boiler or solar energy system), cladding tube for external cylinder sensor, digital output for controlling an external loading pump. Foil cladding colour white (similar to RAL 9003), design front panel and cover white aluminium (similar to RAL 9006).

Order reference	Art.-no.	Connection voltage	COP (EN 255) heat-up process 15 °C to 45 °C	Width x Height x Depth mm	Weight kg	
BWP 30HS	360070	1/N/PE ~230 V, 50 Hz	3.7	700 x 1710 x 790	150	

Nipple size DN 160, connection e.g. with SF R 162510 air hose or BGN 160.

To prevent an air short circuit, a room height of approx. 2.5 m is necessary for free blowing systems. The minimum height of the installation room is reduced to approximately 2 m by installing a pipe bend on the air outlet side, or by connecting the system to an air duct. The PT 1000 collector sensor required for solar control must be ordered as a special accessory. The maximum domestic hot water temperature reachable and the lower operating limit vary by ±2 K due to component tolerances.

### Domestic hot water heat pump with defrosting

#### Additional heat exchanger with solar function

Domestic hot water temperature up to max. 60 °C  
Lower operating limit heat source (heating operation) -8 °C  
Upper operating limit heat source (heating operation) 45 °C



BWP 30HSD

Heat pump for domestic water heating, with LCD and extensive control functions (e.g. fast heating button, solar control, time program for increasing the solar energy output by blocking domestic hot water preparation). Digital input for the use of privately generated electricity through combination with photovoltaic systems. EC radial fan, exhaust air and extract air stubs for optional connection of a duct system with a maximum length of 10 m, mean heat pump output 1870 W (A15/W45), domestic hot water temperature selectable during heat pump operation (25–60 °C); heating up to 65 °C possible via time programs with standard heating element (1.5 kW), refrigerant designation R 134a. Extended operating limits via active defrosting when ice forms on the evaporator. Steel cylinder with a usable capacity of 290 l, enamelled according to DIN 4753, protection anode against corrosion, integrated additional heat exchanger (approx. 1.45 m<sup>2</sup> for the connection of an external heat generator (e.g. boiler or solar energy system), cladding tube for external cylinder sensor, digital output for controlling an external loading pump. Foil cladding colour white (similar to RAL 9003), design front panel and cover white aluminium (similar to RAL 9006).

Order reference	Art.-no.	Connection voltage	COP (EN 255) heat-up process 15 °C to 45 °C	Width x Height x Depth mm	Weight kg	
BWP 30HSD	363620	1/N/PE ~230 V, 50 Hz	3.7	700 x 1710 x 790	150	

Nipple size DN 160, connection e.g. with SF R 162510 air hose or BGN 160.

To prevent an air short circuit, a room height of approx. 2.5 m is necessary for free blowing systems. The minimum height of the installation room is reduced to approximately 2 m by installing a pipe bend on the air outlet side, or by connecting the system to an air duct. The PT 1000 collector sensor required for solar control must be ordered as a special accessory. The maximum domestic hot water temperature reachable and the lower operating limit vary by ±2 K due to component tolerances.

### Solar package (2 collectors) without solar controller

#### For domestic hot water heat pump BWP 30HS/HSD

Optimum solar package for BWP 30HS/HSD to support domestic hot water preparation for a household containing 2-4 people. Solar regulation is via the domestic hot water heat pump (Connection PT 1000 sensor).

- 2 x SOLCU 180 solar controller
- 1 x SOLPU 5 solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 12 expansion vessel
- 1 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 1 x expansion set for collector installation
- 1 x PT 1000 solar sensor

Order reference	Art.-no.	Roof mounting kit	
SOLP 2 OR PA	365410	Frankfurt tile	
SOLP 2 OR BA	365420	Plain tile	
SOLP 2 OR WA	365430	Corrugated sheet	
SOLP 2 OR FA	365440	Free standing	



SOLP 2 OR ..

### Domestic hot water heat pump with foil cladding

#### With air duct connection

Domestic hot water temperature up to max. 60 °C  
Lower operating limit heat source (heating operation) 8 °C  
Upper operating limit heat source (heating operation) 35 °C



BWP 30HM

Insulated foil cladding, radial fan, exhaust air and extract air stubs for optional connection of a duct system with a maximum length of 10 m, infinitely variable hot water temperature for total volume of 300 l, switches for heat pump and heating element, steel cylinder enamelled according to DIN 4753, protection anode against corrosion, mean heat pump output 1870 W, hot water temperature selectable during heat pump operation (25–60 °C), heating up to 65 °C with standard heating element (1.5 kW) possible, can controlled manually or remotely using an external timer, refrigerant designation R134a, colour white (similar to RAL 9003).

Order reference	Art.-no.	Connection voltage	COP (EN 255) heat-up process 15 °C to 45 °C	Width x Height x Depth mm	Weight kg	
BWP 30HM	364840	1/N ~230 V, 50 Hz	3.5	700 x 1710 x 770	135	

Nipple size DN 160, connection e.g. with SF R 162510 air hose or BGN 160.

The maximum domestic hot water temperature reachable and the lower operating limit vary by ±2 K due to component tolerances. To prevent an air short circuit, a room height of approx. 2.5 m is necessary for free blowing systems. The minimum height of the installation room is reduced to approximately 2 m by installing a pipe bend on the air outlet side, or by connecting the system to an air duct.

## Domestic hot water heat pump with foil cladding

### Air duct connection and additional heat exchanger

Domestic hot water temperature up to max. 60 °C  
Lower operating limit heat source (heating operation) 8 °C  
Upper operating limit heat source (heating operation) 35 °C



BWP 30HWW

Insulated foil cladding, radial fan, exhaust air and extract air stubs for optional connection of a duct system with a maximum length of 10 m, infinitely variable hot water temperature for usable capacity of 290 l, switches for heat pump, heating element and second heat generator, steel cylinder enamelled according to DIN 4753, protection anode against corrosion, mean heat pump output 1870 W, hot water temperature selectable during heat pump operation (25–60 °C), heating up to 65 °C with standard heating element (1.5 kW) possible, can be either controlled manually or remotely using an external timer, integrated additional heat exchanger (approx. 1.45 m<sup>2</sup>) for connecting an external heat generator (e. g., boiler or solar installation), cladding tube for external cylinder sensor, connection option for an external block of heat pump operation, relay output for controlling an external loading pump, refrigerant designation R134a, colour white (similar to RAL 9003).

Order reference	Art.-no.	Connection voltage	COP (EN 255) heat-up process 15 °C to 45 °C	Width x Height x Depth mm	Weight kg	
BWP 30HWW	365150	1/N/PE ~230 V, 50 Hz	3.5	700 x 1710 x 770	150	

Nipple size DN 160, connection e. g. with SF R 162510 air hose or BGN 160.

The maximum domestic hot water temperature reachable and the lower operating limit vary by ±2 K due to component tolerances. To prevent an air short circuit, a room height of approx. 2.5 m is necessary for free blowing systems. The minimum height of the installation room is reduced to approximately 2 m by installing a pipe bend on the air outlet side, or by connecting the system to an air duct.

## Special accessories for domestic hot water heat pumps



BGN 160

Order reference	Art.-no.	Short text	Features	Weight kg	
SVK 852	326660	Safety valve combination	For the cold water connection of domestic water cylinders to the supply network according to DIN 1988. 1" external thread connection; DN 20, 8 bar, yellow.	1.5	
BGN 160	365170	Bend (160 mm, 90°)	Bend pressed, sheet steel smooth. Bush to nipple design for direct installation on a Dimplex domestic hot water heat pump. With pleat for customer installation of a round gasket.	0.9	
SF R 162510	359620	Sonoflex pipe	Flexible round aluminium ventilation tube, 4 layers, with 25 mm thermal insulation and vapour block (length 10 m) external diameter = nominal width + 50 mm.	6.1	
SF SD 165015	360780	Sound damper	Internal diameter: 160 mm/ external diameter: 260 mm	0.7	
PT 1000	364290	Solar sensor	Temperature sensor for registering solar collector temperatures (1000 Ω/0 °C), diameter (Ø) 6 mm, cable length 1.5 m, sensor lead can be extended up to 100 m with a cable cross-section of 1.5 mm <sup>2</sup> .		

The technical data for the air circuit components can be found in the ventilation technology section.

## Domestic hot water heat pumps – heat source indoor air/exhaust air

### Domestic hot water heat pump with foil cladding

#### For using indoor air

Domestic hot water temperature up to max. 60 °C  
Lower operating limit heat source (heating operation) 15 °C  
Upper operating limit heat source (heating operation) 35 °C



BWP 20A

Domestic hot water heat pumps for using 20 °C indoor air for domestic hot water preparation, installation dimension 60 cm; Insulated foil cladding, radial fan, exhaust air and extract air stubs for optional connection of a duct system with a maximum length of 10 m, infinitely variable hot water temperature for total volume of 200 l, switch for continuous fan operation, steel cylinder enamelled according to DIN 4753, protection anode against corrosion, mean heat pump output 910 W, domestic hot water temperature selectable during heat pump operation (23 °C to 60 °C), heating up to 65 °C with standard heating element (1.5 kW) possible, can be either manually controlled or remote controlled, for example, using an external timer, refrigerant designation R134a, colour white (similar to RAL 9003).

Order reference	Art.-no.	Connection voltage	COP (EN 255) heat-up process 15 °C to 45 °C	Width x Height x Depth mm	Weight kg	
BWP 20A	358230	1/N/PE ~230 V, 50 Hz	3.3	550 x 1700 x 550	96	

DN 125 extract air stubs for optional connection to an exhaust air system.

The maximum domestic hot water temperature reachable and the lower operating limit vary by ±2 K due to component tolerances.

## Accessories for DN 125 hot water heat pumps



SF R



BGN 125

Order reference	Art.-no.	Short text	Features	Weight kg	
SF R 122510	359610	Sonoflex pipe	Flexible round aluminium ventilation tube, 4 layers, with 25 mm thermal insulation and vapour block (length 10 m) external diameter = nominal width + 50 mm.	4.4	
BGN 125	365160	Bend (125 mm, 90°)	Bend pressed, sheet steel smooth. Bush to nipple design for direct installation on a Dimplex domestic hot water heat pump. With pleat for customer installation of a round gasket.	0.6	

### Air-to-water heat pump

Max. flow temperature 65 °C

#### For utilisation of waste heat



LI 2M

A heat pump module for utilisation of waste heat; integrated radial fan, exhaust air and extract air stubs for optional connection of a duct system DN 160 (maximum pipe length 10 m), infinitely variable return set temperature. The generated heat output is transferred via an integrated stainless steel heat exchanger (external circulating pump required). The cooled air can be blown out into the installation room or guided outside via ducts. Heat output approx. 2 kW, with an exhaust air temperature of 25 °C and a heating water outlet temperature of 35 °C.

Lower operating limit heat source (heating operation) 0 °C; Upper operating limit heat source (heating operation) 40 °C; Refrigerant R134a; Control voltage ~230 V; Connection heating ½"

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg	
LI 2M	356330	Heat pump module	450 x 725 x 550	54	

## Swimming pool dehumidifier

### Swimming pool dehumidifier

Degree of protection IP 34

Lower operating limit heat source (heating operation) 15 °C  
Upper operating limit heat source (heating operation) 38 °C



SE ...T

Cabinet unit for dehumidifying rooms with swimming pools in recirculating air operation with active heat recovery using the heat pump. The integrated control can be used to control the humidity and, depending on the scope of supply, the temperature. Operating modes and settings are shown on and entered via the integrated display. Installation inside the room housing the swimming pool without duct connection. Air intake and air outlet directly at the installation location, no air circuit ducts required. Air intake via perforated metal plate grid, air outlet with rotating, chromed air grids for targeted air circuit on the device top. Front panel made of saltwater-proof anodised aluminium; side and back panel made of blue plastic (similar to RAL 5002). Sound and vibration-isolated compressor decoupled from the casing; with heat exchangers with corrosion-resistant coating; automatic defrosting as standard.

Order reference	Art.-no.	Dehumidification out-put at 30 °C/60% rH kg/h	Air volume flow m³/h	Maximum pool surface area m²	Connection voltage	Width x Height x Depth mm	Weight kg	
SE 30T	362480	2.0	700	30	1/N/PE ~230 V, 50 Hz	1200 x 880 x 350	59	
SE 40T	362490	3.0		40			77	
SE 50T	362500	4.0	900	50	3/N/PE ~400 V, 50 Hz		80	
SE 60T	362510	5.2		60			83	

The maximum pool surface area is designed for periodically used swimming pools without an overflow gutter, with a swimming pool cover and a maximum of 2 hours pool usage per day.

### Accessories for swimming pool dehumidifiers

Order reference	Art.-no.	Features	
WKS SE	357080	Bracket set for off-ground wall mounting.	
PWW HRG	356920	Heat exchanger for subsequent air heating, including control valve and flexible connecting hoses to prevent solid-borne noise transmission. The isolation valves and dirt traps must be installed by the customer (heat output with indoor air 29 °C / flow temp. 40 °C: 1.4 kW (SE 30T/SE 40T); 1.6 kW (SE 50T/SE 60T)).	

## Solar collector



SOLC 180

High-performance flat plate collector for mounting onto roofs and flat roofs or for free-standing installation, laser-welded full surface absorber with highly-selective coating. Collector for universal use can be used for large surface areas as well as for single mounting. The connections make fast and hydraulically safe mounting possible. The system is operated with pre-mixed SOLHT 20 solar fluid, providing the required frost protection. The collector casing consists of anthracite-coloured, powder-coated aluminium. The structured solar safety glass reliably protects the absorber.

Nominal flow 50–120 l/h; Gross surface 2.18 m<sup>2</sup>

Order reference	Art.-no.	Aperture surface m <sup>2</sup>	Degree of efficiency %	Features	Width x Height x Depth mm	Weight kg	
SOLC 180	360510	1.97	77.6	Flat plate collector with single meander, max. 3 collectors can be hydraulically connected in series, 2 x 12 mm connections on top (clamping ring fittings), stagnation temperature 191 °C, nominal capacity 1.73 l	1158 x 1878 x 75	40	
SOLC 220	360520	2.01	78.1	Flat plate collector with meander pipe and two collection manifolds, max. 10 collectors can be hydraulically connected in series, 4 x 22 mm connections on the side (plug-in system with double O-ring seal), stagnation temperature 202 °C, nominal capacity 1.7 l	1158 x 1878 x 95		

## Solar station



SOLPU 1



SOLPU V

Thermally insulated two-pipe solar station, pre-mounted, serves as connecting element between the collector field and the domestic hot water cylinder. Dial thermometer in flow and return, 6 bar safety valve, permanent breather for continuous air extraction during operation, integrated purging and filling unit, suitable for wall mounting.

Order reference	Art.-no.	Features	Width x Height x Depth mm	Weight kg	
SOLPU 1	356230	Suitable for a collector surface of up to 12 m <sup>2</sup> , flow rate volume meter 1–20 l/min, 0–6 bar high temperature proof pressure gauge, axis clearance 90 mm, 3/4" flat-sealing connections	280 x 560 x 200	7.8	
SOLPU S	360530	Suitable for a collector surface of up to 12 m <sup>2</sup> , flow rate volume meter 0.8–10.3 l/min (propylene glycol) and 1–13 l/min (water), 0–6 bar high temperature proof pressure gauge, axis clearance 100 mm, 3/4" internal thread connections	170 x 385 x 185	5.8	
SOLPU V	360540	Suitable for a collector surface of up to 22 m <sup>2</sup> , electrical valve block (3 Watt) serves as gravity control, flow rate volume meter 6.9–25.8 l/min (propylene glycol) and 8–30 l/min (water), 0–10 bar high temperature proof pressure gauge, axis clearance above 45 mm, below 100 mm, 3/4" internal thread connections	320 x 560 x 150	7.5	

## Mounting accessories for SOLC 180 solar collectors



SOLC 180 PAG

Mounting kit for roof mounting (pantiled roof, plain tile, corrugated sheet) and free-standing installation of SOLC 180 solar collectors. Consists of the basic set for the first collector and an extension set for each additional collector. The sets include profile rails and stop anchors for collector mounting onto the respective type of roof as well as components for the hydraulic integration.

Order reference	Art.-no.	Roof mounting kit	Features	Weight kg	
SOLC 180 PAG	360550	Frankfurt tile	Basic set for mounting a collector vertically or horizontally on a roof.	10	
SOLC 180 PAE	360560		Extension set for mounting additional collectors vertically or horizontally on a roof.	7	
SOLC 180 BAG	360570	Plain tile	Basic set for mounting a collector vertically or horizontally on a roof.	10	
SOLC 180 BAE	360580		Extension set for mounting additional collectors vertically or horizontally on a roof.	7	
SOLC 180 WAG	360590	Corrugated sheet	Basic set for mounting a collector vertically or horizontally on a roof.	9	
SOLC 180 WAE	360600		Extension set for mounting additional collectors vertically or horizontally on a roof.	6	
SOLC 180 FAG	360610	Free standing	Basic set for vertical free-standing installation of any further collectors.	7	
SOLC 180 FAE	360620		Extension set for vertical free-standing installation of any further collectors.	5	

## Assembly accessories solar collector SOLC 220



SOLC 220 PAG

Mounting kit for roof mounting (pantiled roof, plain tile, corrugated sheet) and free-standing installation of SOLC 220 solar collectors. Consists of the basic set for the first collector and an extension set for each additional collector. The sets include profile rails and stop anchors for collector mounting onto the respective type of roof as well as components for the hydraulic integration.

Order reference	Art.-no.	Roof mounting kit	Features	Weight kg	
SOLC 220 PAG	360630	Frankfurt tile	Basic set for mounting a collector vertically or horizontally on a roof.	10	
SOLC 220 PAE	360640		Extension set for mounting additional collectors vertically or horizontally on a roof.	7	
SOLC 220 BAG	360650	Plain tile	Basic set for mounting a collector vertically or horizontally on a roof.	10	
SOLC 220 BAE	360660		Extension set for mounting additional collectors vertically or horizontally on a roof.	7	
SOLC 220 WAG	360670	Corrugated sheet	Basic set for mounting a collector vertically or horizontally on a roof.	9	
SOLC 220 WAE	360680		Extension set for mounting additional collectors vertically or horizontally on a roof.	6	
SOLC 220 FAG	360690	Free standing	Basic set for vertical free-standing installation of any further collectors.	7	
SOLC 220 FAE	360700		Extension set for vertical free-standing installation of any further collectors.	5	

## Solar controller for heat pump manager



WPM Econ SOL

Wall-mounted solar controller with temperature sensors for recording the flow and return temperatures. The extension module is connected to the existing heat pump manager and provides the additional inputs and outputs required for solar control. Can be used with a heat pump heating system with solar infeed in a 1 cylinder system - 1 collector field and one tank/cylinder (buffer tank, domestic hot water cylinder, combo tank or combination tank). Graphic display on the heat pump manager with display of the cylinder temperature and collector temperature. Adjustable collector cooling function, maximum cylinder temperature, switch-on/switch-off temperature differences and pump kick function for optimum, efficient operation. Combination of the WPM Econ SOL solar controller with the heat pump manager requires at least software version J\_01. Delivery includes the PT 1000 temperature sensors and NTC 10.

Order reference	Art.-no.	For device type	Features	Width x Height x Depth mm	
WPM Econ SOL	363950	WPM EconPlus WPM EconPlus-E WPM EconR	2 inputs: Temperature detection for collector (PT 1000) and solar cylinder (NTC-10), 1 output: Switching output for brine pump (maximum switching capacity 400 W [230 V]).	200 x 489 x 120	
PT 1000	364290	WPM Econ SOL BWP 30HS BWP 30HSD	Temperature sensor for registering solar collector temperatures (1000 $\Omega/0^\circ\text{C}$ ), diameter ( $\varnothing$ ) 6 mm, cable length 1.5 m, sensor lead can be extended up to 100 m with a cable cross-section of 1.5 mm <sup>2</sup> .		

## Solar controller



SOLCU1

For regulating or controlling thermal solar energy systems. Equipped with speed control, operating hours counter, maximum cylinder temperature, collector emergency cut-off, animated graphic LCD with backlight. Delivery includes the PT 1000 temperature sensors.

Order reference	Art.-no.	Short text	Features	Width x Height x Depth mm	
SOLCU 1	356220	Solar controller for one collector field and one cylinder	Inputs: T1-T3: Temperature detection (PT 1000); 1 output: Triac output for speed control of the solar pump (maximum switching capacity 250 W [230 V]).	137 x 134 x 38	
SOLCU 2	356560	Solar controller with 14 different pre-programmed system configurations	5 inputs: T1-T4: temperature detection (PT1000) T5: temperature detection (PT1000) or pulse detection; 2 outputs: R1: Triac output for speed control (switching capacity max. 250 W [230 V]), R2: relay switching output (maximum switching capacity 800 W [230 V]).	170 x 170 x 46	

## Solar accessories



Order reference	Art.-no.	Short text	Features	
SOLFH 15	356320	Connection kit	Pre-insulated pipe system for connecting solar collectors to the domestic hot water cylinder and the solar station. The system consists of two stainless steel corrugated tubes DN 16 each 15 m long with an integrated sensor lead. The foil cladding serves as protection against mechanical stress and UV radiation.	
SOLAS 1	356290	De-aerator	De-aerator and rapid breather for installation in closed solar energy systems.	
SA 1	324990	SA 1 solar fittings	Solar fittings (pre-mixing of domestic water) for use with water inlet temperatures up to 100 °C, control range 30–70 °C.	
SOLHT 20	356260	Heat transfer fluid	Ready-to-use heat carrier fluid (20 l) for solar energy systems, propylene glycol-based, with corrosion protection and frost protection down to -28 °C.	
SOLH TTK	356270	Test set	Test set for solar fluid, consisting of a refractometer for testing frost protection and pH indicator rods for testing corrosion protection.	

## Solar expansion vessels



SOLEV ..



SOLVK 1

Order reference	Art.-no.	Nominal capacity	Features	
SOLEV 12	356240	12	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLEV 18	356250	18	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLEV 24	356980	24	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLEV 35	356990	35	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLEV 50	357000	50	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLEV 80	361970	80	Membrane expansion vessel for solar energy systems, operating temperature 10–100 °C, admission pressure 2.5 bar.	
SOLVK 1	356280		Connection set (¾") for expansion vessel, stainless steel corrugated tube (¾"), internal thread – internal thread x 500 mm, wall bracket with mounting material, for maximum vessel diameter 440 mm	



### Solar domestic hot water cylinders

#### For heat pumps



WWSP 432 SOL

Solar domestic hot water cylinder made of steel (special inside enamelling) with protection anode, two integrated bare-tube heat exchangers for solar and heating. Thanks to the temperature stratification, even small solar gains are sufficient to feed energy into the lower cold water section of the cylinder. The upper part of the cylinder is kept at the comfort temperature. Thermometer, polyurethane insulation for low standby losses, colour white, flange TK 150/DN 110. An NTC 10 and an NTC 2 sensor are included in the scope of supply.

Permissible operating pressure 10 bar;

Order reference	Art.-no.	For device type	Features	Diameter x Height mm	Weight kg	
WWSP 432 SOL	361080	up to LI 20 excluding LI 15/16, up to LA 22 excluding LA 16, up to SI 11 up to WI 14	400 l nominal capacity, 346 l usable capacity, 3.2 m <sup>2</sup> heat exchange surface (heating), 1.3 m <sup>2</sup> heat exchange surface (solar), 2.9 kWh/24 h standby loss, 1 1/4" solar and heating connections, 1" domestic hot water connection, 3/4" circulation connection	700 x 1631	182	
WWSP 540 SOL	361090	up to LI 28 excluding LIH 26TE, up to LA 28 up to SI 30 up to WI 22	500 l nominal capacity, 427 l usable capacity, 4.0 m <sup>2</sup> heat exchange surface (heating), 1.6 m <sup>2</sup> heat exchange surface (solar), 3.2 kWh/24 h standby loss, 1 1/4" solar and heating connections, 1" domestic hot water connection, 3/4" circulation connection	700 x 1961	218	

WWSP 540 SOL not suitable for SI 22TU

### Solar domestic hot water cylinders

#### For conventional heating



CWWSP 308 SOL

Solar domestic hot water cylinder made of steel (special inside enamelling) with protection anode, two integrated bare-tube heat exchangers for solar and heating. Thanks to the temperature stratification, even small solar gains are sufficient to feed energy into the lower cold water section of the cylinder. The upper part of the cylinder is kept at the comfort temperature. Thermometer, polyurethane insulation for low standby losses, colour white, flange TK 150/DN 110. An NTC 10 and an NTC 2 sensor are included in the scope of supply.

Permissible operating pressure 13 bar;

Order reference	Art.-no.	Features	Diameter x Height mm	Weight kg	
CWWSP 308 SOL	361120	300 l nominal capacity, 290 l usable capacity, 0.8 m <sup>2</sup> heat exchange surface, 1.55 m <sup>2</sup> heat exchange surface (solar), 2.6 kWh/24 h standby loss, 1" solar and heating connections, 1" domestic hot water connection, 3/4" circulation connection	600 x 1834	113	
CWWSP 411 SOL	361130	400 l nominal capacity, 380 l usable capacity, 1.05 m <sup>2</sup> heat exchange surface (heating), 1.8 m <sup>2</sup> heat exchange surface (solar), 2.6 kWh/24 h standby loss, 1" solar and heating connections, 1" domestic hot water connection, 3/4" circulation connection	700 x 1631	133	

### Solar station for domestic hot water

#### Solar back-up for domestic hot water preparation



SST 25

Heat exchanger solar station consisting of a solar separation system and pump assembly with insulation jackets for integrating solar installations up to 10 m<sup>2</sup> into the domestic hot water heating system. The solar station enables efficient hot water heating via the heat pump and the solar installation. Modules with a primary and secondary circuit consisting of: 2 circulating pumps (WILO- STAR-ST 25/6 and STAR-RS 24/4); 4 ball valves 1" with thermometer, return inhibitor, safety module with safety valve and 0–10 bar pressure gauge, connection options for expansion vessel (solar controller not included in scope of supply).

Order reference	Art.-no.	Width x Height x Depth mm	Weight kg	
SST 25	348430	320 x 1050 x 320	19	

### Solar reversing valve



DWUS 25 SOL

Three-way reversing valve for switching from solar energy systems to domestic hot water preparation or supplementary heating. Motor operated for short switching times (set time open 12 s, set time closed 6 s); for a maximum volume flow of 2 m<sup>3</sup>/h; maximum differential pressure 0.6 bar; temperature operating range for solar energy systems from –20–160 °C; maximum ambient temperature 50 °C.

Order reference	Art.-no.	Solar connection	Nominal width	
DWUS 25 SOL	363780	1	DN 25	



SOLP 2 ...

## Solar package with 2 collectors

Solar package with 2 collectors for domestic hot water preparation for a household of 2–4 people.

- 2 x SOLCU 180 solar controller
- 1 x SOLPU 5 solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 12 expansion vessel
- 1 x SOLCU 1 solar controller
- 1 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 1 x expansion set for collector installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 2 WWPA	361150	Frankfurt tile	
SOLP 2 WWBA	361160	Plain tile	
SOLP 2 WWWA	361170	Corrugated sheet	
SOLP 2 WWFA	361180	Free standing	

The solar packages can be combined with the CWWSP 308 SOL and WWSP 432 SOL solar cylinders and the BWP 30 HS(D) domestic hot water heat pump.



SOLP 3 ...

## Solar package with 3 collectors

Solar package with 3 collectors for domestic hot water preparation for a household of 4–6 people.

- 3 x SOLCU 180 solar collector
- 1 x SOLPU 5 solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLHT 20 heat transfer fluid
- 1 x SOLCU 1 solar controller
- 1 x SOLEV 18 expansion vessel
- 1 x basic set for collector installation
- 2 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 3 WWPA	361190	Frankfurt tile	
SOLP 3 WWBA	361200	Plain tile	
SOLP 3 WWWA	361210	Corrugated sheet	
SOLP 3 WWFA	361220	Free standing	

The solar packages can be combined with the CWWSP 308 SOL and WWSP 432 SOL solar cylinders and the BWP 30 HS(D) domestic hot water heat pump.



SOLP 4 ...

## Solar package with 4 collectors

Solar package with 4 collectors for domestic hot water preparation for a household of 6–8 people

- 4 x SOLC 220 solar collector
- 1 x SOLPU 5 solar station
- 1 x SOLCU 1 solar controller
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 24 expansion vessel
- 2 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 3 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 4 WWPA	361230	Frankfurt tile	
SOLP 4 WWBA	361240	Plain tile	
SOLP 4 WWWA	361250	Corrugated sheet	
SOLP 4 WWFA	361260	Free standing	

The solar packages can be combined with the WWSP 540 SOL solar cylinder

## Solar package with 5 collectors



SOLP 5 ...

Solar package with 5 collectors for domestic hot water preparation and supplementary heating.

- 5 x SOLC 220 solar collector
- 1 x SOLPU V solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 35 expansion vessel
- 1 x SOLCU 1 solar controller
- 2 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 4 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 5 HUPA	361270	Frankfurt tile	
SOLP 5 HUBA	361280	Plain tile	
SOLP 5 HUWA	361290	Corrugated sheet	
SOLP 5 HUFA	361300	Free standing	

The solar packages can be combined with the PWD 750 (RWT 750), PWD 900 (RWT 900) and PWD 1250 (RWT 1250) combo tanks and the PSW 500 (RWT 500) and PSW 1000 SOL buffer tanks.

## Solar package with 6 collectors



SOLP 6 ...

Solar packages with 6 collectors for domestic hot water preparation and supplementary heating.

- 6 x SOLC 220 solar collector
- 1 x SOLPU V solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 35 expansion vessel
- 1 x SOLCU 1 solar controller
- 2 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 5 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 6 HUPA	361310	Frankfurt tile	
SOLP 6 HUBA	361320	Plain tile	
SOLP 6 HUWA	361330	Corrugated sheet	
SOLP 6 HUFA	361340	Free standing	

The solar packages can be combined with the PWD 750 (RWT 750), PSW 900 (RWT 900) and PWD 1250 (RWT 1250) combo tanks and the PSW 1000 buffer tank.

## Solar package with 7 collectors



SOLP 7 ...

Solar packages with 7 collectors for domestic hot water preparation and supplementary heating.

- 7 x SOLC 220 solar collector
- 1 x SOLPU V solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 50 expansion vessel
- 1 x SOLCU 1 solar controller
- 3 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 6 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 7 HUPA	361350	Frankfurt tile	
SOLP 7 HUBA	361360	Plain tile	
SOLP 7 HUWA	361370	Corrugated sheet	
SOLP 7 HUFA	361380	Free standing	

The solar packages can be combined with the PWD 750 (RWT 750), PSW 900 (RWT 900) and PWD 1250 (RWT 1250) combo tanks and the PSW 1000 buffer tank.

## Solar package with 8 collectors



SOLP 8 ...

Solar packages with 8 collectors for domestic hot water preparation and supplementary heating.

- 8 x SOLC 220 solar collector
- 1 x SOLPU V solar station
- 1 x SOLVK 1 expansion vessel connection
- 1 x SOLEV 50 expansion vessel
- 1 x SOLCU 1 solar controller
- 3 x SOLHT 20 heat transfer fluid
- 1 x basic set for collector installation
- 7 x expansion set for installation

Order reference	Art.-no.	Roof mounting kit	
SOLP 8 HUPA	361390	Frankfurt tile	
SOLP 8 HUBA	361400	Plain tile	
SOLP 8 HUWA	361410	Corrugated sheet	
SOLP 8 HUFA	361420	Free standing	

The solar packages can be combined with the PWD 750 (RWT 750), PSW 900 (RWT 900) and PWD 1250 (RWT 1250) combo tanks and the PSW 1000 buffer tank.

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### ThermComfort duo-electronic storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

#### Compact design



VFDi ...C

- Digital electronic duo charge controller with 2 control inputs for optional connection to DC charge controls (0.91–1.43 V) or to AC charge controls (230 V AC, % operating time)
- AC control system adjustable from 80% to 37/40% or 68/72% operating time
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- 5 selectable switch-off temperatures for charge optimisation
- Positive/negative fault behaviour adjustable on the duo charge controller
- Integrated thermal enable contactor
- Suitable for direct control without heating contactor
- Infinitely variable manual selection of the charge volume for operation without charge control
- Discharging via special accessory wall-mounted or integrated room temperature controller
- High-performance, low-noise radial fan
- Operator control in the control recess on the right-hand side panel
- Heating element kit for optimised device adaptation to charge type and heat consumption
- An additional daytime rate heater can be installed as a special accessory for additional/transitional heating
- Powder-coated sheet-steel casing
- Casing colour **traffic white** (similar to RAL 9016), air outlet grid **birch grey**
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
VFDi 20C/HFi 212	345010	1250	4	Kolli 25	S 20E	626 x 672 x 250	98	
VFDi 20C/HFi 216	345020	1600						
VFDi 20C/HFi 220	345030	2000						
VFDi 20C/HFi 227 *	345040	2700						
VFDi 30C/HFi 318	345050	1850	6		S 30E	776 x 672 x 250	137	
VFDi 30C/HFi 324	345060	2400						
VFDi 30C/HFi 330	345070	3000						
VFDi 30C/HFi 340 *	345080	4000						
VFDi 40C/HFi 425	345090	2500	8		S 40E	926 x 672 x 250	176	
VFDi 40C/HFi 432	345100	3200						
VFDi 40C/HFi 440	345110	4000						
VFDi 40C/HFi 452 *	345120	5200						
VFDi 50C/HFi 540	345130	4000	10		S 50E	1076 x 672 x 250	215	
VFDi 50C/HFi 550	345140	5000						
VFDi 50C/HFi 564 *	345150	6400						
VFDi 60C/HFi 648	345160	4800	12		S 60E	1226 x 672 x 250	254	
VFDi 60C/HFi 660	345170	6000						
VFDi 60C/HFi 676 *	345180	7600						
VFDi 70C/HFi 756	345190	5600	14		S 70E	1376 x 672 x 250	293	
VFDi 70C/HFi 770	345200	7000						
VFDi 70C/HFi 790 *	345210	9000						

\* For rated charge time  $t_c = 5$  and 6 h  
Depth plus 35 mm wall connection

## ThermoComfort storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Compact design



VFMi ...C

- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Thermomechanical charge control for connection to AC charge control (230 V alternating voltage)
- AC control system ~230 V, 80% operating time
- Infinitely variable manual selection of the charge volume for operation without charge control
- Heating element kit for optimised device adaptation to charge type and heat consumption
- Discharging via special accessory wall-mounted or integrated room temperature controller
- An additional daytime rate heater can be installed as a special accessory for additional/transitional heating
- Casing colour **traffic white** (similar to RAL 9016), air outlet grid **birch grey**
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
VFMi 20C/HFi 212	345220	1250	4	Kolli 25	S 20E	626 x 672 x 250	98	
VFMi 20C/HFi 216	345230	1600						
VFMi 20C/HFi 220	345240	2000						
VFMi 20C/HFi 227 *	345250	2700						
VFMi 30C/HFi 318	345260	1850	6		S 30E	776 x 672 x 250	137	
VFMi 30C/HFi 324	345270	2400						
VFMi 30C/HFi 330	345280	3000						
VFMi 30C/HFi 340 *	345290	4000						
VFMi 40C/HFi 425	345300	2500	8		S 40E	926 x 672 x 250	176	
VFMi 40C/HFi 432	345310	3200						
VFMi 40C/HFi 440	345320	4000						
VFMi 40C/HFi 452 *	345330	5200						
VFMi 50C/HFi 540	345340	4000	10	S 50E	1076 x 672 x 250	215		
VFMi 50C/HFi 550	345350	5000						
VFMi 50C/HFi 564 *	345360	6400						
VFMi 60C/HFi 648	345370	4800	12	S 60E	1226 x 672 x 250	254		
VFMi 60C/HFi 660	345380	6000						
VFMi 60C/HFi 676 *	345390	7600						
VFMi 70C/HFi 756	345400	5600	14	S 70E	1376 x 672 x 250	293		
VFMi 70C/HFi 770	345410	7000						
VFMi 70C/HFi 790 *	345420	9000						

\* For rated charge time  $t_c = 5$  and  $6$  h  
Depth plus 35 mm wall connection



## ThermComfort duo-electronic storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

## Flat design



- With wall bracket for mounting on load-bearing brickwork included as standard
- Digital electronic duo charge controller with 2 control inputs for optional connection to DC charge controls (0.91–1.43 V) or to AC charge controls (230 V AC, % operating time)
- AC control system adjustable from 80% to 37/40% or 68/72% operating time
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- 5 selectable switch-off temperatures for charge optimisation
- Positive/negative fault behaviour adjustable on the duo charge controller
- Integrated thermal enable contactor
- Suitable for direct control without heating contactor
- Infinitely variable manual selection of the charge volume for operation without charge control
- Discharging via special accessory wall-mounted or integrated room temperature controller
- High-performance, low-noise radial fan
- Operator control in the control recess on the right-hand side panel
- Heating element kit for optimised device adaptation to charge type and heat consumption
- An additional daytime rate heater can be installed as a special accessory for additional/transitional heating
- Powder-coated sheet-steel casing
- Casing colour **traffic white** (similar to RAL 9016), air outlet grid **birch grey**
- **Can be extended to a two-circuit storage heater (using kit GH 18) for controlled storage heating GEH (charge type of EnBW/ODR)**
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
FSD 12C/HS 1207	345430	750	2	Kolli 18	F 12E	636 x 533 x 214	75	
FSD 12C/HS 1209	345440	900						
FSD 12C/HS 1210	345450	1050						
FSD 12C/HS 1212	345460	1200						
FSD 18C/HS 1811	345470	1150	3		F 18E	786 x 533 x 214	104	
FSD 18C/HS 1813	345480	1350						
FSD 18C/HS 1816	345490	1600						
FSD 18C/HS 1818	345500	1800						
FSD 24C/HS 2415	345510	1500	4		F 24E	936 x 533 x 214	133	
FSD 24C/HS 2418	345520	1800						
FSD 24C/HS 2421	345530	2100						
FSD 24C/HS 2424	345540	2400						
FSD 24C/HSZ 2425	345550	2550	5	F 30E	1086 x 533 x 214	162		
FSD 30C/HS 3019	345560	1900						
FSD 30C/HS 3022	345570	2250						
FSD 30C/HS 3026	345580	2650						
FSD 30C/HS 3030	345590	3000						
FSD 30C/HSZ 3032	345600	3250	6	F 36E	1236 x 533 x 214	191		
FSD 36C/HS 3622	345610	2250						
FSD 36C/HS 3627	345620	2700						
FSD 36C/HS 3631	345630	3150						
FSD 36C/HS 3636	345640	3600	7	F 42E	1386 x 533 x 214	220		
FSD 42C/HS 4226	345650	2600						
FSD 42C/HS 4231	345660	3150						
FSD 42C/HS 4237	345670	3700						
FSD 42C/HS 4242	345680	4200	8	F 48E	1536 x 533 x 214	249		
FSD 48C/HS 4830	345690	3000						
FSD 48C/HS 4836	345700	3600						
FSD 48C/HS 4842	345710	4200						
FSD 48C/HS 4848	345720	4800						

Depth = installation depth incl. wall connection

HSZ heating element only for the EnBW/ODR charge type GEH (controlled storage heating)

The two-circuit cylinder kit **GH 18** enables the use of the basic device FSD 12C - FSD 36C as a two-circuit storage heater for controlled storage heating (GEH) of the EnBW/ODR utility company.

## ThermComfort duo-electronic storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Low series storage heaters



VNDi ... C

- Digital electronic duo charge controller with 2 control inputs for optional connection to DC charge controls (0.91–1.43 V) or to AC charge controls (230 V AC, % operating time)
- AC control system adjustable from 80% to 37/40% or 68/72% operating time
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- 5 selectable switch-off temperatures for charge optimisation
- Positive/negative fault behaviour adjustable on the duo charge controller
- Integrated thermal enable contactor
- Suitable for direct control without heating contactor
- Infinitely variable manual selection of the charge volume for operation without charge control
- Discharging via special accessory wall-mounted or integrated room temperature controller
- High-performance, low-noise radial fan
- Operator control in the control recess of the front panel
- Heating element kit for optimised device adaptation to charge type and heat consumption
- An additional daytime rate heater can be installed as a special accessory for additional/transitional heating
- Powder-coated sheet-steel casing
- Casing colour **traffic white** (similar to RAL 9016), air outlet grid **birch grey**
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
VNDi 30C/HNi 3024	346030	2400	8	Kolli 25N	N 30E	890 x 484 x 250	156	
VNDi 30C/HNi 3030	346040	3000						
VNDi 36C/HNi 3629	346050	2900	10		N 36E	1040 x 484 x 250	191	
VNDi 36C/HNi 3636	346060	3600						
VNDi 43C/HNi 4334	346070	3450	12		N 43E	1190 x 484 x 250	226	
VNDi 43C/HNi 4343	346080	4300						
VNDi 50C/HNi 5040	346090	4000	14		N 50E	1340 x 484 x 250	261	
VNDi 50C/HNi 5050	346100	5000						

Depth plus 35 mm wall connection

## ThermComfort duo-electronic storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Deep design with minimal width



VTDi ... C

- Digital electronic duo charge controller with 2 control inputs for optional connection to DC charge controls (0.91–1.43 V) or to AC charge controls (230 V AC, % operating time)
- AC control system adjustable from 80% to 37/40% or 68/72% operating time
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- 5 selectable switch-off temperatures for charge optimisation
- Positive/negative fault behaviour adjustable on the duo charge controller
- Integrated thermal enable contactor
- Suitable for direct control without heating contactor
- Infinitely variable manual selection of the charge volume for operation without charge control
- Discharging via special accessory wall-mounted or integrated room temperature controller
- High-performance, low-noise radial fan
- Operator control in the control recess of the front panel
- Heating element kit for optimised device adaptation to charge type and heat consumption
- An additional daytime rate heater can be installed as a special accessory for additional/transitional heating
- Powder-coated sheet-steel casing
- Casing colour **traffic white** (similar to RAL 9016), air outlet grid **birch grey**
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
VTDi 45C/HTi 4536	346190	3600	6	Kolli 36T	T 45E	740 x 654 x 360	195	
VTDi 45C/HTi 4545	346200	4500						
VTDi 60C/HTi 6048	346210	4800	8		T 60E	890 x 654 x 360	251	
VTDi 60C/HTi 6060	346220	6000						
VTDi 75C/HTi 7560	346230		10		T 75E	1040 x 654 x 360	307	
VTDi 75C/HTi 7575	346240	7500						

Depth plus 35 mm wall connection

## ThermComfort duo-electronic storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Kitchen design



VKD 24 with VKE 20

- Can be integrated, mounted under a worktop or covered with solid kitchen panelling
- Digital electronic duo charge controller with 2 control inputs for optional connection to DC charge controls (0.91–1.43 V) or to AC charge controls (230 V AC, % operating time)
- AC control system adjustable from 80% to 37/40% or 68/72% operating time
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Integrated thermal enable contactor
- Suitable for direct control without heating contactor
- Infinitely variable manual selection of the charge volume for operation without charge control
- Discharging via room temperature controller integrated as standard
- Heating element kit for optimised device adaptation to charge type and heat consumption
- A supplementary heating relay kit can be installed as a special accessory for additional/transitional heating
- Casing colour kitchen white
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
VKD 24/HK 219F	346310	1900	2	Kolli 33	H 24E	450 x 840 x 570	133	
VKD 24/HK 224F	346320	2400						

Built-under unit delivered without front cover and worktop  
Height adjustable

## PERMATHERM® storage heaters

### PERMATHERM® storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Compact design



ESS ... K

- Storage heater in compact design
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Dynamic discharge
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Casing colour: sepia white (similar to RAL 9001), grey brown air outlet grid
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
ESS 2012 K	IC251335	1250	4	Kolli 25	S 20E	626 x 672 x 250	98	
ESS 2016 K	IC251337	1600						
ESS 2020 K	IC251339	2000						
ESS 2027 K *	IC251344	2700						
ESS 3018 K	IC251347	1850	6		S 30E	776 x 672 x 250	137	
ESS 3024 K	IC251351	2400						
ESS 3030 K	IC251355	3000						
ESS 3040 K *	IC251357	4000						
ESS 4025 K	IC251362	2500	8		S 40E	926 x 672 x 250	176	
ESS 4032 K	IC251365	3200						
ESS 4040 K	IC251367	4000						
ESS 4052 K *	IC251369	5200						
ESS 5040 K	IC251374	4000	10		S 50E	1076 x 672 x 250	215	
ESS 5050 K	IC251376	5000						
ESS 5064 K *	IC251378	6400						
ESS 6048 K	IC251386	4800	12		S 60E	1226 x 672 x 250	254	
ESS 6060 K	IC251388	6000						
ESS 6076 K *	IC251390	7600						
ESS 7056 K	IC251397	5600	14		S 70E	1376 x 672 x 250	293	
ESS 7070 K	IC251399	7000						
ESS 7090 K *	IC251401	9000						

\* For rated charge time  $t_c = 5$  and 6 h  
Depth plus 35 mm wall connection

## PERMATHERM® storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Flat design Optima



ESF ... K

- Storage heater in flat design
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Dynamic discharge
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Wall mounting for load-bearing brickwork
- Casing colour: sepia white (similar to RAL 9001), grey brown air outlet grid
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
ESF 1207 K	IC260070	750	2	Kolli 18	F 12E	636 x 533 x 214	75	
ESF 1209 K	IC260080	900						
ESF 1210 K	IC260090	1050						
ESF 1212 K	IC260100	1200						
ESF 1811 K	IC260110	1150	3		F 18E	786 x 533 x 214	104	
ESF 1813 K	IC260120	1350						
ESF 1816 K	IC260130	1600						
ESF 1818 K	IC260140	1800						
ESF 2415 K	IC260150	1500	4		F 24E	936 x 533 x 214	133	
ESF 2418 K	IC260160	1800						
ESF 2421 K	IC260170	2100						
ESF 2424 K	IC260180	2400						
ESF 3019 K	IC260190	1900	5		F 30E	1086 x 533 x 214	162	
ESF 3022 K	IC260200	2250						
ESF 3026 K	IC260210	2650						
ESF 3030 K	IC260220	3000						
ESF 3622 K	IC260230	2250	6		F 36E	1236 x 533 x 214	191	
ESF 3627 K	IC260240	2700						
ESF 3631 K	IC260250	3150						
ESF 3636 K	IC260260	3600						
ESF 4226 K	IC260270	2600	7		F 42E	1386 x 533 x 214	220	
ESF 4231 K	IC260280	3150						
ESF 4237 K	IC260290	3700						
ESF 4242 K	IC260300	4200						
ESF 4830 K	IC260310	3000	8		F 48E	1536 x 533 x 214	249	
ESF 4836 K	IC260320	3600						
ESF 4842 K	IC260330	4200						
ESF 4848 K	IC260340	4800						

Depth = installation depth incl. wall connection

**PERMATHERM® storage heaters**

Connection voltage 1/N/PE ~230 V, 50 Hz

**Two-circuit design in flat design Optima**


ESFZ ... K

- Two-circuit storage heater for controlled electrical heating GEH (charge type of the EnBW/ODR)
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Wall mounting for load-bearing brickwork
- Casing colour: sepia white (similar to RAL 9001), grey brown air outlet grid
- Key solution: The ESF ZKM kit is used to convert the basic package into a two-circuit system as required for controlled storage heating (GEH) by the EnBW/ODR utility company and thus into a two-circuit storage heater.
- Delivery form: casing, brick bundles and heating element kit
- Including two-circuit storage heater kit ESF ZKM
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
ESFZ 1212 K	IC260350	800/400	2	Kolli 18	F 12E	636 x 533 x 214	75	
ESFZ 1818 K	IC260360	1200/600	3		F 18E	786 x 533 x 214	104	
ESFZ 2425 K	IC260370	1600/950	4		F 24E	936 x 533 x 214	133	
ESFZ 3032 K	IC260380	2000/1250	5		F 30E	1086 x 533 x 214	162	
ESFZ 3636 K	IC260390	2400/1200	6		F 36E	1236 x 533 x 214	191	

Depth = installation depth incl. wall connection

The rated power is made up of the storage part and the storage-free part

**PERMATHERM® storage heaters**

Connection voltage 3/N/PE ~400 V, 50 Hz

**Low series storage heaters**


ESN ... K

- For installation under low windows
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Dynamic discharge
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Casing colour: sepia white (similar to RAL 9001), grey brown air outlet grid
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
ESN 3024 K	IC251288	2400	8	Kolli 25N	N 30E	890 x 484 x 250	156	
ESN 3030 K	IC251293	3000						
ESN 3629 K	IC251291	2900	10		N 36E	1040 x 484 x 250	191	
ESN 3636 K	IC251295	3600						
ESN 4334 K	IC251299	3450	12		N 43E	1190 x 484 x 250	226	
ESN 4343 K	IC251301	4300						
ESN 5040 K	IC251305	4000	14		N 50E	1340 x 484 x 250	261	
ESN 5050 K	IC251307	5000						

Depth plus 35 mm wall connection

**PERMATHERM® storage heaters**

Connection voltage 3/N/PE ~400 V, 50 Hz

**Extra deep**


EST ... K

- For living rooms with minimal floor space and a high heat consumption.
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Dynamic discharge
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Casing colour: sepia white (similar to RAL 9001), grey brown air outlet grid
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg	
EST 60481 K	IC260510	4800	8	Kolli 36T	T 60E	890 x 654 x 360	251	
EST 60601 K	IC260520	6000						
EST 75601 K	IC260530		10		T 75E	1040 x 654 x 360	307	
EST 75751 K	IC260540	7500						

Depth plus 35 mm wall connection

## PERMATHERM® storage heaters

Connection voltage 3/N/PE ~400 V, 50 Hz

### Kitchen design can be integrated



ESK ... K with EZK ES

- Kitchen design can be covered with solid kitchen panelling
- High-grade hard-shell core thermal insulation made of natural vermiculite combined with Microtherm®
- Dynamic discharge
- Thermomechanical AC charge controller
- AC control system ~230 V, 80% operating time
- Built-in room temperature controller
- ON/OFF switch for supplementary heating
- Temperature lowering at night can be controlled remotely by using a timer
- Control panel kitchen white, base grey brown
- Delivery form: casing, brick bundles and heating element kit
- VDE certification

Order reference	Art.-no.	Rated power W	Number of brick bundles	Brick bundle type	Size	Width x Height x Depth mm	Weight kg
ESK 2419 K	IC251318	1900	2	Kolli 33	H 24E	450 x 840 x 570	110
ESK 2424 K	IC251320	2400					

Height adjustable

## Accessories

### Supplementary set for floor-mounting



VKE 20

Supplementary kit for converting the built-under unit to a stand-alone unit consisting of: front cover, worktop, fixing accessories (worktop height: 40 mm), colour kitchen white.

Order reference	Art.-no.	For device type
VKE 20	317820	VKD 24
EZK ES	IC251314	ESK 24.. K

### Two-circuit cylinder kit



GH 18

With the GH 18 kit the devices FSD 12C–FSD 36C and VKD 24 can be upgraded to two-circuit storage heaters. This enables the two-circuit system required for controlled storage heating (GEH) by EnBW/ODR. Key solution:

$\frac{2}{3}$  of the rated power is switched as  $P_s$  (storage part) and  $\frac{1}{3}$  of the rated power as  $P_{sf}$  (storage free part).

Order reference	Art.-no.	For device type
GH 18	325100	VKD 24 FSD 12C - FSD 36C

### Supplementary kit two-circuit storage heater



ESF ZKM

ESF ZKM supplementary kit for PERMATHERM® Optima (flat design) F 12E - F 36E and PERMATHERM® kitchen storage heaters. For converting to two-circuit systems for controlled electric heating GEH (charge type of the EnBW/ODR utility company).

Order reference	Art.-no.	For device type
ESF ZKM	IC260600	ESF 12.. K – ESF 36.. K





RTID 31/RTED 30



RTEV 99



ZHi ... E

### Integrated room temperature controller

Order reference	Art.-no.	For device type	Features	
RTID 31	324530	VFDi 20C - VFDi 70C FSD 12C - FSD 48C VNDi 30C - VNDi 50C VTDi 45C - VTDi 75C	Integrated electronic speed controller (wave packet control), complete kit, can be plugged into the duo charge controller, with switch for lowering the temperature at night and supplementary heating with indicator lamps, control panel in control recess, 230 V/60 VA (fan)/10 A (supplementary heating), control range 8 °C to 30 °C.	
RTED 30	324520	VFDi 20C - VFDi 70C FSD 12C - FSD 48C VNDi 30C - VNDi 50C VTDi 45C - VTDi 75C	Integrated electronic ON/OFF controller, complete kit, can be plugged into the duo charge controller, with switch for lowering the temperature at night and switch for supplementary heating with indicator lamps, control panel in control recess, 230 V/60 VA (fan) / 10 A (supplementary heating), control range 8 °C to 30 °C.	
RTEV 99	333990	VFDi...C + ESS...K FSD...C + ESF...K VNDi...C + ESN...K VTDi...C + EST...K	Integrated electromechanical ON/OFF controller with thermal feedback, complete universal kit, with ON/OFF switch and supplementary heating switch with indicator lamps. Control panel in control recess, 230 V/10 (4) A, control range 5 °C to 30 °C.	

Caution: not for use in combination with water-protection kit

### Additional daytime rate heater

Additional daytime rate heater kit for installation in the storage heater. Functions as direct heating if heat is immediately required and the storage heater is not charged (e.g. transition periods; guest rooms).

Note: An integrated room temperature controller or wall-mounted room temperature controller with a supplementary heating switching output is required for operation. For installation in storage heaters by Dimplex and PERMATHERM®

Order reference	Art.-no.	Rated power W	For device type	
ZHi 050 E	341950	500	S 20E F 12E	
ZHi 070 E	341960	700	S 30E - S 70E F 18E - F 48E N 30E - N 50E T 45E - T 75E	
ZHi 110 E	341970	1100	S 40E - S 70E F 36E - F 48E N 30E - N 50E T 60E - T 75E	
ZHi 150 E	341980	1500	S 50E - S 70E F 48E N 36E - N 50E T 75E	
ZHi 200 E	341990	2000	S 50E - S 70E N 36E - N 50E T 75E	

### Additional daytime rate heater relay kit

A third of the rated power of the kitchen storage heater is switched to direct heating if instant heat is required and the storage heater is uncharged (e.g. transition periods, guest rooms).

Order reference	Art.-no.	For device type	
RZ 20	315670	VKD 24 ESK 24.. K	



RZ 20

### Floor bracket

For installation of electric storage heaters with 10 cm ground clearance, floor mounting, angle adjustable, suitable for skirting boards, can be used for deep-pile carpeting, suitable for wall and floor mounting, can be secured against tipping over, fixing accessories (package contents: set = 2 items)

Order reference	Art.-no.	For device type	Casing colour	
BKOi 25	328580	VFDi 20C - VFDi 70C VNDi 30C - VNDi 50C	Birch grey	
EZ BKS	IC251270	ESS 20.. K - ESS 70.. K ESN 30.. K - ESN 50.. K	Grey brown	



BKOi 25

## Floor bracket



WKO 18

For wall/floor mounting if the brickwork cannot bear loads and for free-standing installation. Painted profile bracket with unscrewable ground support and fixing accessories. 10.4 cm ground clearance (package content: set = 2 items)

Order reference	Art.-no.	For device type	Casing colour	
WKO 18	324470	FSD 12C - FSD 48C	Birch grey	
EZ KK F	IC251133	ESF 12.. K - ESF 48.. K	Grey brown	

## Ground support for storage heaters



BKO 18

For wall/floor mounting if the brickwork cannot bear heavy loads, used in combination with serial bracket, 10.4 cm ground clearance (package contents: set = 2 items).

Order reference	Art.-no.	For device type	Casing colour	
BKO 18	326480	FSD 12C - FSD 48C	Birch grey	
EZ BA F	IC251134	ESF 12.. K - ESF 48.. K	Grey brown	

## Base plate for storage heaters



UPLi ..

UPL ..

Heat-insulating calcium-silicate board prevents pressure marks and discolouration when devices are installed on light-coloured carpeting, temperature-sensitive floor coverings and pressure-sensitive parquet floors.

Order reference	Art.-no.	For device type	Width x Height x Depth mm	
UPLi 20	328220	S 20E	626 x 10 x 260	
UPLi 30	328230	S 30E	776 x 10 x 260	
UPLi 40	328240	S 40E	926 x 10 x 260	
UPLi 50	328250	S 50E	1076 x 10 x 260	
UPLi 60	328260	S 60E	1226 x 10 x 260	
UPLi 70	328270	S 70E	1376 x 10 x 260	
UPL 12	324330	F 12E	630 x 10 x 200	
UPL 18	324340	F 18E	780 x 10 x 200	
UPL 24	324350	F 24E	930 x 10 x 200	
UPL 30	324360	F 30E	1080 x 10 x 200	
UPL 36	324370	F 36E	1230 x 10 x 200	
UPL 42	324380	F 42E	1380 x 10 x 200	
UPL 48	324390	F 48E	1530 x 10 x 200	
UPL 30 N	343190	N 30E	890 x 10 x 260	
UPL 36 N	343200	N 36E	1040 x 10 x 260	
UPL 43 N	343210	N 43E	1190 x 10 x 260	
UPL 50 N	343220	N 50E	1340 x 10 x 260	
UPL 45 T	338680	T 45E	760 x 10 x 370	
UPL 60 T	338690	T 60E	910 x 10 x 370	
UPL 75 T	338700	T 75E	1060 x 10 x 370	



WS 25 i

## Water-proofing kit

Enables installation of storage heaters according to VDE regulations. Do not use in combination with special accessories for the integrated room temperature controller. Degree of protection IPX4 (splash water protection).

Order reference	Art.-no.	For device type	
WS 25 i	328590	S 20E S 30E	
BWS 25 N	335670	N 30E N 36E	
TWS 12	325850	F 12E	
TWS 18	325860	F 18E	
TWS 24	325870	F 24E	



EZ ZW 1

## Fixing bracket

Additional protection against tipping over for electric storage heaters, left.

Order reference	Art.-no.	For device type	
EZ ZW 1	IC251271	S 20E - S 70E N 30E - N 50E	



EZ US 8037 2

## Conversion kit for operating time control system

For electric storage heaters with thermomechanical charge controller for adjustment to 37/40% operating time.

Order reference	Art.-no.	For device type	
EZ US 8037 2	IC251198	ESS ... K ESF ... K ESN ... K EST ... K + ESK 24.. K	



EZK FS

## Thermal enable contactor

Thermo relay installation kit for charge release via safety output control signal (direct control without heating contactor with auxiliary relay)

Order reference	Art.-no.	For device type	
EZK FS	IC260610	ESS ... K ESF ... K ESN ... K EST ... K + ESK 24.. K	

## Rear panelling for Dimplex storage heaters

For covering the rear of the device for free-standing installation. Colour: traffic white (similar to RAL 9016).



DRWi ...

Order reference	Art.-no.	For device type	Width x Height x Depth mm	
DRWi 20C	344370	VFDi 20C	562 x 627 x 41	
DRWi 30C	344380	VFDi 30C	712 x 627 x 41	
DRW 36NC	344440	VNDi 36C	1012 x 457 x 41	
DRW 43NC	344450	VNDi 43C	1162 x 457 x 41	



LRD 2000 plus



LR 100



P 10 K



RF 2000

RF 90



THR 3



RL 15R / 25R



RL 15 RF



ALR 80 AC

### Electronic charge controllers

Order reference	Art.-no.	Features	
LRD 2000 plus	338830	Digital electronic DC/AC charge controller with two control inputs for ThermoComfort duo-electronic VFDi..(C), VFD.., FSD..(C), VNDi..(C), VTDi..(C), and VKD.. storage heaters, optional connection to a DC charge control (0.91–1.43 V) or an AC charge control (230 V AC, % operating time), with jumper for adjustment of the AC control system from 80% to 72/68% or 37/40% operating time, jumper for selectable switch-off temperatures, plug position 520+ for raising the target charge rate by 5% more than the central control unit default, potentiometer 10 kΩ included in the scope of supply.	
LR 100	338840	Electronic DC charge controller (control signal 0.91–1.43 V DC) for ThermoComfort electronic VF 20–70, VF 20–70 HY, VN 30/40, VK 24, VF 75, FS 12–36, and FZ 12–36 storage heaters.	
LR 90	338850	Electronic DC charge controller (control signal 0.91–1.43 V DC), replacement device for LR 88 S, LR 50 S, LR 50/300, LR 45 S, LR 60/230, LR 60/300, and RG 6000 charge controllers.	
KBS 12L	348870	Cable harness with 12-pole cable connector for use in combination with LR 90 and LR 100 DC charge controllers; (potentiometer not included in the scope of supply)	

### Intensity actuator

Order reference	Art.-no.	Features	
P 10 K	338860	Potentiometer (10 kΩ), for ThermoComfort duo-electronic storage heaters (with LRD 2000, LRD 2000 plus charge controllers) and ThermoComfort electronic (with LR 100 charge controller).	
P 360	338870	Potentiometer (360 Ω), for storage heaters with electronic charge control (LR 90, LR 88 S, LR 50 S, LR 50/300, LR 45 S, LR 60/230, LR 60/300 and RG 6000 charge controllers).	

### Residual heat sensor

Order reference	Art.-no.	Features	
RF 2000	338880	PTC residual heat sensor for storage heaters with LRD 2000, LRD 2000 plus electronic DC/AC charge controllers and LR 100 electronic DC charge controller (107 Ω / 20 °C).	
RF 90	338890	PTC residual heat sensor for storage heaters with LR 90, LR 88 S, LR 60.., LR 50.., and LR 45 S electronic DC charge controllers (732 Ω/20 °C).	

### Thermo relay

Order reference	Art.-no.	Features	
THR 3	338900	3-pole thermo relay for storage heaters with electronic charge control. Can be used in combination with LRD 2000, LRD 2000plus, LR 100, LR 90, LR 88 S, LR 60 .., LR 50.., LR 45 S, and RG 6000.	

### Radial fan

Radial fan, right, complete for Dimplex and PERMATHERM® storage heaters

Order reference	Art.-no.	For device type	
RL 15R	344960	S 20(E) – S 40(E) N 30(E) – N 43(E) T 45(E) – T 60(E)	
RL 25R	344970	S 50(E) – S 70(E) N 50(E) T 75(E)	
RL 15RF	351880	F 12(E) – F 48(E)	

### Capillary tube charge controller

Order reference	Art.-no.	Features	
ALR 80 AC	351870	Thermomechanical AC charge controller (3-pole; 80% operating time) for Dimplex VFMi.. and PERMATHERM® ESS.., ESF.., EST.., ESN.., and ESK.. storage heaters	

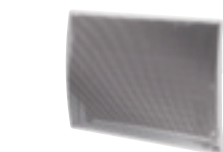
## Radiant panel heater FPE series

Connection voltage 1/N/PE ~230 V, 50 Hz

### Horizontal design

Degree of protection IP 20

Protection class I



FPE ... H

Wall mounting using wall bracket, connection cable for fixed connection, high-quality metal casing, aluminium surface heating element, electronic infinitely variable room thermostat, protection against overheating, function switch for ON/OFF/Frost protection/Lower. Lowering can be centrally regulated using an external control e. g. timer. Programming using programming cassette RMT 2 possible.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
FPE 051 H	348740	500	515 x 440 x 112	4.3	
FPE 101 H	348750	1000	620 x 440 x 112	5.3	
FPE 151 H	348760	1500	830 x 440 x 112	7.2	
FPE 201 H	348770	2000	1040 x 440 x 112	9.0	

Depth incl. wall clearance

## Radiant panel heater FPE series

Connection voltage 1/N/PE ~230 V, 50 Hz

### Vertical design

Degree of protection IP 20

Protection class I



FPE ... V

Wall mounting using wall bracket, connection cable for fixed connection, high-quality metal casing, aluminium surface heating element, electronic infinitely variable room thermostat, protection against overheating, function switch for ON/OFF/Frost protection/Lower. Lowering can be centrally regulated using an external control e. g. timer. Programming using programming cassette RMT 2 possible.

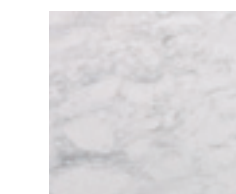
Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
FPE 101 V	348780	1000	440 x 830 x 112	7.6	
FPE 201 V	348790	2000	440 x 1145 x 112	10.1	

## Natural stone heating

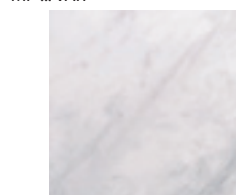
Connection voltage 1/N ~230 V, 50 Hz

Degree of protection IP 25

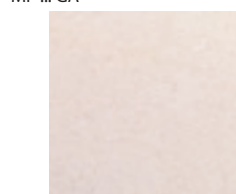
Protection class II



MP ... VAR



MP ... GA



MP ... SYA

Natural stone heating for horizontal or vertical wall mounting using the mounting kit included in the scope of supply, main heat provided by heat conductors integrated into the stone, special conductor routing for especially uniform surface temperature, dual overtemperature protection, connection cable for fixed connection approx. 1.3 m, must be controlled via external room temperature controller. External room temperature controller **RT 204 U** and **RT 104 ST** suitable for MP natural stone heating.

Order reference	Art.-no.	Type of stone	Rated power W	Width x Height x Depth mm	Weight kg	
MP 35 VAR	343860	Varios	350	600 x 400 x 70	21	
MP 65 VAR	343870		650	1000 x 400 x 70	35	
MP 85 VAR	343880		850	1000 x 500 x 70	44	
MP 115 VAR	343890		1150	1000 x 600 x 70	52	
MP 145 VAR	343900		1450	1250 x 600 x 70	62	
MP 35 GA	343910	Galaxis	350	600 x 400 x 70	21	
MP 65 GA	343920		650	1000 x 400 x 70	35	
MP 85 GA	343930		850	1000 x 500 x 70	44	
MP 115 GA	343940		1150	1000 x 600 x 70	52	
MP 145 GA	343950	Sylvia Antik	1450	1250 x 600 x 70	62	
MP 35 SYA	343960		350	600 x 400 x 70	21	
MP 65 SYA	343970		650	1000 x 400 x 70	35	
MP 85 SYA	343980		850	1000 x 500 x 70	44	
MP 115 SYA	343990		1150	1000 x 600 x 70	52	
MP 145 SYA	344000		1450	1250 x 600 x 70	62	

Natural stone heating systems are unique natural products. Variations in colour and structure compared to the picture are therefore a sign of individuality.

## Design wall convector GFP series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP X4  
Protection class I



GFP 200 B



GFP 200 W

Design convector with precise electronic room temperature regulation, frost protection setting, connecting lead for fixed connection, high-grade metal casing with easy-care glass front, ON/OFF switch, temperature lowering using an RMT 2 programming module or external control of the control line possible, e. g. using a timer, switch etc., protection against overheating, fold-down wall support. Programming using RMT 2 and RX programming cassettes possible.

Order reference	Art.-no.	Rated power W	Casing colour	Width x Height x Depth mm	Weight kg	
GFP 200 B	356180	2000	Black	940 x 565 x 107	19.4	
GFP 200 W	356170		White			

Depth incl. wall clearance

## Wall convectors KSE series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



KSE ...

Wall mounting using a wall bracket, connection cable for fixed connection, high-grade metal casing, aluminium finned heating element, electronic infinitely variable room thermostat 7–29 °C, protection against overheating, function switch for ON/OFF/Frost Protection/Lowering, lowering also centrally using external controls e. g. a timer. Programming using module **RMT 2** possible.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
KSE 100	335320	1000	420 x 430 x 105	4.2	
KSE 150	335340	1500	580 x 430 x 105	5.5	
KSE 200	335360	2000	740 x 430 x 105	6.6	

## Convector blocks KLE series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



KLE ...

Wall mounting using wall bracket, connection cable for fixed connection, high-quality metal casing, aluminium finned heating element, electronic infinitely variable room thermostat 7–29 °C, protection against overheating, function switch for ON/OFF/Frost Protection/Lower. Lowering can be centrally regulated using an external control e. g. timer. Programming using module **RMT 2** possible.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
KLE 075	335380	750	820 x 220 x 105	4.7	
KLE 125	335390	1250	1060 x 220 x 105	5.9	
KLE 150	337960	1500	1300 x 220 x 105	7.1	

## Programming cassette RMT

### Incl. master function



RMT 2

Order reference	Art.-no.	Features	
RMT 2	362920	Programming cassette connectable to radiant panel heaters and convectors of the GPE, GFP, FPE, EPX, KSE and KLE series or fan convectors of the SRX series. Clearly laid out LCD; seven specified programs and an individual program to set the heating and lowering times which can be assigned for each weekday. Where several ecomfort devices are used together with a common control line, a programming cassette can be used to control up to 20 devices.	



## Wall convectors EPX series

Connection voltage 1/N/PE ~230 V, 50 Hz

### Electronically regulated

Degree of protection IP X4  
Protection class I

Precise infinitely variable electronic room temperature regulation, frost protection setting, connection cable for fixed connection, ON/OFF switch, temperature lowering using an RX programming module or external control of the control line e. g. timer or switch possible. Protection against overheating, fold-down wall bracket, high-quality metal casing.



EPX 2000

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
EPX 500	351530	500	448 x 430 x 115	4.8	
EPX 750	351540	750	618 x 430 x 115	6.2	
EPX 1000	351550	1000			
EPX 1500	351560	1500	686 x 430 x 115	6.6	
EPX 2000	351570	2000	858 x 430 x 115	8.0	
EPX 2500	351580	2500	858 x 430 x 145	8.5	

## Programming cassette EPX, GFP, SRX convectors



RX PW 1



RX TI RB

Order reference	Art.-no.	Features	
RX TI 24	RXTI24	24 h programming cassette with LCD, connectable to EPX wall convectors and SRX fan convectors. Four ON and OFF times freely programmable, backlit display, key lock. Where several devices are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	
RX PW 1	RXPW1	Week programming cassette with LCD, connectable to EPX wall convectors and SRX fan convectors. Up to four programs can be set for a weekend block (Sat-Sun) or a workday block (Mon-Fri), the ON and OFF times are then set. With backlit display and key lock. Where several devices are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	
RX TI RB	RXTIRB	Limited specified heating period; programming cassette for setting a heating period from 0.5 h to 4.0 h, adjustable in 0.5 hour increments, when the specified heating period ends, the device shuts off or switches to frost protection mode. Where several EPX devices or SRX fan convectors are connected using a control line, a programming cassette can be used to control these devices. Devices from the FPE, GPE, GFP, KSE and KLE series can also be connected to the control line.	

## Wall convectors PLX series

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP X4  
Protection class I

High-quality metal casing, connection cable with plug (to PLX 2000; PLX 2500 and PLX 3000 for fixed connection), infinitely variable room thermostat 5–30 °C, ON/OFF switch, 2 heating levels (not for PLX 500), controller cover, protection against overheating, easy to clean fold-down wall support



PLX 2000

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
PLX 500	351450	500	448 x 430 x 115	4.8	
PLX 750	351460	750	618 x 430 x 115	6.2	
PLX 1000	351470	1000			
PLX 1500	351480	1500	686 x 430 x 115	6.6	
PLX 2000	351490	2000	858 x 430 x 115	8.0	
PLX 2500	351500	2500	858 x 430 x 145	8.5	
PLX 3000	351510	3000		8.6	

## Wall convectors PLX series with timer

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP X4  
Protection class I

High-grade metal casing, connection lead with plug, infinitely variable room thermostat 5–30 °C, ON/OFF switch, 2 heating levels, controller cover, protection against overheating, fold-down wall support. With mechanical 24 h timer.



PLX 2000 TI

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
PLX 2000 TI	351520	2000	858 x 430 x 115	8.0	

## Wall convectors DXW series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 20  
Protection class I



DXW 330

Infinitely variable thermostat with frost protection function, fold-down wall bracket, sheet-steel casing, connection cable for fixed connection, protection against overheating, indicator lamp for heating operation, ON/OFF switch, 2 heating levels, (DXW 315 to DXW 330).

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
DXW 307	342990	750	577 x 367 x 124	4.4	
DXW 310	343000	1000			
DXW 315	343010	1500			
DXW 320	343020	2000			
DXW 325	343030	2500	697 x 367 x 124	5.1	
DXW 330	343040	3000			

## Free-standing convectors ECW series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 20  
Protection class I



ECW 934

Infinitely variable thermostat, 2 heating levels, indicator lamp, protection against overheating, high-quality sheet-steel casing, connection cable with plug, wall mounting with accompanying accessories possible.

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
ECW 934	343050	2000		577 x 432 x 205	4.1	
ECW 937 T	343060		With fan level, cold air level.		4.3	

Depth for wall mounting: 90 mm



ECW 937 T

## Rapid heater for bathrooms

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



EF 12/20

Solid sheet-steel casing, infinitely variable room thermostat, protection against overheating, frost protection mode, connection cable with plug.

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
EF 12/20	357050	2000		300 x 405 x 120	3.2	
EF 12/20 TI	357060		With 60-minute timer		3.3	
EF 12/20 TID	357070		With 24 h timer			
EF 12/10	358710	1000			3.2	



EF 12/20 TI

## Towel dryer/rapid heater for bathrooms TRFB

Connection voltage 1/N ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class II



TRFB 150

Combination of radiant panel heater, towel dryer and rapid heater for bathrooms, electronic room thermostat, electronic timer for ventilation operation 0.5 h/1.0 h/2.0 h, protection against overheating, lint filter, indicator lamp for heating operation, connecting lead for fixed connection, temperature lowering via external control of the control line e. g. a timer possible.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
TRFB 150	354900	1500	470 x 1010 x 267	13.0	

Dimensions without bracket (W x H x D) in mm: 440 x 1010 x 121

## Towel dryers TDTR series

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



TDTR 350 W

Towel dryers with water-glycol mix for better heat distribution. Connection cable (approx. 1.5 m) for fixed-line connection on the left-hand side and protection against overheating. NO integrated thermostat.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
TDTR 175 W	364610	175	453 x 610 x 60	6.0	
TDTR 350 W	364600	350	600 x 870 x 60	11.0	

## Wall-mounted rapid heater with pull switch

Connection voltage 1/N ~230 V, 50 Hz  
Degree of protection IP 22  
Protection class II



FX 20 V

2-level control, downwards air outlet, thermostat adjustable in the device with 3 temperature positions, fixed connection, 1 kW/2 kW connected load can be chosen on the device, protection against overheating, white plastic casing.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
FX 20 V	342490	2000	229 x 242 x 109	1.4	

## Wall convectors Unique

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



2NC8 102 4S

To be mounted using a wall bracket with outlet for fixed connection, electronic thermostat, lowering using control line or radio module, high-quality aluminium finned heating element, galvanised and powder-coated casing, colour white similar to RAL 9010, ON/OFF switch.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NC8 102 4S	2NC81024S	1000	735 x 400 x 80	5.1	
2NC8 202 4S	2NC82024S	2000	1365 x 400 x 80	9.6	

## Low temperature wall convectors Unique

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



2NC8 ... 4B

Wall convector with reduced surface temperature of approx. 60 °C, to be mounted using a wall bracket with outlet for a fixed connection, electronic thermostat, lowering via control line or radio module, high-quality aluminium finned heating element, powder-coated casing, colour white similar to RAL 9010, ON/OFF switch.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NC8 062 4B	2NC80624B	600	915 x 400 x 80	6.9	
2NC8 102 4B	2NC81024B	1000	1455 x 400 x 80	11.1	

## Wall convectors Unique

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



2NC8 082 4F

To be mounted using a wall bracket with outlet for fixed connection, electronic thermostat, lowering using control line or radio module, high-quality aluminium finned heating element, powder-coated casing, colour white similar to RAL 9010, ON/OFF switch.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NC8 062 4F	2NC80624F	600	555 x 400 x 80	4.0	
2NC8 102 4F	2NC81024F	1000	735 x 400 x 80	5.1	
2NC8 152 4F	2NC81524F	1500	1095 x 400 x 80	7.8	
2NC8 202 4F	2NC82024F	2000	1365 x 400 x 80	9.6	

## Wall convectors Unique

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I

### Without thermostat



2NC8 ... 4X

To be mounted using a wall bracket with outlet for fixed connection, without thermostat, high-quality aluminium finned heating element, powder-coated casing, colour white similar to RAL 9010, ON/OFF switch.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NC8 042 4X	2NC80424X	400	465 x 400 x 80	3.4	

## Convector blocks Unique

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



2NC8 122 2F

To be mounted using a wall bracket with outlet for fixed connection, electronic thermostat, lowering using control line or radio module, high-quality aluminium finned heating element, powder-coated casing, colour white similar to RAL 9010, ON/OFF switch.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NC8 062 2F	2NC80622F	600	915 x 200 x 80	3.8	
2NC8 102 2F	2NC81022F	1000	1275 x 200 x 80	5.3	
2NC8 152 2F	2NC81522F	1500	1725 x 200 x 80	7.0	

## Radiant panel heaters

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class I



2NW5 ... 4F

Flat radiators with encapsulated tubular radiator for a uniform surface temperature and heat transfer as radiant heat, electronic room thermostat with temperature lowering using a control line or an optional radio module, control range 5–30 °C, frost protection setting, wall bracket with outlet for a fixed connection, ON/OFF switch, powder-coated casing, colour white, similar to RAL 9010.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
2NW5 042 4F	2NW50424F	400	780 x 400 x 60	5.4	
2NW5 062 4F	2NW50624F	600	1060 x 400 x 60	7.6	
2NW5 082 4F	2NW50824F	800	1400 x 400 x 60	9.1	

Depth incl. wall clearance

## Special accessories for direct heating appliances

### 2NC8 ... series, 2NW5 ... series



2NC9 812

Order reference	Art.-no.	Features	
2NC9 812	2NC9812	Time control module for 2NC8... and 2NW5... devices with built-in thermostat for automatic temperature lowering of the Unique convectors. 15 defined programs, 10 of which are for the living area and 5 for holiday homes	
2NC9 813	2NC9813	Lowering module for devices of the 2NC8... and 2NW5... series with a built-in thermostat for manual temperature lowering.	
2NC9 810	2NC9810	Cover for the thermostat for 2NC8...series devices with room temperature controller	

## Industrial fan heater IHP series

Degree of protection IP 24

Protection class I

### Portable

Fan heater in metal design with carrying handle for portable use. Controls integrated directly in the device, room temperature controller with frost protection setting, wall mounting using the included wall bracket (for heights that are difficult to reach). Casing colour blue, air outlet grid black.



IHP 30

Order reference	Art.-no.	Rated power W	Type of plug	Number of fan levels	Air volume flow m³/h	Max. temperature increase K	Width x Height x Depth mm	Weight kg	
IHP 30	348540	3000	Europlug	2	300	38	385 x 390 x 260	6.1	
IHP 50	348550	5000	CEE 16 A		450	58		7.4	

## Large fan heater CFH series

Connection voltage 3/N/PE ~400 V, 50 Hz

Degree of protection IP 20

Protection class I

### Wall-mounted

Robust metal/plastic design for wall mounting, wall bracket with universal turn and pivot options, controlled using an external wall-mountable control panel CFCH. Up to 7 CFH devices can be connected in series via a control panel. The connections between the fan heater and the control panel as well as between the devices are established using a standard data cable type CAT 5E (or higher, not included in the scope of supply). Colour white, air outlet grid black.



CFH 60

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. temperature increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
CFH 60	351330	6000	900	39	60	386 x 360 x 630	12.7	
CFH 90	351340	9000	850	52			13.8	
CFH 120	351350	12000		61				

A control panel CFCH or CAB C5 is an essential accessory.

## Accessories for CFH large fan heater



CFCH

Order reference	Art.-no.	Features	
CAB C5	117960	Wall-mounted operator control for controlling up to 5 DAB.E / CAB.EV2 hot-air curtains or 5 CFH industrial fan heaters, operation via rotary switch. Functions: Heat output OFF/50%/100%, fan levels 50%/100% (for hot-air curtains only), toggle switch for door contact automation/manual operation (for hot-air curtains only). An external thermostat can be used for temperature control (not included in the scope of supply). The devices are connected via a simple plug connection using a CAT 5E, CAT 6 or CAT 7 standard data cable (not included in the scope of supply).	
CFCH	351360	Digital control panel for CFH industrial fan heaters, backlit LCD, room temperature regulation from 5–35 °C, frost protection function, cold air level, up to 32 individually set programs, programming of a limited operating time of max. 5 hours, serial connection of up to 7 CFH devices using a simple plug connection with a CAT 5E, CAT 6 or CAT 7 standard data cable (not included in the scope of supply).	
CFH EMC KIT	993428	Improved interference immunity/emitted interference of the CFH large fan series for industrial applications according to EN 61000-6-2 and EN 61000-6-4.	

## Fan heater metal casing



HL 185

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
HL 185/2	335790	2000	OFF/Cold/2000 W, radial blower, protection against overheating, indicator lamp, wall device, 2/PE ~ 400 V, fixed connection, colour anthracite.	230 x 230 x 160	4.6	
HL 185 T	335780		OFF/Cold/2000 W, thermostat, radial blower, protection against overheating, indicator lamp, wall device, connection cable with plug, colour anthracite. 1/N/PE ~230 V, 50 Hz			
HL 185/3	335960	700	OFF/Cold/700 W, thermostat, radial blower, protection against overheating, indicator lamp, wall device, connection cable with plug, colour anthracite. 1/N/PE ~230 V, 50 Hz			

## Finned radiator for commercial areas

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP 65

Protection class I

Robust finned radiators for floor or horizontal wall mounting, stable metal casing painted matt black (red connecting head), for use in commercial areas, without connection cable for fixed-line connection, no integrated thermostat.



RHK 1001

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
RHK 1001	362670	1000	1095 x 180 x 150	12.0	
RHK 2001	362680	2000	1695 x 180 x 150	16.0	

For use in commercial areas only.

## Air curtains AC...N

Connection voltage 1/N/PE ~230 V, 50 Hz

### Electric operation

Degree of protection IP 20

Protection class I



AC ... N

Mounting above doors or on ceilings, adjustable air outlet direction, 2 heating levels, 1 cold air level. Operated either on the device or with a remote control (only AC 3RN). For door widths from 600 mm (AC 3 and AC 45) to 900 mm (AC 6).

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. tempera- ture increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
AC 3 N	348220	3000	212	42	50	605 x 214 x 135	5.1	
AC 45 N	348230	4500	248	53	52		5.2	
AC 6 N	348240	6000	446	40	57	905 x 214 x 135	7.2	
AC 3 RN	348250	3000	212	42	50	605 x 214 x 135	5.3	

## Air barrier CAB series

Connection voltage 3/N/PE ~400 V, 50 Hz

### Electric operation

Protection class I



CAB 10 EV2

Mounting above doors, ceilings or hidden (optional installation kit needed), modular design allows simple placing of devices in a row, adjustable direction of flow, 2 heating levels, cold air level, 2 ventilation levels, controllable using a wall-mounted low-voltage control or by connecting to a building management system. A separate control panel allows regulation of up to 4 devices at a time, optional door sensor switching. Installation height up to 2.7 m. Essential accessories: CAB C5 operator control. Accessories for combining up to 4 devices: CAB M1 V2 connection kit; Colour white, intake grid black. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5E or higher) – data cable not included in the scope of supply.

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. tempera- ture increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
CAB 10E V2	117984	9000	1200	44	54	1057 x 262 x 316	25.0	
CAB 15E V2	117991	13500	1800		55	1557 x 262 x 316	36.0	

## Air barrier DAB series

Connection voltage 3/N/PE ~400 V, 50 Hz

### Electric operation

Protection class I



DAB 10 EV2

Mounting above doors, ceilings or hidden (optional installation kit needed), modular design allows simple placing of devices in a row, adjustable direction of flow, 2 heating levels, cold air level, 2 ventilation levels, controllable using a wall-mounted low-voltage control or by connecting to a building management system. A separate control panel allows regulation of up to 4 devices at a time, optional door sensor switching. Installation height up to 4.0 m. Essential accessories: CAB C5 operator control. Accessories for combining up to 4 devices: CAB M1 V2 connection kit; Colour white, intake grid black. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5E or higher) – data cable not included in the scope of supply.

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. tempera- ture increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
DAB 10E V2	118004	12000	3000	23	58	1060 x 360 x 390	39	
DAB 15E V2	118011	18000	4000	26	59	1560 x 360 x 390	50	

## Air barrier CAB series

Connection voltage 1/N/PE ~230 V, 50 Hz

### hot water operation

Protection class I



CAB 10 WV2

Hot water operation, mounting above doors, on ceilings or hidden (optional installation kit needed), modular design allows simple placing of devices in a row, mounting height up to 2.7 m, adjustable direction of flow, 2 fan levels, controllable using wall-mounted low-voltage control or by connecting to a building management system. A separate control panel allows regulation of up to 4 devices at a time, optional door sensor switching. BEAB Intertek certification. Essential accessories: CAB C 6 operator control; for combining several CAB M1 V2 devices. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5 or higher) - data cable not included in the scope of supply. Colour white, intake grid black. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5E or higher) – data cable not included in the scope of supply.

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. tempera- ture increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
CAB 10W V2	118028	8500	1100	23	53	1057 x 262 x 316	25	
CAB 15W V2	118035	12700	1700	22	54	1557 x 262 x 316	36	

Rated output at 20 °C air intake temperature rated output at 80 °C flow temperature and 60 °C return flow temperature



## Air barrier DAB series

Connection voltage 1/N/PE ~230 V, 50 Hz

Protection class I

### hot water operation



DAB 10 W V2

Hot water operation, mounting above doors, on ceilings or hidden (optional installation kit needed), modular design allows simple placing of devices in a row, mounting height up to 4.0 m, adjustable direction of flow, 2 fan levels, controllable using wall-mounted low-voltage control or by connecting to a building management system. A separate control panel allows regulation of up to 4 devices at a time, optional door sensor switching. BEAB Intertek certification. Essential accessories: CAB C 6 operator control; for combining several CAB M1 V2 devices. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5 or higher) - data cable not included in the scope of supply. Colour white, intake grid black. The connections between the operator panel and the hot-air curtains and between the devices are established using a standard data cable (type CAT 5E or higher) - data cable not included in the scope of supply.

Order reference	Art.-no.	Rated power W	Air volume flow m³/h	Max. tempera- ture increase K	Sound pressure level in 3 m dB (A)	Width x Height x Depth mm	Weight kg	
DAB 10W V2	118042	13200	2500	15	57	1060 x 360 x 390	39	
DAB 15W V2	118059	18100	3500		58	1560 x 360 x 390	50	

Rated output at 20 °C air intake temperature rated output at 80 °C flow temperature and 60 °C return flow temperature

## Accessories for air barrier CAB-DAB



CAB C5

Order reference	Art.-no.	Features	
CAB C5	117960	Wall-mounted operator control for controlling up to 5 DAB..E / CAB..EV2 hot-air curtains or 5 CFH industrial fan heaters, operation via rotary switch. Functions: Heat output OFF/50%/100%, fan levels 50%/100% (for hot-air curtains only), toggle switch for door contact automation/manual operation (for hot-air curtains only). An external thermostat can be used for temperature control (not included in the scope of supply). The devices are connected via a simple plug connection using a CAT 5E, CAT 6 or CAT 7 standard data cable (not included in the scope of supply).	
CAB C6	117977	Wall-mounted control panel for remote control of up to 10 water-bearing hot-air curtains CAB ..W V2 / DAB ..W V2. Rotary switch for setting the fan level and switch for automatic/manual operation switching. The devices are connected via a simple plug connection using a CAT 5E, CAT 6 or CAT 7 standard data cable (not included in the scope of supply).	
CAB M1 V2	118103	Connection kit for electrical and mechanical connection of hot-air curtains of the CAB/DAB series.	
CAB KT 15	348840	Installation kit for hidden installation (e.g. false ceilings) for CAB 15 E / CAB 15 W	
DAB KT 10	348850	Installation kit for hidden installation (e.g. false ceilings) for DAB 10 E / DAB 10 W	
DAB KT 15	348860	Installation kit for hidden installation (e.g. false ceilings) for DAB 15 E / DAB 15 W	

# Hand dryer

## Hand dryers



HD 701 AM



HD 601 AM



HD 501 AK

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
HD 701 AM	354760	2250	Robust metal casing with epoxy coating, colour white, similar to RAL 9010, infrared safety proximity switch with adjustable sensitivity, rated air flow 470 m³/h with approx. 96 km/h, air outlet temperature approx. 53 °C, heat output 2000 W, motor power 250 W, fixed connection, protection class I, degree of protection IP23, safety temperature limiter, VDE certification	276 x 245 x 210	4.6	
HD 601 AM	354770	1640	Sheet-steel casing 1.9 mm with epoxy coating, colour white, similar to RAL 9010, infrared safety proximity switch with adjustable sensitivity, rated air flow 280 m³/h with approx. 65 km/h, air outlet temperature approx. 52 °C, heat output 1500 W, motor power 140 W, fixed connection, protection class II, degree of protection IP21, safety temperature limiter, VDE certification	255 x 302 x 140	4.5	
HD 501 AK	354780		Plastic casing made of 3 mm ABS, colour white, similar to RAL 9010, infrared safety proximity switch with adjustable sensitivity, rated air flow 280 m³/h with approx. 65 km/h, air outlet temperature approx. 52 °C, heat output 1500 W, motor power 140 W, fixed connection, protection class II, degree of protection IP21, safety temperature limiter, VDE certification	253 x 302 x 153	3.0	

## Radiant panel heaters WW... series

Connection voltage 1/N ~230 V, 50 Hz

Degree of protection IP 24

Protection class II

Radiant panel heater with electronic thermostat, free-standing installation, on rollers (not WW 101 E) or wall-mounted, metal heating plate, frost protection function, protection against overheating and indicator lamp for heating operation, colour white, splash water protection IP24, BEAB Intertek certification.

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
WW 101 E	364760	1000	3 performance levels: 0.4/0.6/1.0 kW	640 x 550 x 275	4.7	
WW 151 E	364770	1500	3 performance levels: 0.5/1.0/1.5 kW	840 x 550 x 275	6.0	
WW 201 E	364780	2000	3 performance levels: 0.75/1.25/2.0 kW	1040 x 550 x 275	7.4	



WW 101 E



WW 201 E



K 811



K 821

## Free-standing convectors

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP 20

Protection class I

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
K 811	358050	2000	Free-standing convector with infinitely variable thermostat, two performance levels, 1.0 and 2.0 kW, indicator lamp for heating operation, connection line approx. 1.0 m with plug, wall mounting possible using the accessories included.	575 x 418 x 200	4.1	
K 821	358060		Free-standing convector with turbo fan and cold air level, infinitely variable thermostat, two performance levels, 1.0 and 2.0 kW, indicator lamp for heating operation, connection line approx. 1.0 m with plug, wall mounting possible using the accessories provided.			

## Finned radiators

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP 20

Protection class I

### Oil-free design

Finned radiator with castors, oil-free design with shortened heat-up time, indicator lamp for heating operation, thermostat for infinitely variable setting, protection against overheating.

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
RD 907 TS	364790	1500	7 fins, three control levels OFF/1.0/1.5 kW, colour: silver grey/anthracite	370 x 620 x 245	7.0	
RD 909 TS	352470	2000	9 fins, three control levels OFF/1.4/2.0 kW, colour: silver grey/anthracite	515 x 620 x 245	8.7	
RD 911 TS	352480	2500	11 fins, three control levels OFF/1.7/2.0 kW, colour: silver grey/anthracite	610 x 620 x 245	10.6	



RD 909 TS



RD 911 TS

## Infrared heater (compact range)

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



BS 1201 S



BS 1801 S



BS 1801 W

Infrared heaters (compact range) with quartz heating elements for horizontal wall mounting, controlled via a pull switch on the device, pivoting angle 0–40°, fixed connection, VDE certification.

Order reference	Art.-no.	Rated power W	Number of heating elements Unit(s)	Features	Width x Height x Depth mm	Weight kg	
BS 1201 S	356650	1200	2	Three control levels OFF/0.6/1.2 kW, colour silver.	526 x 140 x 92	1.6	
BS 1801 S	356640	1800	3	Four control levels OFF/0.6/1.2/1.8 kW, colour silver.		1.7	
BS 1801 W	356630			Four control levels OFF/0.6/1.2/1.8 kW, enamelled casing, colour white.			

## Infrared heater (low profile range)

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



BK 1201 S



BK 2001 S

Infrared heaters (low profile range) with quartz heating elements for horizontal installation, controlled via a pull switch on the device, pivoting angle 0–40°, fixed connection, VDE certification.

Order reference	Art.-no.	Rated power W	Number of heating elements Unit(s)	Features	Width x Height x Depth mm	Weight kg	
BK 1201 S	356670	1200	1	Two control levels OFF/1.2 kW, colour silver.	768 x 100 x 92	1.6	
BK 2001 S	356660	2000	2	Four control levels OFF/0.8/1.2/2.0 kW, colour silver.		1.7	

## Infrared changing table heater

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24  
Protection class I



BY 801 S

Order reference	Art.-no.	Rated power W	Number of heating elements Unit(s)	Features	Width x Height x Depth mm	Weight kg	
BY 801 S	356680	500	1	Infrared changing table heater for horizontal wall mounting, connection cable with plug, 1 safety quartz radiator bar, pivoting angle 0°–40°, two control levels OFF/0.5 kW, colour silver, VDE certification, controllable via the pull switch on the device.	768 x 100 x 92	1.8	

## Industrial infrared heater for large areas

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 20  
Protection class I



RW 120/1

Infrared heater for large areas for horizontal or vertical wall or ceiling mounting, connection cable with plug, pivoting angle (one-sided) 60°, two control levels OFF/2.0 kW, colour silver/grey.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
RW 120/1	AKO101945	2000	1200 x 155 x 175	4.3	

## Infrared terrace heaters with stainless steel casing

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP X4  
Protection class I

### Wall or ceiling installation



UWS 75 RD 1/E

Terrace heater for horizontal wall or ceiling mounting, fixed connection, pivoting angle (one-sided) 25°, 3 control levels OFF/0. 65/1.3 kW, switching via an external switch (e. g. series switch), stainless steel design, VDE certification.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
UWS 75 RD	AKO106169	1300	750 x 105 x 100	1.8	

### Infrared terrace heater

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP X4

Protection class I



BA 1200

BA 1900

Order reference	Art.-no.	Rated power W	Number of heating elements Unit(s)	Features	Width x Height x Depth mm	Weight kg	
BA 1200	354870	1200	2	Infrared heater with two quartz heating elements, robust aluminium casing, protective grid, for horizontal wall mounting, fixed connection, connecting lead 1.5 m, 2 quartz radiator bars, 2 control levels OFF/1.2 kW can be controlled externally (without internal pull switch).	594 x 160 x 144	3.2	
BA 1900	354880	1900	1	Halogen infrared heater with a HeLeN infrared heating element for short heat-up time, long service life, high heat output and minimal glare, robust aluminium casing incl. protective grid, for horizontal wall mounting, fixed connection, connecting lead 1.5 m, 1 heating element, two control levels OFF/1.9 kW, can be controlled externally (without internal pull switch).		3.1	

### Rapid heater for bathrooms

Connection voltage 1/N/PE ~230 V, 50 Hz

Degree of protection IP 24

Protection class I



H 260/4

Rapid heater for bathrooms with metal casing for wall mounting, thermostat, protection against overheating, frost protection.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
H 260/4	356700	2000	300 x 405 x 120	3.2	

### Design fan heaters

Connection voltage 1/N ~230 V, 50 Hz

Degree of protection IP 20

Protection class II



H 401 TSD



H 400 TS



H 500 TSD

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
H 401 TSD	352580	2000	Design fan heater with illuminated display, desired temperature can be selected via touch control within the temperature range of 5–35 °C, desired temperature and room temperature displayed, frost protection setting, cold air level, two heating levels 1.2/2.0 kW, connection cable with mains plug, colour: silver/anthracite.	235 x 328 x 175	1.4	
H 400 TS	352570		Design fan heater with infinitely variable thermostat incl. frost protection setting (approx. 5 °C), five control levels OFF/Cold/0.8/1.2/2.0 kW, overtemperature protection, indicator lamp for heating operation, connection cable with mains plug, colour: silver/anthracite.			
H 500 TSD	364820		Design fan heater with illuminated display, desired temperature can be selected via touch control within the temperature range of 5–35 °C, desired temperature and room temperature displayed, frost protection setting, cold air level, two heating levels 1.0/2.0 kW, connection cable with mains plug, casing colour: black. Operation mode indicated by illuminated neon ring around the fan (red = heating, blue = ventilating).	230 x 278 x 158	1.5	

### Fan heater with ceramic heating element

Connection voltage 1/N ~230 V, 50 Hz

Degree of protection IP 21

Protection class II

Fan heater with ceramic heating element and thermostat, frost protection function, control LED and protection against overheating, colour: white with silver-grey control panel.



HC 200 TS



HC 210 TSD

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
HC 200 TS	364800	2000	3 performance levels: Cold/1.2 kW/2.0 kW	185 x 258 x 185	1.4	
HC 210 TSD	364810		3 performance levels: Cold/1.0/2.0 kW.LCD with push buttons for precise temperature adjustment, manual or automatic operation, oscillation and a maximum of 8 hrs run-back timer.	235 x 566 x 235	3.0	

## Rapid heater

Connection voltage 1/N ~230 V, 50 Hz  
Degree of protection IP 21  
Protection class II



SH 302 TLU



SH 301 TLS



SH 300 T

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
SH 302 TLU	AKO151156	2000	Wall-mounted or free-standing rapid heater with axial fan, carrying handle/recess, cable compartment, 24 h timer, thermostat, frost protection, cold air level, indicator lamp, five control levels OFF/Cold/0.8/1.2/2.0 kW, colour blue grey.	240 x 340 x 185	1.8	
SH 301 TLS	AKO151151		Wall-mounted or free-standing rapid heater with axial fan, carrying handle/recess, cable compartment, thermostat, frost protection, cold air level, indicator lamp, five control levels OFF/Cold/0.8/1.2/2.0 kW, colour blue grey.		1.7	
SH 300 T	AKO151146		Wall-mounted or free-standing rapid heater with axial fan, carrying handle/recess, cable compartment, thermostat, frost protection, colour blue grey.			

## Fan heater

Connection voltage 1/N ~230 V, 50 Hz  
Degree of protection IP 20  
Protection class II



H 380 TLS



H 390 TS

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
H 380 TLS	AKO03802500	2000	Free-standing fan heater, thermostat, frost protection, protection against overheating, indicator lamp, cold air level, four control levels OFF/Cold/0.8/2.0 kW Colour: light grey/silver-grey	244 x 250 x 155	1.4	
H 390 TS	364830		Free-standing self-righting fan heater – perfect for high-traffic areas, thermostat, frost protection (even after power cut), protection against overheating, indicator lamp, cold air level, four control levels OFF/Cold/1.0/2.0 kW. Colour: anthracite	365 x 365 x 230	1.7	

## Frost protection convector

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 20  
Protection class I

Frost protection convector for wall mounting, infinitely variable temperature regulation, frost protection, protection against overheating, indicator lamp for heating operation, colour silver/white, BEAB Intertek certification. Switch-on temperature in frost protection setting approx. +8 °C.



FW 550 S

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
FW 550 S	356710	600	260 x 242 x 121	1.2	

## AKO hotplates

Connection voltage 1/N/PE ~230 V, 50 Hz  
Protection class I



KP 515



KP 525

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
KP 515	AKO301038	1500	Single hotplate, diameter 18 cm, indicator lamp, plate output 1.5 kW, infinitely variable temperature control, overflow rim, enamelled white.	260 x 68 x 300	3.0	
KP 525	AKO301048	2500	Double hotplate, diameter 18 cm output 1.5 kW and diameter 14.5 cm, output 1.0 kW, indicator lamp, infinitely variable temperature control, overflow rim, enamelled white.	480 x 68 x 300	4.2	



### Heating elements for infrared heaters

Order reference	Art.-no.	Heat output kW	For device type	
HHE 1900BA	365290	1.9	BA 1900	
QHE 600BA	365280	0.6	BA 1200	
QHE 600BS N	365300	0.6	BS 1201 S BS 1801 S BS 1801 W	
QHS 600BS A	105125	0.6	BS 1200/1 BS 1800 BS 510 S / BS 510 W BS 600	
QHS 1200BK	105251	1.2	BK 2001 S / BK 1201 S BK 2000/1 W BK 2000/1 S BK 2000	
QHS 800BK	105252	0.8	BK 2001 S BK 2000/1 W BK 2000/1 S BK 2000	
QHS 1200RK	105250	1.2	BK 1200/1 BK 1200 RK 1200	
SHE 500BY N	365320	0.5	BY 801 S	
SHS 500BY A	105260	0.5	BY 800 S BY 800 W	
QHE 650UWS N	365310	0.7	UWS 75 RD 1/E	
QHS 650UWS A	105019	0.7	UWS 75 RD 1/E UWS 75 RD 1/B	
QHS 2000RW	105002	2.0	RW 120/1 RST 120 D	
QHS 1000UST	105013	1.0	UST 72 UST 73 BK 75 RK 75	
QHS 700UST	105265	0.7	UST 74	

### Components for AKO direct heating appliances



Order reference	Art.-no.	Short text	For device type	
ZS N	365330	Pull switch with pull cord	BK 2001 S / BK 1201 S BS 1201 S / BS 1801 S / BS 1801 W BY 801 S	
ZS A	217402	Pull switch with pull cord	BK 2000/1 S / BK 2000/1 W / BK 2000 BS 510/1 S / BS 510/1 W / BS 1800 BY 800 S / BY 800 W	
WW 2H4R	223127	Holder and rollers for radiant panel heater	WW 100 WW 150 WW 200	



## Thin mortar bed heating mats HM ... SF

Connection voltage 1/N/PE ~230 V, 50 Hz

### To be installed directly in the tile adhesive or the levelling



HM ... SF ...

Ready for installation and connection, heating conductor with protective jacket for connecting to the fault current protective switch, heating conductor made of resistance alloy according to DIN 17470 and DIN 17471 with Teflon insulation, surface-related consumption 150 W/m<sup>2</sup>, additional installation height approx. 5–8 mm, heating conductor diameter approx. 2.9 mm, attached to plastic fabric with two cooling conductors (4 m each), installation width 0.9 m, VDE certification.

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m <sup>2</sup>	Width m	Length m	Surface area m <sup>2</sup>	
HM 300 SF 150-5	336280	300 W	150 W/m <sup>2</sup>	0.5 m	4 m	2 m <sup>2</sup>	
HM 450 SF 150-5	336300	450 W			6 m	3 m <sup>2</sup>	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

### Installation accessories for HM ... SF



KED SF set

Order reference	Art.-no.	Features	
NHD 100	319620	Special retaining dowels for fixing the heating mats to a surface, 100 pieces, length approx. 25 mm.	
KED 1010 SF	329850	Cooling conductor extension for HM ... SF, with protective jacket, 1.0 mm <sup>2</sup> , length 10 m, black.	

## Thin mortar bed heating mats HM...TS

Connection voltage 1/N/PE ~230 V, 50 Hz

### With one-sided, sleeveless connection, self-adhesive



HM ... TS

Ready for installation and connection, heating conductor with protective jacket for connecting to the fault current protective switch, heating conductor made of resistance alloy according to DIN 17470 and/or DIN 17471 with Teflon insulation, surface-related consumption 150 W/m<sup>2</sup>, heating conductor diameter approx. 4 mm, attached to plastic fabric with one-sided cooling conductor 4 m to simplify installation, installation width 0.5 m, VDE certification according to EN 60335-2-96.

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m <sup>2</sup>	Width m	Length m	Surface area m <sup>2</sup>	
HM 150 TS 150-5	351080	150 W	150 W/m <sup>2</sup>	0.5 m	2 m	1.0 m <sup>2</sup>	
HM 225 TS 150-5	343800	225 W			3 m	1.5 m <sup>2</sup>	
HM 300 TS 150-5	343810	300 W			4 m	2.0 m <sup>2</sup>	
HM 450 TS 150-5	343820	450 W			6 m	3.0 m <sup>2</sup>	
HM 600 TS 150-5	343830	600 W			8 m	4.0 m <sup>2</sup>	
HM 750 TS 150-5	343840	750 W			10 m	5.0 m <sup>2</sup>	
HM 900 TS 150-5	343850	900 W			12 m	6.0 m <sup>2</sup>	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

## Heating mat HM... TS set BRTU

### with BRTU 101UN ground/room temperature controller



HM ... TS Set BRTU

Ready for installation and connection, heating conductor with protective jacket for connecting to the fault current protective switch, heating conductor made of resistance alloy according to DIN 17470 and/or DIN 17471 with Teflon insulation, surface-related consumption 150 W/m<sup>2</sup>, heating conductor diameter approx. 4 mm, attached to plastic fabric with one-sided cooling conductor 4 m to simplify installation, installation width 0.5 m, VDE certification according to EN 60335-2-96.

#### Ground/room temperature controller BRTU 101UN

Electronic flush-mounted floor temperature controller (2-point) for electronic or domestic hot water heating systems (de-energised closed actuators) with digital weekly timer for programming individual comfort and lowering times. Can be used in almost all flat switch programmes using an adaptor element. Software switching option for using a floor temperature or room temperature controller or as a room temperature controller with floor temperature limiter. Switching capacity ~230V / 10 (2) A, room temperature range 5–30 °C, floor temperature 10–42 °C, setting in 0.5 K increments. Frost protection function and lowering temperature setting. NTC-2 remote sensor, colour white.

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m <sup>2</sup>	Width m	Length m	Surface area m <sup>2</sup>	
HM 150 TS Set BRTU	366340	150 W	150 W/m <sup>2</sup>	0.5 m	2 m	1.0 m <sup>2</sup>	
HM 225 TS Set BRTU	366350	225 W			3 m	1.5 m <sup>2</sup>	
HM 300 TS Set BRTU	366360	300 W			4 m	2.0 m <sup>2</sup>	
HM 450 TS Set BRTU	366370	450 W			6 m	3.0 m <sup>2</sup>	
HM 600 TS Set BRTU	366380	600 W			8 m	4.0 m <sup>2</sup>	
HM 750 TS Set BRTU	366390	750 W			10 m	5.0 m <sup>2</sup>	
HM 900 TS Set BRTU	366400	900 W			12 m	6.0 m <sup>2</sup>	

Available for delivery from July 2012 onwards.

## Thin mortar bed heating mat set HM...TS set BTU

Connection voltage 1/N/PE ~230 V, 50 Hz

### With floor temperature controller BTU 401 UN



HM ... TS set BTU

Ready for installation and connection, heating conductor with protective jacket for connecting to the fault current protective switch, heating conductor made of resistance alloy according to DIN 17470 and DIN 17471 with Teflon insulation, surface-related consumption 150 W/m<sup>2</sup>, heating conductor diameter approx. 4 mm, attached to plastic fabric with one-sided cooling conductor 4 m to simplify installation, installation width 0.5 m, VDE certification according to EN 60335-2-96 with

#### electronic floor temperature controller BTU 401 UN

Electronic floor temperature controller with digital weekly timer for underfloor heating systems in flat switch mounting frame for flush mounting; floor temperature sensor (standard NTC sensor, 4 m connection cable length, sensor element Ø 7 x 28 mm); can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 230 V AC / 16 (2) A (NO contact), control range 10–50 °C, LCD indicating status and operating mode, temperature setting in 0.5 K increments, 3 time programs (1, 2 or 3 heating period intervals), individual allocation of weekday and time program, 4 operating modes can be selected (frost protection/lowering temperature/comfort temperature/timer program), programmable temperature range limitation, sensor monitoring, colour alpine white, IP30, dimensions in mm (W x H x D) 81.5 x 81.5 x 44.5 (height 16 mm mounted in flush box)

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m <sup>2</sup>	Width m	Length m	Surface area m <sup>2</sup>	
HM 150 TS Set BTU	351070	150 W	150 W/m <sup>2</sup>	0.5 m	2 m	1.0 m <sup>2</sup>	
HM 225 TS Set BTU	350900	225 W			3 m	1.5 m <sup>2</sup>	
HM 300 TS Set BTU	350910	300 W			4 m	2.0 m <sup>2</sup>	
HM 450 TS Set BTU	350920	450 W			6 m	3.0 m <sup>2</sup>	
HM 600 TS Set BTU	350930	600 W			8 m	4.0 m <sup>2</sup>	
HM 750 TS Set BTU	350940	750 W			10 m	5.0 m <sup>2</sup>	
HM 900 TS Set BTU	350950	900 W			12 m	6.0 m <sup>2</sup>	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

**Discontinuation**

## Thin mortar bed heating mat set HM...TS set BT

Connection voltage 1/N/PE ~230 V, 50 Hz

### With floor temperature controller BT 401 UN



HM ... TS set BT

Ready for installation and connection, heating conductor with protective jacket for connecting to the fault current protective switch, heating conductor made of resistance alloy according to DIN 17470 and DIN 17471 with Teflon insulation, surface-related consumption 150 W/m<sup>2</sup>, heating conductor diameter approx. 4 mm, attached to plastic fabric with one-sided cooling conductor 4 m to simplify installation, installation width 0.5 m, VDE certification according to EN 60335-2-96 with

#### electronic floor temperature controller BT 401 UN

Operating voltage: 230 V, 50 Hz; switching capacity: 16 (2) A at 230 V (NO contact); control range 10–50°C; standard NTC sensor, 4 m cable length, sensor element Ø 7 x 28 mm with flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, thermostat dial, temperature range limitation integrated in the casing cover, ON/OFF program switch, LED display for heating operation and temperature lowering, temperature lowering by remote control (approx. 5 K), sensor monitoring, colour alpine white, IP30, dimensions in mm (W x H x D) 81.5 x 81.5 x 42.5 (height 16 mm mounted in flush box).

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m <sup>2</sup>	Width m	Length m	Surface area m <sup>2</sup>	
HM 150 TS Set BT	351060	150 W	150 W/m <sup>2</sup>	0.5 m	2 m	1.0 m <sup>2</sup>	
HM 225 TS Set BT	350840	225 W			3 m	1.5 m <sup>2</sup>	
HM 300 TS Set BT	350850	300 W			4 m	2.0 m <sup>2</sup>	
HM 450 TS Set BT	350860	450 W			6 m	3.0 m <sup>2</sup>	
HM 600 TS Set BT	350870	600 W			8 m	4.0 m <sup>2</sup>	
HM 750 TS Set BT	350880	750 W			10 m	5.0 m <sup>2</sup>	
HM 900 TS Set BT	350890	900 W			12 m	6.0 m <sup>2</sup>	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

## Installation accessories for HM...TS



KED TS Set

Order reference	Art.-no.	Features	
KED TS Set	344010	Cooling conductor extension for TS heating mats with protective earthing connection, 1.0 mm <sup>2</sup> , length 10 m, 10 connection sleeves. Only required when the 4 m cooling conductors attached to the mats are not long enough.	
NHD 100	319620	Special retaining dowels for fixing the heating mats to a surface, 100 pieces, length approx. 25 mm.	

## Underfloor heating mat HM ... R

Connection voltage 1/N ~230 V, 50 Hz



HM ... R ...

For use as underfloor direct heating, underfloor storage heating or fringe area direct heating, with PVC outer surface, manufactured ready for mounting, fixed to a carrier netting for installation in/under the screed, heating conductor diameter approx. 7 mm. including waterproof sleeves and colour-coded cooling conductors 4 m per side, heating conductor design: NH2GMY-90 according to VDE 0253/12.9 for use in dry rooms and under or in the screed. VDE certification.

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m²	Width m	Length m	Surface area m²	
HM 21 R 100	326840	180 W	100 W/m²	0.9 m	2.0 m	1.8 m²	
HM 31 R 100	320640	310 W			3.4 m	3.1 m²	
HM 51 R 100	320650	510 W			5.7 m	5.1 m²	
HM 100 R 100	320660	1080 W			12.0 m	10.8 m²	
HM 170 R 100	320670	1780 W			19.6 m	17.6 m²	
HM 21 R 120	326830	194 W	120 W/m²		1.8 m	1.6 m²	
HM 33 R 120	320680	346 W			3.2 m	2.9 m²	
HM 56 R 120	320690	583 W			5.4 m	4.9 m²	
HM 110 R 120	320700	1156 W			10.7 m	9.6 m²	
HM 180 R 120	320710	1922 W			17.8 m	16.0 m²	
HM 21 R 140	326820	214 W	140 W/m²		1.7 m	1.5 m²	
HM 36 R 140	319260	365 W			2.9 m	2.6 m²	
HM 60 R 140	319270	630 W			5.0 m	4.5 m²	
HM 120 R 140	319280	1260 W			10.0 m	9.0 m²	
HM 200 R 140	319290	2079 W			16.5 m	14.9 m²	
HM 21 R 160	327230	216 W	160 W/m²		1.5 m	1.4 m²	
HM 36 R 160	327240	390 W			2.7 m	2.4 m²	
HM 60 R 160	327250	662 W			4.6 m	4.1 m²	
HM 120 R 160	327260	1310 W			9.1 m	8.2 m²	
HM 200 R 160	327270	2088 W			14.5 m	13.1 m²	
HM 21 R 180	326790	243 W	180 W/m²		1.5 m	1.4 m²	
HM 35 R 180	326670	356 W			2.2 m	2.0 m²	
HM 57 R 180	326680	616 W			3.8 m	3.4 m²	
HM 120 R 180	326690	1215 W			7.5 m	6.8 m²	
HM 195 R 180	326700	1976 W			12.2 m	11.0 m²	
HM 21 R 205	326780	258 W	205 W/m²		1.4 m	1.3 m²	
HM 36 R 205	319420	387 W			2.1 m	1.9 m²	
HM 60 R 205	319430	572 W			3.1 m	2.8 m²	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

205 W/m<sup>2</sup> as fringe area heating for installation in the screed only.

Discontinuation HM ... R 205

## Installation accessories for HM ... R



KEB 1525 R



VRB 10 R

Order reference	Art.-no.	Features	
KEB 1525 R	329810	Cooling conductor extension for heating mat system HM ... R, 1.5 m <sup>2</sup> , length 25 m, colour blue.	
KES 1525 R	329820	Cooling conductor extension for heating mat system HM ... R, 1.5 m <sup>2</sup> , length 25 m, colour black.	
VRB 10 R	339670	10 connection sleeve sets for cooling conductor extension.	
NHD 100	319620	Special retaining dowels for fixing the heating mats to a surface, 100 pieces, length approx. 25 mm.	

## Underfloor heating mat HM...RS

Connection voltage 1/N/PE ~230 V, 50 Hz

### With protective jacket



HM ... RS ...

For underfloor direct heating, underfloor storage heating or fringe area direct heating, with protective jacket and PVC outer surface, manufactured ready for mounting, fixed to carrier netting for installation in/under the screed, including waterproof sleeves and colour-coded cooling conductors 4 m per side, heating conductor design: NH2GYQY-90 according to VDE 0253 for use in dry rooms, damp and wet rooms, heating conductor diameter approx. 9 mm, VDE certification.

Order reference	Art.-no.	Rated power W	Surface-related consumption W/m²	Width m	Length m	Surface area m²	
HM 21 RS 160	327280	216 W	160 W/m²	0.9 m	1.5 m	1.4 m²	
HM 36 RS 160	327290	389 W			2.7 m	2.4 m²	
HM 60 RS 160	327300	662 W			4.6 m	4.1 m²	
HM 120 RS 160	327310	1310 W			9.1 m	8.2 m²	
HM 200 RS 160	327320	2088 W			14.5 m	13.1 m²	
HM 21 RS 180	326860	243 W	180 W/m²		1.5 m	1.4 m²	
HM 35 RS 180	326710	356 W			2.2 m	2.0 m²	
HM 57 RS 180	326720	616 W			3.8 m	3.4 m²	
HM 120 RS 180	326730	1215 W			7.5 m	6.8 m²	
HM 195 RS 180	326740	1976 W			12.2 m	11.0 m²	
HM 21 RS 205	326850	258 W	205 W/m²		1.4 m	1.3 m²	
HM 36 RS 205	320960	387 W			2.1 m	1.9 m²	
HM 60 RS 205	320970	572 W			3.1 m	2.8 m²	
HM 120 RS 205	320980	1292 W			7.0 m	6.3 m²	
HM 200 RS 205	320990	1974 W			10.7 m	9.6 m²	
HM 21 RS 240	319500	238 W	240 W/m²		1.1 m	1.0 m²	
HM 39 RS 240	319510	410 W			1.9 m	1.7 m²	
HM 65 RS 240	319520	670 W			3.1 m	2.8 m²	
HM 133 RS 240	319530	1318 W			6.1 m	5.5 m²	

Heating mat installation width, made up of the heating mat width and the installation clearance.

Heating mat can be installed variably on site.

Heated area, made up of the heating mat width and the installation clearance.

205 W/m<sup>2</sup> and 240 W/m<sup>2</sup> as fringe area heating for installation in the screed only.

### Installation accessories for HM ... RS



KES 1525 RS



VRB 10 RS

Order reference	Art.-no.	Features	
KES 1525 RS	329830	Cooling conductor extension for heating mat system HM ... RS, with protective jacket, 1.5 mm <sup>2</sup> , length 25 m, colour black	
KEB 1525 RS	330270	Cooling conductor extension for heating mat system HM ... RS, with protective jacket, 1.5 mm <sup>2</sup> , length 25 m, colour blue.	
VRB 10 RS	339680	Connection kit for heating mat system HM ... RS, 10 connection sleeve sets for cooling conductor extension.	
NHD 100	319620	Special retaining dowels for fixing the heating mats to a surface, 100 pieces, length approx. 25 mm.	

## Self-regulating band heaters - per metre

Connection voltage 1/N/PE ~230 V, 50 Hz



HBS ...

Gutter heater or pipe trace heater with a flexible self-limiting band heater, used for frost protection on (vertical) pipes, in gutters or on roof surfaces. Consists of two parallel tin-plated stranded copper wires and an intermediate heating element, tin-plated copper protective jacket, polyolefin outer surface, VDE certification. Different heat output and operating range, depending on the design. Supplied in variable lengths from minimum 15 m

Order reference	Art.-no.	Heat output band heater at 10 °C W	Application band heater	Colour	Width x Height mm	
HBS 10	336060	10	pipe heating cable	blue	12 x 5.8	
HBS 25	336070	25		green		
HBS 15 UV	336080	15	roof gutter heating cable	black		

Additional delivery of 10% of the ordered quantity is possible. The actual delivered quantity will be charged.

## Self-regulating band heaters

Connection voltage 1/N/PE ~230 V, 50 Hz



HBS ...

Gutter heater or pipe trace heater with a flexible self-limiting band heater, used for frost protection on (vertical) pipes, in gutters or on roof surfaces. Consists of two parallel tin-plated stranded copper wires and an intermediate heating element, tin-plated copper protective jacket, polyolefin outer surface, VDE certification. Different heat output and operating range, depending on the design. Supplied as 300 m cardboard roll

Order reference	Art.-no.	Heat output band heater at 10 °C W	Application band heater	Colour	Width x Height mm	
HBS 10-300	336090	10	pipe heating cable	blue	12 x 5.8	
HBS 25-300	336100	25		green		
HBS 15 UV-300	336110	15	roof gutter heating cable	black		

## Connecting equipment for HBS



SMSF

Order reference	Art.-no.	Features	
SMS	314520	Shrink tubing connection kit for mounting on polyester casings, including M20 pipe unions and termination for HBS band heaters.	
SMSF	332090	Shrink tubing connection kit with a clamping block for connecting flexible cooling conductors and band heaters including termination for HBS band heaters.	
VMS	316380	Connection sleeve kit with clamping block for connecting two band heaters.	

## Installation accessories for band heaters



MB

Order reference	Art.-no.	Features	
MB	316340	Mounting plate made of stainless steel incl. cable ties, for use as a spacer, edge protection, roof holder etc. (packaging unit 5 items).	
HKB 50	316330	Self-adhesive marking labels: electrically heated for attaching to the pipe insulation (packaging unit 50 items). Attachment mandatory. Dimensions (W x H): 170 x 70 mm	



HKB 50

### Electronic ice and snow detector



Order reference	Art.-no.	Features	Width x Height x Depth mm	
EM 1773	361710	Digital ice and snow detectors for use in combination with one or two combined humidity and temperature sensors (type EF 3354/EF 3351) for gutters, flat roofs and parabolic aerials. Temperature and humidity measurement; humidity sensitivity, minimum heating time, lower and upper switch-on temperature adjustable for each connected sensor, integration into distribution board (6 HP on 35 mm top hat rail according to DIN EN 60715), switching contact heating 250 V AC / 6 (2) A. LED displays the current operating status.	107 x 88 x 60	
EF 3354	361720	Ice sensor made of brass for gutters, flat roofs and parabolic aerials for use in combination with EM 1773 digital ice and snow detector, maintenance-free, without any exposed metal electrodes for detecting humidity, degree of protection IP68, 6 m long connection cable (type SL-Y11Y, extendable up to 50 m, min. 4 x 0.8 mm <sup>2</sup> ), dimensions (L x Ø) 96 x 20 mm.		

### Electronic temperature controller



ETR 060 N

Order reference	Art.-no.	Features	Width x Height x Depth mm	
ETR 060 N	328830	Electronic temperature controller with remote sensor, control range 0–60 °C, mounting on top hat rail e.g. installation in a distribution board, space required for 2 modular spaces, incl. standard NTC sensor, sensor connection cable length 4 m, sensor element diameter approx. 8 mm; switching contact 230V/10 (3) A (NO contact), 230V/5 (1.5) A (NC contact).	36 x 86 x 60	

### Electromechanical controller



RTA 1515-2



RTA 2030

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RTA 1515-2	319220	Electromechanical controller for gutter heating, bimetal controller with two separately adjustable thermostats (1 NC contact, 1 NO contact), 230 V/16 (4) A, control range -20–25 °C, IP65.	122 x 120 x 55	
RTA 2030	319210	Electromechanical frost stat for outdoors or humid rooms. Bimetal controller with thermal feedback. Viewer for indoor adjustment, changeover switching contact, switching capacity: heating 230 V AC/16 (4) A, cooling 230 V AC/5 (2) A, control range -20–35 °C, IP65, e.g. for pipe frost protection (external temperature).		

### Pipe-mounted thermostat



RAT 060I

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RAT 060I	361470	(Pipe) strap-on thermostat with internal adjustment for regulating or monitoring temperatures and heating registers, pipework or containers. Control range 0 °C to 60 °C, changeover switch contact, 230 V~, 16 (2) A, delivery includes heat-resistant tightening strap, degree of protection IP 20.	52 x 110 x 52	



### Universal DC charge control with timer function

Control voltage 0.91 bis 1.43 V

Control voltage 2 -3.6 bis -2.85 V

#### Dimplex PROTOMATIK®

Universal DC microprocessor-driven charge control with timer function for backward, intermediate and forward control, two control voltage outputs 0.91 to 1.43 V DC and -3.6 to -2.85 V DC, backlit multi-function display, 4-key operation with direct selector switch, service function, external temperature averaging, direct control via charge control line, automatic PTC external sensor recognition (old Bauknecht external sensor), time-controlled safety output for release and additional release periods, adjustable charge release detection, initial heating program for screed flooring, characteristic curve switching for lower operation external or via integrated real-time clock (weekly program and absence of up to 30 days), synchronised charging using a real-time clock possible, integrated error detection, power reserve for voltage interruption of up to 6 h, top hat rail mounting - 6 horizontal pitch, degree of protection IP20 if installed accordingly, lead-sealable connection terminal covers as standard, standard NTC external sensor included in the scope of supply (connection cable 2 m; extendable up to a maximum of 30 m; IP54), direct voltage 0.91 to 1.43 V and -3.6 to -2.85 V. For storage heating systems and electric underfloor storage heaters with DC charge control.

ZW 05DCU



Order reference	Art.-no.	Width x Height x Depth mm	
ZW 05DCU	348290	105 x 83 x 61	

### DC charge control

Control voltage 0.91 bis 1.43 V

#### Dimplex PROTOMATIK®

For storage heaters with electronic DC charge controller. Without timer function for forward control, control voltage system 0.91 to 1.43 V DC, adjustable base charge, characteristic curve switching for lower operation external, integrated error detection, top hat rail mounting - 3 modular spaces, degree of protection IP20 if installed accordingly, standard NTC external sensor included in the scope of supply (connection cable 2 m; extendable up to a maximum of 30 m; IP54), direct voltage 0.91 to 1.43 V.

WG 05DC



Order reference	Art.-no.	Width x Height x Depth mm	
WG 05DC	348300	54 x 83 x 61	

### DC group control unit

Control voltage 0.91 bis 1.43 V

#### Dimplex PROTOMATIK®

For storage heaters with electronic DC charge controller. Domestic station for individual control of groups of heaters in combination with a DC central control unit, adjuster for raising or lowering the charge, characteristic curve switching for external lower operation; charge level in lower operation (0-100%) adjustable, reference variable 0.91 to 1.43 V DC, top hat rail mounting-3 modular spaces, degree of protection IP20 if installed accordingly, 0.91 to 1.43 V DC.

GR 05DC



Order reference	Art.-no.	Width x Height x Depth mm	
GR 05DC	348310	54 x 83 x 61	

### Universal DC charge controller

Control voltage 0.91 bis 1.43 V

Control voltage 2 -3.6 bis -2.85 V

#### Dimplex PROTOMATIK®

For storage heating systems and electric underfloor storage heaters with DC charge control. Backlit multi-function display, 4-key operation, error detection, individual heating circuits can be shut off; switching capacity max. 3 A/230 V~, reference variable 0.91-1.43 V or -3.6 to -2.85 V DC, adjustable heating curve (extendable temperature setting range 30-90 °C for residual heat and external temperature-dependent loading of the storage heating system), individual raising/lowering of day and night charging, sensor type switchable between standard NTC temperature sensor; (2.43 kOhm/20 °C) and NTC sensor type 30 (500 ohm/20 °C), top hat rail mounting with 3 modular spaces, degree of protection IP20 if installed accordingly. (Note: NTC temperature sensors are not included in the scope of supply), for 0.91-1.43 V and -3.6 to -2.85 V DC.

AR 05DCU2



AR 05DCU4



Order reference	Art.-no.	Features	Width x Height x Depth mm	
AR 05DCU 2	348350	Max. two control circuits can be connected	54 x 83 x 61	
AR 05DCU 4	348370	Max. four control circuits can be connected		

### AC charge control with timer function

Control voltage ~230 V

Operating time system 37% - 80% einstellbar

#### Dimplex PROTOMATIK®

For storage heaters with thermomechanical AC charge controller and duo-electronic storage heaters. AC microprocessor-driven charge control with timer function for backward, intermediate and forward control, control signal 230 V~ AC, control system adjustable from 80% to 100% (up to 37% operating time), backlit multi-function display, 4-key operation with direct selector switch, service function, external temperature averaging, direct control via charge control line, automatic PTC external sensor recognition (old Bauknecht external sensor), time-controlled safety output for enable and additional enable time 6 A/230 V~, max. output control rating (Z1/Z2) 300 W, characteristic curve switching for lower operation external or using an integrated real-time clock (weekly program and absence of up to 30 days), synchronised charging using a real-time clock possible, integrated error detection, power reserve for voltage interruption of up to 6 h, top hat rail mounting–6 modular spaces, degree of protection IP20 if installed accordingly, lead-sealable connection terminal covers as standard, standard NTC external sensor included in the scope of supply (connection cable 2 m; extendable up to a maximum of 30 m; IP54), alternating voltage 230 V~, 37%–100% operating time.

ZWM 05AC

Order reference	Art.-no.	Width x Height x Depth mm	
ZWM 05AC	348320	105 x 83 x 61	

### AC charge control

Control voltage ~230 V

Operating time system 37% - 80% einstellbar

#### Dimplex PROTOMATIK®

For storage heaters with thermomechanical AC charge controller and duo-electronic storage heaters. AC central control unit without timer function for forward control, control signal 230 V~ AC, control system adjustable from 80% to 68/72% or 37/40% operating time, adjustable base charge, characteristic curve switching for external lower operation, integrated error detection, max. output control rating (Z1/Z2) 300 W, top hat rail mounting – 3 modular spaces, degree of protection IP20 if installed accordingly, standard NTC external sensor included in the scope of supply (connection cable 2 m; extendable up to a maximum of 30 m; IP54), alternating voltage 230 V~, 80% or 37/40% or 68/72% operating time.

WGM 05AC

Order reference	Art.-no.	Width x Height x Depth mm	
WGM 05AC	348330	54 x 83 x 61	

### AC group control unit

Control voltage ~230 V

Operating time system 37% - 80% einstellbar

#### Dimplex PROTOMATIK®

For storage heaters with thermomechanical AC charge controller and duo-electronic storage heaters. Domestic station for individual control of groups of heaters in combination with an AC central control unit, reference variable control signal 230 V AC/% operating time; operating time converter function (operating time system of the input and output signals can be coded as 80%, 72/68%, 40/37% operating time), adjuster for raising or lowering the charge, characteristic curve switching for external lower operation; charge level in lower operation (0–100%); max. output control rating (A1/A2) 300 W, top hat rail mounting–3 modular spaces, degree of protection IP20 if installed accordingly, 230V~ AC, 80%, 72/68% or 40/37% operating time.

GRM 05AC

Order reference	Art.-no.	Width x Height x Depth mm	
GRM 05AC	348340	54 x 83 x 61	

### Temperature sensor

Order reference	Art.-no.	Features	Width x Height x Depth mm	
FG 3115	336620	Standard NTC-2 temperature sensor (2.43 kOhm/20 °C) according to DIN 44574 with weather proof casing for surface mounting, terminal connection.	55 x 94.3 x 37	

FG 3115

### Telephone remote control device

Two separately controlled output contacts (floating) for blocking the heat pump (input ID4 on the heat pump manager, frost protection of the heat pump is ensured) via a telephone audio signal; remote query, access protection (code), manual control of the switching contacts, compatible with answering machines; Cetecom certified, connection to analogue telephone line (tested for Germany). Voltage supply L, N, PE ~230 V/50 Hz, 2 x relay contacts 5 (1) A/AC, 250 V for manifold set-up on top hat rail (SHP).

Order reference	Art.-no.	Short text	Width x Height x Depth mm	Weight kg	
TVS 400	336330	Telephone remote control device	87 x 53 x 58	0.3	

TVS 400

## Room temperature controller



RT 200



RT 201



RT 202



RTS 207

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RT 200	355480	Electromechanical temperature controller (bimetal) with thermal feedback, switching capacity 230 V / 2 (1) A, IP 30, controlling range 5 °C to 30 °C, temperature lowering at night by remote control (approx. 4 K), extremely thin casing, colour alpine white, temperature range limitation in the casing cover, surface mounting.	78 x 78.5 x 14	
RT 201	355490	Electromechanical temperature controller (bimetal) with thermal feedback, switching capacity 230 V / 2 (1) A, IP 30, controlling range 5 °C to 30 °C, temperature lowering at night by remote control (approx. 4 K), extremely thin casing, colour alpine white, temperature range limitation in the casing cover, surface mounting, with ON/OFF switch and heating mode indicator lamp.		
RT 202	355500	Electromechanical temperature controller (bimetal) with thermal feedback, switching capacity 230 V / 10 (4) A, IP 30, controlling range 5 °C to 30 °C, colour alpine white, temperature range limitation in the casing cover, surface mounting, with 2 switches (ON/OFF, supplementary heating) and 2 indicator lamps (ON/OFF, supplementary heating).	78 x 83.4 x 23	
RTS 207	355520	Electromechanical temperature controller (bimetal) with thermal feedback, switching capacity 230 V / 10 (4) A, IP 30, controlling range 5 °C to 30 °C, temperature lowering at night by remote control (approx. 4 K), colour alpine white, temperature range limitation in the casing cover, surface mounting. With closed casing cover (temperature adjuster covered, for use in schools).	78 x 83.4 x 26	

## ON/OFF room temperature controller for flush mounting



RT 200U



RT 201U



RT 202U



RT 204U

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RT 200 U	355560	Electromechanical temperature controller (bimetal) with thermal feedback, flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 250 V AC / 10 (4) A, controlling range 5 °C to 30 °C, thermostat dial, temperature range limitation in the casing cover, temperature lowering by remote control (approx. 4 K), colour alpine white.	81 x 85 x 16	
RT 201 U	355570	Electromechanical temperature controller (bimetal) with thermal feedback, flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 250 V AC / 10 (4) A, controlling range 5 °C to 30 °C, thermostat dial, temperature range limitation in the casing cover, temperature lowering by remote control (approx. 4 K), colour alpine white. With ON/OFF switch, LED display mode.		
RT 202 U	355580	Electromechanical (bimetal) temperature controller with thermal feedback, flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 250 V AC / 10 (4) A, controlling range 5 °C to 30 °C, thermostat dial, temperature range limitation in the casing cover, temperature lowering by remote control (approx. 4 K), colour alpine white. Switching output supplementary heating and ON/OFF switch for supplementary heating, LED display supplementary heating mode.		
RT 204 U	355590	Electromechanical (bimetal) temperature controller with thermal feedback, flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 250 V AC / 13 (4) A, max. 3000W, controlling range 5 °C to 30 °C, thermostat dial, temperature range limitation in the casing cover, temperature lowering by remote control (approx. 4 K), colour alpine white.		



RT 104 ST

### ON/OFF room temperature controller with plug

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RT 104 ST	348180	Plug thermostat (bimetal) for plugging into a socket, control range 5–30 °C, temperature range limitation in the casing cover, switching capacity 250 V AC/13 (4) A, max. 3000 W, colour: alpine white	74 x 74 x 83	

Depth including plug



RT 210

### ON/OFF room temperature controller

#### With changeover switching contact

Electromechanical temperature controller with thermal feedback, possible applications heating: storage heaters, WW actuators, possible applications cooling: air conditioners, ventilation units, voltage connection 230/24 V AC, 50/60 Hz, switching capacity: heating 10(4) A / 230 V AC and 2(2) A / 24 V AC, cooling 5(2) A / 230 V AC and 1(1) A / 24 V AC, controlling range 5 °C to 30 °C, temperature range limitation in the casing cover, degree of protection IP 30, flat casing, colour alpine white.

Order reference	Art.-no.	Width x Height x Depth mm	
RT 210	355510	74 x 74 x 23	



RTi 402

### Electronic room temperature controller (speed)

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RTi 402	338810	Electronic room temperature controller for speed control (wave packet control) for storage heaters with ON/OFF switch for discharge operation and ON/OFF switch for operating mode (normal/lowering at night/supplementary heating), control range 5 °C to 30 °C, remote controlled temperature lowering at night (approx. 5 K), temperature range limitation integrated in the casing cover, switching capacity 230 V/10–180 VA, supplementary heating 250 V/16 A, colour alpine white.	147 x 79 x 27	



BRTU 101UN

### Room thermostat with timer

Order reference	Art.-no.	Features	Width x Height x Depth mm	
BRTU 101UN	363960	Electronic flush-mounted floor temperature controller (2-point) for electronic or hot water heating systems (de-energised closed actuators) with digital weekly timer for programming individual comfort and lowering times. Can be used in almost all flat switch programmes using an adaptor element. Software switching option for using a floor temperature or room temperature controller or as a room temperature controller with floor temperature limiter. Switching capacity ~230 V / 10 (2) A, room temperature range 5–30 °C, floor temperature 10–42 °C, setting in 0.5 K increments. Frost protection function and lowering temperature setting. NTC-2 remote sensor, colour white.	81 x 85 x 46	
RTU 200 AT	355600	Electronic ON/OFF room temperature controller with weekly timer, programming of heating up and lowering times by means of graphic representation of the control elements on the display (shortest switching time 15 min.), lowering temperature can be adjusted, ON/OFF, Holiday, Party, Mode and Information buttons, automatic summer/winter time with leap year function, switching capacity 230 V AC/8 (2) A, temperature setting range 5–30 °C, colour alpine white, degree of protection IP30, surface mounting.	110 x 111 x 26	



RTU 200 AT

### Hygostat

ON/OFF controller for regulation of the relative humidity, for humidification and dehumidification, control range 30-100% relative humidity, switching capacity: dehumidification 230 V/5 (0.2) A, humidification 230 V/3 (0.2) A, voltage connection 24-250 V AC, 50/60 Hz, degree of protection IP30, flat casing, colour alpine white.



HYG 100

Order reference	Art.-no.	Width x Height x Depth mm	
HYG 100	330380	74 x 74 x 23	

## Integrated room temperature controller



RTID 31/RTED 30



RTEV 99

Order reference	Art.-no.	For device type	Features	
RTID 31	324530	VFDi 20C - VFDi 70C FSD 12C - FSD 48C VNDi 30C - VNDi 50C VTDi 45C - VTDi 75C	Integrated electronic speed controller (wave packet control), complete kit, can be plugged into the duo charge controller, with switch for lowering the temperature at night and supplementary heating with indicator lamps, control panel in control recess, 230 V/60 VA (fan)/10 A (supplementary heating), control range 8 °C to 30 °C.	
RTED 30	324520	VFDi 20C - VFDi 70C FSD 12C - FSD 48C VNDi 30C - VNDi 50C VTDi 45C - VTDi 75C	Integrated electronic ON/OFF controller, complete kit, can be plugged into the duo charge controller, with switch for 'lowering the temperature at night' and switch for 'supplementary heating' with indicator lamps, control panel in control recess, 230 V/60 VA (fan) / 10 A (supplementary heating), control range 8 °C to 30 °C.	
RTEV 99	333990	VFDi...C + ESS...K FSD...C + ESF...K VNDi...C + ESN...K VTDi...C + EST...K	Integrated electromechanical ON/OFF controller with thermal feedback, complete universal kit, with ON/OFF switch and supplementary heating switch with indicator lamps. Control panel in control recess, 230 V/10 (4) A, control range 5 °C to 30 °C.	

Caution: not for use in combination with water-protection kit

## Floor temperature controller



BT 401 UN



BT 300 AN



ETR 060 N

Order reference	Art.-no.	Features	Width x Height x Depth mm	
BT 401 UN	355450	Electronic floor temperature controller with floor temperature sensor (standard NTC sensor, 4 m cable length, sensor element Ø 7 x 28 mm) for underfloor heating systems; switching capacity 230 V AC / 16 (2) A (NO contact); control range 10–50 °C; thermostat dial; temperature range limitation in the casing cover; ON/OFF program switch; LED display for heating operation and temperature lowering; remote temperature lowering (approx. 5 K); sensor monitoring; colour alpine white; degree of protection IP30.	81 x 85 x 16	
BT 300 AN	355440	Electronic floor temperature controller with remote sensor for underfloor heating systems; control range 10–42 °C; setting range can be limited mechanically; ON/OFF switch and heating operation display; switching contact 230 V/16 (4) A; incl. standard NTC sensor, 4 m connection cable length, diameter approx. 8 mm, colour alpine white; IP30.	74 x 70 x 26	
ETR 060 N	328830	Electronic temperature controller with remote sensor, control range 0–60 °C, mounting on top hat rail e.g. installation in a distribution board, space required for 2 modular spaces, incl. standard NTC sensor, sensor connection cable length 4 m, sensor element diameter approx. 8 mm; switching contact 230 V/10 (3) A (NO contact), 230 V/5 (1.5) A (NC contact).	36 x 86 x 60	



## Floor temperature controller with timer



BTU 401 UN



BTU 300 AN



BRTU 101 UN

Order reference	Art.-no.	Features	Width x Height x Depth mm	
BTU 401 UN	355470	Electronic floor temperature controller with digital weekly timer for under-floor heating systems in flat switch mounting frame for flush mounting; floor temperature sensor (standard NTC sensor, 4 m connection cable length, sensor element Ø 7 x 28 mm), can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer; switching capacity 230 V AC/16 (2) A (NO contact); control range 10–50 °C; LCD indicating status and operating mode; temperature setting in 0.5 K increments; 3 time programs programmable (1, 2 or 3 heating period intervals); individual allocation of weekday and time program; 4 operating modes can be selected (frost protection/lowering temperature/comfort temperature/timer program); programmable temperature range limitation; sensor monitoring; colour alpine white; IP30.	81 x 85 x 16	
BTU 300 AN	355460	Electronic floor temperature controller with remote sensor and weekly timer, programming of heating-up and lowering times by means of graphic representation of the control elements on the display (shortest switching time 15min.), lowering temperature can be adjusted, ON/OFF, Holiday, Party, Mode, and Information buttons, automatic summer/winter time setting with leap year function, switching capacity 230 V/13 (2) A, control range 10–40 °C, incl. standard NTC sensor, 4 m connection cable length, diameter approx. 8 mm, colour alpine white, degree of protection IP30, surface mounting.	110 x 111 x 26	
BRTU 101 UN	363960	Electronic flush-mounted floor temperature controller (2-point) for electronic or hot water heating systems (de-energised closed actuators) with digital weekly timer for programming individual comfort and lowering times. Can be used in almost all flat switch programmes using an adaptor element. Software switching option for using a floor temperature or room temperature controller or as a room temperature controller with floor temperature limiter. Switching capacity ~230 V / 10 (2) A, room temperature range 5–30 °C, floor temperature 10–42 °C, setting in 0.5 K increments. Frost protection function and lowering temperature setting. NTC-2 remote sensor, colour white.	81 x 85 x 46	

Discontinuation: BTU 401 UN

## Room temperature controller with floor temperature monitoring



RTW 401 UN



RTWU 401 UN



BRTU 101 UN

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RTW 401 UN	355540	Electronic room temperature controller with electronic floor temperature monitoring and floor temperature sensor (standard NTC sensor, 4 m connection cable length, sensor element Ø 7 x 28 mm), with flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, switching capacity 230 V AC/10 (2) A (NO contact), setting ranges: room temperature 5–30 °C, floor temperature 20–60 °C, thermostat dial, temperature range limitation integrated in the casing cover, ON/OFF program switch, LED display for heating operation, remote temperature lowering (approx. 5 K), sensor monitoring, adjustable load correction, colour alpine white, IP30, for use with fringe area supplementary heating and underfloor direct heating. Depth 16 mm when mounted in flush box.	81 x 85 x 16	
RTWU 401 UN	355550	Electronic room temperature controller with digital weekly timer with electronic floor temperature monitoring, floor temperature sensor (standard NTC sensor, 4 m cable length, sensor element Ø 7 x 28 mm), with flat switch mounting frame for flush mounting as standard, can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer, LCD indicating status and operating mode, temperature setting in 0.5 K increments, 3 time programs (1, 2 or 3 heating period intervals), individual allocation of weekday and time program, 4 operating modes can be selected (frost protection/lowering temperature/comfort temperature/timer program), programmable temperature range limitation, sensor monitoring, switching capacity 230 V AC/10 (2) A (NO contact), setting ranges: room temperature 5–30 °C, floor temperature 20–60 °C, sensor monitoring, adjustable load and temperature correction, colour alpine white, IP30, for use with fringe area supplementary heating and underfloor direct heating.	81 x 85 x 45	
BRTU 101 UN	363960	Electronic flush-mounted floor temperature controller (2-point) for electronic or hot water heating systems (de-energised closed actuators) with digital weekly timer for programming individual comfort and lowering times. Can be used in almost all flat switch programmes using an adaptor element. Software switching option for using a floor temperature or room temperature controller or as a room temperature controller with floor temperature limiter. Switching capacity ~230 V / 10 (2) A, room temperature range 5–30 °C, floor temperature 10–42 °C, setting in 0.5 K increments. Frost protection function and lowering temperature setting. NTC-2 remote sensor, colour white.	81 x 85 x 46	



## Floor temperature limiter



TB 072

Capillary tube controller for temperature limiting, setting range 0–60 °C, switching contact 230 V/15 (8) A, using flush box (100 x 100 mm) and sensor sleeve, capillary tube length 2.4 m, degree of protection IP20 (when mounted in flush box).

Order reference	Art.-no.	Width x Height x Depth mm	
TB 072	317190	107 x 107 x 43	

## Heating/cooling ON/OFF room temperature controller

### In flat switch mounting frame for flush mounting



RTK 601U



TPF 341

Order reference	Art.-no.	Features	Width x Height x Depth mm	
RTK 601U	355610	Electronic ON/OFF room temperature controller for heating/cooling; switchable between heating and cooling operating modes via the external changeover contact on the heat pump manager; flat switch mounting frame for flush mounting as standard; can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer; switch ON/ frost protection; control range 5–30 °C; thermostat dial; temperature range limitation in the casing cover; operating voltage 24 V ~/50 Hz; switching capacity 24 V AC ~/1A, can control up to 5 valve actuators (24 V~ closed when de-energised), IP30 when flush-mounted, colour alpine white (similar to RAL 9010). Dew point sensor TPF 341 for interrupting cooling operation when there is risk of condensate, optional connection (dew point sensors are not included in the scope of supply).	82 x 86 x 45	
RTK 602U	355620	Mechanical ON/OFF room temperature controller with changeover switching contact for heating and cooling in combination with a heat pump. The heating or cooling switching response can be chosen via a switch. When the heat pump is in cooling operation, the room temperature controller must be manually set to cooling operation. Heating or cooling operation is based on the setting of the heat pump manager. Flat switch mounting frame for flush mounting as standard; can be installed in virtually all flat switch programs using an adapter element (50 x 50 mm according to DIN 49075) provided by the flat switch program manufacturer (not included in the scope of supply); control range 5–30 °C; thermostat dial; temperature range limitation in the casing cover; switching capacity 230 V AC / 5 (2) A; connection of up to 5 actuators possible, IP30 when flush-mounted, colour alpine white (similar to RAL 9010). Dimensions in mm (W x H x D) 81 x 85 x 28.5 (height 16 mm mounted in flush box). Connection of a dew point sensor to interrupt the cooling operation if there is risk of condensate formation. This must be carried out using a higher-level regulation system (e.g. RKS WPM).	81 x 85 x 16	
TPF 341	350980	Flexible PCB which transmits a signal to the room temperature controller (RTK 601U) when it comes into contact with moisture, connection lead (10 m, 2 x 0.25 mm <sup>2</sup> ).	38 x 40	

When the dew point sensor comes into contact with condensation, the cooling of a room is interrupted by the motors attached to the room temperature controller.

## Temperature sensor



F 3110



F 3128



FG 3115



TFH 821

Order reference	Art.-no.	Features	
F 3110	329940	Temperature sensor: can be used as floor or external temperature sensor e.g. for AR 05DCU, connection cable 20 m, sensor sleeve (D <sub>e</sub> x H) 12/10 mm (flat) x 50 mm, standard NTC sensor according to DIN 44574.	
F 3128	343140	Standard NTC compact sensor according to DIN 44574 for use as floor or external temperature sensor, flow and return insertion, domestic hot water cylinder sensor, connection cable 6 m, sensor sleeve (D <sub>e</sub> x L) 6.2 x 32 mm.	
FG 3115	336620	Standard NTC-2 temperature sensor (2.43 kOhm/20 °C) according to DIN 44574 with weather proof casing for surface mounting, terminal connection.	
TFH 821	354470	Sensor sleeve for floor temperature sensor. Putting the sensor in the sleeve with a heat transfer compound. Sensor sleeve must be laid in the heating mat level.	

## Instantaneous water heater ecotronic

Connection voltage 3/PE ~400 V, 50 Hz  
Degree of protection IP 25



DEE ..03

Instantaneous water heater with electronic output adjustment, infinitely variable temperature, settings adjusted with rotary knob. Bare-wire heating system for instant domestic hot water heating and high resistance to lime scale. Reduced switch-on volume flow of 2.6 l/min, Easy replacement of old devices, flexible cold water and hot water connections, electrical connection optionally from above or below, suitable for DVGW (German Technical and Scientific Association for Gas and Water) approved plastic pipe installation, for mounting under a worktop using special accessories. Colour white with grey control panel.

Order reference	Art.-no.	Rated power W	Width x Height x Depth mm	Weight kg	
DEE 1803	359140	18000	236 x 472 x 139	4.1	
DEE 2103	359150	21000			
DEE 2403	359160	24000			

## Special accessories for DEE ..03 flow heaters



DLE 02 RBS

Order reference	Art.-no.	For device type	Features	
DLE 02 AP	344100	DEE ..03	Mounting set for surface mounting installation/direct connection	
DLE 02 RBS	342210	DEE ..03	Pipe kit for mounting under a worktop	

## Compact flow heater

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24



DZU 352

Hydraulically controlled compact flow heater, pressure-resistant design for mounting under a worktop, can be used either as an open or closed device. Used e. g. for hand wash basins.

Order reference	Art.-no.	Rated power W	Features	Width x Height x Depth mm	Weight kg	
DZU 352	343280	3500	Hydraulically controlled compact flow heater, pressure-resistant design for mounting under a worktop, can be used either as an open or closed device. Used e.g. for hand wash basins. Connection lead with plug.	144 x 235 x 100	1.7	
DZU 462	343290	4600	Hydraulically controlled compact flow heater, pressure-resistant design for mounting under a worktop, can be used either as an open or closed device. Used e.g. for hand wash basins. Fixed connection.			

## Boiling water device

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 44



ACB 215

Plastic casing, capacity of 5 litres; temperature range approx. 38 °C to boiling point, reboiling point, 3 handle fittings integrated in device, steam outlet integrated into the water outlet pipe, connection cable with plug approx. 0.6 m, colour white. Degree of protection IP44 (splash water protection), protection class I.

Order reference	Art.-no.	Rated power W	Nominal capacity l	Width x Height x Depth mm	Weight kg	
ACB 215	348280	2000	5	293 x 270 x 198	2.5	

## Compact hot water cylinder for mounting under a worktop

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24

Pressureless design, temperature setting range 35–85 °C with energy-saving and frost protection settings, connection cable and plug, water connections metal G 3/8", safety temperature limiter with reset function.

Order reference	Art.-no.	Rated power W	Nominal capacity l	Features	Width x Height x Depth mm	Weight kg	
ACK 5 U	339590	2000	5	Open tap included in the scope of supply.	256 x 390 x 213	3.5	
ACK 5 UA	339630						
ACK 10 2U	361850		10	Open tap included in the scope of supply.	310 x 466 x 265	4.4	
ACK 10 2UA	361860						



ACK 5 U



ACK 10 2U

## Compact hot water cylinder for mounting over a worktop

Connection voltage 1/N/PE ~230 V, 50 Hz  
Degree of protection IP 24

**Pressureless** design, temperature setting range 35–85°C energy-saving and frost protection settings, connection cable and plug, water connections metal G 1/2", safety temperature limiter with reset function.

Order reference	Art.-no.	Rated power W	Nominal capacity l	Features	Width x Height x Depth mm	Weight kg	
ACK 5 O	339580	2000	5	Open tap included in the scope of supply.	256 x 390 x 213	3.5	
ACK 5 OA	339620						
ACK 10 2O	361870		10	Open tap included in the scope of supply.	310 x 466 x 265	4.4	
ACK 10 2OA	361880						



ACK 5 O



ACK 10 2O

## Universal wall cylinder

Degree of protection IP 24

Universal wall cylinders for closed or open use, infinitely variable temperature adjustment from 25–85 °C, inner water reservoir made of steel with special enamelling, anti-corrosion bar (protection anode), high-quality thermal insulation for minimal heat loss, six individual heating elements in an enamelled protection tube (can be replaced individually without draining the device), sheet steel outer surface.

Order reference	Art.-no.	Nominal capacity l	Width x Height x Depth mm	Weight kg	
ACH 51 Z	350620	50	500 x 640 x 512	30	
ACH 81 Z	350630	80	500 x 860 x 512	36	
ACH 101 Z	350640	100	500 x 1005 x 512	41	
ACH 121 Z	350650	120	500 x 1160 x 512	46	
ACH 151 Z	350660	150	500 x 1375 x 512	52	



ACH ... Z

## Rated power universal wall cylinders

Rated power universal wall cylinders of the ACH ... Z series for different electric connections. The respective switching versions can be found in the installation instructions.

power rating ACH 31 Z				power rating ACH 51 Z - ACH 151 Z			
off peak		on peak		off peak		on peak	
power rating	voltage	power rating	voltage	power rating	voltage	power rating	voltage
4,2	3/N/PE ~ 400V	1,4 / 4,2 0,7 / 4,2	3/N/PE ~ 400V	6,0 / 4,0	3/N/PE ~ 400V	3,0 / 6,0 2,0 / 6,0 1,0 / 6,0	3/N/PE ~ 400V
2,8 / 2,1	2/N/PE ~ 400 V	1,4 / 2,1 0,7 / 2,1	2/N/PE ~ 400 V	4,0 / 3,0 / 2,0	2/N/PE ~ 400 V	2,0 / 4,0 1,0 / 4,0 3,0 / 3,0 2,0 / 3,0 1,0 / 2,0	2/N/PE ~ 400 V
2,1 / 1,4 / 0,7	1/N/PE ~ 230 V	1,4 / 2,1 0,7 / 2,1	1/N/PE ~ 230 V	4,0 / 3,0 / 2,0 / 1,0	1/N/PE ~ 230 V	3,0 / 4,0 2,0 / 4,0 1,0 / 4,0 1,0 / 2,0	1/N/PE ~ 230 V

## Single-circuit wall cylinder

Degree of protection IP 24



ACH ... E

Single-circuit wall cylinders for closed or open use, infinitely variable temperature adjustment from 25–85 °C, inner water reservoir made of steel with special enamelling, anti-corrosion bar (protection anode), high-quality thermal insulation for minimal heat loss, three individual heating elements in an enamelled protection tube (can be replaced individually without draining the device), sheet steel outer surface.

Order reference	Art.-no.	Nominal capacity l	Width x Height x Depth mm	Weight kg	
ACH 31 E	350670	30	500 x 545 x 512	23	
ACH 51 E	350680	50	500 x 640 x 512	30	
ACH 81 E	350690	80	500 x 860 x 512	36	
ACH 101 E	350700	100	500 x 1005 x 512	41	
ACH 121 E	350710	120	500 x 1160 x 512	46	
ACH 151 E	350720	150	500 x 1375 x 512	52	

## Special accessories for wall cylinders



SG 1



SG 2

Order reference	Art.-no.	For device type	Features	
SG 1	326350	ACH 31 E - ACH 151 E ACH 31 Z - ACH 151 Z	Pressure relief valve for wall cylinders, required for closed operation, for pipe pressures up to 4.8 bar.	
SG 2	326360	ACH 31 E - ACH 151 E ACH 31 Z - ACH 151 Z	Pressure relief valve for wall cylinders, required for closed operation, for pipe pressures above 4.8 bar, with pressure reducer.	

## Upright cylinder

Degree of protection IP 24



ACS ... Z

For closed use as a single-circuit or two-circuit cylinder, infinitely variable temperature adjustment to 85 °C, inner water reservoir made of steel with special enamelling, anti-corrosion bar (protection anode), high-quality thermal insulation for minimal heat loss, sheet steel outer surface, dial thermometer, hot/cold water connection G 1", colour white (similar to RAL 9016).

Order reference	Art.-no.	Nominal capacity l	Connection circulation	Diameter x Height mm	Weight kg	
ACS 200 Z	339640	200	¾	600 x 1365	99	
ACS 300 Z	339650	300		600 x 1822	130	
ACS 400 Z	339660	400	1	670 x 1832	170	

## Accessories for upright cylinders



SVK 852

Order reference	Art.-no.	For device type	Features	
SVK 852	326660	ACS ... Z	Pressure relief valve for the cold water connection of domestic water cylinders to the supply network according to DIN 1988. 1" external thread connection; DN20, 8 bar, yellow.	
ACS STF	341910	ACS ... Z	Supporting feet, height-adjustable, content 3 items	

## Rated power Universal floor-mounted cylinders

Rated power floor-mounted cylinders of the ACS ... Z series for different electric connections. The respective switching versions can be found in the installation instructions.

power rating ACS 200 Z - ACS 400 Z			
off peak		on peak	
power rating	voltage	power rating	voltage
6,0	3/N/PE ~ 400V	2,0 / 6,0	3/N/PE ~ 400V
3,0 / 4,0	2/N/PE ~ 400 V	3,0 / 6,0	
2,0 / 4,0	1/N/PE ~ 230 V	4,0 / 6,0	
		6,0 / 6,0	

### Heating element complete

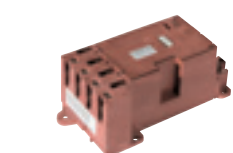
(DEH ..00/01; DEE ..00/00L; DEC ..00)



DLE HK ..

Order reference	Art.-no.	Features	
DLE HK 30	340460	Heating element 3.0 kW for DEH, DEE, DEC flow heaters	
DLE HK 35	340470	Heating element 3.5 kW for DEH, DEE, DEC flow heaters	
DLE HK 40	340480	Heating element 4.0 kW for DEH, DEE, DEC flow heaters	
DLE HK 45	340490	Heating element 4.5 kW for DEH, DEE, DEC flow heaters	
DLE HK 60	340500	Heating element 6.0 kW for DEH, DEE, DEC flow heaters	
DLE HK 70	340510	Heating element 7.0 kW for DEH, DEE, DEC flow heaters	
DLE HK 80	340520	Heating element 8.0 kW for DEH, DEE, DEC flow heaters	
DLE HK 90	340530	Heating element 9.0 kW for DEH, DEE, DEC flow heaters	

### Components for measuring and regulating volume flow



DLE SSE



DLE MT ..



DLE ME 1



DLE IR

Order reference	Art.-no.	Features	
DLE SSE	340540	Safety switch unit for flow heaters DEH ...01 (product number 11/073.../01), DEE (product number 11/070.../02, product number 11/070.../03, product number 11/070.../04, product number 11/070.../05), DEC flow heaters.	
DLE MT 1	340550	Measuring turbine and sensor unit for volume flow measurement for DEH and DEE flow heaters.	
DLE MT 2	340560	Measuring turbine and sensor unit for volume flow measurement for DEC flow heaters.	
DLE ME 1	340570	Motor unit complete for volume flow regulation for DEC flow heaters.	
DLE LCB	340580	Control panel and LCD complete for DEC flow heaters.	
DLE IR	340590	Infrared light barrier and sensor unit for measuring the flow rate for DEH, DEE, and DEC flow heaters.	

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2NC8 042 4X	2NC80424X	7036088801195	85
2NC8 062 2F	2NC80622F	7036088800648	85
2NC8 062 4B	2NC80624B	7036088801560	84
2NC8 062 4F	2NC80624F	7036088800426	85
2NC8 102 2F	2NC81022F	7036088800662	85
2NC8 102 4B	2NC81024B	7036088801584	84
2NC8 102 4F	2NC81024F	7036088800440	85
2NC8 102 4S	2NC81024S	7036088801379	84
2NC8 152 2F	2NC81522F	7036088800686	85
2NC8 152 4F	2NC81524F	7036088800464	85
2NC8 202 4F	2NC82024F	7036088800471	85
2NC8 202 4S	2NC82024S	7036088801409	84
2NC9 810	2NC9810	7036088801331	85
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2NC9 813	2NC9813	7036089000023	85
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AC 6 N	348240	4015627348240	87
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ACH 51 Z	350620	4015627350625	108
ACH 81 E	350690	4015627350694	109
ACH 81 Z	350630	4015627350632	108
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ACH 121 E	350710	4015627350717	109
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ACS 400 Z	339660	4015627339668	109
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BTU 300 AN	355460	4015627355460	105
BTU 401 UN	355470	4015627355477	105
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HM 450 TS Set BT	350860	4015627350861	95
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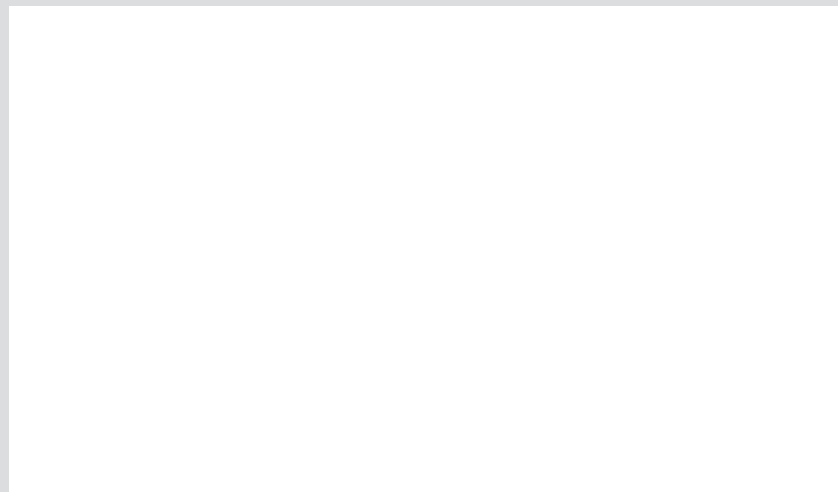
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