REMKO

REMKO SuperTec
INVERTER HEAT PUMPS

Cosy heating in winter
Comfortable air-conditioning in the summer

Version 2011/2012

Independently from oil and gas

High efficiency by REMKO SuperTec-Inverter

European Quality Label for Heat Pumps
ehpa

TÜV SÜD

Quality with systems

REMKO – THE CUSTOMER ORIENTATED SYSTEM PROVIDER FOR THE WHOLE YEAR

Quality with systems

AIR-CONDITIONING

Air-conditioners
Portable air-conditioners
Wall units - cassettes

Chilled water systems
Chillers

HEATING

Warm air heating systems
Mobile and stationary heaters
Oil - gas - electric

NEW ENERGIES

Heat-pumps
Inverter heat-pumps
Heat pump packages

DEHUMIDIFICATION

Dehumidifier
Mobile dehumidifiers
Professionally dehumidifiers
Pool dehumidifiers

Product overview New Energies

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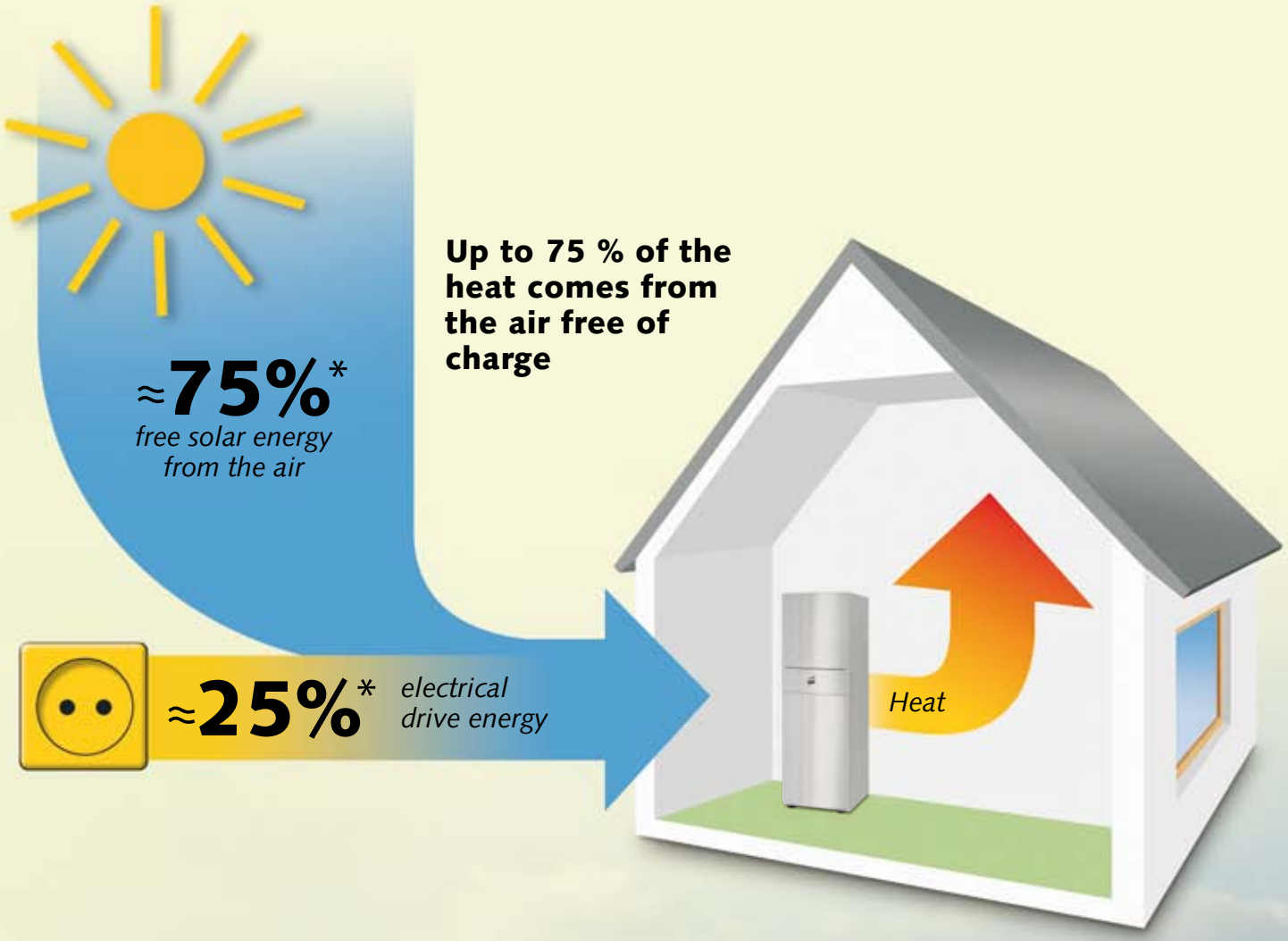
One of Europe's first manufacturers of inverter heat pumps with the EHPA quality seal of approval

REMKO is listed by the European Heat Pump Association in its international seal of approval list as one of the first manufacturers of inverter heat pumps (EHPA – formerly D-A-CH)! REMKO's inverter heat pumps fulfil high international standards and guarantee performance numbers you can count on!

Inverter heat pumps with TÜV certified capacity figures

INDEPENDENTLY FROM OIL AND GAS

Use energy from the air all year round



The advantages of a heat pump are obvious

In contrast to other heating systems, the acquisition costs for a heat pump in new or older buildings pays off relatively quickly.

- Considerably lower consumption and operating costs
- Marginal maintenance costs
- No costs for chimney and chimney sweep
- No costs for a storage tank
- No costs for a storage tank room

New dimensions in terms of independence

The solar energy stored in the air is an inexhaustible source of emission-free power. Heat pumps take up to 75% of the energy from the air free of charge. This works even in winter with outside temperatures below zero. Only the energy of up to 25% has to be provided by electrical power.

* The ratio can diversify depending on outside temperatures and operation conditions.
Specifics concerning COP figures please see page 135

REMKO SuperTec - INVERTER

Highly efficient and energy saving

The *REMKO SuperTec* - INVERTER costs economizes

The REMKO Inverter heat pump represents a decision for a technically most progressive solution. Modern inverter technology makes it possible.

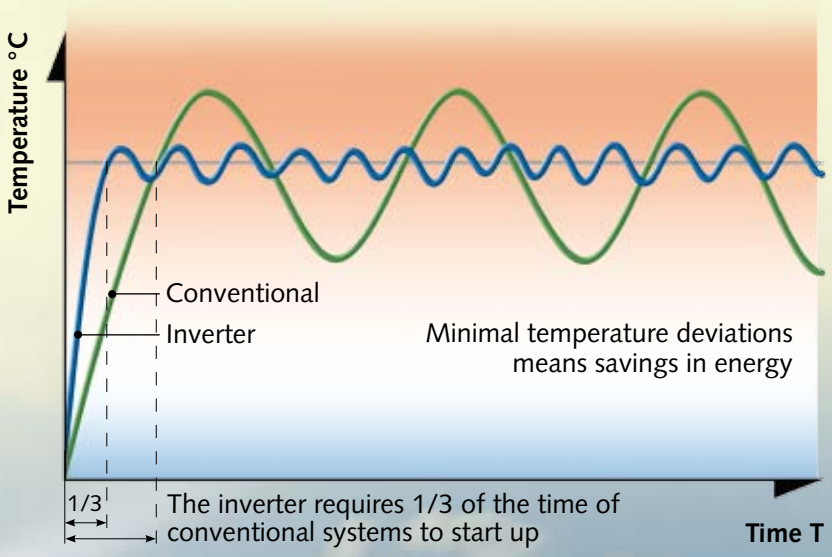
This pioneering technology automatically adapts the condenser speed variably to the precise cooling or heating requirement. This exact and gentle regulation enables a particular energy saving, efficient operation with a high seasonal capacity factor in comparison to non-inverter systems.

In summery:

In the event of increased demand, the heat pump works more intensively, in the event of reduced demand the heat pump switches over to energy-saving mode.

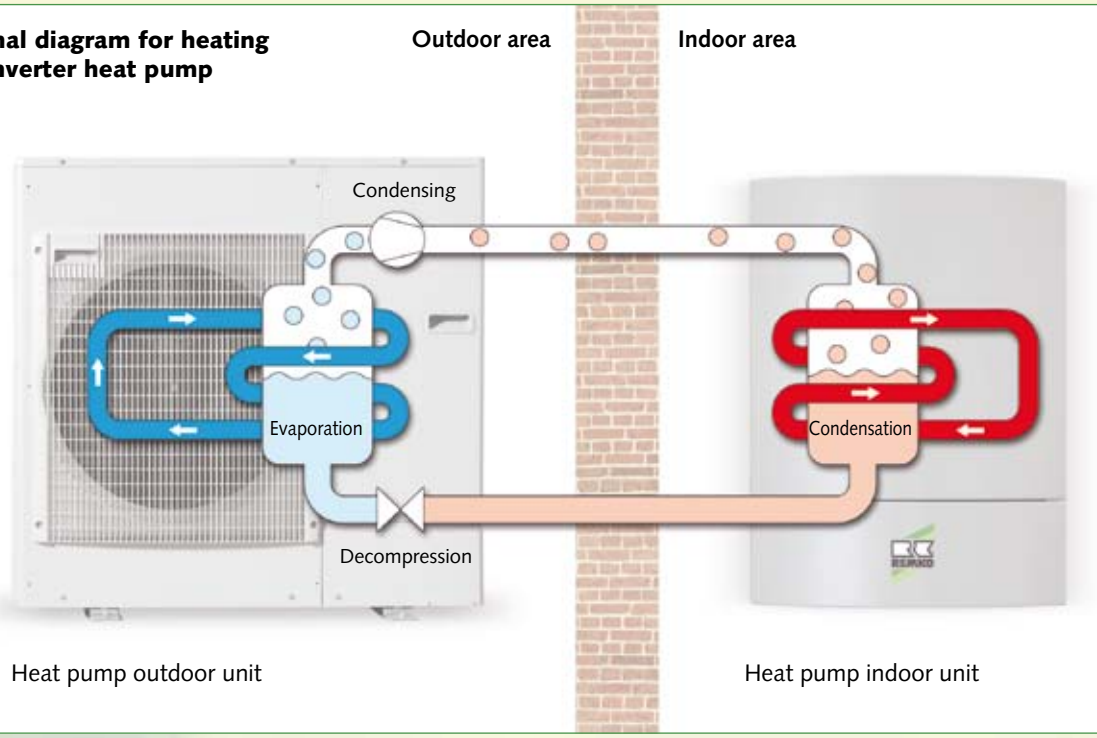
This saves costs

Modern Inverter technology



THE FUNCTION OF THE INVERTER HEAT PUMP

Functional diagram for heating with a inverter heat pump



Heat pump outdoor unit

Heat pump indoor unit

Heat pump technology

The technology of the heat pump is similar to that of a refrigerator - only the principle is reversed. The heat extracted from the air is brought up to a higher temperature level in a refrigerant circuit and is then transfered to the indoor unit.

Function of outdoor unit

The outdoor unit takes energy from the air.
This energy is brought up to a higher temperature level in a refrigerant circuit and is than transferred to the heating water in the indoor unit. The compressor speed automatically adapts to the precise cooling or heating requirement.

Function of indoor unit

The indoor unit transfers the energy contained in the refrigerant to the floor heating elements or radiators installed in the building.
An integrated or separate storage tank provides hydraulic decoupling from the volumetric flows of the heat pump and heating circuit.

The storage tank ensures a constant heating operation, even during defrost phases. In order to cool, the function of the heat pump is simply reversed. Water heating is undertaken by means of switching over to water heating mode in combination with a separate storage system.

INVERTER HEAT PUMPS BY REMKO ARE VERSATILE

Heat pumps in new buildings. Independent of oil and gas

Heat pumps for modernisation of existing buildings. Combination with existing heating appliances

Heat pumps in office buildings. The production shop is heated with direct air heaters

Heat pumps for the workshop office. The ideal space saving solution

Indoor unit in wall-mounted design
CMF Series

A compact solution in combination with solar plants and/or other heat generators (bivalent operation).

Indoor unit in standard design with storage tank (150 l) for hydraulic decoupling of the volumetric flow
CMT Series

An ideal solution to use the heat pump as a single heat generator with integrated storage tank and electrical support heater (mono energetic operation).

INVERTER HEAT PUMPS WHICH ADAPT THEMSELVES TO EACH SYSTEM

1

In combination with a solar panel for economical water heating and heating assistance

An ideal combination for a maximum of economic efficiency and environmental protection. Direct solar energy delivers a high percentage of water heating requirements as an annual average.

2

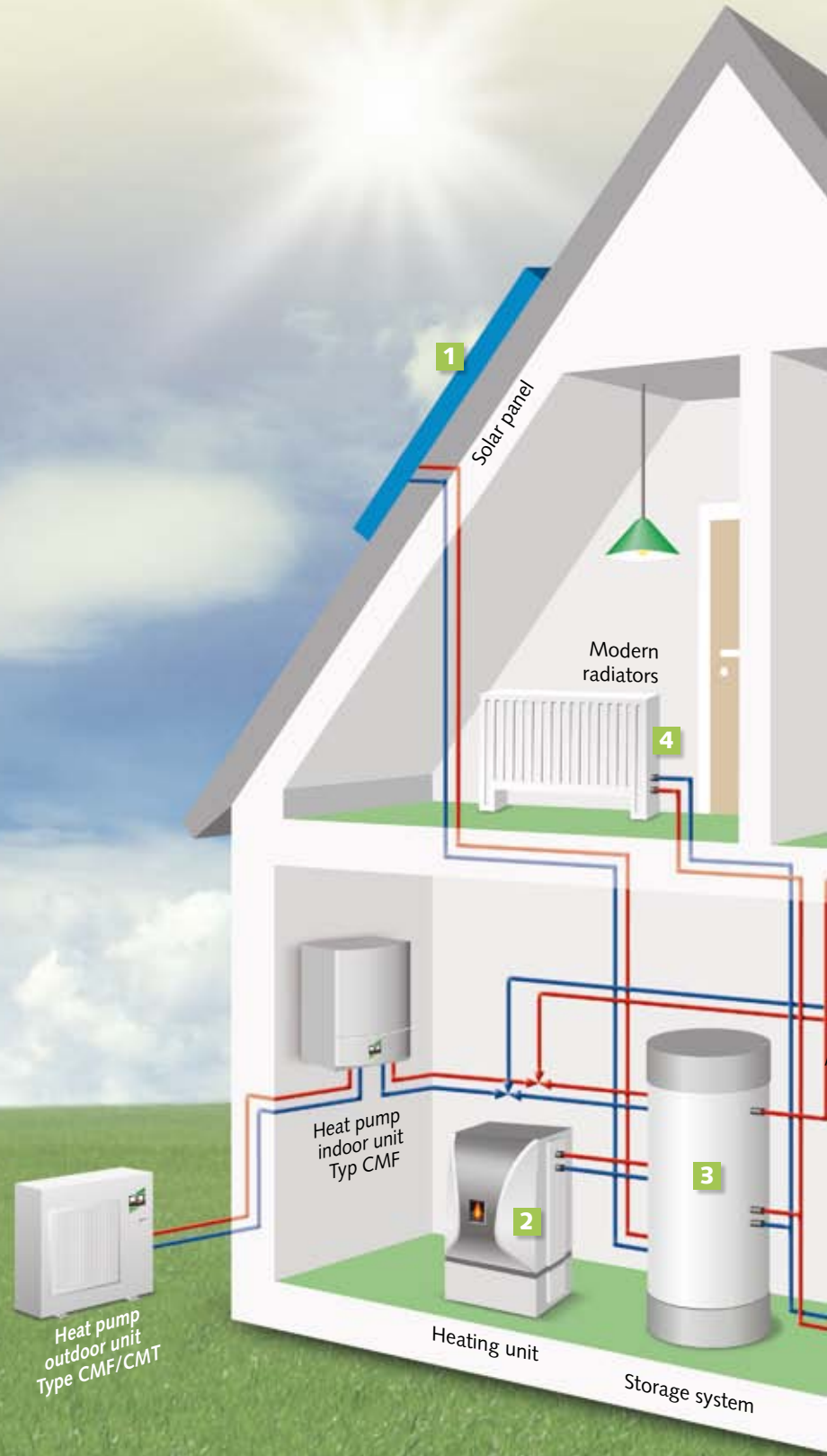
In combination with heating appliances in bivalent operation

The heat pump can be combined with heating appliances in order to cover peak loads. This could be an existing heating appliance or a particularly energy-saving, environmentally compatible gas or oil condensing boiler.

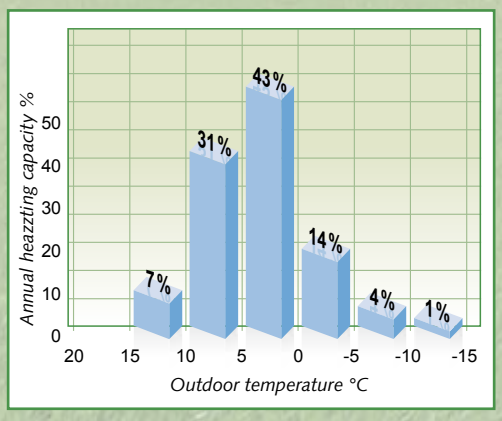
3

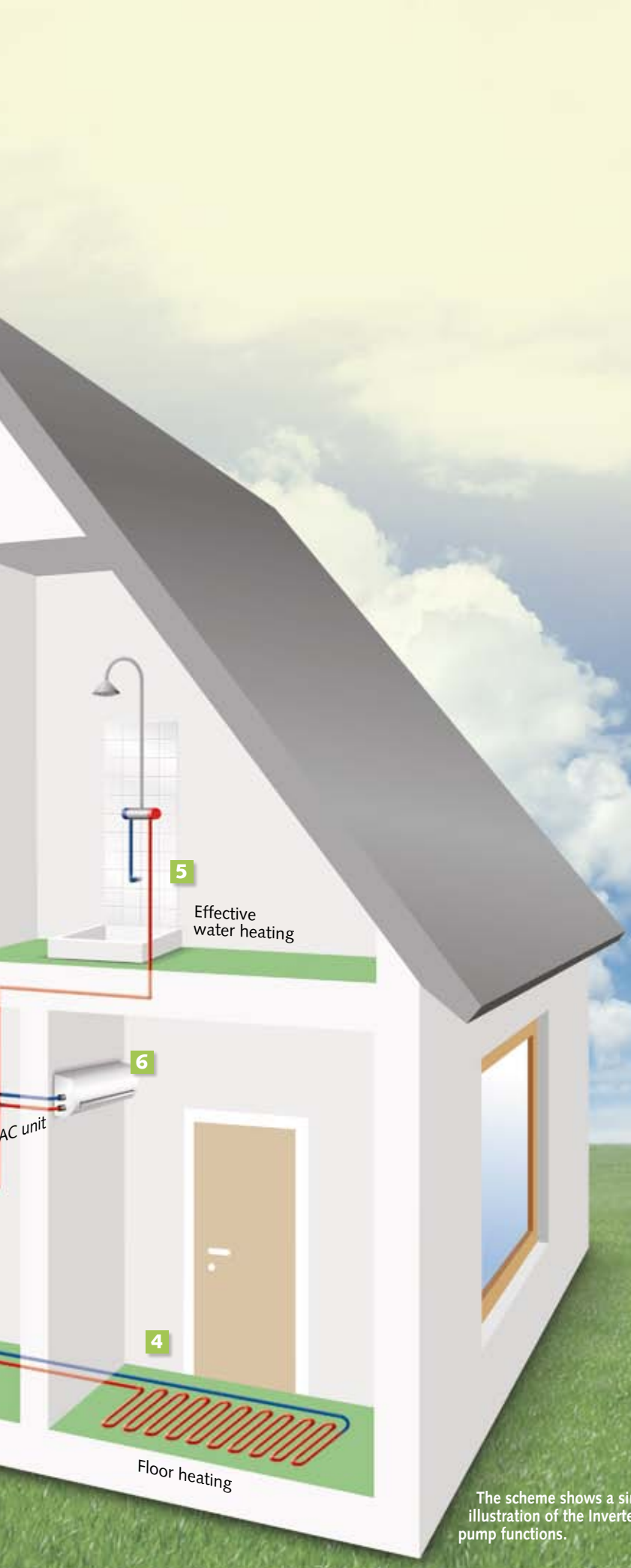
In combination with storage systems The interface and collection point for various energy systems

Tanks are offered in various designs and capacities. With connection options for heat pumps, heating appliances, solar plants and water heating, the storage system is the interface and collection point. In addition, the storage system enables hydraulic decoupling of the volumetric flows in complete energy systems.



For example: Average temperatures in Germany





The scheme shows a simplified illustration of the Inverter heat pump functions.

4

In combination with floor heating – modern radiators and wall-mounted heaters

Heat pumps are able to achieve their highest levels of efficiency when combined with floor heating. With conventional modern radiators, the operating costs are lower than for oil or gas heating appliances.
This means that comfortable heating is guaranteed even at lower outside temperatures.

5

With effective water heating

If the inverter water pump is also to handle the water heating, you will require an external hot water storage tank.
See 3 A trouble-free and reliable water heating system is guaranteed.

6

In comfortable air-conditioning in the summer

During the hot days the heat pump can be used for cooling.
The function of the heat pump is just simply reversed. You will find AC units in the full range of fan-coils. The technical principle of the AC units is simple: Air flows past the interior heat exchangers and is either heated up or cooled down.

Ceiling cassettes
REMKO Series KWD-S

High wall units
REMKO Series WLT-S

Floor/Ceiling duct units
REMKO Series KWK

COMFORTABLE HEATING IN WINTER AND COMFORTABLE AIR-CONDITIONING IN THE SUMMER

Atmospheric conditions are becoming ever more extreme

In the EU winters are getting warmer and summers hotter. Temperatures of over +30° C are no longer uncommon in the summer. This means that in addition to heating, cooling is taking on an ever more important role. One more reason to install a REMKO inverter heat pump. In winter, the heat pump operates as an efficient heating system - in summer, the water-bearing system ensures for a good level of air conditioning.

Save costs with a modern inverter technology

This pioneering inverter technology automatically adapts the condenser speed variably to the precise cooling or heating requirement. This exact and gentle regulation enables a particular energy saving, efficient operation with a high seasonal capacity factor in comparison to non-inverter systems.

- Modern inverter technology
- Heating, cooling and water heating system
- Energy source outdoor air operational down to -18° C
- Hot water heating up to + 60° C
- High-efficiency pump
- Fully-automatic, quiet and maintenance-free operation
- High level of operational reliability
- Low installation efford
- Floor-area optimised design
- Load-dependent control according to demand

Indoor unit in wall-mounted design CMF Series

It couldn't be simpler. Everything complete in an indoor unit

Everything is installed in a single enclosure: circulation pump, various valves and fittings, and the heat pump manager. The CMT unit Series is additionally equipped with a storage and expansion tank as standard.

Indoor unit in wall-mounted design. Heat pump manager and control system. Straightforward installation and high level of service convenience

Integrated storage tank CMT Series

The storage tank ensures optimised operating times and provides hydraulic decoupling of the volumetric flows for the heat pumps and heating circuit.

Free choice when installing the outdoor units

You save a lot of space when installing the outdoor units externally. You can use the basement space for other purposes such as a party room or sauna. Outdoor installation is ideal for buildings without a basement.

Outdoor unit CMF/CMF Series

REMKO CMT Series Indoor unit in standard design with storage tank (150 l)

THE HEAT PUMP MANAGER

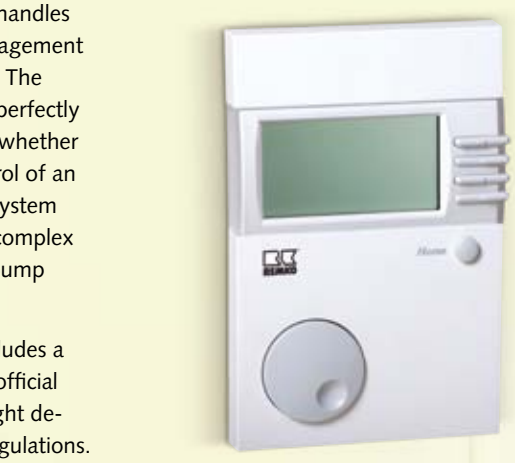
The Multitalent of the Inverter heat pump

The complete energy management system

The heat pump manager handles the complete energy management of the inverter heatpump. The controller has everything perfectly under control. No matter whether it is dealing with the control of an individual unit, an entire system or the management of a complex plant. The REMKO heat pump manager is a multitalent.

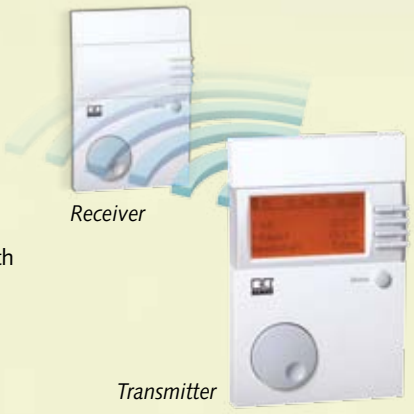
The Multitalent ***PLUS*** includes a heat meter for optionally official subsidies claims which might depend on each country's regulations.

- Cooling control
- Integrated solar control
- Anti-legionella system
- Modular design
- Control of water heating
- Connection of several external heating appliances possible
- Dialogue guided
- Remote controller option
- Ready for power plant operator connection
- Load-dependent control according to demand



Remote control for heat pump manager "Multitalent"

For connection to the heat pump manager integrated inside the heat pump. The remote control contains a LCD display with menu guidance.



Receiver

Transmitter

Remote control for heat pump manager "Multitalent"

For connection to the heat pump manager integrated inside the heat pump. The remote control contains a LCD display with menu guidance. 4 wire CAN-BUS connection.

INVERTER HEAT PUMPS

Innovation for all

Technical data

Unit type		**CMF 120**	**CMF 160**	**CMT 120**	**CMT 160**	**CMF 320 Duo**
Design		Singlesplit	Singlesplit	Singlesplit	Singlesplit	Duosplit
Series		Heating/Cooling	Heating/Cooling	Heating/Cooling	Heating/Cooling	Heating/Cooling
Inverter technology		***REMKO SuperTec***	***REMKO SuperTec***	***REMKO SuperTec***	***REMKO SuperTec***	***REMKO SuperTec***
System		Air/water	Air/water	Air/water	Air/water	Air/water
Storage tank for hydraulic coupling of volumetric flows		optional	optional	Series 150 l	Series 150 l	site
Electric booster heating 3 kW		optional	optional	Series 9,0 kW	Series 9,0 kW	optional
Drinking water preparation		optional	optional	Series	Series	optional
Emergency heating control		optional	optional	Series	Series	optional
Heating capacity min / max	kW	3,5 - 11,0	5,0 - 16,0	3,5 - 11,0	5,0 - 16,0	10,0 - 32,0
Rated heating capacity for A10/W35 [1]	kW	10,5	15,3	10,5	15,3	30,6
Rated heating capacity for A7/W35 [1]	kW	10,0	13,0	10,0	13,0	26,0
Rated heating capacity for A2/W35 [1]	kW	7,2	9,6	7,2	9,6	19,2
Rated heating capacity for A2/W35 [2]	kW	5,1	6,9	5,1	6,9	13,8
Rated heating capacity for A-7/W35 [1]	kW	4,8	8,2	4,8	8,2	16,4
COP for A10/W35 [1] / Compressor frequency	COP / Hz	4,4 / 99	4,7 / 76	4,4 / 99	4,7 / 76	4,7 / 76
COP for A7/W35 [1] / Compressor frequency	COP / Hz	4,3 / 96	4,4 / 77	4,3 / 96	4,4 / 77	4,4 / 77
COP for A2/W35 [1] / Compressor frequency	COP / Hz	3,4 / 96	3,2 / 76	3,4 / 96	3,2 / 76	3,2 / 76
COP for A2/W35 [2] / Compressor frequency	COP / Hz	3,9 / 61	3,4 / 51	3,9 / 61	3,4 / 51	3,4 / 51
COP for A-7/W35 [1] / Compressor frequency	COP / Hz	2,5 / 99	2,6 / 77	2,5 / 99	2,6 / 77	2,6 / 77
Cooling capacity for A35/W7	kW / EER [3] / Hz	5,4 / 2,9 / 70	12,1 / 3,1 / 74	5,4 / 2,9 / 70	12,1 / 3,1 / 74	24,2 / 74 / 3,1
Cooling capacity for A27/W7	kW / EER [3] / Hz	5,9 / 3,5 / 70	12,0 / 3,7 / 69	5,9 / 3,5 / 70	12,0 / 3,7 / 69	24,0 / 69 / 3,7
Functional operating range heating	°C	-18 to +34	-18 to +34	-18 to +34	-18 to +34	-18 to +34
Functional operating range cooling	°C	+15 to +46	+15 to +46	+15 to +46	+15 to +46	+15 to +46
Supply temperature heating water	°C	to +60	to +60	to + 60	to + 60	to +60
Refrigerant		R 410A	R 410A	R 410A	R 410A	R 410A
Power supply	V/Hz	230/1~/50	400/3~N/50	230/1~/50	400/3~N/50	400/3~/50
Power consumption for A7/W35	kW	2,32	2,95	2,32	2,95	5,9
Customer's fuse protection (outdoor unit)	A slow	25	3 x 16	25	3 x 16	6 x 16
Volumetric flow water at Δ_t 5 K	m³/h	1,7	2,2	1,7	2,2	4,4
Max. operating pressure water	bar	3,0	3,0	3,0	3,0	3,0
Hydraulic connection supply / return flow	Inches	1" AG	1" AG	1" AG	1" AG	5/4" AG
Noise capacity LpA 1m (outdoor unit)	dB(A)	53/39 [4]	56/42 [4]	53/39 [4]	56/42 [4]	56/42 [4]
Dimensions indoor unit Height / width / depth	mm	800/550/550	800/550/550	1.760/550/670	1.760/550/670	800/550/550
Dimensions outdoor unit Height / width / depth	mm	945/950/330	1.338/1050/330	945/950/330	1.338/1050/330	1338/1050/330
Weight indoor unit / outdoor unit	kg	52/75	55/126	135/75	138/126	72/126
Inverter heat pump Including: outdoor and indoor unit, safety assembly with SIV, bleeding unit and manometer, 2 x back pressure valve 1" with thermometer, dirt filter 1", feed valve and drain valve ½", immersion-, contact- and outdoor sensor, without heat pump manager		**CMF 120**	**CMF 160**	**CMT 120**	**CMT 160**	**CMF 320 Duo**
Ref. No. Color outdoor unit: white		250050	250060	250070	250080	251010
S-LINE Color outdoor unit: silver Ref. No.		250052	250062	250072	250082	251012
Heat pump manager Multitalent The complete built-in controller for your heating system Ref. No.		245100	245100	245100	245100	245101
Heat pump manager Multitalent *PLUS* [5] Edition as Multitalent plus integrated heat meter Ref. No.		245200	245200	245200	245200	245201

[1] COP = of capacity (heating capacity rate) according to EN 14511, approval by the german technical board (TÜV)

[2] COP = of capacity (heating capacity rate) according to EN 14511, at alternative compressor frequency of the inverter

[3] EER = Eefficiency ratio (cooling capacity rate) according to EN 14511

[4] Measured in a distance of 5 m on a free exhaust air test side

REMKO HEAT PUMP PACKAGE - CMF

Type Köln

Heating

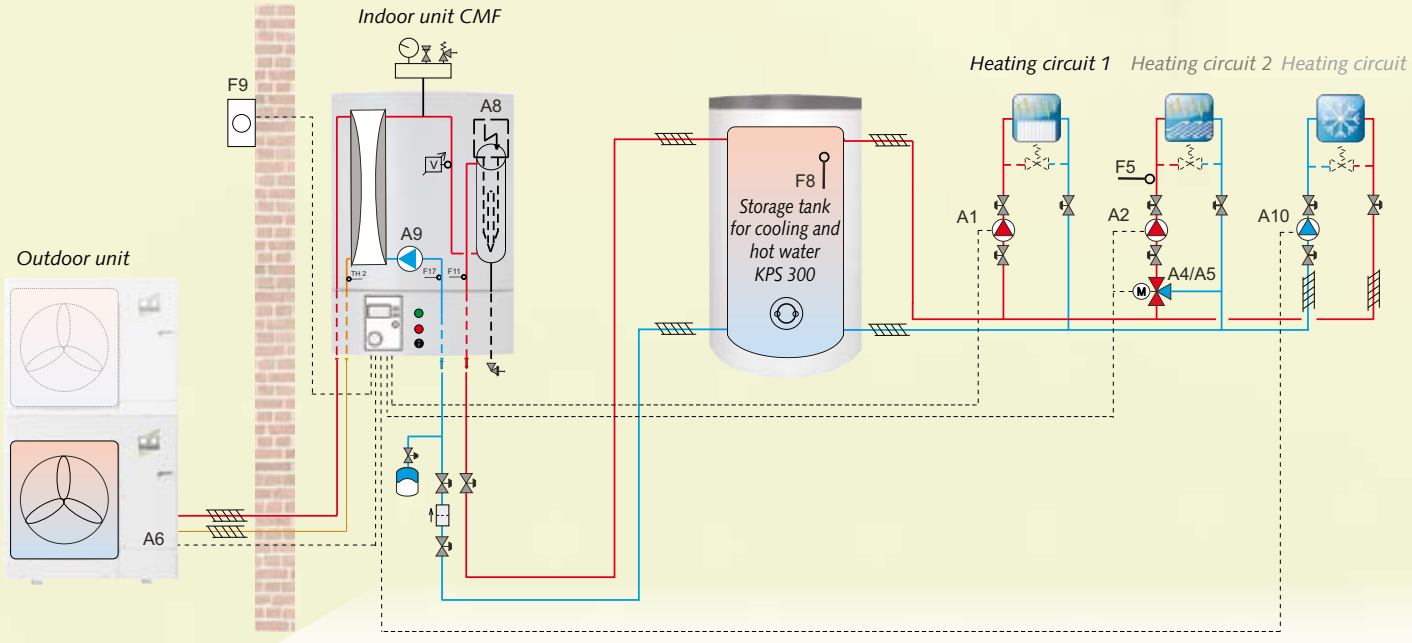
Cooling

The entry-level comfort package

This heat pump package has been designed for users who primarily want heating. In addition, a cooling function can be activated for the summer, when necessary.

Process water preparation takes place separately. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)



Technical data

REMKO heat pump package - Type Köln		CMF 120	CMF 160
Heating capacity min. / max	kW	3,5 - 11,0	5,0 - 16,0
Cooling capacity min / max	kW	3,3 - 8,1	5,5 - 14,0
Package includes: Indoor and outdoor unit (standard colour white), storage tank for cooling and hot water KPS 300 (300 litre), condenswater drip tray for outdoor unit, heat pump manager factory installed			
With heat pump manager Multitalent			
Ref. No.		285800	285810
With heat pump manager Multitalent ***PLUS***			
Ref. No.		285805	285815

Accessories including:

Condenswater drip tray for outdoor unit

Storage tank for coold and hot water KPS 300 (300 l)

REMKO HEAT PUMP PACKAGE - CMF

Type Düsseldorf

Heating

Cooling

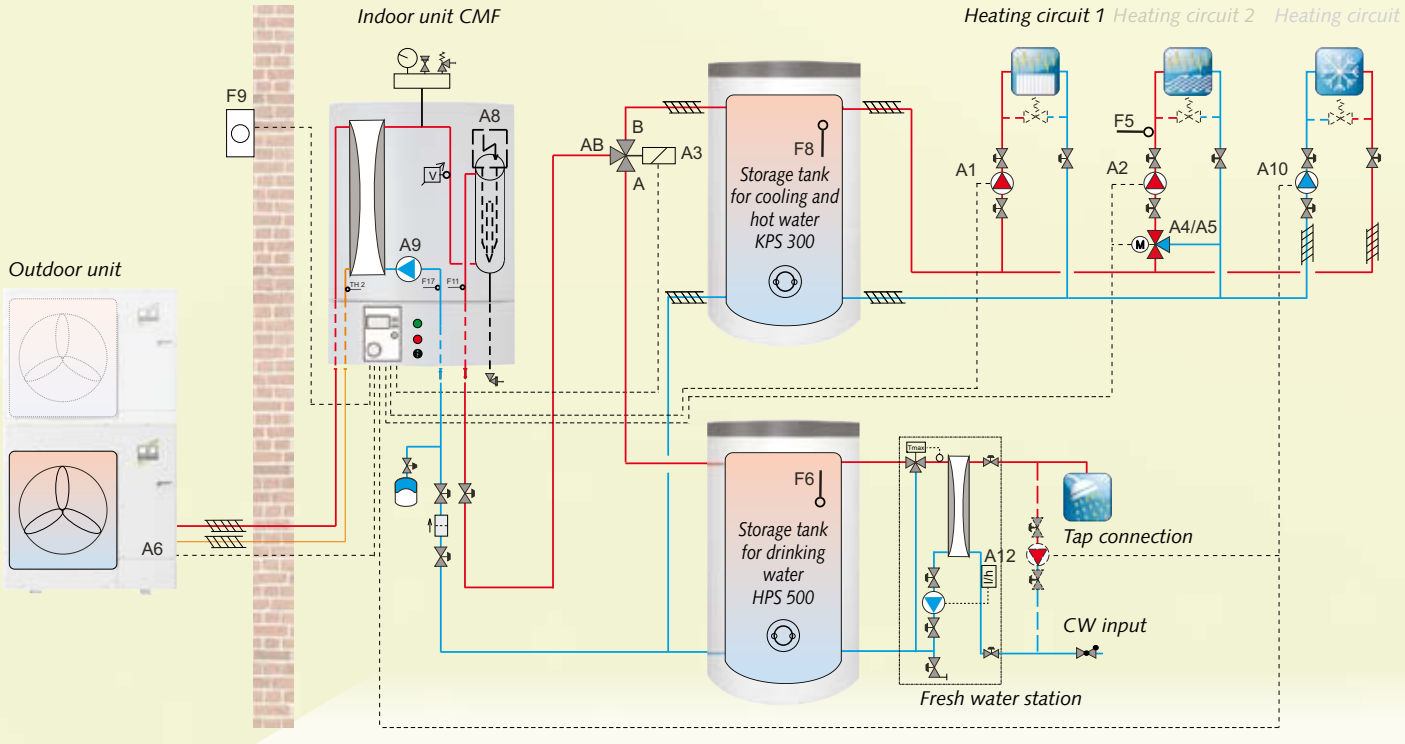
Hot water

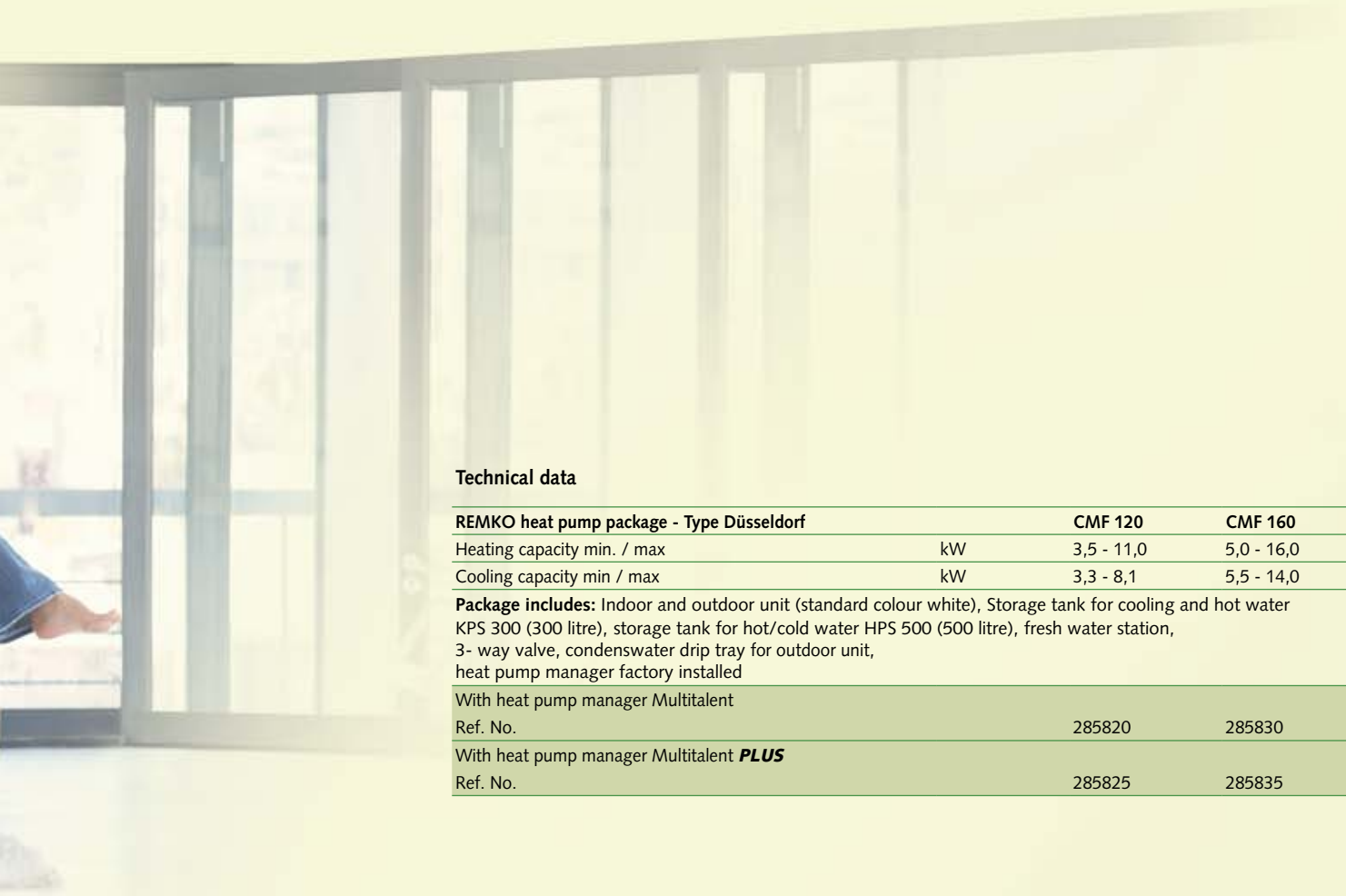
The complete package

This heat pump package is the ideal solution for users who, in addition to the heating function, also want hot/cold water preparation from their heat pump system. A cooling function for the summer can also be activated, if necessary.

The hot/cold water preparation takes place very efficiently with a 500 litre storage tank and fresh water station. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)





Technical data

REMKO heat pump package - Type Düsseldorf		CMF 120	CMF 160
Heating capacity min. / max	kW	3,5 - 11,0	5,0 - 16,0
Cooling capacity min / max	kW	3,3 - 8,1	5,5 - 14,0
Package includes: Indoor and outdoor unit (standard colour white), Storage tank for cooling and hot water KPS 300 (300 litre), storage tank for hot/cold water HPS 500 (500 litre), fresh water station, 3- way valve, condenswater drip tray for outdoor unit, heat pump manager factory installed			
With heat pump manager Multitalent			
Ref. No.		285820	285830
With heat pump manager Multitalent ***PLUS***			
Ref. No.		285825	285835

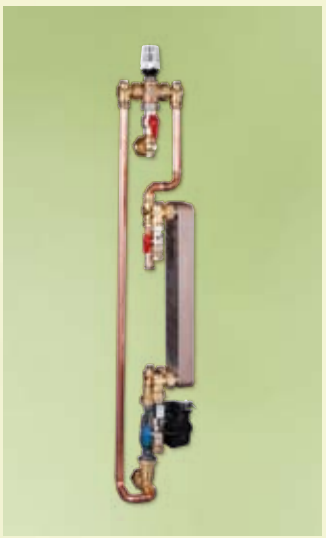
Accessories includes:

3-way valve, DN 25

Condenswater drip tray for outdoor unit

Storage tank for cold and hot water KPS 300 (300 l)

Storage tank for hot/cold water HPS 500 (500 litre)



Fresh water station, complete with pump and flow switch

REMKO HEAT PUMP PACKAGE - CMF

Type Frankfurt

Heating

Hot water

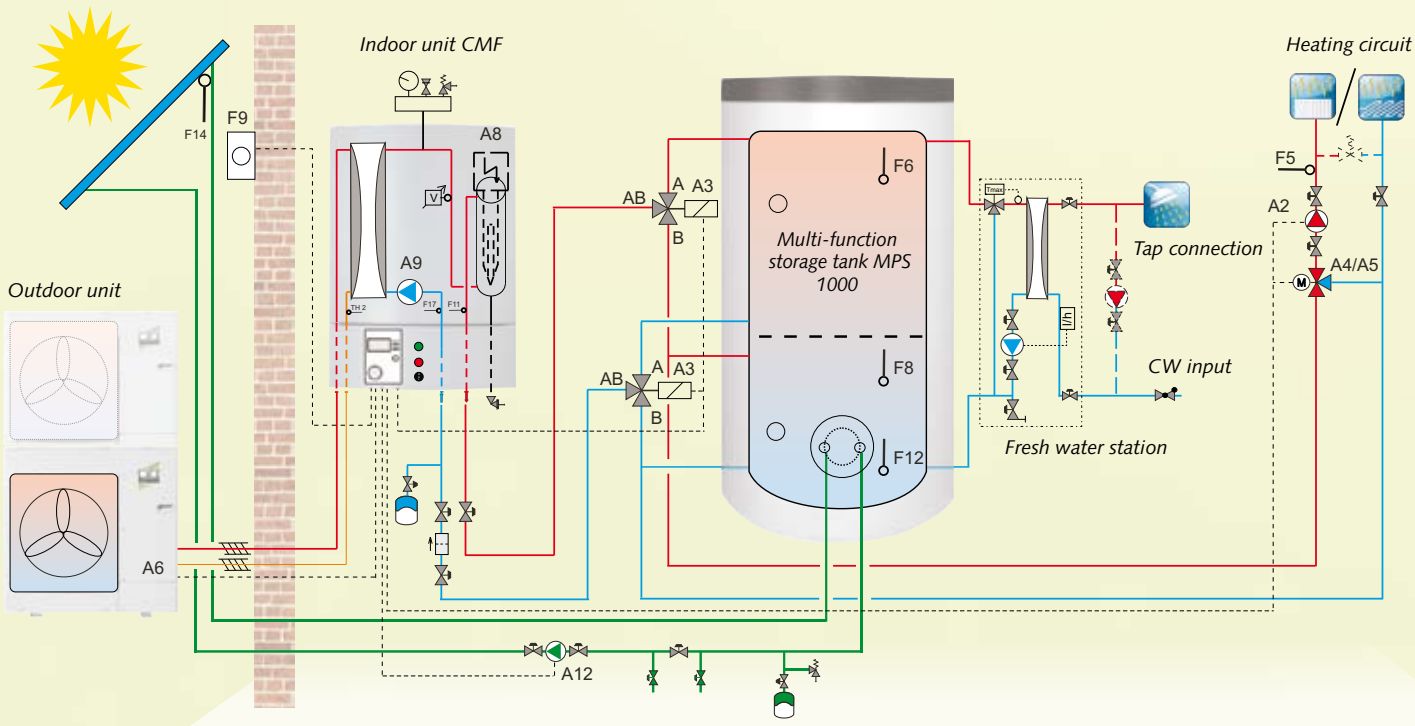
Solar connection

The energy-saving package

The energy-saving package is prepared for the integration of solar thermal systems. With the fin-tube heat exchanger (special accessory) RWT31, collector surfaces from approx. 8 to 15 m² can be connected.

The hot water preparation takes place with a 1000 litre storage tank and fresh water station in the process flow. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulikschema (For example, monoenergetic mode with integration of a solar system)



Technical data

REMKO heat pump package - Type Frankfurt		CMF 120	CMF 160
Heating capacity min. / max	kW	3,5 - 11,0	5,0 - 16,0
Cooling capacity min / max	kW	3,3 - 8,1	5,5 - 14,0
Package includes: Indoor and outdoor unit (standard colour white), multi-function storage tank MPS 1000 (1000 litre), fresh water station, 2 x 3-way valve, Immersion-, contact- and solar sensor, condenswater drip tray for outdoor unit, heat pump manager factory installed. Fin-tube heat exchanger must be ordered separately.			
With heat pump manager Multitalent			
Ref. No.		285840	285850
With heat pump manager Multitalent ***PLUS***			
Ref. No.		285845	285855

Accessories includes:

2 x 3-way valve, DN 25

Contact- and solar sensors

Condenswater drip tray for outdoor unit

Multi-function storage tank MPS 1000 (1000 l)

Fresh water station, complete with Pump, thermostatic valve and flow switch

REMKO HEAT PUMP PACKAGE - CMF

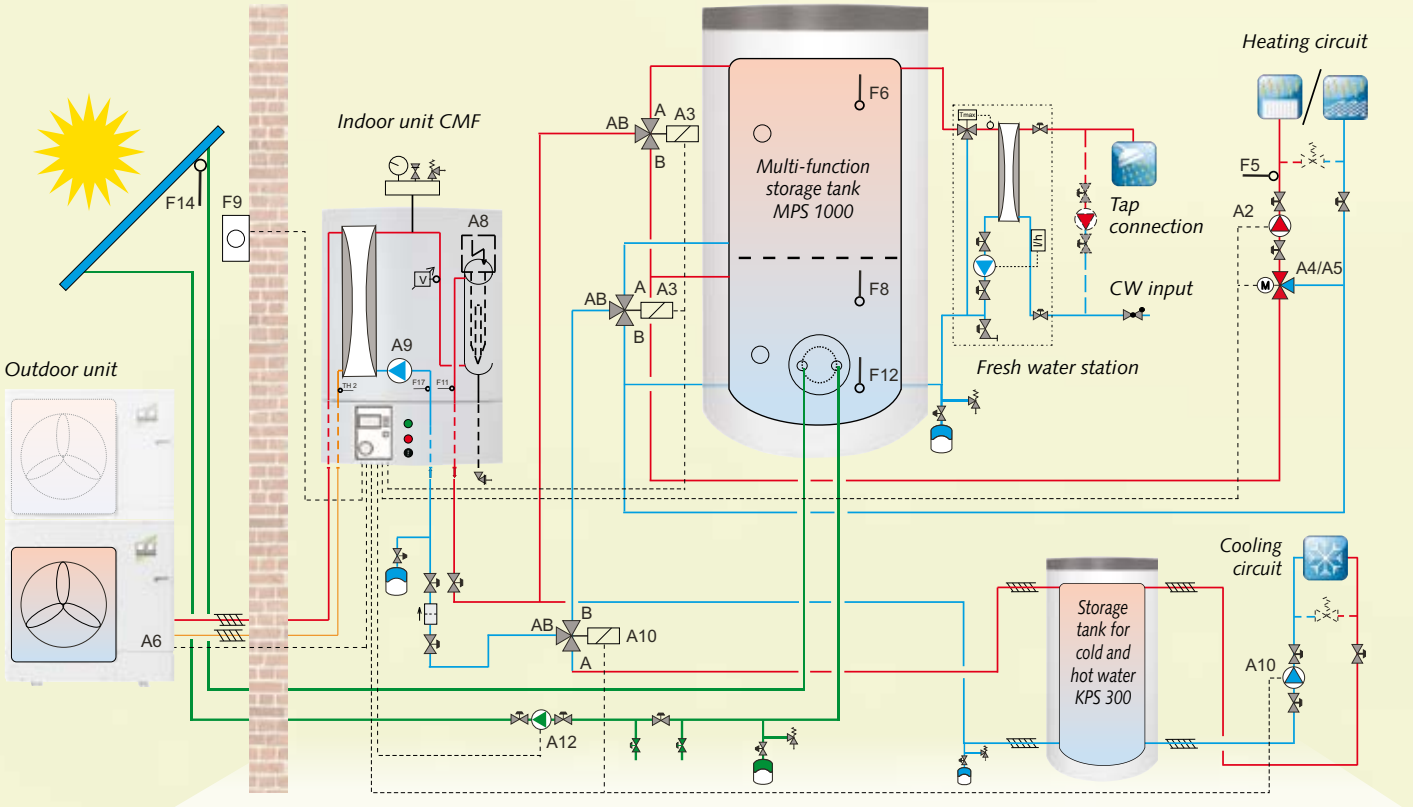
Type Nürnberg

The energy-saving comfort package

In addition to the heating function and the preparation for the integration of solar thermal systems, a cooling function is integrated into this comfort package, as standard. With the fin-tube heat exchanger (special accessory) RWT31, collector surfaces from approx. 8 to 15 m² can be connected.

The hot/cold water preparation takes place with a 1000 litre storage tank and fresh water station. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulikschema (For example, monoenergetic mode with integration of a solar system)



Technical data

REMKO heat pump package - Type Nürnberg		CMF 120	CMF 160
Heating capacity min. / max	kW	3,5 - 11,0	5,0 - 16,0
Cooling capacity min / max	kW	3,3 - 8,1	5,5 - 14,0
Package includes: Indoor and outdoor unit (standard colour white), storage tank for cold and hot water KPS 300 (300 litre), multi-function storage tank MPS 1000 (1000 litre), fresh water station, 3 x 3-way valve, Contact- and solar sensor, condenswater drip tray for outdoor unit, heat pump manager factory installed. Fin-tube heat exchanger must be ordered separately.			
With heat pump manager Multitalent			
Ref. No.		285860	285870
With heat pump manager Multitalent ***PLUS***			
Ref. No.		285865	285875

Zubehör bestehend aus:

3 x 3-way switching valve, DN 25

Contact- and solar sensor

Condenswater drip tray for outdoor unit

Storage tank for cold and hot water KPS 300 (300 l)

Multi-function storage tank MPS 1000 (1000 l)

Fresh water station, complete with pump and thermostatic valve

REMKO HEAT PUMP PACKAGE - CMT

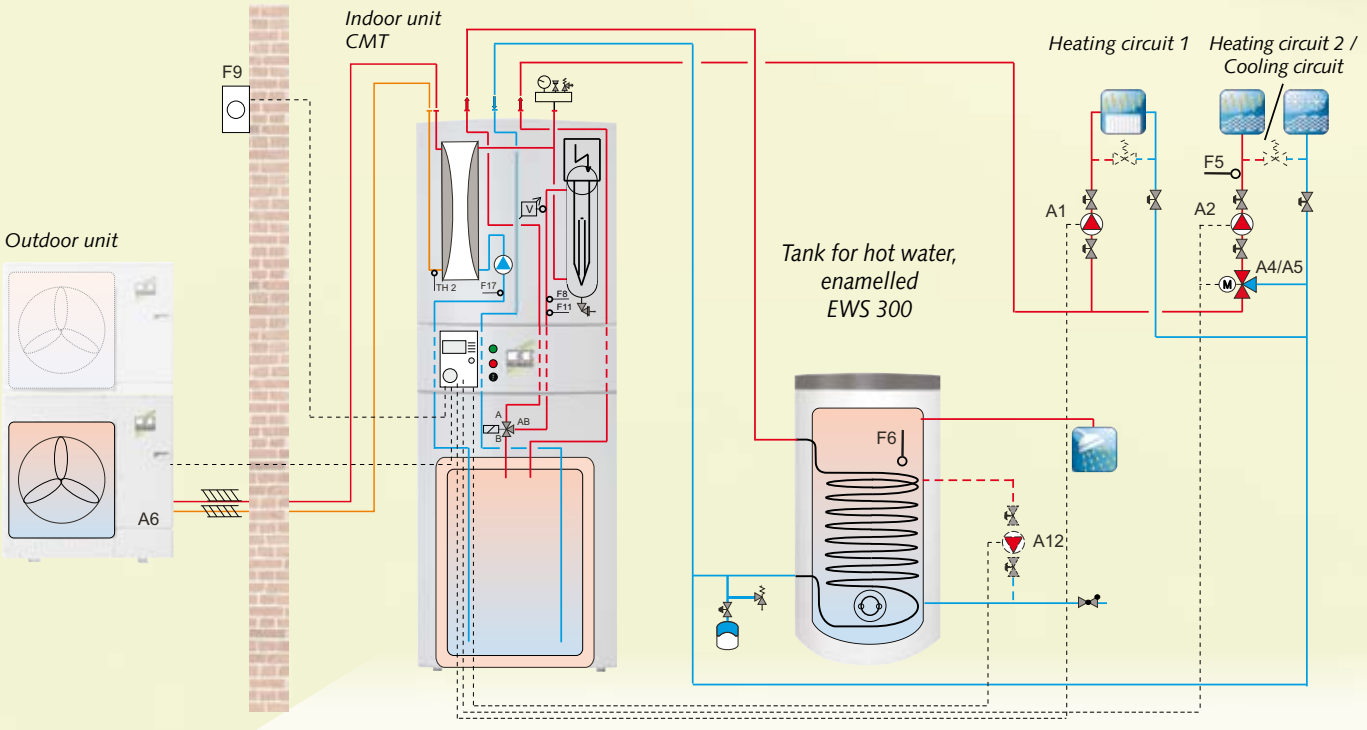
Type Stuttgart

The compact comfort package

If the heat pump is intended to serve as a single heating appliance only, this heat pump package is the ideal solution. In addition to the heating function, surface cooling can be provided when necessary. In this package the warm water preparation takes place in an enamelled 300 litre high capacity tank. Through the compact design, installation expenses are extremely low.

- With integrated 150 litre hot water storage tank
- With integrated 9 kW electric booster heating incl. emergency heating switch

Hydraulic system (example for a single energy source system)

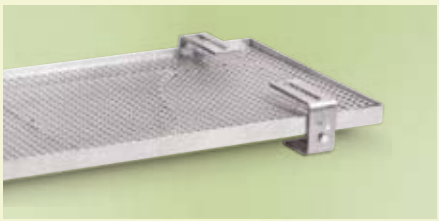


Technical data

REMKO heat pump package Type Stuttgart		CMT 120	CMT 160
Heating capacity min. / max	kW	3,5 - 11,0	5,0 - 16,0
Cooling capacity min / max	kW	3,3 - 8,1	5,5 - 14,0
Package includes: Indoor and outdoor unit (standard colour white), enamelled storage tank for process hot water EWS 300 (300 litre),condenswater drip tray for outdoor unit, heat pump manager factory installed			
With heat pump manager Multitalent			
Ref. No.		285880	285890
With heat pump manager Multitalent ***PLUS***			
Ref. No.		285885	285895

* Cooling without dehumidification function

Accessories includes:



Condenswater drip tray for outdoor unit

Enamelled tank for storage of hot water EWS 300 (300 litre)

REMKO HEAT PUMP PACKAGE - CMF DUO

Type Kiel

Heating

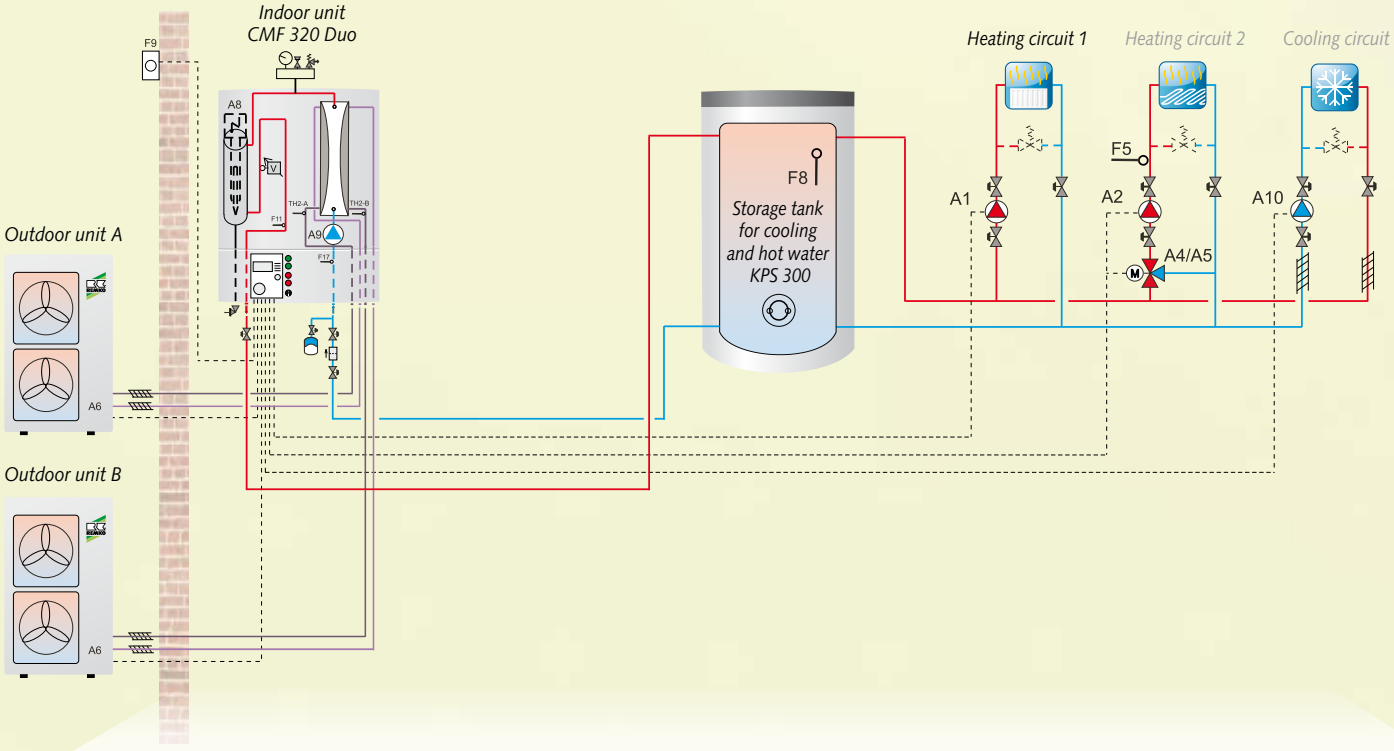
Cooling

The entry-level comfort package

This heat pump package has been designed for users who primarily want heating. In addition, a cooling function can be activated for the summer, when necessary.

Process water preparation takes place separately. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)



Technical data

REMKO heat pump package Duo - Type Kiel		CMF 320 Duo
Heating capacity min. / max	kW	10,0 - 32,0
Cooling capacity min / max	kW	11,0 - 28,0
Package includes: Indoor and outdoor unit (standard colour white), enamelled storage tank for process hot water EWS 300 (300 litre), 2 x condenswater drip tray for outdoor unit, heat pump manager factory installed		
With heat pump manager Multitalent		
Ref. No.		285900
With heat pump manager Multitalent ***PLUS***		
Ref. No.		285905

Accessories includes:

Condenswater drip tray for outdoor unit

Storage tank for cold and hot water KPS 300 (300 l)

REMKO HEAT PUMP PACKAGE - CMF DUO

Type Berlin

Heating

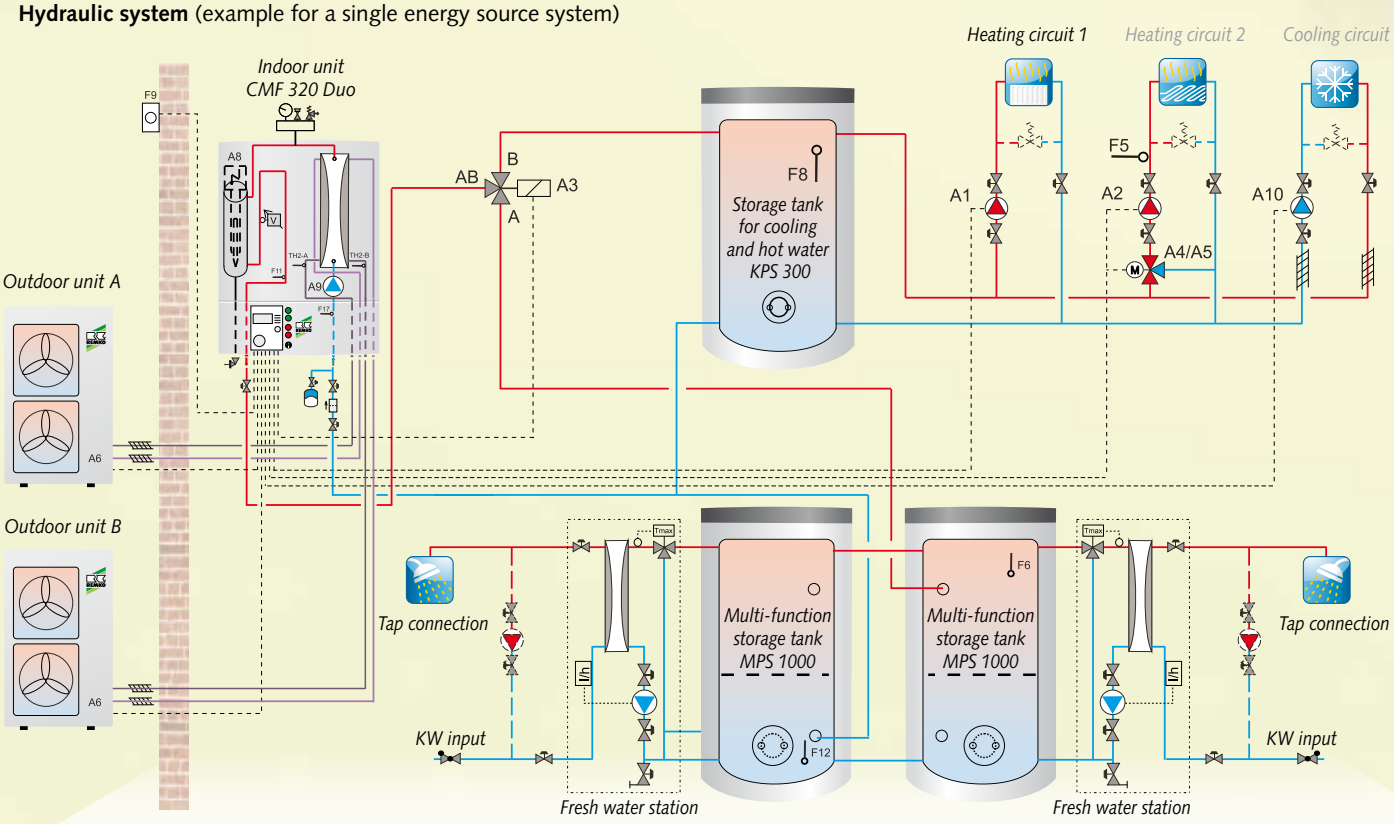
Cooling

Hot water

The powerful, complete-package duo

This heat pump package is the ideal solution for users who, in addition to the heating function, also want drinking water preparation with a high flow rate. A cooling function for the summer can also be activated, if necessary. The drinking water preparation is provided very efficiently by 2 x 1000 litre storage tanks and 2 x fresh water stations in the hygienic process flow. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)

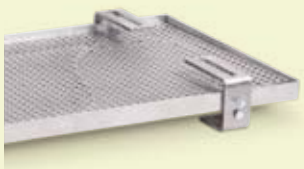


Technical data

REMKO heat pump package Duo - Type Berlin		CMF 320 Duo
Heating capacity min. / max	kW	10,0 - 32,0
Cooling capacity min / max	kW	11,0 - 28,0
Package includes: Indoor and outdoor unit (standard colour white), Storage tank for cooling and hot water KPS 300 (300 Liter), 2 x Multi-function storage tank MPS 1000 (1000 l), 2 x Fresh water station, 3-way valve, 2 x Condenswater drip tray for outdoor unit, heat pump manager factory installed		
With heat pump manager Multitalent		
Ref. No.		285910
With heat pump manager Multitalent ***PLUS***		
Ref. No.		285915

Acessories includes:

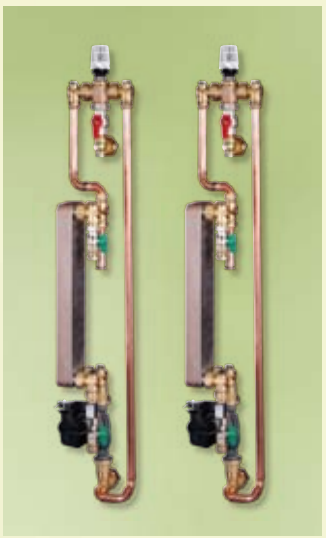
3-way valve, DN 32



2 x Condenswater drip tray for outdoor unit

Storage tank for cold and hot water KPS 300 (300 l)

2 x Multi-function storage tank MPS 1000 (1000 l)



2 x ***Fresh water station****, complete with pump, thermostatic valve and flow switch*

REMKO HEAT PUMP PACKAGE - CMF DUO

Type Bremen

Heating

Hot water

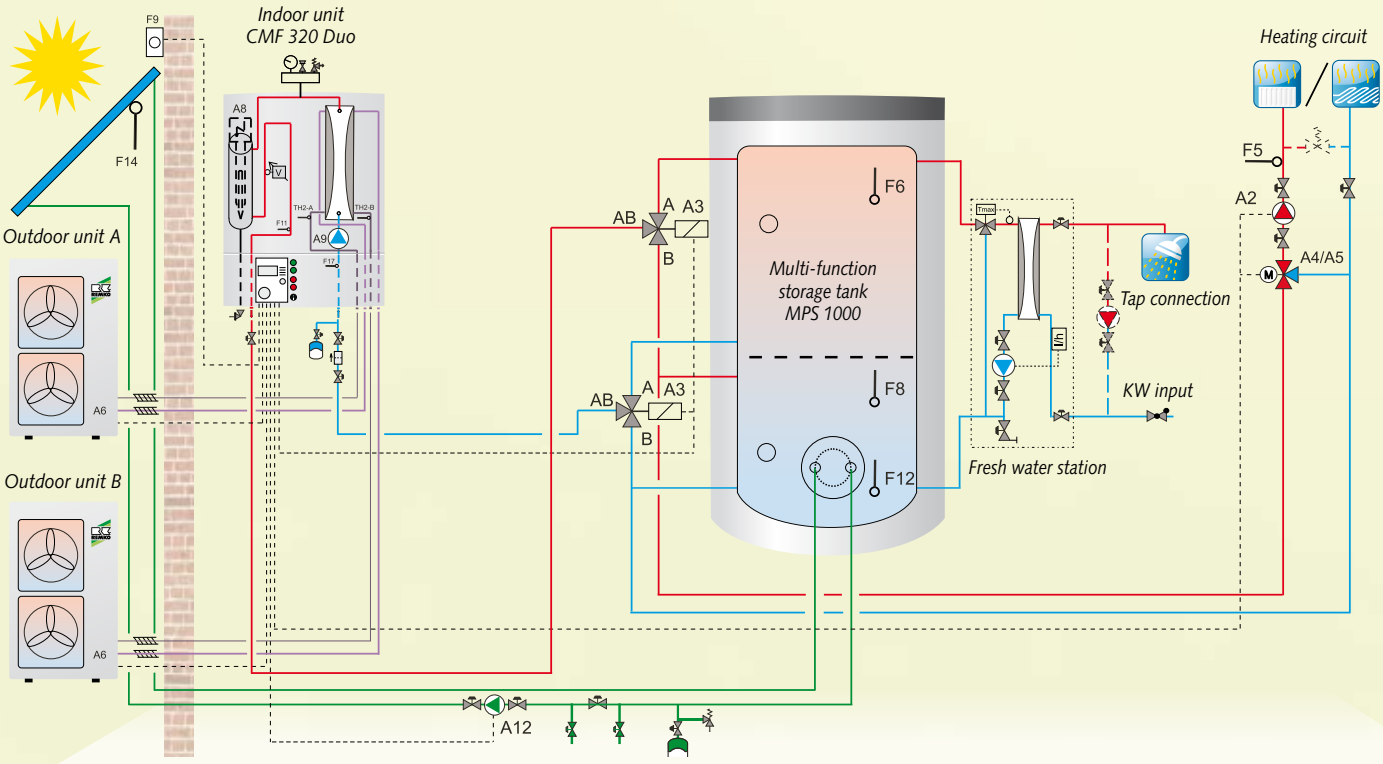
Solar connection

The energy-saving comfort package Duo

In addition to the heating function and the preparation for the integration of solar thermal systems, a cooling function is integrated into this comfort package, as standard. With the fin-tube heat exchanger (special accessory) RWT31, collector surfaces from approx. 8 to 15 m² can be connected.

The hot/cold water preparation takes place with a 1000 litre storage tank and fresh water station. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)



Technical data

REMKO heat pump package - Type Bremen		CMF 320 Duo
Heating capacity min. / max	kW	10,0 - 32,0
Cooling capacity min / max	kW	11,0 - 28,0
Package includes: Indoor and outdoor unit (standard colour white), multi-function storage tank MPS 1000 (1000 Liter), fresh water station, 2 x 3-way valve, Contact- and solar sensor, 2 x Condenswater drip tray for outdoor unit, heat pump manager factory installed. Fin-tube heat exchanger must be ordered separately.		
With heat pump manager Multitalent		
Ref. No.		285920
With heat pump manager Multitalent ***PLUS***		
Ref. No.		285925

Accessoires includes:

2 x 3-way valve, DN 32

Contact- and solar sensor

2 x Condenswater drip tray for outdoor unit

Multi-function storage tank MPS 1000 (1000 l)

Fresh water station, complete with pump and thermostatic valve

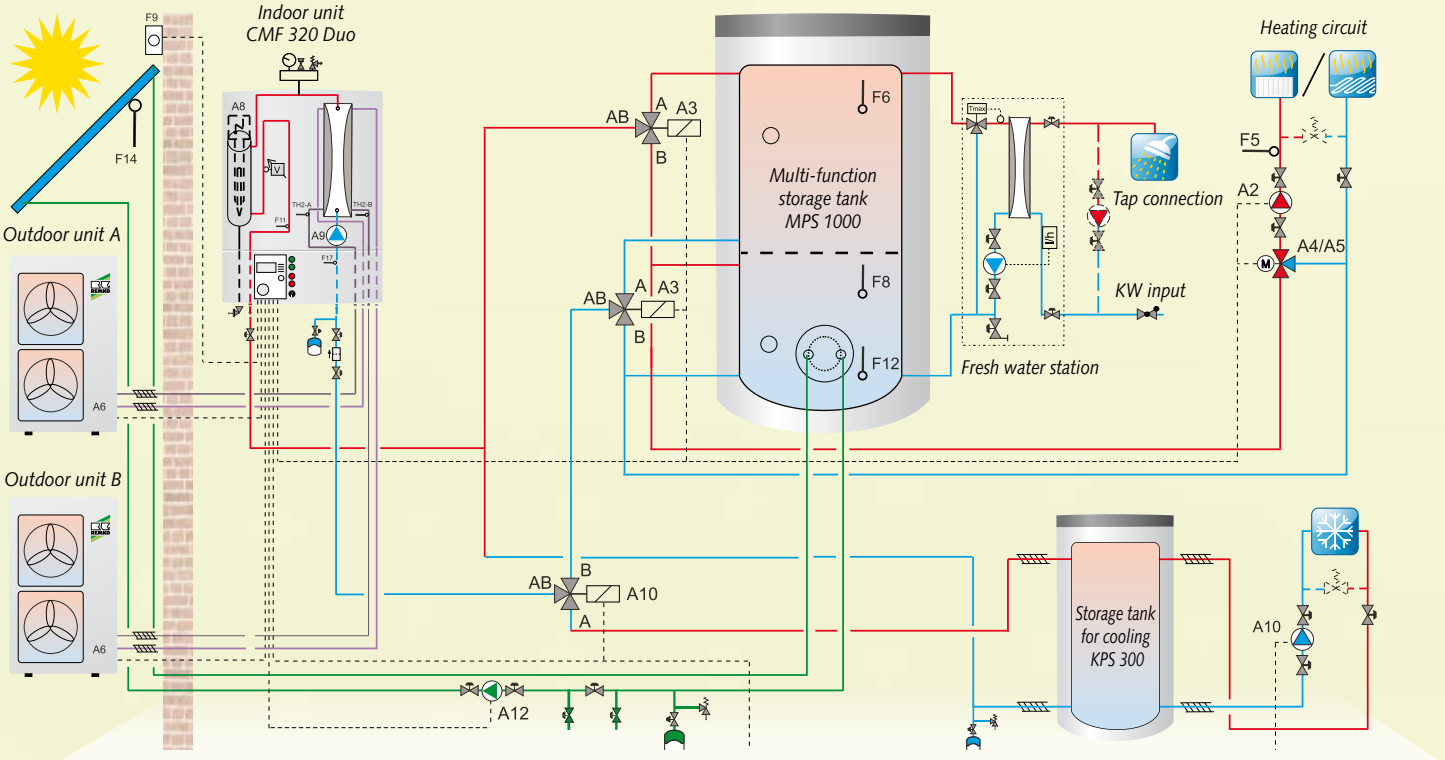
REMKO HEAT PUMP PACKAGE - CMF DUO

Type Hannover

The energy-saving package Duo

The energy-saving package is prepared for the integration of solar thermal systems. With the fin-tube heat exchanger (special accessory) RWT31, collector surfaces from approx. 8 to 15 m² can be connected. The hot water preparation takes place with a 1000 litre storage tank and fresh water station in the process flow. With this heat pump package, both bivalent and single energy source systems can be accommodated.

Hydraulic system (example for a single energy source system)



Technical data and prices

REMKO heat pump package Duo - Type Hannover		CMF 320 Duo
Heating capacity min. / max	kW	10,0 - 32,0
Cooling capacity min / max	kW	11,0 - 28,0
Package includes: Indoor and outdoor unit (standard colour white), storage tank for cold and hot water KPS 300 (300 litre), multi-function storage tank MPS 1000 (1000 litre), fresh water station, 3 x 3-way valve, Contact- and solar sensor, condenswater drip tray for outdoor unit, heat pump manager factory installed. Fin-tube heat exchanger must be ordered separately.		
With heat pump manager Multitalent		
Ref. No.		285930
With heat pump manager Multitalent ***PLUS***		
Ref. No.		285935

Accessories includes:

3 x 3-way valve, DN 32

Contact- and solar sensors

2 x Condenswater drip tray for outdoor unit

Storage tank for cold and hot water KPS 300 (300 l)

Multi-function storage tank MPS 1000 (1000 l)

Fresh water station, complete with pump and flow switch

TANK SYSTEMS

NEW INSOLATION - UP TO 21% ENERGY SAVINGS

Storage tanks for hot water

- Universally applicable as parallel storage (hydr. soft) or Series storage
- With blank flange cover D240 for retrofitting a fin-tube heat exchanger RWT 31
- Electric immersion heater screw connection 6/4“
- Max. operating temperature 95C°
- Operating pressure 3 bar:
- Test pressure 4.5 bar
- Anti-rust coating outside
- 9 connection threads (11 for MPS1000) 6/4“ IG and inflow restrictors
- 4 socket screw threads 1/2“ for sensor/thermometer - immersion sleeve
- Made of high-quality steel S235 in accordance with DIN EN 10 025/10 111
- Foam insulation 100mm, silver-grey

Unit type		HPS 500	MPS 1000
Height with insulation	mm	1725	2135
Diameter with insulation	mm	850	990
Diameter without insulation	mm	650	790
Tilt height without insulation	mm	1670	2090
Weight	kg	113	176
Ref. No.		270300	270400

Hot / cold water storage tanks

- Universally applicable as parallel storage (hydr. soft) or Series storage
- With blank flange cover D180 for retrofitting
- A fin-tube heat exchanger RWT 18 for retrofitting
- Electric immersion heater screw connection 6/4“
- Operating temperature min. 0° C, max. 95°C
- Operating pressure 3 bar
- Steel sheet inner boiler S235 according to DIN EN 10 025/10 111
- 4 connection threads AG 5/4“
- Powder-coated steel. Outer casing in silver-grey
- Outer casing reinforced by beading
- High-quality PUR insulation 50 mm (CFC, HCFC and HFC-free), water vapour-diffusion tight
- Sensor conduit for variable sensor positioning

Unit type		KPS 300
Height with insulation	mm	1797
Diameter	mm	600
Tilt height without insulation	mm	1835
Weight	kg	125
Ref. No.		270250

Tank for process drinking water heating

- Enamelled with double-wound smooth pipe heat exchanger and especially large heat exchanger surface of 3.5 m²
- Inner tank with magnesium-false anodes in accordance with DIN 4753
- PUR insulation 50 mm (CFC, HCFC and HFC-free)
- Silver-grey lining is delivered separately for transport protection purposes
- Operating pressure: max 10 bar
- Max. operating temperature 95° C
- Connection options for circulation 3/4“ AG
- Cold water supply and warm water outlet 1“ IG
- With blank flange cover D180
- Flange heating cartridge (legionella protection) or fin-tube heat exchanger RWT 18 can be retrofitted

Unit type		EWS 300
Height	mm	1435
Diameter	mm	680
Tilt height	mm	1595
Weight	kg	170
Ref. No.		270100

STORAGE TANK SYSTEM - ACCESSORIES

Fin-tube heat exchanger

- For additional indirect heating, e.g. with a solar thermal system
- Manufactured from seamless, helically-wound SF-CU fin-tube
- RWT 31 also with immersion sleeve for sensor

- Complete with screw connection on enamelled flange plate
- Max.operating temperature 95 C°
- Operating pressure: max 10 bar

Unit type		RWT 18	RWT 31
Suitable for storage tanks	Type	EWS 300 KPS 300	HPS 500 MPS 1000
Heat exchanger surface	m²	1,40	3,10
Installation length in	mm	440	530
Connection G	Inches	3/4	1
Contents	l	1,50	2,50
Flange	Ø	180 / 8-Loch	240 / 12-Loch
Ref. No.		260200	260210

THE FINELY-MATCHED ACCESSORY RANGE FOR INVERTER HEAT PUMPS

Outdoor unit

Connection pipe

Connection pipe / refrigerant pipe between outdoor and indoor units ⅜ ⅝"Ø.

Ref. No. 260010

Floor bracket

Floor bracket with vibration dampers for outdoor unit, Lenght 1 m

Ref. No. 260020

Wall-mounted brackets for wall-mounting the outdoor unit.

For unit type	Type	Ref. No.
CMF120, CMT120	WKM 560	260085
CMF160, CMT160	WKM 560+	260078
CMF320 Duo (2x)	WKM 560+	260078
Noise decoupling Set		1613900

Electrical condenswater drainage - heater

Electrical coondensation drainage heating, temperature-regulated for the safe discharge of defrost water with outside temperatures below the freezing point.

Ref. No. 260040

Condenswater drip tray

Condenswater drip tray for outdoor unit incl. temperature-controlled electronic condenswater drainage heating and leaf guard grating. Stainless steel

Ref. No. 260050

Condenswater drip tray incl. oil separator

Condenswater drip tray for outdoor unit incl. temperature-controlled electronic condenswater drainage heating, leaf guard grating and oil separator. Stainless steel

Ref. No. 260120

Heat pump manager Multitalent

Remote controller for Heat pump manager Multitalent

For connection to the heat pump manager integrated into the heat pump. The remote controller contains and LCD display with identical menu guidance. 4 wire CAN-BUS connection. A heating circuit can be controlled with remote control operation.

Ref. No. 260105

Remote controller for Heat pump manager Multitalent

For connection to the heat pump manager integrated into the heat pump. The remote controller contains an LCD display with identical menu guidance. A heating circuit can be controlled with remote control operation. Not suitable for cooling function.

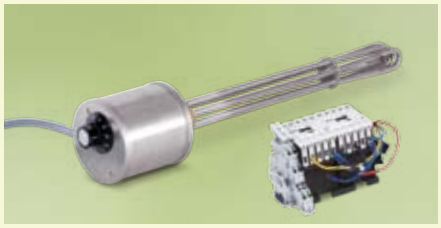
Ref. No. 260110

Analogue remote control with integrated room sensor

For connection to the heat pump manager integrated into the heat pump. The operating mode and the target temperature for Heating circuit 1 can be controlled with two easy-to-operate rotary knob.
(direct heating circuit)

Ref. No. 260130

Indoor unit/storage systems



Electric booster heater 9 kW - set incl. emergency heating switch for inverter heat pump

Electric booster heater 2″ for installation in indoor unit. An integrated emergency heating switch ensures additional operational safety. Especially recommended for single energy source mode. Including temperature regulator and safety temperature limiter. Optional heat capacity: 3, 6 or 9 kW.

Ref. No. 260064

Electric booster heating 6 kW - set for storage tank

Electric booster heating 1 1/2″ for installation in a storage tank. Including temperature regulator and safety temperature limiter. 2, 4 or 6 kW can be optionally connected.

Ref. No. 260063

Flange heating cartridge for EWS 300

Consisting of a high-quality tubular heating element on which an insulated flange plate is fitted. A protective earthing resistor, thermo-sensor and safety temperature limiter.
Max. operating pressure 10 bar.
Heating capacity 6 kW.

Ref. No. 260160

Storage tank with installed fresh water station

Fresh water station

For hygienic water heating in combination with storage tanks. Complete with pump, thermostatic control valve for limiting the tap temperature, flow switch and plate heat exchanger. Heat exchanger for high flow rate of 25 l/min. Available in 2 installation sizes, ready for assembly with housing.

Ref. No. 260151 BG 500
Ref. No. 260152 BG 1000

THE FINELY-MATCHED ACCESSORY RANGE FOR INVERTER HEAT PUMPS

Hydraulics

Contact sensor

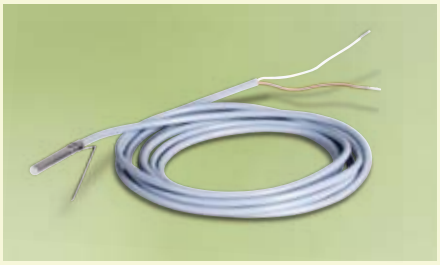
Contact sensor for integration of additional system components, e.g. mixed heating circuit (heating circuit 2). By standard, a contact sensor is included in the scope of supply of the heat pump.

Ref. No. 260100

Solar sensor

Solar sensor for the collector supply for the integration of a solar thermal system (PT 1000), or used as a sensor for a solid fuel boiler

Ref. No. 260102



Immersion sensor

Immersion sensor for the integration of additional system components, e.g. as a reference sensor in the multi-function storage tank in combination with a solar thermal system. By standard, 1 immersion sensor is included in the scope of supply of the heat pump.

Ref. No. 260090

4-way valve, DN 32

Electric valve/four-way valve 1 1/4″ for the integration of a second heating appliance in bivalent mode (only for CMF).

Ref. No. 260071

3-way valve, DN 25

Electrical valve / three-way valve 1″ for water heating and separate cooling circuit (four tube system).

Ref. No. 260070

3-way valve, DN 32

Electrical valve / three-way valve 5/4″ for water heating and separate cooling circuit (four tube system).

Ref. No. 260075

Overflow protection valve

Overflow valve 1″ for protection of the minimum flow volume.

Ref. No. 260080

KWD-S Series *KWK Series* *WLT-S Series*

Comfortable climate in the summer Special accessories from REMKO

All information about our ceiling cassettes, High wall units and floor/ceiling fancoils can be found in the section „Cold water air conditioning systems“ Internet on our website at www.remko.de

HYDRAULIC-CONFIGURATOR

With just a few clicks to the right Hydraulic Scheme

Hydraulic-Configurator

On www.REMKO.de you will find our hydraulic – configurator which is an easy and free tool with its help you are able to generate individual hydraulic schemes. This unique service shows the flexibility of the REMKO heat pumps: Totally you can create over 180 different configurations. Each one should be checked concerning its application, because the hydraulic configurator is just a support and of course not an alternative for dedicated engineers. The creation of the schemes needs only a few steps and in the end there is a hydraulic scheme and an electrical connection plan including a caption as a PDF document. Functions like heating, domestic water, cooling, solar etc. or different operation modes of the system will be considered. Furthermore additional heaters like condensing boilers for example and other water supply components introduce into the scheme.

NEW – HYDRAULIC CONFIGURATOR

http://www.remko.de/en/hydraulikkonfigurator

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and consulting services.

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Air Conditioning and Heating Technology

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REMKO INTERNATIONAL

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Consulting

Through intensive training, we make sure the expert knowledge of our consultants is always up-to-date. This has given us the reputation of being more than just a good, reliable supplier: REMKO, a partner that helps solve problems.

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REMKO not only provides an extensive sales network in Germany and abroad, but also unusually highly qualified sales experts. REMKO sales representatives are more than just salespeople: they must also be customer consultants in air conditioning and heating technology.

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Our devices function precisely and reliably. If a malfunction appears, however, REMKO Customer Care is on the job. Our extensive network of experienced dealers guarantees you constant, short-term, and reliable service.

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