MONOBLOCK HEAT PUMPS

Draw heat from the air directly in your house
Air/water system for heating and cooling

Issue 2021

REMKO – THE SYSTEM PROVIDER

About REMKO

REMKO is a globally active company for heating and air-conditioning technology. Our highly efficient product range comprises hot air heating systems, dehumidifiers, air-conditioning systems and air-conditioners, as well as future-looking heat pumps. Since 1976, we have grown consistently with the requirements of our customers as a medium-sized company. Extensive experience, innovative product development and reliable service are our strengths when it comes to needs-based solutions in the areas of heating, air-conditioning and dehumidifying.

Our quality claim

With our products, we do not orient ourselves on existing solutions, but rather we develop and implement our own innovative technical concepts. In the process, our high quality standards for our products has been the foundation of REMKO's success for over 40 years. In cooperation with recognised testing institutes, all REMKO products are tested on our in-house test stands according to the latest European standards. Certificates confirm our sustainable quality assurance system.

Services

With our CheckServ offering and a well-developed network of qualified expert partners, we guarantee competent consultation and reliable support. From planning to installation and subsequent maintenance, we are available to our customers as a reliable contact partner at all times. If a malfunction occurs, our emergency service team is happy to help.

Spare part service

In addition to accessory articles, REMKO offers spare parts for all its products that the customer can order conveniently online.
The spare part search can also be used to find spare parts for older models. The quickest possible delivery is naturally part of the service provided by REMKO.
https://www.remko.de/ersatzteil-suche/

AIR-CONDITIONING

Air-Conditioners
Cold Water Air-Conditioning Systems

HEAT

Mobile Hot Air Heating Systems
Stationary Hot Air Heating Systems

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Heat pumps
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DEHUMIDIFICATION

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AIR CLEANING

Air purifier

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QUALITY WITH SYSTEMS

LWM series
Design line CAMURA

COMPACT IN A SINGLE UNIT

Heat pumps that will impress you

NEW

With environmentally friendly refrigerant R454B and a low GWP value.

Design line CAMURA

Design line ALU

Design line GRAPHIT

Go Green

R454B Refrigerant

A++ Energy efficiency

SG Ready Smart Heat Pumps

WI-FI

New dimensions in terms of independence

The solar energy stored in the air is an inexhaustible source of emission-free power. Heat pumps draw the majority of the energy from the surrounding air. This works even in winter with outside temperatures below zero. Only the drive energy has to be provided by electrical power. ≈75% of the energy from the ambient air can tjerefpre be used free of charge.

The advantages of a monoblock heat pump are clear

Due to the compact design and the preinstalled components, the advantages are obvious.

- No refrigeration system work required
- Low maintenance costs
- No costs for chimney and chimney sweep
- No costs for a tank
- No costs for a tank room
- Simple installation

Highly efficient

The optimum output of the LWM series monoblock heat pumps highly efficiently supplies buildings with heat and hot water. Combination with an indoor unit including a hot-water tank or an external tank from the REMKO tank program is possible.

Easy to install

All necessary components are stored in an attractive outdoor unit in a space-saving manner. Installation is performed quickly and easily. The refrigeration circuit is hermetically closed and therefore low-maintenance and quickly commissioned.

Particularly quiet

Due to their large heat exchanger surface and high-quality incorporated components, the monoblock heat pumps ensure maximum efficiency. These measures guarantee low-noise operation in combination with an EC fan.

REMKO SMART-CONTROL TOUCH

The intelligent control

Fig. Remote control

- Built into indoor unit
- Integration of photovoltaic current into the system
- Solar connection
- Connection to several heat generators
- 2 mixed heating circuits
- 1 non-mixed heating circuit
- Integration of air-conditioning function into the system
- All circuits with activatable cooling function
- Dynamic hygiene function
- Integration into a Smart-Home system
- Internet integration via the Smart-Web portal
- WLAN
- 4.3" touch display

Smart-Com for integration into a Smart Home system

Remote control via the Internet with Smart-Web

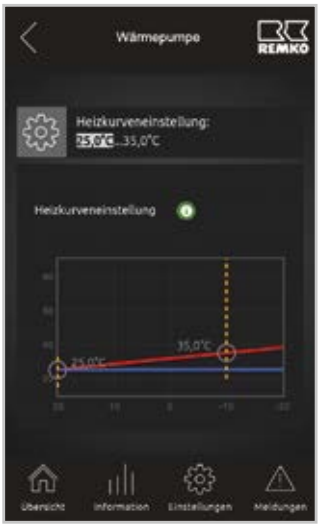
REMKO SMART-CONTROL TOUCH

The future is smart

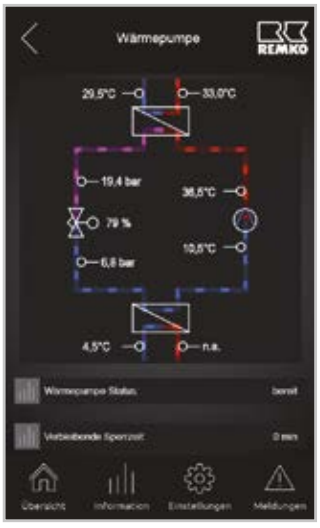
The intuitive controller software with a plain-text menu and 4.3" touch display. Connection to all regenerative energies is possible. Whether heat pumps, solar energy, or photovoltaics, anything can be integrated. Use in a Smart-Grid or Smart Home system, such as KNX, is possible.

The controller offers extensive setting possibilities.

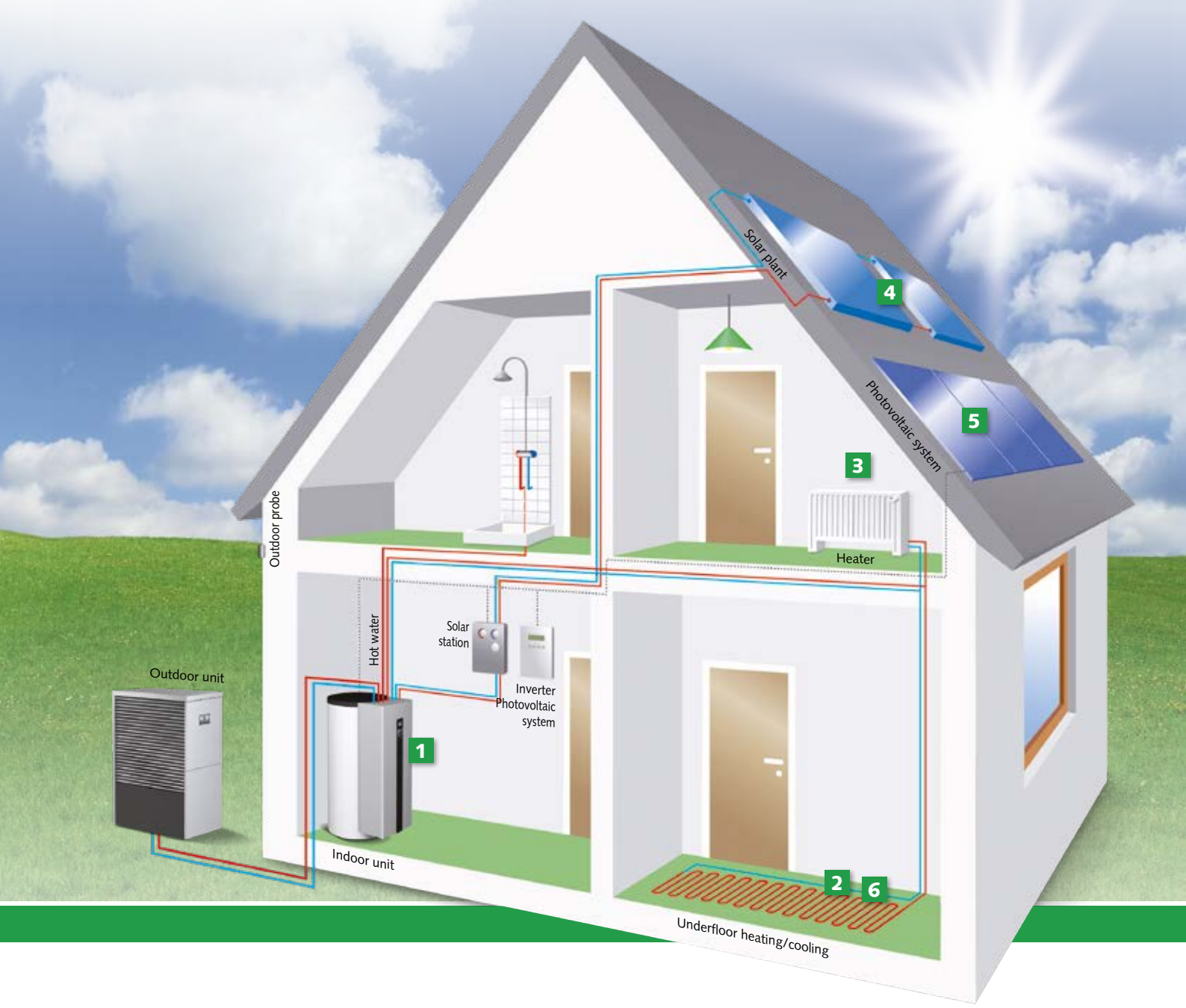
- Graphic representation of the heating curve
- Representation of the refrigeration circuit
- Smart-Web function
- Control of two mixed and one non-mixed heating circuits
- Dew point control with separate sensors in living spaces
- Smart Heating/Cooling function
- External data memory in I/O module



Graphic representation of the heating curve



Representation of the refrigeration circuit



Versatile use in new buildings, old buildings, and renovations

1 Effective domestic hot water preparation
The high inlet temperature of up to 65 °C guarantees convenient domestic hot water preparation using an external domestic water tank. The indoor unit included in the Stuttgart package consists of a 300 litre domestic water tank, Smart-Control Touch switchover valve and bypass valve.

2 Combination with floor heating, modern radiators and wall heaters
Heat pumps achieve their highest efficiency in connection with floor heating. This means that cosy heating is guaranteed even at lower outside temperatures.

3 Ideal for renovation
The high inlet temperature up to 65 °C permits combinations with low-temperature heating elements.

4 Combination with a REMKO RSK solar system for economic domestic water preparation and heating support
In annual average, a high percentage of hot water preparation is implemented using direct solar energy.
The tank systems constitute both the interface and collection point. Domestic-water-supported solar operation is possible in combination with the indoor unit shown.

5 Optimised use of photovoltaic current
The REMKO monoblock heat pump can preferably be operated using self-generated photovoltaic current. This saves money and the dependency on current price increases decreases.

6 Pleasant climate in the summer
On hot days, the heat pump can be used in conjunction with air convectors or underfloor heating for cooling. In order to do so, the function of the heat pump is simply reversed. Air convectors for air conditioning can be found in the REMKO indoor chilled-water units.

REMKO LWM SERIES

Everything compact in a single unit

Design line CAMURA

Go Green

PV-READY

A++
Energy efficiency

R454B
Refrigerant

SG
Ready
Smart Heat Pumps

WI-FI

REMKO LWM SERIES

Monoblock heat pump for easy assembly outdoors

Compact, quiet to operate and easy to install – these properties characterize the LWM air/water heat pump in a monoblock design. The inverter technology fulfils all demands on high efficiency. Since the complete refrigeration circuit is located in the outdoor unit, absolutely no refrigeration system work is required during installation. This reduces the work effort and guarantees the largest possible assembly and function safety. Thanks to the newest refrigerant R454B, a water temperature of up to 65°C is achieved and maximum efficiency is guaranteed.

Due to the quiet operation, this heat pump can be used in almost all residential areas. The cooling function integrated in the standard version guarantees a pleasant room climate even in summer. Depending on the respective environment, the LWM heat pump is available in different design variants.

Scope of supply

- Monoblock heat pump
- 1 highly efficient, controlled heating circuit pump
- Dirt filter
- 2 shut-off valves
- Safety assembly with SIV, automatic bleeding valve and pressure gauge
- Outdoor probe/immersion probe

Profit from these advantages

- High inlet temperatures up to 65 °C
- Effective heating, preparation for domestic water and active cooling possible
- Remote access possible through the REMKO Smart Web Portal
- Smart-Serv 7.5 kW for monoenergetic operation, screed drying and hygiene operation
- Integrated solar control
- Optimised use of photovoltaic current Smart Heating / Cooling
- Control of two mixed and one non-mixed heating circuits
- Smart-Control Touch Use in the Smart-Grid intelligent power mains is also possible.
- Especially noise-insulated scroll condenser in outdoor unit
- Integrated power-controlled circulation pumps with EC technology for the supply of the heating system
- Dew point control with room temperature/moisture sensor possible
- Hermetically closed refrigeration circuit
- Cascade circuit for Duo heat pumps

Technical data

Area of use: heating [5]		1-7 kW	7-10 kW	10-13 kW	13-20 kW	20-26 kW
Unit type		**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
Design			Monoblock Single		Cascade 2x LWM 110	Cascade 2x LWM 150
System		Air / water	Air / water	Air / water	Air / water	Air / water
Operating mode		Heating/cooling/hot water	Heating/cooling/hot water	Heating/cooling/hot water	Heating/cooling/hot water	Heating/cooling/hot water
Testing		EHPA	EHPA	EHPA	EHPA	EHPA
Inverter technology		Series	Series	Series	Series	Series
SmartControl Touch		Series	Series	Series	Series	Series
Smart-Serv, heating rod 7.5 kW installed per heat pump		Optional	Optional	Optional	Optional	Optional
Number of heat pumps		1	1	1	2	2
Night operation (power control)		Series	Series	Series	Series	Series
Service limits, heating	°C	-23 to +37	-23 to +37	-23 to +37	-23 to +37	-23 to +37
Rated heating capacity (min. / max.)	kW	6.0 (0.9-8.0)	8.0 (2.0-10.7)	10.0 (3.0-14.5)	16.0 (2.0-21.4)	20.0 (3.0-29.0)
Energy efficiency rating for heating [4]		A++/A++	A++/A++	A++/A++	A++/A++	A++/A++
Rated heating capacity / COP for A7/W35 [1]	kW / -	6.25/5.10	8.04/5.02	10.29/5.03	16.08/5.02	20.58/5.03
Rated heating capacity / COP for A2/W35 [1]	kW / -	4.33/4.09	6.35/4.04	8.33/4.11	12.70/4.04	16.66/4.11
Rated heating capacity / COP for A-7/W35 [1]	kW / -	3.82/3.55	5.57/3.42	7.85/3.57	11.14/3.42	15.70/3.57
Max. flow temperature, hot water, up to -7°C outdoor temp.	°C	+ 65	+ 65	+ 65	+ 65	+ 65
Service limits, cooling	°C	+15 to +45	+15 to +45	+15 to +45	+15 to +45	+15 to +45
Rated cooling capacity (min. / max.)	kW	5.0 (1.1-8.9)	6.0 (3.3-11.9)	11.0 (5.5-14.0)	12.0 (6.6-23.8)	22.0 (11.0-28.0)
Rated cooling capacity / EER for A35/W7 [1]	kW / - [2]	4.90/2.81	7.63/2.73	12.20/2.65	15.26/2.73	24.40/2.65
Rated cooling capacity / EER for A35/W18 [1]	kW / - [2]	5.70/3.61	8.24/3.71	12.77/3.81	16.48/3.71	25.54/3.81
Rated cooling capacity / EER for A27/W18 [1]	kW / - [2]	5.80/3.92	10.71/4.00	18.20/4.11	21.42/4.00	36.08/4.11
Min. supply temperature, cooling water	°C	+ 7	+ 7	+ 7	+ 7	+ 7
Refrigerant [2]		R454B	R454B	R454B	R454B	R454B
Basic refrigerant filling volume / CO_2 equivalent	kg/t	1.3/0.61	1.4/0.65	1.8/0.84	2x 1.4/0.65	2x 1.8/0.84
Refrigeration circuit per heat pump				Hermetically closed		
Power supply for heat pump/compressor	V/Ph/Hz	230/1~/50	400/3~/50	400/3~/50	2x 400/3~/50	2x 400/3~/50
Power supply for Smart-Control Touch	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Voltage supply for electrical heating element (SmartServ)	V/Ph/Hz	400/3~/50	400/3~/50	400/3~/50	2x 400/3~/50	2x 400/3~/50
Rated power consumption for A7/W35	kW	1.22	1.60	2.04	2x 1.60	2x 2.04
Rated power consumption for A7/W35 (per heat pump and phase)	A	5.3	2.57	3.27	2.4	3.27
On-site fuse protection AM (indoor unit without heating rod)	A slow-acting	16	3x16	3x16	3x16	3x16
Nominal volume flow rate of water (heating) at Δt 5 K	m³/h	1.1	1.4	1.6	2x 1.4	2x 1.6
External maximum pressure loss (heating system)	kPa	80	70	60	70	60
Max. operating pressure, water	bar	3	3	3	3	3
Hydraulic connection, heating system (flat-sealing)	Inch	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
Pipeline diameter to be used on site, Cu pipe	mm	28	28	28	42	42
Sound power level LwA, per heat pump	dB(A)	54/47	56/49	58/51	56/49	58/51
Sound pressure level LpA rated [3] / night operation, per heat pump	dB(A)	32/25	34/27	36/29	34/27	36/29
Dimensions – height/width/depth – per heat pump	mm	1600/1000/800	1600/1000/800	1600/1000/800	1600/1000/800	1600/1000/800
Weight	kg	180	200	220	2x 200	2x 220
Design line ALU – Outdoor unit with slatted grille with aluminium optics, including Smart-Control Touch as surface-mounted variant Ref. no.		262080	262110	262150	262170	262180
Design line GRAPHIT – Outdoor unit with slatted grille Dark grey, including Smart-Control Touch as surface-mounted variant Ref. no.		262084	262114	262154	262174	262184
Design line CAMURA – Outdoor unit with slatted grille with wood optics, including Smart-Control Touch as surface-mounted variant Ref. no.		262082	262112	262152	262172	262182

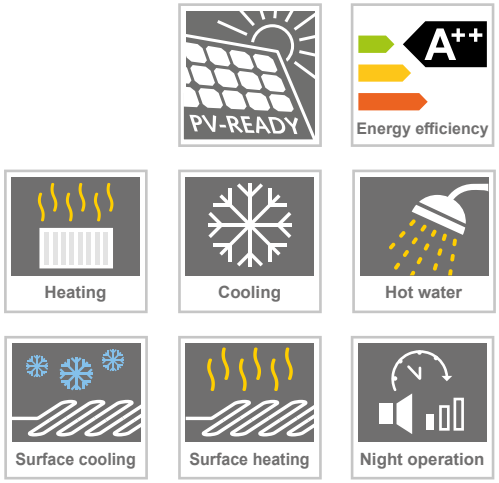
[1] COP / EER according to EN 14511 [2] GWP = 466 [3] Distance of 5 m, half sphere, A7/W55 [4] Average, composite system W35/55 °C including Smart Control
[5] Total heating requirement, inlet flow 35°C, monoenergetic

Accessories

Unit type	LWM 80	LWM 110	LWM 150	LWM 110 Duo	LWM 150 Duo
REMKO Smart-Serv for monoenergetic operation, hygiene operation, screed drying and emergency heating function, installed heating rod 7.5 kW.	262200	262205	262210	262205	262210
REMKO Smart-Count, factory-installed heat meter for the separate counting of the quantity of heat of heating and hot water	259010	259010	259010	259010	259010
REMKO Smart-Web Ethernet interface for the connection of commercial home router software for dialling in to Smart-Control Touch and setting and reading operating parameters	248120	248120	248120	248120	248120

HEAT PUMP PACKAGES

Type: Stuttgart



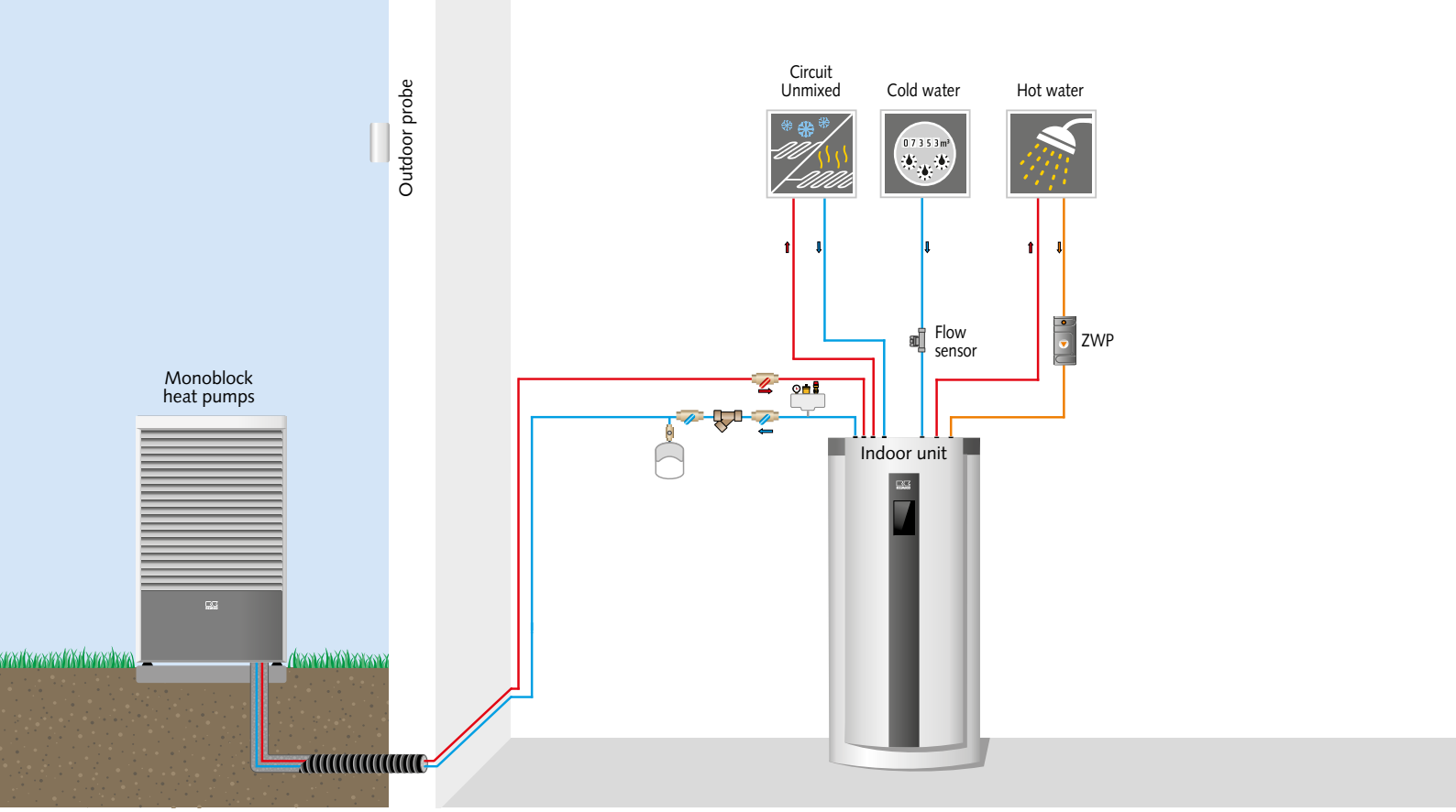
REMKO LWM SERIES

Heat pump package, Type Stuttgart

If the heat pump is intended to serve as a sole heat generator, this heat pump package is the ideal solution. In connection with underfloor heating, this unit is perfectly suited for new buildings. In addition to the heating function, a cooling function can be provided when necessary. In this package, the preparation for domestic water takes place in an enamelled, 300-litre domestic water tank integrated into the indoor unit. Due to the compact construction, the installation effort is extremely low. Smart-Control and the switchover and bypass valves are already installed in the indoor module and electrically connected. This saves costs and minimizes the installation time.

Package comprising:

- Monoblock heat pump
- Indoor unit with integrated 300 litre domestic water tank
- Built-in electrically controlled bypass valve
- Built-in Smart-Control Touch
- Built-in 3-way changeover valve



Hydraulic diagram of Stuttgart (example of monoenergetic operation)

Technical data

Area of use: heating [1]		**1-7 kW**	**7-10 kW**	**10-13 kW**
Unit type		**LWM 80**	**LWM 110**	**LWM 150**
Rated heating capacity (min. / max.)	kW	6.0 (0.9-8.0)	8.0 (2.0-10.7)	10.0 (3.0-14.5)
Rated cooling capacity (min. / max.)	kW	5.0 (1.1-8.9)	6.0 (3.3-11.9)	11.0 (5.5-14.0)
Energy efficiency class [2]		A++/A++	A++/A++	A++/A++
External maximum pressure loss	kPa	70	60	50
Design line ALU, including Smart-Control Touch Ref. no.		262300	262310	262320
Design line GRAPHIT, including Smart-Control Touch Ref. no.		262301	262311	262321
Design line CAMURA, including Smart-Control Touch Ref. no.		262302	262312	262322

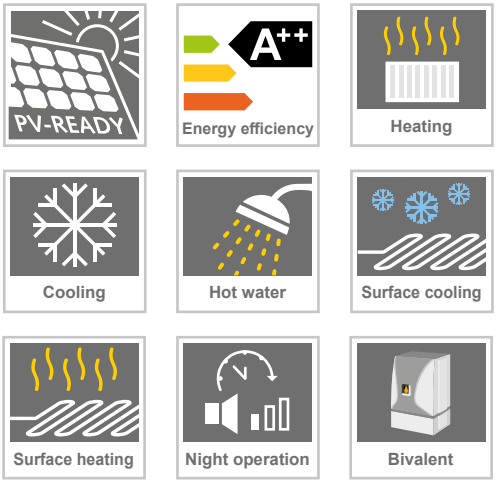
[1] Total heating requirement, inlet flow 35°C, monoenergetic [2] Average, composite system W35/55°C, including Smart-Control

Accessories

Unit type	**LWM 80**	**LWM 110**	**LWM 150**
REMKO Smart-Serv – For monoenergetic operation, hygiene operation, screed drying and emergency heating function, installed heating rod 7.5 kW.	262200	262205	262210
REMKO Smart-Count, factory-installed heat meter for the separate counting of the quantity of heat of heating and hot water	259010	259010	259010
REMKO Smart-Cool for active cooling, pipe assemblies and circulation pump in the indoor unit with steam-diffusion-tight insulation, use in case of cooling function when the inlet temperature is below the dew point.	259085	259085	259085

HEAT PUMP PACKAGES

Type: Mannheim



REMKO LWM SERIES

Heat pump package, Type Mannheim

This heat pump package is designed for users who want to operate the heat pump in combination with a conventional heat generator (alternatively bivalent) or use the additional combination buffer tank KWS 300 for hydraulic decoupling in case of large volume flow rates. A cooling function for the summer can also be activated, if necessary. In this package, the drinking water preparation takes place in an enamelled KWS 300 drinking water tank. The intrinsic consumption of any photovoltaic systems is optimised by the tank volume. With this heat pump package, both monoenergetic and bivalently alternating alternating systems can be accommodated. The separate pump assemblies HGU/HGM (can be ordered separately) for the heating circuits are equipped with a high-efficiency pump regulated in a needs-based manner.

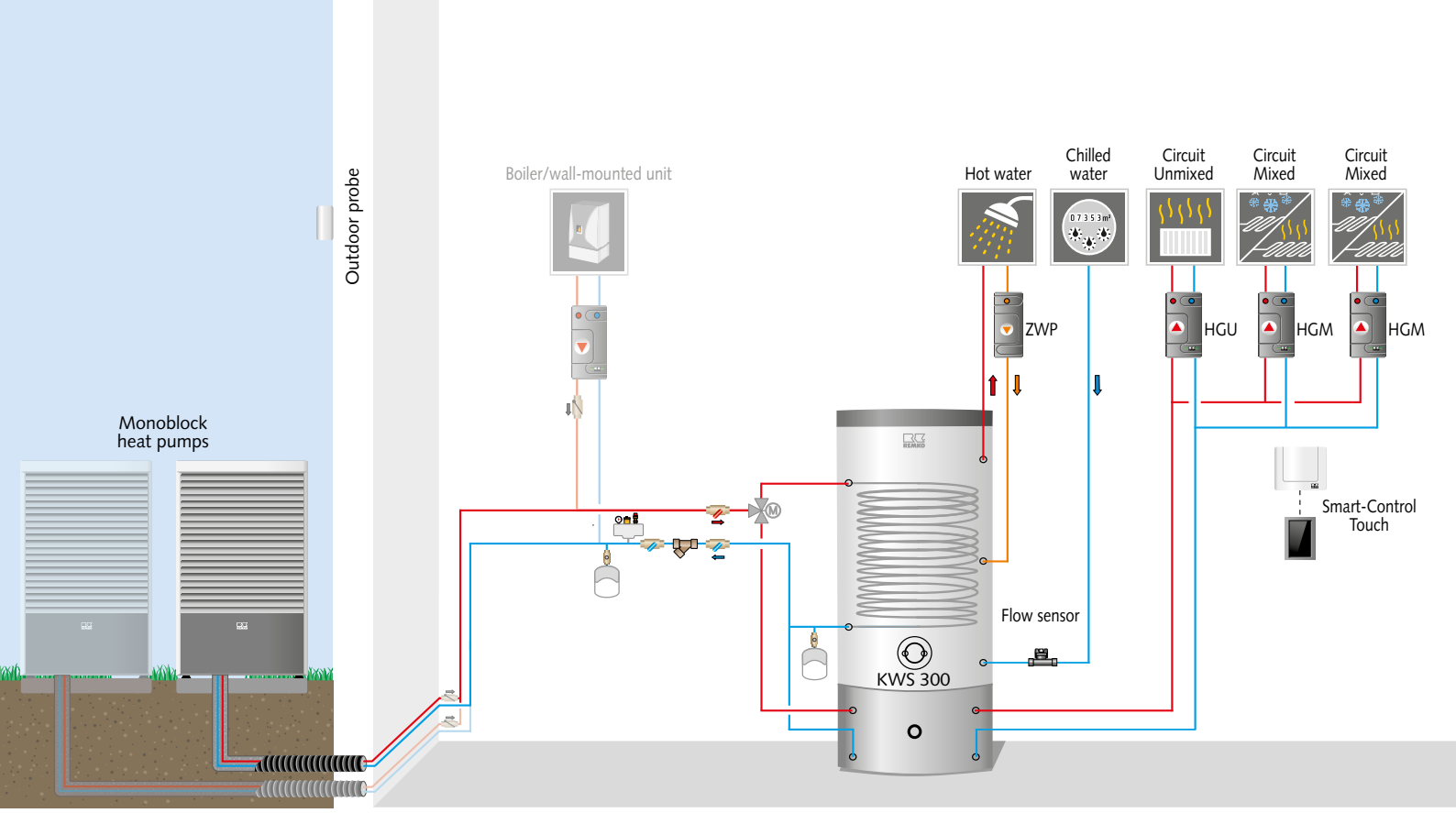
Package comprising:

- Monoblock heat pump
- Combination buffer tank KWS 300 (300 l)
- 3-way changeover valve
- Smart-Control Touch, surface-mounted version

Combination buffer tank for cooling, heating and hot water, KWS 300

3-way changeover valve, 5/4"

Smart-Control Touch, surface-mounted version



Hydraulic diagram of Mannheim (example for monoenergetic or alternative bivalent operation)

Technical data

Area of use: heating [1]		**1-7 kW**	**7-10 kW**	**10-13 kW**	**13-20kW**	**20-26kW**
Unit type		**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
Rated heating capacity (min. / max.)	kW	6.0 (0.9-8.0)	8.0 (2.0-10.7)	10.0 (3.0-14.5)	16.0 (2.0-21.4)	20.0 (3.0-29.0)
Rated cooling capacity (min. / max.)	kW	5.0 (1.1-8.9)	6.0 (3.3-11.9)	11.0 (5.5-14.0)	12.0 (3.3-23.8)	22.0 (5.5-28.0)
Energy efficiency class [2]		A++/A++	A++/A++	A++/A++	A++/A++	A++/A++
External maximum pressure loss	kPa	80	70	60	70	60
Design line ALU – Including Smart-Control Touch as surface-mounted variant Ref. no.		262330	262340	262350	262353	262356
Design line GRAPHIT – Including Smart-Control Touch as surface-mounted variant Ref. no.		262331	262341	262351	262354	262357
Design line CAMURA – Including Smart-Control Touch as surface-mounted variant Ref. no.		262332	262342	262352	262355	262358

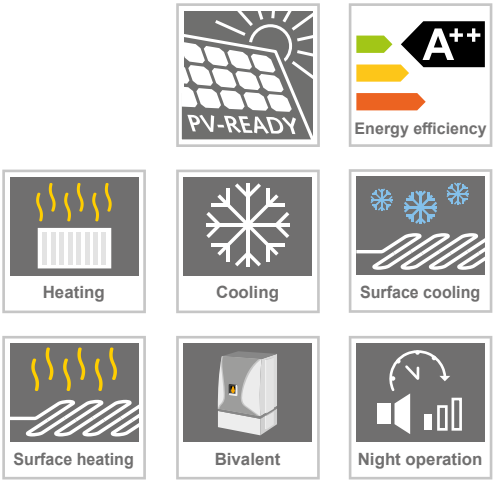
[1] Total heating requirement, inlet flow 35°C, monoenergetic [2] Average, composite system W35/55°C, including Smart-Control

Accessories

Unit type	**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
REMKO Smart-Serv for monoenergetic operation, hygiene operation, screed drying and emergency heating function, installed heating rod 7.5 kW.	262200	262205	262210	262205	262210
REMKO Smart-Count, factory-installed heat meter for the separate counting of the quantity of heat of heating and hot water	259010	259010	259010	259010	259010
Heating circuit pump set HGU Speed-controlled heating circuit pump group (PWM)/unmixed	259046	259046	259046	259046	259046
Heating circuit pump set HGM Speed-controlled heating circuit pump group (PWM)/mixed	259047	259047	259047	259047	259047

HEAT PUMP PACKAGES

Type: Cologne



REMKO LWM SERIES

Heat pump package, Type Cologne

This heat pump package is designed for users who want heating and cooling first and foremost. The additional KPS 301 buffer tank is used for the hydraulic decoupling of large medium flow rates. A cooling function for the summer can also be activated, if necessary. Domestic water preparation takes place separately. With this heat pump package, both monoenergetic and bivalently alternating systems can be accommodated.

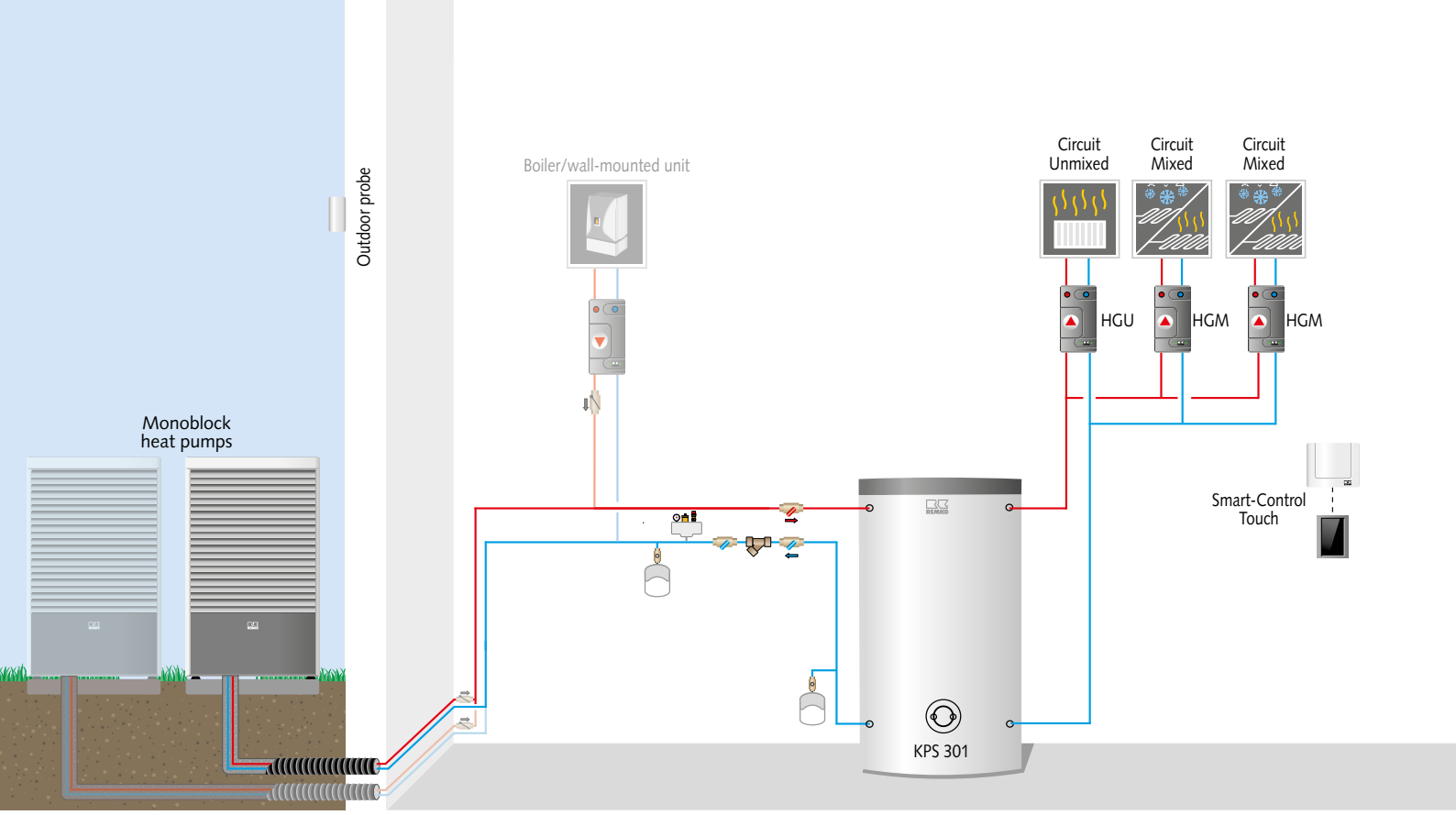
The separate pump assemblies HGU/HGM (can be ordered separately) for the heating circuits are equipped with a high-efficiency pump regulated in a needs-based manner.

Package comprising:

- Monoblock heat pump
- Steam-diffusion-proof buffer tank for cooling and hot water KPS 301 (300 l)
- Smart-Control Touch, surface-mounted version

Buffer tank for cooling and hot water KPS 301

Smart-Control Touch, surface-mounted version



Hydraulic diagram of Cologne (example for monovalent or alternative bivalent operation)

Technical data

Area of use: heating [1]		**1-7 kW**	**7-10 kW**	**10-13 kW**	**13-20kW**	**20-26kW**
Unit type		**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
Rated heating capacity (min. / max.)	kW	6.0 (0.9-8.0)	8.0 (2.0-10.7)	10.0 (3.0-14.5)	16.0 (2.0-21.4)	20.0 (3.0-29.0)
Rated cooling capacity (min. / max.)	kW	5.0 (1.1-8.9)	6.0 (3.3-11.9)	11.0 (5.5-14.0)	12.0 (3.3-23.8)	22.0 (5.5-28.0)
Energy efficiency class [2]		A++/A++	A++/A++	A++/A++	A++/A++	A++/A++
External maximum pressure loss	kPa	80	70	60	70	60
Design line ALU – Including Smart-Control Touch as surface-mounted variant Ref. no.		262360	262370	262380	262383	262386
Design line GRAPHIT – Including Smart-Control Touch as surface-mounted variant Ref. no.		262361	262371	262381	262384	262387
Design line CAMURA – Including Smart-Control Touch as surface-mounted variant Ref. no.		262362	262372	262382	262385	262388

[1] Total heating requirement, inlet flow 35°C, monoenergetic

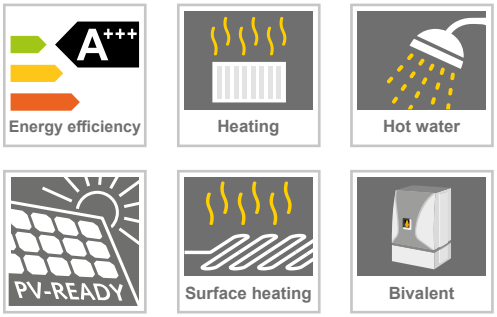
[2] Average, composite system W35/55°C, including Smart-Control

Accessories

Unit type	**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
REMKO Smart-Serv for monoenergetic operation, hygiene operation, screed drying and emergency heating function, installed heating rod 7.5 kW.	262200	262205	262210	262205	262210
REMKO Smart-Web Ethernet interface for the connection of commercial home router software for dialling in to Smart-Control Touch and setting and reading operating parameters	248120	248120	248120	248120	248120
Heating circuit pump set HGU Speed-controlled heating circuit pump group (PWM)/unmixed	259046	259046	259046	259046	259046
Heating circuit pump set HGM Speed-controlled heating circuit pump group (PWM)/mixed	259047	259047	259047	259047	259047

HEAT PUMP PACKAGES

Type: Frankfurt



REMKO LWM SERIES

Heat pump package, Type Frankfurt

The energy-saving package is suitable for the integration of solar thermal systems or combustible solid fuel burners for heating and domestic water support. With the fin-tube heat exchanger (special accessory) RWT 31, collector surfaces from approx. 8 to 15 m² can be connected. The domestic water preparation takes place with a 800 litre or 1000 litre buffer tank and electronically regulated fresh water station using the hygienic flow method. With this heat pump package, both bivalently alternating and monovalently operated systems can be accommodated.

The separate pump subassemblies HGM/HGU (can be ordered separately) for the heating circuits are equipped with a high-efficiency pump regulated in a needs-based manner.

Package comprising:

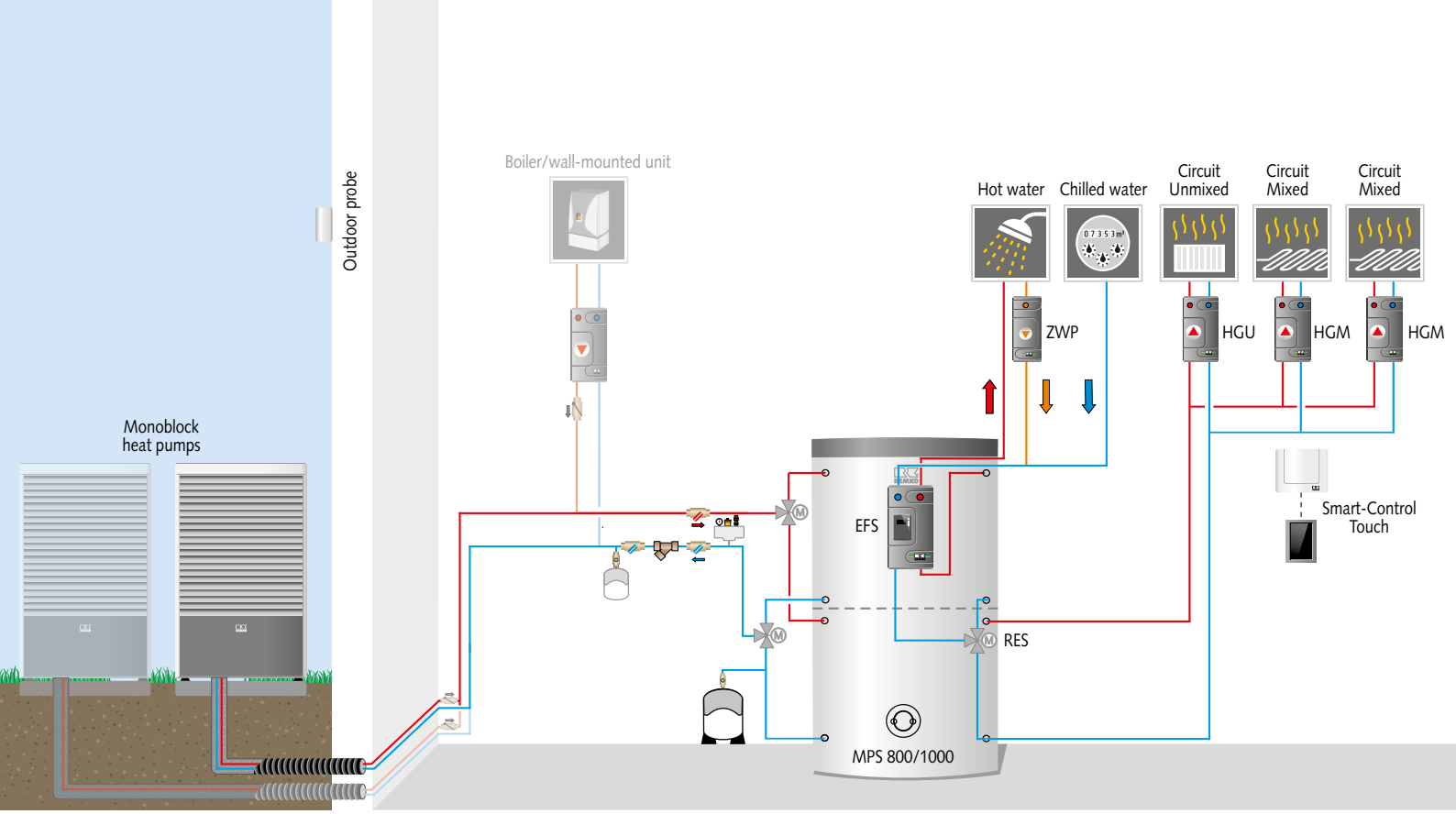
- Monoblock heat pump
- Multi-functional buffer tank MPS 800 (800 l) or MPS 1000 (1000 l)
- Electronically regulated fresh water station EFS 20.1
- 2x 3-way changeover valve
- Smart-Control Touch, surface-mounted version
- Immersion probe and collector probe

2 x 3-way switchover valve, 5/4"

Smart-Control Touch, surface-mounted version

Multifunctional buffer tank MPS 800 or MPS 1000

Fresh water station with pump and flow switch, EFS 20.1



Hydraulic diagram of Frankfurt (example for monovalent or alternative bivalent operation)

Technical data

Area of use: heating [1]		**1-7 kW**	**7-10 kW**	**10-13 kW**	**13-20kW**	**20-26kW**
Unit type		**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
Rated heating capacity (min. / max.)	kW	6.0 (0.9-8.0)	8.0 (2.0-10.7)	10.0 (3.0-14.5)	16.0 (2.0-21.4)	20.0 (3.0-29.0)
Energy efficiency class [2]		A++/A++	A++/A++	A++/A++	A++/A++	A++/A++
External maximum pressure loss	kPa	80	70	60	70	60
Design line ALU, MPS 800 including Smart-Control Touch (surface-mounted variant) Ref. no.		262390	262400	262410	262420	262430
Design line GRAPHIT, MPS 800 including Smart-Control Touch (surface-mounted variant) Ref. no.		262391	262401	262411	262421	262431
Design line CAMURA, MPS 800 including Smart-Control Touch (surface-mounted variant) Ref. no.		262392	262402	262412	262422	262432
Design line ALU, MPS 1000 including Smart-Control Touch (surface-mounted variant) Ref. no.		262393	262403	262413	262423	262433
Design line GRAPHIT, MPS 1000 including Smart-Control Touch (surface-mounted variant) Ref. no.		262394	262404	262414	262424	262434
Design line CAMURA, MPS 1000 including Smart-Control Touch (surface-mounted variant) Ref. no.		262395	262405	262415	262425	262435

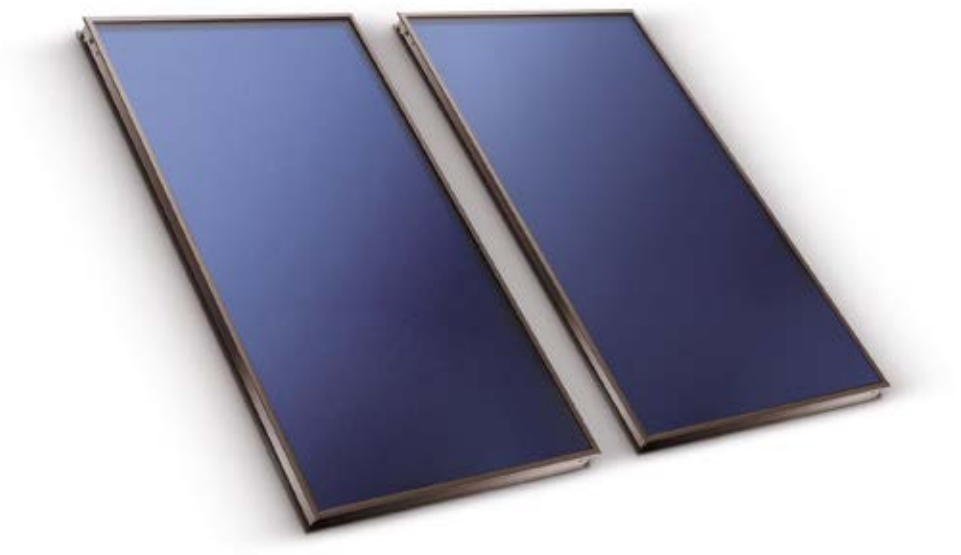
[1] Total heating requirement, inlet flow 35°C, monoenergetic [2] Average, composite system W35/55°C, including Smart-Control

Accessories

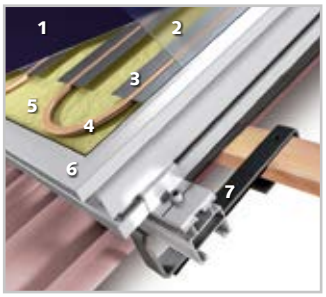
Unit type	**LWM 80**	**LWM 110**	**LWM 150**	**LWM 110 Duo**	**LWM 150 Duo**
REMKO Smart-Serv for monoenergetic operation, hygiene operation, screed drying and emergency heating function, installed heating rod 7.5 kW.	262200	262205	262210	262205	262210
REMKO Smart-Count, factory-installed heat meter for the separate counting of the quantity of heat of heating and hot water	259010	259010	259010	259010	259010
REMKO Smart-Web Ethernet interface for the connection of commercial home router software for dialling in to Smart-Control Touch and setting and reading operating parameters	248120	248120	248120	248120	248120
Heating circuit pump set HGU Speed-controlled heating circuit pump group (PWM)/unmixed	259046	259046	259046	259046	259046
Heating circuit pump set HGM Speed-controlled heating circuit pump group (PWM)/mixed	259047	259047	259047	259047	259047

HEAT PUMP SOLAR PACKAGES

Solar collector RSK 25



Cross-section of RSK 25



1. Highly selective absorber layer
2. 4 mm glass
3. Absorber sheet, aluminium
4. Absorber tube
5. Mineral wool
6. Anodised aluminium frame
7. Mounting system

REMKO RSK 25 SERIES

With the thermal high-performance solar collectors Type RSK 25, you can operate your heating system with even greater efficiency in combination with the inverter heat pump from REMKO. With the refined workmanship and specially developed heat conducting technology, a maximum amount of solar energy is utilised.

The RSK 25-5 solar set with two solar collectors utilises solar energy for hot-water preparation. The RSK 25-10 solar set with four solar collectors utilises solar energy for hot-water preparation and heating support. The REMKO solar sets provide unsurpassed performance in a perfectly attuned system configuration with the well-known inverter heat pump.

Depending on the solar set, the heat pump can be used for air conditioning during the summer, whereas the thermal solar system assumes the hot water preparation. The complete system is controlled via the REMKO Smart-Control intelligent control system. Almost every desire can be fulfilled by the REMKO heat pump solar packages.

Solar set RSK 25-5

The solar set consisting of two solar collectors is an efficient supplement to hot-water preparation.

- 2x collectors RSK 25 (5.06 m²)
- Collector connector, straight
- Solar station with HE pump
- MAG 18, expansion vessel
- Wall mount for MAG
- Connecting tube for MAG
- Glycol, premixed, 10 l
- Basic mounting set
- Fin-tube heat exchanger RWT 18
- Immersion probe and collector probe

Solar set RSK 25-10

The solar set consisting of 4 solar collectors is an efficient supplement to hot-water preparation and heating support.

- 4x collectors RSK 25 (10.12 m²)
- Collector connector, straight
- Solar station with HE pump
- MAG 25, expansion vessel
- Wall mount for MAG
- Connecting tube for MAG
- Glycol, premixed, 20 l
- Basic mounting set
- Fin-tube heat exchanger RWT 31
- Immersion probe and collector probe

Solar station

Diaphragm expansion vessel

Basic mounting set

Fin-tube heat exchanger

Technical data

Unit type		RSK 25-5	RSK 25-10
Domestic water heating/heating support		Yes/no	Yes/yes
Rooftop installation		Yes	Yes
Flat roof installation		Yes	Yes
Awning/façade installation		no	no
For tank type		EWS 301 E, EWS 500 E, KPS 301, KWS 300	HPS 500, MPS 800, MPS 1000
Installation type		Vertical, next to each other Horizontal, stacked (upon request)	Vertical, next to each other Horizontal, stacked (upon request)
Piping		meandering	meandering
Absorber coating		highly selective	highly selective
Number of collectors		2	4
Nominal thermal output	kW	1.9	1.9
Efficiency	%	79.7	79.7
Total collector surface area	m²	2.53	2.53
Absorber surface area	m²	2.35	2.35
Aperture surface area	m²	2.35	2.35
Heat carrier content	l	1.7	1.7
Permissible operating pressure	bar	10	10
Max. corrugated pipe length	m	25	25
Dimensions - height/width/depth	mm	2102/1202/80	2102/1202/80
Weight	kg	44	44
Ref. no.		260820	260821

TANK SYSTEMS

REMKO HPS / MPS SERIES

Buffer tanks for heating water

- Universally usable as parallel buffer (hydraulic switch) or series-connected buffer
- With dummy flange cover D240 for retrofitting a fin-tube heat exchanger RWT 31
- Electrical immersion heating element, screw-in 6/4"
- Max. operating temperature 95°C
- Max. operating pressure 3 bar
- Test pressure 4.5 bar
- Corrosion protection coating outside
- 9 connecting threads (11 for MPS800/MPS1000) 6/4" internal thread with inflow restrictors
- 4 socket screw threads 1/2" for probe/thermometer immersion sleeves
- From quality steel S235 according to DIN EN 10 025/10 111
- High-efficiency, double-shell heat insulation, 100 mm, silver grey

Technical data

Unit type		HPS 500	MPS 800	MPS 1000
Storage type		Buffer tank	Multifunctional buffer tank	
Tank volume	Litre	500	800	1000
BEVB	kW/24h	2.8	3.4	3.5
Heat retention loss	W	116	141	145
Energy efficiency class		C	-	-
Height with insulation	mm	1725	1785	2135
Diameter with insulation	mm	850	990	990
Diameter without insulation	mm	650	790	790
Tilt height without insulation	mm	1670	1750	2090
Weight	kg	113	157	176
Ref. no.		270300	270380	270400

REMKO KPS SERIES

Hot/cold water buffer tank

- Universally usable as parallel buffer (hydraulic switch) or series-connected buffer
- With cleaning flange lid D180 for retrofitting
- Fin-tube heat exchanger RWT 18, can be retrofitted
- Electric booster heating, screw-in 6/4"
- Operating temperature: min. 7 °C, max. 95°C
- Operating pressure 3 bar
- Steel sheet inner boiler S235 according to DIN EN 10 025/10 111
- 4 connecting threads, external thread 1 1/4"
- Outer foil casing in silver grey
- High-quality PUR insulation 50 mm (CFC, HCFC and HFC-free), water vapour diffusion tight
- Probe channel for variable probe positioning KPS 301

Technical data

Unit type		KPS 131	KPS 301
Storage type		Hot/cold water buffer tank	
Tank volume	Litre	130	306
BEVB	kW/24h	0.89	1.61
Heat retention loss	W	37	67
Energy efficiency class		A	B
Height with insulation	mm	635	1295
Diameter	mm	700	700
Tilt height without insulation	mm	909	1441
Weight	kg	35	72
Ref. no.		270241	270251

REMKO EWS E / KWS SERIES

Tank for domestic hot water heating

- Enamelled with double-coiled smooth-tube heat exchanger and particularly large heat exchanger surface
- Inner container with magnesium protection anodes according to DIN 4753
- PUR insulation (free of CFCs, HCFCs, and HFCs)
- Max. operating pressure 10 bar
- Max. operating temperature 95°C
- Connection possibilities for circulation, external thread 3/4"
- Cold water supply and hot water outlet, internal thread 1"
- With cleaning flange lid D180
- Flange heating cartridge (legionella protection) or fin-tube heat exchanger RWT 18 can be retrofitted

Technical data

Unit type		EWS 200 E	EWS 301 E	EWS 500 E	KWS 300
Storage type			Domestic water tank, enamelled		Combination buffer tank
Net domestic water volume	Litre	168	264	426	275
Volume of buffer tank (steam-diffusion-proof)		–	–	–	100
Heat exchanger surface	m^2	2.0	3.4	6.2	3.2
BEVB	kW/24h	1.37	1.64	1.88	1.77
Heat retention loss	W	57	68	78	74
Energy efficiency class		B	B	B	B
Tap profile		XL	XL	3 XL	XXL
Height	mm	1340	1420	1921	1760
Diameter	mm	555	650	750	750
Tilt height	mm	1455	1562	2023	1879
Weight	kg	90	120	222	190
Ref. no.		270550	270651	270800	270700

Accessories

Electric booster heating 6 kW
Electric booster heating 6/4" for installation in a buffer tank. Including temperature regulator and safety temperature limiter. 2, 4 or 6 kW can be optionally connected.
Note: Not suited for domestic water tank.

For unit type	Ref. no.
KPS, MPS, HPS	260063

Built-in flange heating
Consisting of a high-quality tubular heating element on which an insulated flange plate is fitted. Included: Protective current discharge resistor, thermal probe and safety temperature limiter. Max. operating pressure 10 bar. Heating capacity 6 kW.
Note: Not suited for buffer tanks of the HPS/MPS/KPS series.

For unit type	Ref. no.
EWS 301/500 E, KWS 300	260175

Fin-tube heat exchanger
For additional indirect heating, e.g. with a solar thermal system

Unit type	RWT 18	RWT 31
Suitable for buffer tanks and domestic water tanks	EWS 301 E EWS 500 E KPS 301 KWS 300	HPS 500 MPS 800 MPS 1000
Heat exchanger surface	1.40 m²	3.10 m²
Installation length in	440 mm	530 mm
Connection G	3/4 inch	1 inch
Contents	1.50 l	2.50 l
Flange	180/8-hole Ø	240/12-hole Ø
Ref. no.	260200	260210

ACCESSORIES

Monoblock heat pumps

REMKO SmartControl Touch remote control
All functions of the heat pump and heating circuits can be set using the cabled remote control. A room-temperature-guided control of the heating circuits (FBH or radiators) and dew point control are possible due to the separately available room temperature/moisture sensor.

	Ref. no.
Smart-Control Touch remote control	248109
Room temperature/moisture sensor	248103

REMKO Smart-Web
Ethernet interface for setting and reading operating parameters using a smart phone, tablet PC, laptop, etc.

Ref. no. 248120

REMKO Smart-Com
Additional software for integrating the heat pump into a KNX system

Ref. no. 254090

NEW

LED ambiant light
The LED ambient light can be mounted below the air outlet/intake louvres or on the side panels. The light colour can be changed by remote control.

LED ambiant light	Ref. no.
Ventilation side ready for connection	260035
Ventilation side as additional light	260037
Side panel ready for connection	260036
Side wall as additional light	260038

REMKO Easy-Control EC-1
Centrally used room thermostat for room-guided control of the heat pump in heating/cooling mode. Touch display for setting set temperature, heating mode, absence, switch-on/switch-off. Communication via Modbus protocol

	Ref. no.
REMKO Easy-Control EC-1	248107

Bidirectional power meter
Current meter for Smart Heating/Cooling function, photovoltaic integration. 400V/3~/50 with S0 interface

	Ref. no.
Dual-direction power meter	259065

Electrical condensate drainage heating
Temperature-regulated for the safe discharge of defrost water with outside temperatures below the freezing point.

	Ref. no.
Condensate drainage heating	260045

External dew point monitor
including 1 contact probe An additional safety mechanism to prevent the occurrence of humidity. The humidity is checked directly on the surfaces. Connection of up to 5 measuring probes possible.

	Ref. no.
Ext. dew point monitor	259070
Additional contact probe	259071

Flow sensor
Dynamic hygiene function with frequency output for recording the cold water volume flow rate in the domestic water tank. Regulation according to DIN 1988-200

	Ref. no.
Tap volume ≤ 25l/min	254070
Tap volume ≥ 25l/min	254080

Contact probe Pt1000
For the integration of the following:
- A temperature-guided circulation pump via Smart Control
- A heating circuit with mixer (2 pieces required)

Ref. no. 259060

Immersion probe Pt1000
– Solar reference probe for buffer tank
– Domestic water tank EWS 300 E
– General buffer probe

Ref. no. 259062

Collector probe Pt1000
For the integration of solar thermal systems

Ref. no. 260102

District heating line
For underground laying. Robust Flexrohr flexible plastic pipe, 125 mm

Pipe length	Ref. no.
8 m	260017
12 m	260018

3-way switchover valve
Electrical 3-way switchover valve for domestic water preparation and separate cooling circuit (four-pipe system).

	Ref. no.
5/4"	260072
6/4"	259055

Electronic overflow valve
Overflow protection valve 1" for ensuring that the minimum medium flow rate is maintained (e.g. during the operation of the buffer tank in the return line).

	Ref. no.
Electr. overflow valve	260082

Pulse generator circulation
For the implementation of a pulse-controlled circulation pump via REMKO Smart-Control.

	Ref. no.
Pulse generator	259045

Frost protection valve
For outdoor installation into the inlet flow to prevent frost damage

	Ref. no.
Frost protection valve	260056

Frost protection heater for hydraulic module
Including the thermostat, prevents the freezing of standing medium in case of a power failure (Attention: separate power supply necessary).

	Ref. no.
Frost protection heater	301050

Heating circuit pump set HGU
Speed-controlled (PWM) heating circuit pump without mixer, ball valves with thermometer

Ref. no. 259046

Heating circuit pump set HGM
Speed-controlled (PWM) heating circuit pump with a mixer, ball valves with thermometer, 2x Pt1000 contact probes

Ref. no. 259047

Sludge separator
For the filtration of contamination and corrosion products from the heating water, glycol-resistant and insulated

	Ref. no.
1" to 2.1 m³/h	260803
6" to 5.4 m³/h	260804

Complete heating protection
Corrosion protection and hardness stabilisation for conventional hot water heating systems, floor heaters made of steel, copper and aluminium materials.

	Ref. no.
Without anti-freeze 1 l	260819
Without anti-freeze 10 l	260823
With anti-freeze 20 l	260807
With anti-freeze 200 l	260808
With anti-freeze 1000 l	260809

REMKO EFS SERIES

Fresh water stations

NEW

REMKO EFS SERIES

Electronically regulated fresh water stations

The fresh water stations of REMKO are used for hygienic domestic water preparation in connection with buffer tanks. The units are completely equipped with electronic control, speed-controlled high-efficiency pump, flow switch, and plate heat exchanger. The heat exchanger is designed for a high flow rate of 18 l/min (EFS 20.1), 32 l/min (EFS 35.1) and/or 50 l/min (EFS 50.1). The flow rate can be increased through cascading. The fresh water stations are delivered ready for mounting in the EPP housing. In the case of the EFS 35.1/50.1, the unit is mounted to the wall. The EFS 20.1 fresh water station permits mounting directly on the tank or wall.

Technical data

Unit type		**EFS 20.1**	**EFS 35.1**	**EFS 50.1**
Transmission power	kW	44 [1]	79 [2]	122 [3]
Installation site		Tank/wall	Wall	Wall
Heat pump type	LWM	80,110,150, 110-150 Duo	150,110-150 Duo	110-150 Duo
Min. buffer volume for hot water operation	L	500	800	1000
Primary connections IG	Inch	3/4	1 1/2	2
Secondary connections AG, flat-sealing	Inch	3/4	1	1 1/4
Dimensions - max. height/width/depth	mm	540/345/324	795/602/298	795/602/298
Tap volume at 45°C tap temperature and 50°C tank temperature	l/min	18	32	50
Tap volume at 45°C tap temperature and 60°C tank temperature	l/min	31	50	77
Tap volume at 45°C tap temperature and 70 °C tank temperature	l/min	39	64	88
Ref. no.		260180	260181	260182

[1] Tapping output at 50°C buffer temperature / 18 l/min / 10°C CW supply line
[2] Tapping output at 50°C buffer tank temperature / 32 l/min. / 10°C CW supply line
[3] Tapping output at 50°C buffer tank temperature / 50 l/min. / 10°C CW supply line

Accessories

Unit type	**EFS 20.1**	**EFS 35.1**	**EFS 50.1**
Circulation pump EFS 20.1/35.1/50.1, speed-controlled high-efficiency circulation pump for installation directly to the fresh water station	260185	259053	259053
3-way changeover valve for temperature-dependent layering in the buffer tank	260072	260072	260072

Return flow layering set RES
For EFS 20.1 for connection to a buffer tank, including tanks connection tubes and 3-way changeover valve for temperature-dependent layering in the buffer tank layering in the buffer tank. **Note:** Not suited for EFS 35.1/50.1.

For device type	**Ref. no.**
MPS 800	259031
MPS 1000	259032

Tank connection set
For the direct connection of the fresh water station EFS 20.1 to the buffer tank.
Note: Not suited for EFS 35.1/50.1.

For device type	**Ref. no.**
HPS 500	259040
MPS 800	259041
MPS 1000	259042

Accessories – Solar collectors

3-Way changeover valve Solar, 1"
Electrical changeover valve/3-way valve 1" for thermal solar plants

	Ref. no.
3-way changeover valve	260800

Glycol
Heat transfer medium with corrosion protection for solar plants (included in the solar set)

	Ref. no.
10 L	260805
20 L	260806

Collector connector, straight
For the connection of the solar collectors RSK 25 (included in the solar set)

	Ref. no.
Collector connector	260810

Mounting coupling for collector line
For the connection of the corrugated solar pipe to the RSK 25 solar collectors
(included in the corrugated pipe mounting set)

	Ref. no.
Mounting coupling	260865

Flat roof installation set
For solar collectors

	Ref. no.
RSK 25-5 3x flat roof brackets 1x safety support	260842
RSK 25-10 5x flat roof brackets 1x safety support	260843

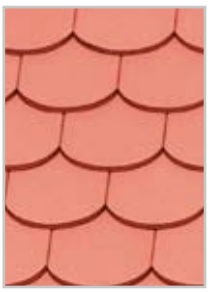
Insulated, corrugated pipe
For solar collectors for RSK 25-5 and RSK 25-10, including probe cable

	Ref. no.
10 m, including connection set	260900
15 m, including connection set	260901
25 m, including connection set	260902
Corrugated pipe, running metre (max. 25 m)	260869
Installation set, separate	260870

Rooftop anchor set
Complete rooftop anchor set for solar collectors

For solar package	For tile type	Ref. no.
RSK 25-5	Frankfurter tile	260850
RSK 25-10	Frankfurter tile	260855
RSK 25-5	Crown tile	260851
RSK 25-10	Crown tile	260856
RSK 25-5	Slate	260852
RSK 25-10	Slate	260857
RSK 25-5	Rafter-independent	260853
RSK 25-10	Rafter-independent	260858

Frankfurter tile



Beavertail pan

Slate tile

OVERVIEW OF INDOOR UNITS

Chilled-water units for cooling and heating

REMKO WLT EC SERIES

Wall units in 2-pipe design with multifunctional control technology

Unit type		WLT 30-90 EC
Cooling capacity	kW	2.8 - 9.3
Heating capacity	kW	4.2 - 11.3
For technical data, see REMKO cold water air conditioning systems		

REMKO KWD EC SERIES

Ceiling cassette in 2-pipe design with multifunctional control technology

Unit type		KWD 25-100 EC
Cooling capacity	kW	2.6 - 9.7
Heating capacity	kW	3.7 - 12.3
For technical data, see REMKO cold water air conditioning systems		

REMKO KWK EC (DM) SERIES

Wall and ceiling chests in 2-pipe or 4-pipe design with infinitely variable EC fan

Unit type		KWK 135-875 EC (DM)
Cooling capacity	kW	1.3 - 8.8
Heating capacity	kW	1.6 - 9.2
For technical data, see REMKO cold water air conditioning systems		

REMKO KWK EC ZW SERIES

Ceiling chests in 2-pipe or 4-pipe design with infinitely variable EC fan for installation into false ceilings

Unit type		KWK 135-875 EC ZW
Cooling capacity	kW	1.3 - 8.8
Heating capacity	kW	1.6 - 9.2
For technical data, see REMKO cold water air conditioning systems		

REMKO HEAT PUMP CONFIGURATOR

The way to the right heat pump

Using the heat pump configurator, you can configure an appropriate inverter heat pump for your operations quickly and easily. In addition to the appropriate heat pump, the configurator also shows the hydraulic diagram, the accessory parts required for installation, the bivalence point, and the right Energy Label of the heat pump system.

Heat pump configurator

https://www.remko.de/berechnungshilfen/konfiguratoren/waermepumpen-konfigurator/

REMKO QUALITY WITH SYSTEMS

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