

# **CHILLED** WATER SYSTEMS

Environment-friendly due to water as the energy source



### Chillers

Wall-mounted units
Ceiling cassettes
Wall and ceiling chests
Ceiling ventilation units



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.

#### 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.

#### 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.

#### 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



### **NEW ENERGIES**

Heat pumps Modular power houses



### **DEHUMIDIFICATION**

Dehumidifiers
High-Performance Fans



### **AIR CLEANING**

Air purifier



### **CONTENTS**



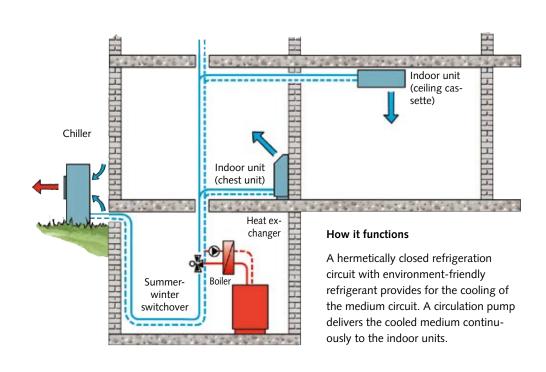


### **CHILLED WATER AIR-CONDITIONING SYSTEMS**

Use the pipe network all year long: heat in the winter, cool in the summer

# Environment-friendly due to water as the energy source

In the piping between the chiller and the indoor units, water flows as a cooling or a heating medium. In comparison with conventional systems, there are no refrigerants in the rooms being air-conditioned. Refrigerant is only present in the sealed circuit of the chiller. And that is up to 80% less than in the case of conventional refrigerant systems thanks to state-of-theart technology.



### Compliance with the Eco-Design Directive (2009/125/EC)

To comply with the objectives required by the European Union, energetic requirements are placed on products in a variety of areas. Here, Regulation (EU) 2016/2281 (LOT 21) regulates minimum requirements on chillers. The chillers of REMKO correspond with the pertinent energetic requirements of the Eco-Design Directive, therefore contributing not inconsiderably to the reduction of harmful emissions connected to the consumption of energy. At the same time, the efficiency optimised operation of the unit leads to a reduction in the operating costs for the customer.

### Cold-water air-conditioning systems in use

The comfort air-conditioning of larger buildings is an important area of application for chilled-water air-conditioning systems. In addition, they are used commercially wherever waste heat arises and must be dissipated. This includes production processes in the automobile and food industry, for example.

Chillers are used to cool machines, computers or MRI machines in hospitals and generate suitable temperature for the storage of food and other goods.





### Cooling of the following:

- Production halls
- Baking/painting lines
- Printing machines
- Food and other cooled goods
- Computer centres
- MRI machines

# Air conditioning of the following:

- Office buildings
- Shopping centres
- Clinics
- Hotels



### Simple installation

The chiller is set up outside. Due to the robust construction, a long service live of the units is guaranteed.

The installation can be implemented quickly and easily by corresponding specialist companies. Numerous adaptation options in the selection of the device permit tailored solutions for various areas of application. The connection of the indoor units saves time and can be performed without effort. The units are flexible and can be mounted on the floor, on the wall, or also beneath the ceiling.

#### Sustainability

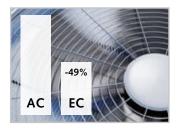
Resources are saved using state-of-the-art components as electricity costs are reduced considerably in comparison with conventional units.

### Optimised unit parameters

Through the adaptation of all operating parameters and components used, the processes in the refrigeration and hydraulic circuits are optimally adapted to each other, thereby guaranteeing stable control behaviour under all operating conditions.

#### EC fans

The state-of-the-art, infinitely variable fan motors adapt the fan speed exactly to the respective cooling requirement. In addition to a reduction of the operating costs, a higher control comfort is achieved. EC fans have 49% higher savings than AC axial fans



#### Enlarging the heat exchanger surfaces

The use of heat exchangers that have been especially adapted to each other contributes to the maximisation of the energy yield.

### Comfortable regulation

Just like the automatic air-conditioning system in a car, the controller ensures a constant room temperature. Depending on the indoor unit used, various control options are available, such as a unit control panel, a room temperature controller, or an infrared remote control.

### **CHILLED WATER AIR-CONDITIONING SYSTEMS**

### Technology in detail

#### Units for every need

Thanks to their modular design, REMKO chillers can be configured individually for every application. Here, in addition to units without hydraulic components, additional components such as a medium tank or pumps of different pressure stages can be selected. Furthermore, a variety of optional accessory articles are available to adapt the units to the respective operating conditions. The state-of-theart EC fans installed at the factory guarantee an efficient operation of the units.

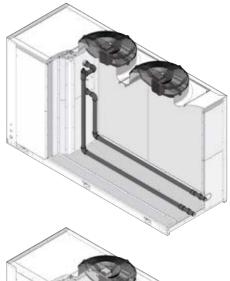






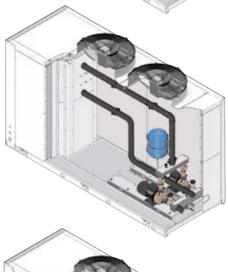






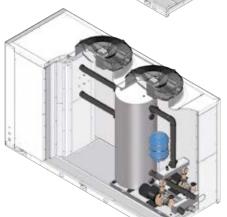
# Chillers without media components

In the basic version, the devices only have a basic set of hydraulic equipment. This version makes sense if the pump and tank are already available on site. The unit can therefore be integrated into an existing system while previously existing components can continue to be used.



# Chillers with pump and membrane expansion vessel

The unit version with pump lets you integrate the unit into an existing system in which a tank system already exists. If a hydraulic system with tank exists, this system can be supplied with cooled medium by the chiller. Depending on the unit series, pumps are also available in different pressure stages so that the pump can be selected for the requirements of the respective application.



# Chillers with tank, pump and membrane expansion vessel

In addition to a special requirement on the pipe network or savings on glycol indoors, there are many reasons to hydraulically separate a chiller from the overall system. If this is desired or required, the chiller can also be equipped with a pump and tank.



## **REMKO** RVS DC SERIES

### Chillers for cooling and heating





### With inverter technology

The units of the RVS 50-260 DC series, with an output range between 4.7 and 26.0 kW, are particularly quiet, air-cooled chillers for outdoor installation. Due to the standard heat pump function, the units can be used for both cooling and heating.

During cooling, the application limits of the units lie at -15  $^{\circ}$ C, whereby the units are also suitable for process applications that have to be cooled throughout the year. Both the inverter condenser used and the infinitely variable expansion valve guarantee a needsbased adaptation of the cooling capacity to the pertinent application conditions.





In addition, the units have state-of-the-art, energy-efficient EC fans in the standard version. These fans provide considerable cost savings in comparison with conventional AC technology, especially in the partial load range. The interaction from the optimisation of the heat exchanger surfaces, use of highly efficient components and the optimisation of all operation-related system parameters ensures that the units have a very high degree of efficiency and therefore already correspond with the high energetic requirements of the Eco-Design Directive 2021.

In addition, the devices are available in a special low-temperature version in which particularly low medium inlet temperatures of -2°C can be implemented.

- Variable power control thanks to the inverter condenser and electronic expansion valve
- Various switch contacts for integration into a building control system
- State-of-the-art touchpad in an IP54 housing for easy operation
- Application of cooling mode up to -15°C in the standard version
- Heating operation thanks to EVI injection down to -30°C outside temperature (RVS 220-260 DC)
- Low temperature version for low inlet temperatures optionally available
- Modbus interface RS485 included
- Units are ErP-compliant according to the Eco-Design Directive



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values

Ref. no. 1657231



#### External mains switch

As a main or repair switch for a chiller.

**Ref. no.** 1611485



#### Vibration damper set

For chillers, required quantity included in the set.

**Ref. no.** 1655161



#### Glycol concentrate

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water

	Ref. no.
20 I canister	1611414
210 l drum	1611415



### **Technical data**

Unit type		RVS 50 DC	RVS 80 DC	RVS 130 DC	RVS 180 DC	RVS 220 DC	RVS 260 DC
Cooling capacity 1)	kW	4.7 (1.6-5.6)	7.6 (2.0-10.0)	13.5 (5.0-14.5)	16.9 (7.0-20.0)	19.3 (8.5-22.0)	22.5 (10.3-26.0)
Heating capacity 2)	kW	4.3 (2.0-6.8)	8.5 (2.5-10.8)	12.3 (5.0-17.3)	18.0 (7.0-25.1)	26.0 (9.5-27.3)	28.2 (11.0-31.5)
Energy efficiency size SEER		3.88	4.33	5.01	4.15	4.15	4.15
Annual degree of effective use of room cooling n <sub>s,c</sub>	%	152	170	195	163	163	163
Cooling return temperature adjusting range	°C		+10 to +20 / +	-3 to +20 <sup>4)</sup>		+7 to +25	/ +3 to +20 <sup>4)</sup>
Heating return temperature adjusting range	°C		+30°C to	+50		+25 to	+60
Operating range, cooling	°C		-15°C to	+45		-15 to	+45
Operating range, heating	°C		-20°C to	+52		-30 to	+43
Number of cooling circuits		1	1	1	1	1	1
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A
GWP value		2088	2088	2088	2088	2088	2088
Refrigerant filling amount	kg	1.7	2.4	3.2	4.4	4.5	5.0
CO <sub>2</sub> equivalent	d	3.55	5.01	6.68	9.19	9.40	10.44
Compressor, number/type		1 / rotary piston	1 / rotary piston	1 / rotary piston	1 / rotary piston	1 / rotary piston	1 / rotary piston
Nominal air flow rate	m³/h	3650	3650	7300	8100	13000	15000
Number of fans		1	1	2	2	2	2
Sound pressure level 3)	dB(A)	37.3	37.3	41.7	46.2	47.0	48.0
Sound power level	dB(A)	68.5	68.5	73.1	77.6	78.0	79.0
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	400 / 3~/50	400/3~/50	400/3~/50
Type of protection		IP X4	IP X4	IP X4	IP X4	IP X4	IP X4
Electrical nominal power consumption, cooling	kW	1.3	2.3	4.5	5.5	7.8	9.0
Electrical nominal current consumption, cooling	Α	5.6	10.4	20.7	9.5	13.3	14.9
Operating medium			Water; max. 35	5% ethylene gly	col; max. 35% p	propylene glyco	
Max. medium operating pressure	kPa	600	600	600	600	600	600
Nominal volume flow rate of medium, cooling	m³/h	1.0	1.6	2.8	4.2	3.2	3.6
Minimum volume flow rate, medium	m³/h	0.62	1.00	1.75	2.63	2.4	2.8
Maximum volume flow rate, medium	m³/h	1.68	2.70	4.70	7.00	6.3	7.4
Internal pressure loss	kPa	10	24	105	71	126	195
Medium port, inlet	II .	1	1	1 1/4	1 1/4	1 1/4	1 1/4
Medium port, outlet	II .	1	1	1 1/4	1 1/4	1 1/2	1 1/2
Dimensions - height	mm	790	910	1320	1592	1600	1600
Dimensions - width	mm	1008	953	996	1175	1175	1175
Dimensions - depth	mm	463	445	395	400	400	400
Weight	kg	95	110	148	219	206	240
Serial colour				similar to	RAL 9010		
Chiller with pump							
System pressure available, cooling	kPa	51	99	101	150	84	125
Power consumption, pump	kW	0.05	0.18	0.5	0.65	0.35	0.50
Current consumption, pump	Α	0.4	0.7	2.8	1.7	0.56	0.80
Chiller with pump							
Ref. no.		1611692	1611693	1611694	1611695	1611677	1611679
Chiller with pump in stainless steel design							
Ref. no.		1611696	1611697	1611698	1611699	1611678	1611680

<sup>&</sup>lt;sup>1)</sup> Air inlet temperature TK 35°C, medium inlet 12°C, medium outlet 7°C, 0% glycol concentration
<sup>2)</sup> Air inlet temperature TK 7°C, medium inlet 45°C, medium outlet 40°C, 0% glycol concentration
<sup>3)</sup> Distance of 10 m in the open air
<sup>4)</sup> Low-temperature accessories

# **REMKO** KWE 290-800 ECO SERIES

### Chiller for cooling



### **REMKO** KWE 290-800 ECO SERIES

The air-cooled chillers of the KWE Eco series in the power range from 28.7 to 79.3 kW can be individually configured for any application thanks to their modular design. In the hermetically sealed system of the chiller for outdoor installation, the innovative and climate-friendly refrigerant R452B is used. The selection of pumps in various pressure ratings allows the hydraulic components to be individually adapted to the respective application.

The pressure gauges already installed ex works in the hydraulic circuit and the accessibility of the essential hydraulic components via the opening of the swivelling control cabinet facilitate installation and commissioning, thus ensuring maximum service friendliness.

In addition, thanks to the selection of state-of-the-art components and the optimisation of all device parameters, the devices comply with the energy requirements of the more stringent Eco-Design Directive.

- Hydraulic components individually configurable
- Easy access to the essential device components
- Future-proof thanks to climate-friendly refrigerant R452B
- Optional components to reduce noise emissions available
- Integration into an existing building control system possible
- Units are ErP-compliant according to the Eco-Design Directive







#### Technical data

Unit type	
Nominal cooling capacity <sup>1)</sup>	kW
Energy efficiency rating EER 1)	
Energy efficiency size SEER	
Annual utilisation factor of room cooling, $\eta_{s,c}$	%
Cooling return temperature adjusting range	°C
Operating range, cooling	°C
Number of cooling circuits	
Refrigerant	
GWP value	
Refrigerant filling quantity (per circuit)	kg
CO <sub>2</sub> equivalent	d
Compressor, number/type	
Max. air volume flow rate	m³/h
Number of fans	
Sound pressure level 3)	dB(A)
Sound power level	dB(A)
Voltage supply	V/Ph/Hz
Type of protection	
Electrical nominal power consumption, cooling	kW
Electrical nominal current consumption, cooling	Α
Operating medium	
Max. medium operating pressure	kPa
Nominal volume flow rate of medium, cooling	m³/h
Internal pressure loss	kPa
Medium port, inlet	Inch
Medium port, outlet	Inch
Dimensions	
Weight	kg
Serial colour	
Chillers with standard pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-pressure pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-performance pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with tank	
Medium content, tank	1
Chiller with low-noise kit	
Sound pressure level 3)	dB(A)
Chiller with super-low-noise kit	
Sound pressure level 3)	dB(A)
<sup>1)</sup> Air inlet temperature TK 35 °C, medium inlet 12 °C, medium outlet	7°C, 0% glycol concen



KWE 290 Eco	KWE 330 Eco	KWE 380 Eco	KWE 430 Eco	KWE 500 Eco	KWE 550 Eco	KWE 640 Eco	KWE 730 Eco	KWE 800 Eco
28.7	32.7	37.7	42.5	50.0	55.3	64.1	73.2	79.3
2.9	3.1	3.0	3.3	3.6	3.3	3.0	3.2	2.8
4.1	4.1	4.1	3.3 4.7	5.1	3.3 4.7	4.7	5.2	2.8 4.8
163	162	164	181	194	181	181	201	182
103	102	104			101	101	201	102
				to +18 / -15 to +48 <sup>4)</sup>				
1	1	1	+5 t0 +48	1 15 to +48 "	1	1	1	1
R452B	R452B	R452B	R452B	R452B	R452B	1 R452B	1 R452B	т R452B
	676	676		676	676	676	676	676
676			676					
13.0	13.5	14.0	16.0	8.5	9.0	9.0	10.0	10.0
8.79	9.13	9.46	10.82	5.75	6.08	6.08	6.76	6.76
1 / scroll	1 / scroll	1 / scroll	2 / scroll	2 / scroll	2 / scroll	2 / scroll	2 / scroll	2 / scroll
19500	19500	19500	19500	19500	19500	19500	19500	19500
1	1	1	1	1	1	1	1	1
47.2	48.5	49.7	51.2	50.6	55.4	55.4	55.2	55.2
78.9	80.2	81.4	82.9	82.3	87.1	87.1	86.8	86.8
400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50
IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4
7.7	9.1	10.0	12.7	14.0	16.8	20.2	22.6	26.3
14.0	16.4	18.1	23.0	25.2	30.4	36.4	40.8	47.5
			ater; max. 35% et	hylene glycol; ma	x. 35% propylene	glycol		
800	800	800	800	800	800	800	800	800
5.1	5.9	6.6	7.3	8.6	9.5	11.0	12.6	13.8
46.3	57.8	46.2	57.5	56.7	50.2	68.6	58.5	54.1
1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"
1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"
		Varies dependin	g on the unit conf	figuration. For det	tails, see the techr	ical documentation	n	
343	345	360	415	435	455	455	615	620
				similar to RAL 90	)18			
110.4	120.7	123.0	102.7	89.8	121.5	90.4	86.9	82.2
221.9	200.9	199.8	175.6	154.7	225.6	195.2	192.3	187.8
306.4	286.1	286.1	263.3	245.0	286.8	253.2	247.2	241.0
300			_ 55.5	5.0	_55.5		_ · · · · <b>-</b>	
150	150	150	150	150	150	150	225	225
150	.50	.50	.50	.50	.50	.50		
43.4	44.7	45.9	47.4	46.8	51.6	51.6	51.4	51.4
15.1	(7.7	15.5	17.7	10.0	31.0	51.0	51.7	51.7
37.8	39.1	39.5	41.0	40.4	45.3	45.3	45.1	45.1
37.0	33.1	33.3	41.0	40.4	40.0	43.3	4J. I	43.1

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<sup>&</sup>lt;sup>3)</sup> Distance 10 m in open air <sup>4)</sup> With winter fan speed control accessories

# **REMKO** KWE 290-800 ECO SERIES

### Chiller for cooling

#### Chiller

Unit type	KWE 290 Eco	KWE 330 Eco	KWE 380 Eco
In the standard version	1704290	1704330	1704380
Optional components for noise reduction			
Low-noise kit	1657430	1657430	1657430
Super-low-noise kit	1657440	1657440	1657440
Optional hydraulic components			
Standard pump and pressure gauge	1657301	1657302	1657302
High-pressure pump and pressure gauge	1657311	1657311	1657311
High-performance pump and pressure gauge	1657321	1657321	1657321
Tank, standard pump, MAG, pressure gauge and anti-frost protection heater	1657331	1657332	1657332
Tank, high-pressure pump, MAG, pressure gauge and anti-frost protection heater	1657341	1657341	1657341
Tank, high-performance pump, MAG, pressure gauge and anti-frost protection heater	1657351	1657351	1657351
Accessories			
Glycol 20 I canister	1611414	1611414	1611414
Glycol 210 l drum	1611415	1611415	1611415
Cabled remote control	1657228	1657228	1657228
Condenser protection grid	1657360	1657360	1657360
Vibration damper (for units without a tank)	1657450	1657450	1657450
Vibration damper (for units with a tank)	1657451	1657451	1657451
Medium circuit pressure gauge (for units without hydraulic components)	1657415	1657415	1657415
Crankcase heater	Series	Series	Series
Electronic expansion valve	Series	Series	Series
Winter fan speed control	1657420	1657420	1657420
Soft start	1657381	1657381	1657382
Switch cabinet ventilation	1657401	1657401	1657401
Switch cabinet heater	1657405	1657405	1657405
Modbus interface RS485	1657410	1657410	1657410

Other accessories upon request



#### Glycol concentrate 20 I canister

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



# Glycol concentrate 210 l plastic drum

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values.



# Condenser protection grid, installed

For chillers with protection against damage to the device fins or personal injury in case of installation in danger zones



### Vibration damper set

For chillers, required quantity included in the set.



## Medium circuit pressure gauge, installed

For displaying the system pressure in the medium circuit. Standard on machines with hydraulic components.



## Compressor crankcase heater, installed

For heating the oil sump when the unit is not in operation and the outside temperature is low. Standard for all units.



### Soft start, installed

For the limitation of the starting current in starting torque by up to 45%, depending on the unit size.

KWE 430 Eco	KWE 500 Eco	KWE 550 Eco	KWE 640 Eco	KWE 730 Eco	KWE 800 Eco
1704430	1704500	1704550	1704640	1704730	
1657430	1657430	1657430	1657431	1657431	1657431
1657440	1657440	1657440	1657441	1657441	1657441
1657302	1657302	1657303	1657303	1657303	1657303
1657311	1657311	1657312	1657312	1657312	1657312
1657321	1657321	1657322	1657322	1657322	1657322
1657332	1657332	1657333	1657333	1657333	1657333
1657341	1657341	1657342	1657342	1657342	1657342
1657351	1657351	1657352	1657352	1657352	1657352
1611414	1611414	1611414	1611414	1611414	1611414
1611415	1611415	1611415	1611415	1611415	1611415
1657228	1657228	1657228	1657228	1657228	1657228
1657360	1657361	1657361	1657361	1657362	1657362
1657450	1657450	1657450	1657450	1657451	1657451
1657451	1657452	1657452	1657452	1657452	1657452
1657415	1657415	1657415	1657415	1657415	1657415
Series	Series	Series	Series	Series	Series
Series	Series	Series	Series	Series	Series
1657420	1657420	1657420	1657420	1657420	1657420
1657382	1657383	1657383	1657384	1657385	1657385
1657401	1657401	1657401	1657401	1657401	1657401
1657405	1657405	1657405	1657405	1657405	1657405
1657410	1657410	1657410	1657410	1657410	1657410



# Switch cabinet ventilation, installed

For dissipating trapped heat in the control cabinet at high ambient temperatures.



# Switch cabinet heater, installed

For avoiding condensation in the switch cabinet due to temperature fluctuations at low ambient temperatures.



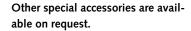
## Winter pressure control set, installed

For the expansion of the operating limits of the chiller in cooling operation to -15°C. Consists of EC fans and additional measurement and control components.



# Modbus interface RS485, installed

For the integration of the chiller to an existing building control system with Modbus data protocol, polling of error messages, sensor values, relay statuses, operating runtimes of pump and compressors, and the polling and setting of set values.



For example:

- Double pump for redundant operation
- Coated head exchanger for operation in aggressive ambient air
- And much more

## **REMKO** KWE 970-1550 ECO SERIES

### Chiller for cooling









### **REMKO** KWE 970-1550 ECO SERIES

The air-cooled chillers of the KWE Eco series in the power range from 97.2 to 155.3 kW can be individually configured for any application thanks to their modular design. In the hermetically sealed system of the chiller for outdoor installation, the innovative and climate-friendly refrigerant R452B is used. The selection of pumps in various pressure ratings allows the hydraulic components to be individually adapted to the respective application.

The pressure gauges already installed ex works in the hydraulic circuit and the accessibility of the essential hydraulic components via the opening of the swivelling control cabinet facilitate installation and commissioning, thus ensuring maximum service friendliness.

In addition, thanks to the selection of state-of-the-art components and the optimisation of all device parameters, the devices comply with the energy requirements of the more stringent Eco-Design Directive.

- Hydraulic components individually configurable
- Easy access to the essential device components
- Future-proof thanks to climate-friendly refrigerant R452B
- Optional components to reduce noise emissions available
- Integration into an existing building control system possible
- Units are ErP-compliant according to the Eco-Design Directive

#### **Technical data**

11.11.1	
Unit type	1111
Nominal cooling capacity <sup>1)</sup>	kW
Energy efficiency rating EER 1)	
Energy efficiency size SEER	
Annual utilisation factor of room cooling, η <sub>s,c</sub>	%
Cooling return temperature adjusting range	°C
Operating range, cooling	°C
Number of cooling circuits	
Refrigerant	
GWP value	
Refrigerant filling quantity (per circuit)	kg
CO <sub>2</sub> equivalent	d
Compressor, number/type	
Max. air volume flow rate	m³/h
Number of fans	
Sound pressure level 3)	dB(A)
Sound power level	dB(A)
Voltage supply	V/Ph/Hz
Type of protection	
Electrical nominal power consumption, cooling	kW
Electrical nominal current consumption, cooling	Α
Operating medium	
Max. medium operating pressure	kPa
Nominal volume flow rate of medium, cooling	m³/h
Internal pressure loss	kPa
Medium port, inlet	Inch
Medium port, outlet	Inch
Dimensions	
Weight	kg
Serial colour	
Chillers with standard pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-pressure pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-performance pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with tank	
Medium content, tank	1
Chiller with low-noise kit	
Sound pressure level 3)	dB(A)
Chiller with super-low-noise kit	
Sound pressure level 3)	dB(A)
Available as of June 2020	

#### Available as of June 2020

 $<sup>^{1)}</sup>$  Air inlet temperature TK 35 °C, medium inlet 12 °C, medium outlet 7 °C, 0% glycol concentration



KWE 970 Eco	KWE 1060 Eco	KWE 1150 Eco	KWE 1240 Eco	KWE 1320 Eco	KWE 1400 Eco	KWE 1480 Eco	KWE 1550 Eco
97.2	106.4	115.9	123.9	132.6	140.5	148.3	155.3
3.3	3.2	3.0	3.0	3.1	3.2	3.1	3.1
5.4	5.5	4.8	4.8	4.9	5.0	4.9	4.9
208	212	184	182	188	192	187	183
200	212	104		to +18	102	107	103
				/ -15 to +48 <sup>5)</sup>			
2	2	2	2	2	2	2	2
R452B	R452B	R452B	R452B	R452B	R452B	R452B	R452B
676	676	676	676	676	676	676	676
12.5	12.5	13.0	13.5	13.5	14.0	14.5	15.0
8.45	8.45	8.79	9.13	9.13	9.46	9.80	10.14
4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll
28000	39000	39000	39000	39000	39000	39000	39000
2	2	2	2	2	2	2	2
52.6	57.3	57.2	58.1	58.1	58.8	58.8	58.8
84.4	89.1	89.1	90.0	90.0	90.7	90.7	90.7
				400/3~N/50		400/3~N/50	90.7 400/3~N/50
400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50		400/3~N/50		
IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4
28.6	33.4	37.0	42.0	43.0	44.0	48.1	52.1
51.6	60.3	66.8	75.8	77.6	79.5	86.8	94.1
			ax. 35% ethylene g		., 0,		
800	800	800	800	800	800	800	800
16.2	17.7	20.0	21.3	22.8	24.2	25.5	26.7
56.2	67.3	49.4	55.5	52.4	45.1	49.6	37.5
2 1/2"	2 1/2"	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80
2 1/2"	2 1/2"	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80
					e technical documer		
962	968	1048	1069	1096	1343	1354	1365
			similar t	o RAL 9018			
103.4	88.3	101.9	91.9	90.7	93.8	85.3	93.6
183.6	168.6	182.2	172.2	171.0	174.0	165.4	173.6
207.8	195.8	212.8	205.7	207.7	213.8	208.1	219.0
200	200	375	375	375	375	375	375
48.8	53.5	53.4	54.3	54.3	55.0	55.0	55.0
43.1	47.2	47.1	47.9	47.9	48.6	48.6	48.6

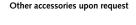
<sup>&</sup>lt;sup>3)</sup> Distance 10 m in open air <sup>5)</sup> With winter fan speed control accessories

# **REMKO** KWE 970-1550 ECO SERIES

### Chiller for cooling

### Chiller

Unit type	KWE 970 Eco	KWE 1060 Eco	KWE 1150 Eco
In the standard version	1704970	1705060	1705150
Optional components for noise reduction			
Low-noise kit	1657432	1657432	1657432
Super-low-noise kit	1657442	1657442	1657442
Optional hydraulic components			
Standard pump and pressure gauge	1657304	1657304	1657304
High-pressure pump and pressure gauge	1657313	1657313	1657313
High-performance pump and pressure gauge	1657323	1657323	1657323
Tank, standard pump, MAG, pressure gauge and anti-frost protection heater	1657334	1657334	1657334
Tank, high-pressure pump, MAG, pressure gauge and anti-frost protection heater	1657343	1657343	1657343
Tank, high-performance pump, MAG, pressure gauge and anti-frost protection heater	1657353	1657353	1657353
Accessories			
Glycol 20 I canister	1611414	1611414	1611414
Glycol 210 l drum	1611415	1611415	1611415
Cabled remote control	1657228	1657228	1657228
Condenser protection grid	1657363	1657363	1657363
Vibration damper (for units without a tank)	1657452	1657452	1657452
Vibration damper (for units with a tank)	1657454	1657454	1657453
Medium circuit pressure gauge (for units without hydraulic components)	1657415	1657415	1657415
Crankcase heater	Series	Series	Series
Electronic expansion valve	Series	Series	Series
Winter fan speed control	1657421	1657421	1657421
Soft start	1657386	1657387	1657387
Switch cabinet ventilation	1657401	1657401	1657401
Switch cabinet heater	1657405	1657405	1657405
Modbus interface RS485	1657410	1657410	1657410
Other constitution and an arrange			





#### Glycol concentrate 20 I canister

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



# Glycol concentrate 210 l plastic drum

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values.



## Condenser protection grid, installed

For chillers with protection against damage to the device fins or personal injury in case of installation in danger zones



### Vibration damper set

For chillers, required quantity included in the set.



## Medium circuit pressure gauge, installed

For displaying the system pressure in the medium circuit. Standard on machines with hydraulic components.



## Compressor crankcase heater, installed

For heating the oil sump when the unit is not in operation and the outside temperature is low. Standard for all units.



### Soft start, installed

For the limitation of the starting current in starting torque by up to 45%, depending on the unit size.

KWE 1240 Eco	KWE 1320 Eco	KWE 1400 Eco	KWE 1480 Eco	KWE 1550 Eco
1705240	1705320	1705400	1705480	1705550
1657432	1657432	1657432	1657432	1657432
1657442	1657442	1657442	1657442	1657442
1657304	1657304	1657304	1657304	1657304
1657313	1657313	1657313	1657313	1657313
1657323	1657323	1657323	1657323	1657323
1657334	1657334	1657334	1657334	1657334
1657343	1657343	1657343	1657343	1657343
1657353	1657353	1657353	1657353	1657353
1611414	1611414	1611414	1611414	1611414
1611415	1611415	1611415	1611415	1611415
1657228	1657228	1657228	1657228	1657228
1657363	1657363	1657363	1657363	1657363
1657452	1657452	1657454	1657454	1657454
1657453	1657453	1657456	1657456	1657456
1657415	1657415	1657415	1657415	1657415
Series	Series	Series	Series	Series
Series	Series	Series	Series	Series
1657421	1657421	1657421	1657421	1657421
1657387	1657388	1657389	1657389	1657389
1657401	1657401	1657401	1657401	1657401
1657405	1657405	1657405	1657405	1657405
1657410	1657410	1657410	1657410	1657410



# Switch cabinet ventilation, installed

For dissipating trapped heat in the control cabinet at high ambient temperatures.



# Switch cabinet heater, installed

For avoiding condensation in the switch cabinet due to temperature fluctuations at low ambient temperatures.



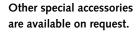
## Winter pressure control set, installed

For the expansion of the operating limits of the chiller in cooling operation to -15°C. Consists of EC fans and additional measurement and control components.



# Modbus interface RS485, installed

For the integration of the chiller to an existing building control system with Modbus data protocol, polling of error messages, sensor values, relay statuses, operating runtimes of pump and compressors, and the polling and setting of set values.

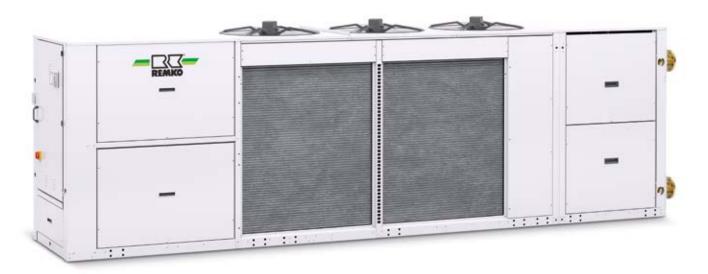


For example:

- Double pump for redundant operation
- Coated head exchanger for operation in aggressive ambient air
- And much more

# **REMKO** KWE 1600-3150 ECO SERIES

### Chiller for cooling









#### **REMKO** KWE 1600-3150 ECO SERIES

The air-cooled chillers of the KWE Eco series in the power range from 161.3 to 315.2 kW can be individually configured for any application thanks to their modular design. In the hermetically sealed system of the chiller for outdoor installation, the innovative and climate-friendly refrigerant R452B is used. The selection of pumps in various pressure ratings allows the hydraulic components to be individually adapted to the respective application.

The pressure gauges already installed ex works in the hydraulic circuit and the accessibility of the essential hydraulic components via the opening of the swivelling control cabinet facilitate installation and commissioning, thus ensuring maximum service friendliness.

In addition, thanks to the selection of state-of-the-art components and the optimisation of all device parameters, the devices already comply with the energy requirements of the more stringent Eco-Design Directive from 01/01/2021.

- Hydraulic components individually configurable
- Easy access to the essential device components
- Future-proof thanks to climate-friendly refrigerant R452B
- Optional components to reduce noise emissions available
- Integration into an existing building control system possible
- Units are ErP-compliant according to the Eco-Design Directive

#### **Technical data**

11-9-1	
Unit type	LAAZ
Nominal cooling capacity <sup>1)</sup>	kW
Energy efficiency rating EER 1)	
Energy efficiency size SEER	0/
Annual utilisation factor of room cooling, $\eta_{s,c}$	%
Cooling return temperature adjusting range	°C
Operating range, cooling	°C
Number of cooling circuits	
Refrigerant	
GWP value	
Refrigerant filling quantity (per circuit)	kg
CO <sub>2</sub> equivalent	d
Compressor, number/type	
Max. air volume flow rate	m³/h
Number of fans	
Sound pressure level 3)	dB(A)
Sound power level	dB(A)
Voltage supply	V/Ph/Hz
Type of protection	
Electrical nominal power consumption, cooling	kW
Electrical nominal current consumption, cooling	Α
Operating medium	
Max. medium operating pressure	kPa
Nominal volume flow rate of medium, cooling	m³/h
Internal pressure loss	kPa
Medium port, inlet	Inch
Medium port, outlet	Inch
Dimensions	
Weight	kg
Serial colour	
Chillers with standard pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-pressure pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with high-performance pump and pressure gauge	
System pressure available, cooling	kPa
Chillers with tank	
Medium content, tank	1
Chiller with low-noise kit	
Sound pressure level 3)	dB(A)
Chiller with super-low-noise kit	
Sound pressure level 3)	dB(A)
Available as of June 2020	

#### Available as of June 2020

 $<sup>^{1)}</sup>$  Air inlet temperature TK 35 °C, medium inlet 12°C, medium outlet 7 °C, 0% glycol concentration



KWE 1600 Eco	KWE 1850 Eco	KWE 2100 Eco	KWE 2350 Eco	KWE 2600 Eco	KWE 2850 Eco	KWE 3150 Eco
161.3	186.2	211.4	233.7	260.2	286.8	315.2
3.1	3.3	3.2	3.2	3.1	3.0	2.9
4.9	5.3	5.3	5.3	5.4	5.3	5.2
187	203	205	205	209	204	202
			+5 to +18			
			+5 to +48 / -15 to -	+48 <sup>5)</sup>		
2	2	2	2	2	2	2
R452B	R452B	R452B	R452B	R452B	R452B	R452B
676	676	676	676	676	676	676
18.0	18.0	18.5	19.0	21.0	22.0	22.5
12.17	12.17	12.51	12.84	14.20	14.87	15.21
4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll	4 / scroll
58500	58500	58500	58500	78000	83600	83600
3	3	3	3	4	4	4
60.0	60.2	60.5	60.8	61.5	61.5	61.5
92.0	92.2	92.5	92.8	93.7	93.7	93.7
400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50	400/3~N/50
IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4
51.9	56.2	62.7	70.3	79.7	91.7	103.8
93.8	101.4	113.2	127.0	143.9	165.7	187.4
		Water; max. 35	% ethylene glycol; max	. 35% propylene glyc	ol	
800	800	800	800	800	800	800
27.7	32.0	36.6	40.1	44.6	49.2	54.1
39.9	50.8	47.3	56.1	43.6	51.0	59.7
DN 80	DN 80	DN 80	DN 80	DN 100	DN 100	DN 100
DN 80	DN 80	DN 80	DN 80	DN 100	DN 100	DN 100
		depending on the unit	configuration. For deta	ails, see the technical o		
1650	1750	1805	1865	2154	2205	2265
			similar to RAL 90°	18		
132.7	114.8	110.1	133.0	136.0	117.7	96.2
169.2	199.4	196.7	181.4	185.2	167.8	147.3
215.5	260.8	257.2	241.4	243.7	225.2	203.3
375	375	375	375	375	375	375
56.2	56.4	56.7	57.0	57.7	57.7	57.7
49.8	50.1	50.3	50.7	51.3	51.3	51.3

<sup>&</sup>lt;sup>3)</sup> Distance 10 m in open air <sup>5)</sup> With winter fan speed control accessories

# **REMKO** KWE 1600-3150 ECO SERIES

### Chiller for cooling

### Chiller

Unit type	KWE 1600 Eco	KWE 1850 Eco
In the standard version	1705600	1705850
Optional components for noise reduction		
Low-noise kit	1657432	1657433
Super-low-noise kit	1657443	1657444
Optional hydraulic components		
Standard pump and pressure gauge	1657305	1657305
High-pressure pump and pressure gauge	1657314	1657315
High-performance pump and pressure gauge	1657324	1657325
Tank, standard pump, MAG, pressure gauge and anti-frost protection heater	1657335	1657335
Tank, high-pressure pump, MAG, pressure gauge and anti-frost protection heater	1657344	1657345
Tank, high-performance pump, MAG, pressure gauge and anti-frost protection heater	1657354	1657355
Accessories		
Glycol 20 l canister	1611414	1611414
Glycol 210 l drum	1611415	1611415
Cabled remote control	1657228	1657228
Condenser protection grid	1657364	1657364
Vibration damper (for units without a tank)	1657455	1657455
Vibration damper (for units with a tank)	1657457	1657457
Medium circuit pressure gauge (for units without hydraulic components)	1657415	1657415
Crankcase heater	Series	Series
Electronic expansion valve	Series	Series
Winter fan speed control	1657422	1657422
Soft start	1657390	1657390
Switch cabinet ventilation	1657401	1657401
Switch cabinet heater	1657405	1657405
Modbus interface RS485	1657410	1657410
Other accordance upon request		





#### Glycol concentrate 20 I canister

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



# Glycol concentrate 210 l plastic drum

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values.



## Condenser protection grid, installed

For chillers with protection against damage to the device fins or personal injury in case of installation in danger zones



### Vibration damper set

For chillers, required quantity included in the set.



## Medium circuit pressure gauge, installed

For displaying the system pressure in the medium circuit. Standard on machines with hydraulic components.



## Compressor crankcase heater, installed

For heating the oil sump when the unit is not in operation and the outside temperature is low. Standard for all units.



### Soft start, installed

For the limitation of the starting current in starting torque by up to 45%, depending on the unit size.

KWE 2100 Eco	KWE 2350 Eco	KWE 2600 Eco	KWE 2850 Eco	KWE 3150 Eco	
1706100	1706350	1706600	1706850	1707150	
1657433	1657433	1657433	1657433	1657433	
1657444	1657444	1657445	1657445	1657445	
1657305	1657306	1657306	1657306	1657306	
1657315	1657316	1657316	1657316	1657316	
1657325	1657326	1657326	1657326	1657326	
1657335	1657335	1657336	1657336	1657336	
1657345	1657345	1657346	1657346	1657346	
1657355	1657355	1657356	1657356	1657356	
1611414	1611414	1611414	1611414	1611414	
1611415	1611415	1611415	1611415	1611415	
1657228	1657228	1657228	1657228	1657228	
1657364	1657364	1657365	1657365	1657365	
1657455	1657455	1657455	1657455	1657455	
1657457	1657457	1657457	1657457	1657457	
1657415	1657415	1657415	1657415	1657415	
Series	Series	Series	Series	Series	
Series	Series	Series	Series	Series	
1657423	1657423	1657424	1657424	1657424	
1657390	1657390	1657390	1657391	1657391	
1657401	1657401	1657401	1657401	1657401	
1657405	1657405	1657405	1657405	1657405	
1657410	1657410	1657410	1657410	1657410	



# Switch cabinet ventilation, installed

For dissipating trapped heat in the control cabinet at high ambient temperatures.



# Switch cabinet heater, installed

For avoiding condensation in the switch cabinet due to temperature fluctuations at low ambient temperatures.



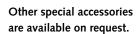
## Winter pressure control set, installed

For the expansion of the operating limits of the chiller in cooling operation to -15°C. Consists of EC fans and additional measurement and control components.



# Modbus interface RS485, installed

For the integration of the chiller to an existing building control system with Modbus data protocol, polling of error messages, sensor values, relay statuses, operating runtimes of pump and compressors, and the polling and setting of set values.



For example:

- Double pump for redundant operation
- Coated head exchanger for operation in aggressive ambient air
- And much more

# **REMKO** KWP 460-1120 ECO SERIES

### Chillers for cooling and heating











#### **REMKO** KWP 460-1120 Eco series

### In a modular design with heat pump function

The units of the KWE 460-1120 Eco series, with an output range of 46.4 to 112.1 kW cooling capacity and 53.9 to 135.7 kW heating capacity, are particularly compact and quiet air-cooled chillers for outdoor installation.

Thanks to an integrated process reversal, the units can be used for both heating and cooling and are therefore versatile.

The interaction from the optimisation of the heat exchanger surfaces, use of highly efficient components and the optimisation of all operation-related system parameters ensure that the units have a very high degree of efficiency and therefore correspond with the pertinent requirements of the Eco-Design Directive.

- Hydraulic components individually configurable
- Multi-stage power control
- Floating switch contacts for integration into a building control system
- Modbus data protocol in standard version
- Extensive accessories for individual unit configuration
- Units are ErP-compliant according to the Eco-Design Directive

### **Technical data**

Unit type	
Cooling capacity 1)	kW
Heating capacity 2)	kW
SEER	
Annual utilisation factor of room cooling, ηs,c	%
Return temperature operating range Cooling	°C
Return temperature operating range Heating	°C
Operating range, cooling	°C
Operating range, heating	°C
Number of cooling circuits	
Refrigerant	
GWP value	
Refrigerant filling quantity (per circuit)	kg
CO2 equivalent	d
Compressor, number/type	
Nominal air flow rate	m³/h
Number of fans	
Sound pressure level 3)	dB(A)
Sound power level	dB(A)
Voltage supply	V / Ph /Hz
Type of protection	IP
Electrical power consumption, max.	Α
Nominal power consumption, cooling	kW
Nominal current consumption, cooling	Α
Operating medium	
Max. operating pressure of medium	kPa
Rated flow rate, cooling	m³/h
Minimum flow rate, medium	m³/h
Maximum volume flow rate, medium	m³/h
Internal pressure loss	kPa
Medium port, inlet	Inch
Medium port, outlet	Inch
Dimensions	mm
Serial colour	
Schia coloui	
Chillers with standard pump and pressure gauge	
Available system pressure	kPa
Chillers with high-pressure pump and pressure gauge	M u
Available system pressure	kPa
Chillers with high-performance pump and pressure gauge	κια
Available system pressure	kPa
Chillers with tank	NI U
Medium content, tank	I
Chiller with low-noise kit	•
Available system pressure	dB(A)
Chiller with super-low-noise kit	αD(Λ)
	AD(A)
Available system pressure	dB(A)
<sup>1)</sup> Air inlet temperature TK 35°C, medium inlet 12°C, medium outlet 7°C	, 0% glycol concentra



MAID ACO Fee	KWP 520 Eco	KWP 570 Eco	KWP 660 Eco	KWP 790 Eco	KWP 900 Eco	KWP 1030 Eco	KWP 1120 Eco				
KWP 460 Eco											
46.4	51.7	57.2	66.3	78.5	90.1	102.7	112.1				
53.9	60.8	71.3	79.6	95.2	107.6	120.2	135.7				
5.8	5.7	5.3	4.9	5.9	6.0	5.8	5.9				
225	221	203	187	227	230	225	227				
			+5	to +18							
+25 to +50											
			-10	to +30							
1	1	1	1	1	1	2	2				
	R452B										
				676							
16.0	17.0	18.0	18.0	18.0	20.0	12.5	12.5				
10.8	11.5	12.2	12.2	12.2	13.5	8.5	8.5				
2	2	2	2	3	3	4	4				
22000	22000	22000	22000	44000	44000	44000	44000				
1	1	1	1	2	2	2	2				
53.3	53.6	53.9	54.7	57.4	57.7	58.0	58.4				
85.3	85.6	85.9	86.7	89.4	89.7	90.0	90.4				
			400/	′3~ N/50							
				X4							
53.2	53.3	51.3	61.3	84.3	81.1	110.3	106.3				
11.7	13.6	16.4	20.1	21.3	24.4	28.3	32.8				
21.1	24.5	29.7	36.3	38.5	44.0	51.0	59.3				
		Water; ma	x. 35% ethylene gl	ycol; max. 35% pr	opylene glycol						
				800							
8.0	8.9	9.9	11.4	14.3	15.7	19.0	21.9				
4.8	5.3	5.9	6.8	11.6	12.8	15.4	17.8				
12.8	14.2	15.8	18.2	17.4	19.2	23.2	26.7				
58.7	57.1	50.6	51.5	18.7	22.8	22.9	31.3				
1 1/2	2	2	2	2	2	2	2 1/2				
1 1/2	2	2	2	2	2	2	2 1/2				
	Varie	s depending on the	e unit configuratior	n. For details, see tl	ne technical docum	entation					
			similar to	o RAL 9018							
94.4	86.3	118.3	104.2	76.1	106.1	115.4	102.8				
163.4	149.0	222.6	209.3	181.7	186.2	195.7	183.1				
252.3	239.9	283.1	266.5	235.1	208.0	221.7	212.4				
200	200	200	200	200	200	200	200				
49.5	49.8	50.1	50.9	53.6	53.9	54.2	54.6				
46.9	47.2	47.5	48.3	51.0	51.4	51.7	52.0				
2) Air inlet temperati	ure TK 7°C medium	inlet 40 °C		3) Distance of 10m	in onen air						

 $<sup>^{2)}</sup>$  Air inlet temperature TK 7°C, medium inlet 40 °C, medium outlet 45 °C, 0% glycol concentration

<sup>3)</sup> Distance of 10m in open air

# **REMKO** KWP 460-1120 ECO SERIES

### Chillers for cooling and heating

### Chiller

Unit type	KWP 460 Eco	KWP 520 Eco	KWP 570 Eco
In the standard version	1707460	1707520	1707570
Optional components for noise reduction			
Low-noise kit	1657430	1657430	1657430
Super-low-noise kit	1657560	1657560	1657560
Optional hydraulic components			
Standard pump and pressure gauge	1657500	1657500	1657501
High-pressure pump and pressure gauge	1657510	1657510	1657511
High-performance pump and pressure gauge	1657520	1657520	1657521
Tank, standard pump, MAG, pressure gauge and anti-frost protection heater	1657530	1657530	1657531
Tank, high-pressure pump, MAG, pressure gauge and anti-frost protection heater	1657540	1657540	1657541
Tank, high-performance pump, MAG, pressure gauge and anti-frost protection heater	1657550	1657550	1657551
Other accessories			
Glycol, 20 litre canister	1611414	1611414	1611414
Glycol, 210 litre drum	1611415	1611415	1611415
Cabled remote control	1657228	1657228	1657228
Condenser protection grid	1657361	1657361	1657361
Vibration damper (for units without a tank)	1657450	1657450	1657450
Vibration damper (for units with a tank)	1657451	1657452	1657452
Medium circuit pressure gauge (for units without hydraulic components)	1657415	1657415	1657415
Crankcase heater	Series	Series	Series
Electronic expansion valve	Series	Series	Series
Winter fan speed control	Series	Series	Series
Soft start '	1657570	1657571	1657571
Switch cabinet ventilation	1657401	1657401	1657401
Switch cabinet heater	Series	Series	Series
Modbus interface RS485	1657410	1657410	1657410



#### Glycol concentrate 20 I canister

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



# Glycol concentrate 210 l plastic drum

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values.



# Condenser protection grid, installed

For chillers with protection against damage to the device fins or personal injury in case of installation in danger zones



### Vibration damper set

For chillers, required quantity included in the set.



## Medium circuit pressure gauge, installed

For displaying the system pressure in the medium circuit. Standard on machines with hydraulic components.



## Compressor crankcase heater, installed

For heating the oil sump when the unit is not in operation and the outside temperature is low. Standard for all units.



### Soft start, installed

For the limitation of the starting current in starting torque by up to 45%, depending on the unit size.

KWP 660 Eco	KWP 790 Eco	KWP 900 Eco	KWP 1030 Eco	KWP 1120 Eco	
1707660	1707790	1707900	1708030	1708120	
1657431	1657431	1657431	1657432	1657432	
1657561	1657562	1657562	1657563	1657563	
1657501	1657501	1657501	1657502	1657502	
1657511	1657511	1657511	1657512	1657512	
1657521	1657521	1657521	1657522	1657522	
1657531	1657531	1657531	1657532	1657532	
1657541	1657541	1657541	1657542	1657542	
1657551	1657551	1657551	1657552	1657552	
1611414	1611414	1611414	1611414	1611414	
1611415	1611415	1611415	1611415	1611415	
1657228	1657228	1657228	1657228	1657228	
1657361	1657363	1657363	1657363	1657363	
1657450	1657452	1657452	1657452	1657452	
1657452	1657454	1657454	1657454	1657454	
1657415	1657415	1657415	1657415	1657415	
Series	Series	Series	Series	Series	
Series	Series	Series	Series	Series	
Series	Series	Series	Series	Series	
1657571	1657572	1657572	1657573	1657574	
1657401	1657401	1657401	1657401	1657401	
Series	Series	Series	Series	Series	
1657410	1657410	1657410	1657410	1657410	



## Switch cabinet ventilation, installed

For dissipating trapped heat in the control cabinet at high ambient temperatures.



# Switch cabinet heater, installed

For avoiding condensation in the switch cabinet due to temperature fluctuations at low ambient temperatures.



## Winter pressure control set, installed

For the expansion of the operating limits of the chiller in cooling operation to -15°C. Consists of EC fans and additional measurement and control components.



# Electronic expansion valve, installed

For increasing the control quality, optimisation of the overheating control and increase in energy efficiency.



# Modbus interface RS485, installed

For the integration of the chiller to an existing building control system with Modbus data protocol, polling of error messages, sensor values, relay statuses, operating runtimes of pump and compressors, and the polling and setting of set values.

# Other special accessories are available on request.

For example:

- Double pump for redundant operation
- Coated head exchanger for operation in aggressive ambient air
- And much more

# **REMKO** KWP 1220-2460 ECO SERIES

### Chillers for cooling and heating











#### **REMKO** KWP 1220-2460 ECO SERIES

### In a modular design with heat pump function

The units of the KWE 1220-2460 Eco series, with an output range of 122.1 to 246.1 kW cooling capacity and 144.1 to 290.4 kW heating capacity, are particularly compact and quiet air-cooled chillers for outdoor installation.

Thanks to an integrated process reversal, the units can be used for both heating and cooling and are therefore versatile.

The interaction from the optimisation of the heat exchanger surfaces, use of highly efficient components and the optimisation of all operation-related system parameters ensure that the units have a very high degree of efficiency and therefore correspond with the pertinent requirements of the Eco-Design Directive.

- Hydraulic components individually configurable
- Multi-stage power control
- Floating switch contacts for integration into a building control system
- Modbus data protocol in standard version
- Extensive accessories for individual unit configuration
- Units are ErP-compliant according to the Eco-Design Directive

#### **Technical data**

Unit type	
Cooling capacity 1)	kW
Heating capacity 2)	kW
SEER	
Annual utilisation factor of room cooling, ηs,c	%
Return temperature operating range Cooling	°C
Return temperature operating range Heating	°C
Operating range, cooling	°C
Operating range, heating	°C
Number of cooling circuits	
Refrigerant	
GWP value	
Refrigerant filling quantity (per circuit)	kg
CO2 equivalent	ď
Compressor, number/type	
Nominal air flow rate	m³/h
Number of fans	
Sound pressure level 3)	dB(A)
Sound power level	dB(A)
Voltage supply	V / Ph /Hz
Type of protection	IP
Electrical power consumption, max.	A
Nominal power consumption, cooling	kW
Nominal current consumption, cooling	A
Operating medium	A
'	kPa
Max. operating pressure of medium Rated flow rate, cooling	m³/h
Minimum flow rate, medium	m³/h
	m³/h
Maximum volume flow rate, medium	kPa
Internal pressure loss	KPa
Medium port, inlet	
Medium port, outlet	
Dimensions	mm
Serial colour	
Chill with the dead are seen and a seen and a seen are seen as a seen are seen are seen as a seen are seen are seen as a seen are seen are seen as a seen are seen are seen are seen as a seen are seen are seen are seen as a seen are seen are seen are seen as a seen are seen a	
Chillers with standard pump and pressure gauge	LD.
Available system pressure	kPa
Chillers with high-pressure pump and pressure gauge	
Available system pressure	kPa
Chillers with high-performance pump and pressure gauge	
Available system pressure	kPa
Chillers with tank	
Medium content, tank	I
Chiller with low-noise kit	
Available system pressure	dB(A)
Chiller with super-low-noise kit	
Available system pressure	dB(A)
<sup>1)</sup> Air inlet temperature TK 35°C, medium inlet 12°C, medium outlet 7°C, 0% glycol concentration	



KWP 1220 Eco	KWP 1310 Eco	KWP 1400 Eco	KWP 1480 Eco	KWP 1700 Eco	KWP 1960 Eco	KWP 2220 Eco	KWP 2460 Eco				
122.1	130.5	139.7	148.3	169.9	196.2	222.7	246.1				
144.1	155.9	165.6	175.5	193.3	226.9	257.1	290.4				
5.7	5.5	5.7	5.8	5.5	6.0	6.0	6.0				
218	214	220	225	214	231	232	230				
			+5 t	o +18							
			+25	to +50							
-10 to +30											
2	2	2	2	2	2	2	2				
				52B							
				76							
13.0	13.5	13.5	14.0	18.0	18.0	18.5	19.0				
8.8	9.1	9.1	9.5	12.2	12.2	12.5	12.8				
4	4	4	4	4	4	4	4				
44000	44000	44000	44000	66000	66000	66000	66000				
2	2	2	2	3	3	3	3				
59.4	59.6	59.7	59.8	62.2	62.6	62.9	63.3				
91.4	91.6	91.7	91.8	94.2	94.6	94.9	95.3				
				3~ N/50							
				<b>K</b> 4							
116.3	126.3	136.3	146.3	163.9	188.7	213.5	235.5				
37.2	41.5	42.5	43.4	51.0	55.3	63.0	70.8				
67.1	75.0	76.7	78.5	92.1	99.8	113.7	127.9				
		Water; max.		col; max. 35% pro	pylene glycol						
				00							
21.0	22.5	24.1	25.5	29.3	33.8	38.4	42.4				
12.6	13.5	14.5	15.3	17.6	20.3	23.0	25.4				
33.6	36.0	38.6	40.8	46.9	54.1	61.4	67.8				
51.6	58.0	54.8	47.1	41.7	53.1	49.4	58.7				
DN 80	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80				
DN 80	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80				
	Varies	depending on the		·	e technical docume	entation					
			similar to	RAL 9018							
06.6	06.1	84.6	07.7	120.6	100.4	103.8	126.1				
96.6	86.1	04.0	87.7	128.6	109.4	103.8	126.1				
477.0	166.4	1610	167.0	1CE E	404.7	104.4	474.0				
177.0	166.4	164.9	167.8	165.5	194.7	191.4	174.9				
209.8	202.3	204.3	210.5	212.0	255.8	251.5	234.0				
209.8	202.3	204.3	210.5	212.0	255.8	201.5	234.0				
375	275	275	275	275	275	275	275				
3/9	375	375	375	375	375	375	375				
EE C	EE O	EE O	FC 0	EQ 4	E0 0	EQ 1	50 F				
55.6	55.8	55.9	56.0	58.4	58.8	59.1	59.5				
52.0	<b>53.3</b>	F2.4	F2 F	FF 0	56.2	FC F	57.0				
53.0	53.2	53.4	53.5	55.9	56.2	56.5	57.0				
2) Air inlet temperati	ure TK 7°C medium	inlet 40 °C		3) Distance of 10m i	in open air						

 $<sup>^{2)}</sup>$  Air inlet temperature TK 7°C, medium inlet 40 °C, medium outlet 45 °C, 0% glycol concentration

<sup>3)</sup> Distance of 10m in open air

# **REMKO** KWP 1220-2460 ECO SERIES

### Chillers for cooling and heating

#### Chiller

Unit type	KWP 1220 Eco	KWP 1310 Eco	KWP 1400 Eco
In the standard version	1708220	1708310	1708400
Outlined a superior to the action of the superior			
Optional components for noise reduction	1657122	1657124	1657101
Low-noise kit	1657432	1657434	1657434
Super-low-noise kit	1657563	1657564	1657564
Optional hydraulic components			
Standard pump and pressure gauge	1657503	1657503	1657503
High-pressure pump and pressure gauge	1657513	1657513	1657513
High-performance pump and pressure gauge	1657523	1657523	1657523
Tank, standard pump, MAG, pressure gauge and anti-frost protection heater	1657533	1657533	1657533
Tank, high-pressure pump, MAG, pressure gauge and anti-frost protection heater	1657543	1657543	1657543
Tank, high-performance pump, MAG, pressure gauge and anti-frost protection heater	1657553	1657553	1657553
Other accessories			
Glycol, 20 litre canister	1611414	1611414	1611414
Glycol, 210 litre drum	1611415	1611415	1611415
Cabled remote control	1657228	1657228	1657228
Condenser protection grid	1657366	1657366	1657366
Vibration damper (for units without a tank)	1657452	1657452	1657452
Vibration damper (for units with a tank)	1657453	1657453	1657453
Medium circuit pressure gauge (for units without hydraulic components)	1657415	1657415	1657415
Crankcase heater	Series	Series	Series
Electronic expansion valve	Series	Series	Series
Winter fan speed control	Series	Series	Series
Soft start	1657574	1657574	1657575
Switch cabinet ventilation	1657401	1657401	1657401
Switch cabinet vertalition	Series	Series	Series
Modbus interface RS485	1657410	1657410	1657410



#### Glycol concentrate 20 I canister

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



# Glycol concentrate 210 l plastic drum

Ethylene glycol concentrate in disposable barrel to ensure frost protection in the medium circuit. Recommendation: 34% glycol, 66% water



### Cabled remote control

For the operation of the chiller, polling of operating states and sensor values, diagnosis of error messages and the polling and setting of set values.



# Condenser protection grid, installed

For chillers with protection against damage to the device fins or personal injury in case of installation in danger zones



### Vibration damper set

For chillers, required quantity included in the set.



## Medium circuit pressure gauge, installed

For displaying the system pressure in the medium circuit. Standard on machines with hydraulic components.



## Compressor crankcase heater, installed

For heating the oil sump when the unit is not in operation and the outside temperature is low. Standard for all units.



### Soft start, installed

For the limitation of the starting current in starting torque by up to 45%, depending on the unit size.

KWP 1480 Eco	KWP 1700 Eco	KWP 1960 Eco	KWP 2220 Eco	KWP 2460 Eco
1708480	1708700	1708960	1709220	1709460
1657434	1657434	1657433	1657433	1657433
1657564	1657565	1657566	1657566	1657566
1657503	1657504	1657504	1657504	1657505
1657513	1657514	1657514	1657514	1657515
1657523	1657524	1657524	1657524	1657525
1657533	1657534	1657534	1657534	1657535
1657543	1657544	1657544	1657544	1657545
1657553	1657554	1657554	1657554	1657555
1611414	1611414	1611414	1611414	1611414
1611415	1611415	1611415	1611415	1611415
1657228	1657228	1657228	1657228	1657228
1657366	1657364	1657364	1657364	1657364
1657454	1657455	1657455	1657455	1657455
1657456	1657457	1657457	1657457	1657457
1657415	1657415	1657415	1657415	1657415
Series	Series	Series	Series	Series
Series	Series	Series	Series	Series
Series	Series	Series	Series	Series
1657575	1657575	1657576	1657576	1657577
1657401	1657401	1657401	1657401	1657401
Series	Series	Series	Series	Series
1657410	1657410	1657410	1657410	1657410



# Switch cabinet ventilation, installed

For dissipating trapped heat in the control cabinet at high ambient temperatures.



# Switch cabinet heater, installed

For avoiding condensation in the switch cabinet due to temperature fluctuations at low ambient temperatures.



## Winter pressure control set, installed

For the expansion of the operating limits of the chiller in cooling operation to -15°C. Consists of EC fans and additional measurement and control components.



# Electronic expansion valve, installed

For increasing the control quality, optimisation of the overheating control and increase in energy efficiency.



# Modbus interface RS485, installed

For the integration of the chiller to an existing building control system with Modbus data protocol, polling of error messages, sensor values, relay statuses, operating runtimes of pump and compressors, and the polling and setting of set values.

# Other special accessories are available on request.

For example:

- Double pump for redundant operation
- Coated head exchanger for operation in aggressive ambient air
- And much more

# **REMKO** KWE ECO FC SERIES

### Chiller for cooling













### **REMKO** KWE ECO FC SERIES

### In a modular design with integrated freecooling function

In addition to the conventional refrigeration circuit, the units of the KWE Eco FC series have another heat exchanger already integrated into the device for freecooling. This makes it possible to cool down the operating medium water (or water-glycol mixture) already by means of cool ambient air, whereby the operating costs can be considerably reduced.

The air-cooled devices for outdoor installation are therefore particularly suitable for applications with a year-round cooling requirement and long operating times. In the power range from 50 kW cooling capacity, various models are available here and can be individually adapted to the needs and requirements of the building project.

The planning and design of these units is carried out in cooperation with REMKO so that, in the end, a tailor-made unit can be created for every application.

- The freecooling function is already integrated as standard
- No setup of additional freecoolers required
- Control logic of the freecooling function already integrated
- Individual planning and design with support from REMKO for customised project planning
- Various connection options to the central BMS



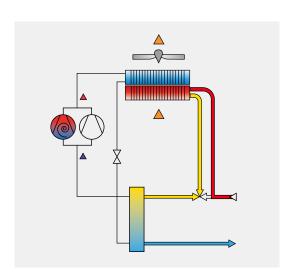
#### Freecooling

If cooling is required the whole year through, the units of the Freecooling version (FC) allow the use of the free cooling energy of the ambient air at low ambient temperatures. This saves operating costs and makes an environmentally sound contribution to the protection of the climate.



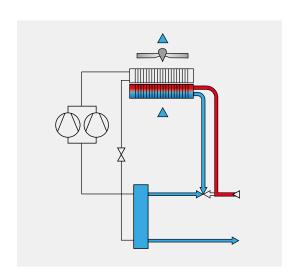
### Function at average temperatures

In the freecooling heat exchanger, the medium is already precooled by the cool outside air which means that the cooling circuit already operates with reduced cooling power requirements. This already ensures significant energy savings on cooler days.



### Function at low temperatures

The cooling of the medium by the outside air is now sufficient to cover the entire cooling capacity required. The refrigeration circuit of the device is no longer activated – only pumps and fans are now still in operation. In this way, energy savings of 90% and higher can be achieved.



### **BIO**CLEAN SYSTEM

### Natural disinfection of your indoor air

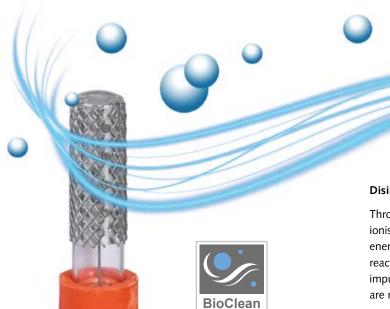


#### Clean indoor air is not a matter of course

The topic of "air quality" is more relevant than ever, especially due to the still ongoing COVID pandemic. Air conditioners and simple recirculation devices should be cleaned and serviced at certain time intervals. In addition to cleaning the air filter, disinfection in particular is imperative in order to be able to guarantee healthy air quality.

### **REMKO BioClean disinfects** room air in:

- Residential spaces
- Hotels
- Office buildings
- Schools
- Shopping centres
- Retirement homes
- Clinics
- Surgeries



### Disinfecting air with the REMKO BioClean system

Through the patented functional principle of "bipolar ionisation", ionisation waves are emitted in a quartz capacitor. Ionisation energetically charges the oxygen in the air. This "active oxygen" reacts with the air and binds the finest particles such as dust, smoke, impurities, allergens and even bacteria and germs. In this way, they are neutralised and removed from the room air.

The REMKO BioClean system can be ordered as an option for various indoor chilled-water units.

Play it safe – with the BioClean system from REMKO.

### BioClean system

Disinfects the room air by means of bipolar ionisation.

### Overview of indoor chilled-water units with the BioClean system







#### **KWD SERIES**

Ceiling cassette in 2-pipe design with 5-speed fan

Cooling capacity kW 2.7 - 9.4 Heating capacity kW 3.5 - 11.0



#### **KWD EC SERIES**

Ceiling-mounted cassettes in the compact European grid format with EC fans and multi-functional control technology

Cooling capacity kW 2.6 - 9.7 Heating capacity kW 3.7 - 12.3



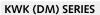
#### **KWD EC COANDA SERIES**

Ceiling cassette in 2-pipe design with 360-degree air outlet

Cooling capacity kW 2.6 - 9.7 Heating capacity kW 3.7 - 12.3







Wall and ceiling chests in 2-pipe or 4-pipe design

Cooling capacity kW 1.2 - 7.2 Heating capacity kW 1.5 - 7.7



#### **KWK ZW SERIES**

Ceiling chests in 2-pipe or 4-pipe design for installation into false ceilings

Cooling capacity kW 1.2 - 7.2
Heating capacity kW 1.5 - 7.7



### KWK EC (DM) SERIES

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

Cooling capacity kW 1.3 - 8.8
Heating capacity kW 1.6 - 9.2



### **KWK EC ZW SERIES**

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

Cooling capacity kW 1.3 - 8.8 Heating capacity kW 1.6 - 9.2

# REMKO WLT (S) SERIES

### Wall-mounted units in 2-pipe system



#### **REMKO WLT (S) SERIES**

# High performance units for rooms with limited space

The unit suctions room air in through its front section, filters, cools, and dehumidifies the air and then returns it to the room through its lower front section. The air outlet fins can be set to swing operation for better automatic air distribution (WLT) or can be individually set in a fixed position (WLT, WLT S).

A low-noise transverse current fan draws in the room air through an easily accessible filter. The copper-aluminium heat exchanger for medium temperatures up to 70°C located behind the fan provides for optimum cooling or heating performance.

Any condensate occurring is collected in the condensate pan and conducted out of the device via a condensate tube. If the condensate cannot drain freely, a condensate pump can be integrated into the device according to the size and routing of the lines.

- Simple installation above doors or at the top of walls
- Removable and easy to clean air filter
- Air outlet in swing mode or with individual fine adjustment
- Integrated 3-way or 2-way valve subassembly
- Infrared remote control in the standard version (not for WLT S)
- Automatic restart after a power failure (not for WLT-S)
- Programmable 24-hour timer function (not for WLT S)



Design with 3-way valve WLT 25-3 to 85-3



Design with 2-way valve WLT 25-2 to 85-2



Cabled remote control KF 10.1

For surface mounting, alternative to an IR remote control



Precision room temperature controller RR-21

Parametrisable regulation for surface mounting with various additional functions.

### Technical data

Hall bases		\A/IT 2F /C\	M/IT 27 /C\	VAUT 45 (C)	WIT 55 (C)	MUT 75 (C)	WIT OF (C)
Unit type	LAAZ	WLT 25 (S)	WLT 27 (S)	WLT 45 (S)	WLT 55 (S)	WLT 75 (S)	WLT 85 (S)
Cooling capacity 1) 2)	kW	2.0	2.7	4.4	5.8	7.0	8.5
Heating capacity 1) 3) / 6)	kW	4.1/0.8	5.4/1.6	8.6/2.7	12.0/3.5	13.9/4.8	17.1/5.9
Air flow rate per speed setting	m³/h	295/330/360	320/365/415	605/680/735	705/795/865	880/1100/1270	1090/1220/1400
Sound pressure level per speed setting 5)	dB(A)	26/30/33	28/31/36	33/36/38	35/37/40	38/40/42	39/42/43
Voltage supply		230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	kW	0.03	0.03	0.06	0.06	0.08	0.09
Electr. rated current consumption	Α	0.12	0.14	0.24	0.27	0.32	0.41
Operating medium			Water; max.	35% ethylene gly	col; max. 35% pr	opylene glycol	
Max. operating pressure	kPa	600	600	600	600	600	600
Medium connectors	mm	12	12	15	15	18	18
Rated flow rate, medium	m³/h	0.35	0.46	0.80	1.00	1.22	1.49
Rated internal pressure drop K 2)	kPa	9.5	20.5	21.0	22.5	21.7	33.5
Rate internal pressure loss H 3)	kPa	7.0	18.5	19.0	21.0	17.8	27.1
Medium volume	L	0.81	0.96	1.07	1.96	2.41	2.93
Condensate drainage connection	mm	16.5	16.5	24.0	24.0	24.0	24.0
Dimensions - height	mm	298	305	360	360	365	365
Dimensions - width	mm	880	990	1172	1172	1450	1450
Dimensions - depth	mm	180	180	206	206	215	215
Weight	kg	8.6	10.4	16.0	17.6	24.1	25.1
Serial colour	Ü	white	white	white	white	white	white
IR remote control and 3-way valve		WLT 25-3	WLT 27-3	WLT 45-3	WLT 55-3	WLT 75-3	WLT 85-3
Ref. no.		1611725	1611727	1611745	1611755	1611775	1611785
IR remote control and 2-way valve		WLT 25-2	WLT 27-2	WLT 45-2	WLT 55-2	WLT 75-2	WLT 85-2
Ref. no.		1612725	1612727	1612745	1612755	1612775	1612785
External control and 3-way valve		WLT 25-3 S	WLT 27-3 S	WLT 45-3 S	WLT 55-3 S	WLT 75-3 S	WLT 85-3 S
Ref. no.		1611726	1611728	1611746	1611756	1611776	1611786
External control and 2-way valve		WLT 25-2 S	WLT 27-2 S	WLT 45-2 S	WLT 55-2 S	WLT 75-2 S	WLT 85-2 S
Ref. no.		1612726	1612728	1612746	1612756	1612776	1612786

### Accessories

Unit type	WLT 25 (S)	WLT 27 (S)	WLT 45 (S)	WLT 55 (S)	WLT 75 (S)	WLT 85 (S)
Cabled remote control KF 10.1						
Only for WLT 25-85	1611703	1611703	1611703	1611703	1611703	1611703
Precision room temperature controller RR-21						
Only for WLT 25-85 S	1611396	1611396	1611396	1611396	1611396	1611396
Room temperature controller RR-22						
Only for WLT 25-85 S	1611397	1611397	1611397	1611397	1611397	1611397
Room temperature sensor						
For controllers RR-21 and RR-22	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
Flow temperature sensor						
For controllers RR-21 and RR-22	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1
Switching relay SR-1						
	1661105	1661105	1661105	1661105	1661105	1661105
Fault message module SB-1						
	1611506	1611506	1611506	1611506	1611506	1611506

#### **Accessories**

Unit type	WLT 25 (S)	WLT 27 (S)	WLT 45 (S)	WLT 55 (S)	WLT 75 (S)	WLT 85 (S)
KP-8 condensate pump						
	1613125	1613125	1613125	1613125	1613125	1613125



### Room temperature controller R-22

For the surface mounting and control of the essential unit functions.



### Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



### Fault message module SB-1

With potential-free contact for the display of fault messages in cooling operation.



KP-8 condensate pump

For draining the condensate that occurs.

Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
 Room temperature TK 27 C, FK 19 C; medium inlet 7 C, medium outlet 12 C
 Room temperature TK 20 C, FK 14 C; medium inlet 70 C, medium outlet 60 C
 Only in WLT S series: room temperature TK 20°C, FK 14°C; medium inlet 35°C, medium outlet 30°C

<sup>4)</sup> Accessories 5) Distance 1 m in open air

### **REMKO** WLT EC SERIES

### Wall units in 2-pipe design with multifunctional control technology







### **REMKO** WLT EC SERIES

#### Large power range, precise control and extra quiet operation

The WLT EC series is equipped with modern, energy-efficient EC fans that guarantee a high degree of efficiency – especially in the partial load range. At the same time, the infinitely variable adaptation of the speed-controlled fans prevents strong temperature fluctuations, thereby guaranteeing optimum climatic comfort.

With the integrated Silent function, the development of noise can be considerably reduced if required. The units are therefore particularly suitable for rooms in which air conditioning should be practically unnoticeable, for example, in living spaces or offices.

No additional installation effort arises from the valve subassembly already installed in the unit. Depending on the installed pump type of the cold-water pipe mains, it is possible to choose between the 3-way and 2-way valves in the standard version.

In total, 6 sizes cover the entire power range up to 9.3 kW so that the right unit is available for every application.

#### Control system

The standard version has an infrared remote control for switching between cooling, heating, ventilation or dehumidifying modes. With this component, the desired room temperature, switch-on or switch-off time, operation of swing fins and 5 fan speeds can be set. With an optional cabled remote control, each individual unit can also be operated individually within a group control system.

Thanks to the Modbus interface integrated into the standard version, the units can be incorporated into an existing building control system. An external enabling contact and potential-free collective fault message notification function offer the possibility of actuating the units externally and/or polling a pending fault.

- Particularly low-noise unit operation
- Simple installation above doors or at the top of walls
- Removable and easy to clean air filter
- Air outlet with adjustable swing function
- Integrated 3-way or 2-way valve
- Large power range

- Infrared remote control in the standard version
- Programmable 24-hour timer function
- Potential-free fault and enabling contacts
- Modbus interface RS485 in the standard version
- 5 adjustable fan speeds
- Infinitely adjustable power adaptation in automatic operation

Unit type		WLT 30 EC	WLT 40 EC	WLT 50 EC	WLT 60 EC	WLT 80 EC	WLT 90 EC
, ,	kW			4.9 (0.8 - 4.9)	6.1 (0.9 - 6.1)		9.3 (2.0 - 9.3)
Cooling capacity 1) 2)	kW	2.8 (0.8 - 2.8)	3.7 (0.8 - 3.7)			7.4 (1.9 - 7.4)	
Heating capacity 1) 3)	KVV	4.2 (1.2 - 4.2)	4.9 (1.2 - 4.9)	6.4 (1.2 - 6.4)	7.8 (1.3 - 7.8)	9.4 (2.3 - 9.4)	11.3 (2.4 -
Air flow rate per speed setting	m³/h	150/360/450/	150/405/480/	150/570/740/	150/705/895/	320/1090/1300/	11.3) 320/1300/1460/
Air flow rate per speed setting	1112/11						
Carried annual level and an and anti	JD/A)	510/560 18/33/39/43/45	590/625 19/34/38/42/45	910/950 18/32/40/46/47	1050/1120 18/35/41/46/47	1490/1650 19/40/44/47/50	1640/1790 20/44/46/49/51
Sound pressure level per speed setting 4)	dB(A)						
		230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	W	27	31	46	60	105	115
	Α	0.27	0.29	0.36	0.49	0.81	0.94
Operating medium			Water; max.	35% ethylene gly	col; max. 35% pro	opylene glycol	
Max. operating pressure	kPa			16	00		
Medium connectors	mm	12	12	12	12	15	15
Rated flow rate, medium 1)	m³/h	0.48	0.64	0.83	1.05	1.28	1.60
Rated pressure drop, internal	kPa	23.1	31.3	31.0	38.4	27.4	30.0
Medium volume	L	2	2	2	2	3	3
Condensate drainage connection	mm	16	16	16	16	16	16
Dimensions - height	mm	315	315	315	315	378	378
Dimensions - width	mm	824	824	1147	1147	1557	1557
Dimensions - depth	mm	245	245	245	245	300	300
Weight	kg	11	12	16	17	26	27
Serial colour	Ü	white	white	white	white	white	white
WLT EC with 3-way valve		WLT 30-3 EC	WLT 40-3 EC	WLT 50-3 EC	WLT 60-3 EC	WLT 80-3 EC	WLT 90-3 EC
•							
Ref. no.		1614830	1614840	1614850	1614860	1614880	1614890
WLT EC with 2-way valve		WLT 30-2 EC	WLT 40-2 EC	WLT 50-2 EC	WLT 60-2 EC	WLT 80-2 EC	WLT 90-2 EC
Ref. no.		1614831	1614841	1614851	1614861	1614881	1614891

#### 4) Distance of 1 m in open air

### Accessories

Unit type	WLT 30 EC	WLT 40 EC	WLT 50 EC	WLT 60 EC	WLT 80 EC	WLT 90 EC
Cabled remote control KF-21						
	1611398	1611398	1611398	1611398	1611398	1611398
Precision room temperature controller RR-21.2						
·	1611401	1611401	1611401	1611401	1611401	1611401
Room temperature controller RR-22.2						
	1611403	1611403	1611403	1611403	1611403	1611403
Room temperature sensor						
For controllers RR-21.2 and RR-22.2	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
Flow temperature sensor						
For controllers RR-21.2 and RR-22.2	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1

### **Accessories**

Unit type	WLT 30 EC	WLT 40 EC	WLT 50 EC	WLT 60 EC	WLT 80 EC	WLT 90 EC
KP-8 condensate pump						
	1613125	1613125	1613125	1613125	1613125	1613125



### Cabled remote control KF-21

For surface mounting, operation of individual units and group switching of up to max. 32 units



### Precision room temperature controller RR-21.2

Parametrisable regulation for surface mounting with various additional functions.



### Room temperature controller R-22.2

For the surface mounting and control of the essential unit functions.



### KP-8 condensate pump

For draining the condensate that occurs.

<sup>&</sup>lt;sup>1)</sup> Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate <sup>2)</sup> Room temperature TK 27°C, FK 19°C; medium inlet 7°C, medium outlet 12°C <sup>3)</sup> Room temperature TK 20°C, FK 14°C; medium inlet 50°C, rated volume flow rate as in cooling operation

### **REMKO** KWD SERIES

### Ceiling cassette in 2-pipe design with 5-speed fan





#### **REMKO** KWD SERIES

#### Ceiling cassettes in compact European standard grid format

The small design height of the ceiling-mounted cassettes of 258 and 298 mm allows installation in almost every false ceiling. The discharge of air to all four sides ensures even air distribution. The copper-aluminium round heat exchangers are designed for medium temperatures of up to 70 °C.

The five-speed, adjustable radial fan allows the optimal adaptation of the air flow rate to prevailing conditions so that an individual feeling of comfort is considerably improved. Ceiling-mounted cassettes are fitted as standard with an internal condensate pump. Optionally, fresh air can be blown in, or adjoining rooms can also be cooled.

- Elegant solution for ceiling installation
- Dimensions in European standard grid format
- Quiet operation
- Service-friendly device structure
- Low height
- "Silent" and "Turbo" modes
- With infrared remote control
- Programmable 24-hour timer function
- Air outlet with possible swing function
- 5 fan speeds
- Installed condensate pump (up to 1000 mmWS)

#### Regulation

In the KWD unit series, the cooling, heating, ventilation, or dehumidification modes of the ceiling cassettes can be controlled automatically or manually by the operator using an infrared remote control. The desired room temperature, activation or deactivation time, and the current time can be set easily at the press of a button. When several ceiling cassettes are used with a room or building, an infrared remote control can be used in an internal network for all devices. With a cabled remote control within an internal network, each individual ceiling cassette can be individually addressed and programmed. The line can be regulated on the medium side using the optional three-way valve subassembly or using a valve subassembly that must be adapted to the plant.



Cabled remote control KF-21

For surface mounting, operation of individual units.
Group switching of up to a maximum of 32 units possible.

Unit type		KWD 25	KWD 35	KWD 45	KWD 55	KWD 70	KWD 85	KWD 100
Cooling capacity 1) 2)	kW	2.7	3.3	4.3	5.4	7.1	8.1	9.4
Heating capacity 1) 3)	kW	3.5	4.3	5.6	6.9	9.2	10.5	11.0
Air flow rate per speed setting	m³/h	375/400/420/ 445/490	395/420/440/ 490/520	455/500/520/ 565/650	550/620/665/ 740/855	620/700/830/ 970/1030	900/960/1040/ 1240/1350	970/1020/1140/ 1260/1500
Sound pressure level per speed setting 4)	dB(A)	27/29/32/ 34/35	29/31/32/ 33/35	31/33/35/ 37/39	34/36/38/ 40/42	31/34/37/ 40/42	35/39/41/ 43/45	37/40/42/ 44/47
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	kW	0.04	0.04	0.07	0.09	0.07	0.15	0.17
Electr. rated current consumption	Α	0.20	0.24	0.35	0.44	0.38	0.68	0.78
Operating medium			Water;	max. 35% ethy	lene glycol; max	. 35% propylen	e glycol	
Max. operating pressure	kPa	1400	1400	1400	1400	1400	1400	1400
Medium connectors	Inch	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Rated flow rate, medium	m³/h	0.53	0.57	0.75	0.84	1.22	1.39	1.45
Rated pressure drop, internal	kPa	15.0	18.0	25.0	20.0	30.0	38.0	42.0
Medium volume - register	L	1.3	1.3	1.3	1.79	2.84	3.22	3.22
Ceiling cassette dimensions H	mm	258	258	258	298	298	298	298
Ceiling cassette dimensions B	mm	570	570	570	570	570	570	570
Ceiling cassette dimensions D	mm	570	570	570	570	1110	1110	1110
Dimensions of cover H	mm	28	28	28	28	28	28	28
Dimensions of cover B	mm	650	650	650	650	690	690	690
Dimensions of cover T	mm	650	650	650	650	1220	1220	1220
Weight	kg	28	28	28	31	57	59	59
Serial colour				White	e, similar to RAL	9003		
Ref. no.		1611860	1611862	1611864	1611866	1611868	1611870	1611872

#### Accessories

Accessories							
Unit type	KWD 25	KWD 35	KWD 45	KWD 55	KWD 70	KWD 85	KWD 100
Cabled remote control KF-21							
	1611398	1611398	1611398	1611398	1611398	1611398	1611398
Bus connecting line							
	1611393	1611393	1611393	1611393	1611393	1611393	1611393
Two-way valve assembly							
	1611507	1611507	1611507	1611507	1611508	1611508	1611508
Three-way valve assembly							
F II	1611511	1611511	1611511	1611511	1611512	1611512	1611512
Fault message module SB-1	4644506	1611506	4644506	4644506	4644506	4644506	4644506
Dis Class systems in stalled	1611506	1611506	1611506	1611506	1611506	1611506	1611506
BioClean system, installed	4665063	1665063	4665062	4665063	4665063	4665062	4665063
Dadia anatual for Dia Class anatom	1665062	1665062	1665062	1665062	1665062	1665062	1665062
Radio control for BioClean system	1665063	1665063	1665063	1665063	1665063	1665063	1665063
Quartz capacitor for BioClean system	1000003	1000003	1000005	1000003	1000003	1000003	1000003
Quartz capacitor for Bioclean system	1665060	1665060	1665060	1665060	1665060	1665060	1665060

### **Accessories**

Unit type	KWD 25	KWD 35	KWD 45	KWD 55	KWD 70	KWD 85	KWD 100
KP-5 condensate pump							
	1613168	1613168	1613168	1613168	1613168	1613168	1613168
Condensate tube, separate							
For condensate pump KP-5	1613097	1613097	1613097	1613097	1613097	1613097	1613097



### Fault message module SB-1

With potential-free contact for the display of fault messages in cooling operation.



### Two-way/three-way valve assembly

For interrupting/controlling the medium volume flow rate in cooling or heating operation.



### BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



### Radio control for BioClean system

For switching the BioClean system on and off by means of a surface-mounted radio switch.

 <sup>&</sup>lt;sup>1)</sup> Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
 <sup>2)</sup> Room temperature TK 27°C, FK 19°C; medium inlet 7°C, medium outlet 12°C
 <sup>3)</sup> Room temperature TK 20°C, FK 14°C; medium inlet 50°C, rated volume flow rate as in cooling operation
 <sup>4)</sup> Distance of 1 m in the open air

### **REMKO** KWD EC SERIES

Ceiling cassette in 2-pipe design with multifunctional control technology







#### **REMKO** KWD EC SERIES

### Ceiling-mounted cassettes in the compact European standard grid format with EC fans and multifunctional control technology

The new generation of ceiling cassettes are equipped with modern, highly economical EC fans. These enable an infinitely variable speed control with extremely high efficiency - especially in the partial-load range. The result: draught-free cooling and low-noise unit operation.

The low design height of the ceiling-mounted cassettes of just 258 and 298 mm respectively allows installation in almost any false ceiling. Air distribution via a round heat exchanger with a medium temperature of up to 70  $^{\circ}$ C takes place using all four unit sides below the false ceiling.

Ceiling-mounted cassettes are fitted as standard with an internal condensate pump. Fresh air can be blown in or adjoining rooms can be cooled as an option.

Actual functional conditions can be processed further with potential-free error and operation contacts.

- Elegant solution for ceiling installation
- Dimensions in European standard grid format
- Quiet operation
- With infrared remote control
- Programmable 24-hour timer function
- Air outlet with possible swing function
- Master and slave function
- Potential-free fault and operating contacts
- Installed condensate pump (up to 1000 mmWS)
- Connection for fresh air supply and cooling second room

#### Regulation

The cooling, heating, ventilation or dehumidifying operating modes, the desired room temperature, switch-on or switch-off time, operation of swing fins and 5 fan speeds can be set with the standard-equipment infrared remote control. When several ceiling cassettes are used with a room or building, an infrared remote control can be used in an internal network for all devices. With a cabled remote control within an internal network, each individual ceiling cassette can be individually addressed and programmed. Output control of the medium can be achieved through the optional two or three-way valve assembly.

- Standard infrared remote control with 5 fan speeds
- Individual or group control possible
- Building control technology with variable control



#### Cabled remote control KF-21

For surface mounting, operation of individual units.

Group switching of up to a maximum of 32 units possible.



### Precision room temperature controller RR-21.2

Parametrisable regulation for surface mounting with various additional functions.

Unit type		KWD 25 EC	KWD 35 EC	KWD 45 EC	KWD 55 EC	KWD 70 EC	KWD 85 EC	KWD 100 EC
Cooling capacity 1) 2)	kW	2.6	3.2	4.4	5.2	6.9	8.4	9.7
Heating capacity 1) 3)	kW	3.7	4.1	5.4	6.8	8.7	11.2	12.3
Air flow rate per speed setting	m³/h	180/220/320/ 390/440	220/320/390/ 440/520	215/343/397/ 566/684	229/606/665/ 793/974	385/610/700/ 780/1030	395/835/1057/ 1285/1587	393/1057/1157/ 1380/1678
Sound pressure level per speed setting 4)	dB(A)	21/21/23/ 25/27	21/23/25/ 27/33	22/26/29/ 37/42	21/35/38/ 42/47	28/29/30/ 34/37	27/34/43/ 45/50	28/45/46/ 48/53
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	kW	0.01	0.02	0.04	0.06	0.04	0.11	0.12
Electr. rated current consumption	Α	0.09	0.13	0.22	0.33	0.22	0.54	0.62
Operating medium			Water;	max. 35% ethy	lene glycol; max	. 35% propylen	e glycol	
Max. operating pressure	kPa	1400	1400	1400	1400	1400	1400	1400
Medium connectors	Inch	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Rated flow rate, medium	m³/h	0.45	0.55	0.78	0.91	0.98	1.45	1.66
Rated pressure drop, internal	kPa	10.2	15.0	25.1	23.1	29.7	39.9	49.4
Medium volume, cooling register	L	1.3	1.3	1.3	1.8	2.1	3.2	3.2
Ceiling cassette dimensions H	mm	258	258	258	298	298	298	298
Ceiling cassette dimensions B	mm	580	580	580	580	580	580	580
Ceiling cassette dimensions D	mm	580	580	580	580	1110	1110	1110
Dimensions of cover H	mm	28	28	28	28	28	28	28
Dimensions of cover B	mm	650	650	650	650	690	690	690
Dimensions of cover T	mm	650	650	650	650	1220	1220	1220
Weight	kg	28	28	28	31	57	58	58
Serial colour	-			White	e, similar to RAL	9003		
Ref. no.		1611880	1611882	1611884	1611886	1611888	1611890	1611892

 <sup>&</sup>lt;sup>1)</sup> Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
 <sup>2)</sup> Room temperature TK 27°C, FK 19°C; medium inlet 7°C, medium outlet 12°C
 <sup>3)</sup> Room temperature TK 20°C, FK 14°C; medium inlet 50°C, medium outlet 45°C
 <sup>4)</sup> Distance of 1 m in the open air

#### **Accessories**

710003301103							
Unit type	KWD 25 EC	KWD 35 EC	KWD 45 EC	KWD 55 EC	KWD 70 EC	KWD 85 EC	KWD 100 EC
Cabled remote control KF-21							
	1611398	1611398	1611398	1611398	1611398	1611398	1611398
Precision room temperature controller RR-21.2							
	1611401	1611401	1611401	1611401	1611401	1611401	1611401
Room temperature controller RR-22.2							
	1611403	1611403	1611403	1611403	1611403	1611403	1611403
Two-way valve assembly							
	1611507	1611507	1611507	1611507	1611508	1611508	1611508
Three-way valve assembly							
	1611511	1611511	1611511	1611511	1611512	1611512	1611512
BioClean system, installed							
	1665062	1665062	1665062	1665062	1665062	1665062	1665062
Radio control for BioClean system							
	1665063	1665063	1665063	1665063	1665063	1665063	1665063
Quartz capacitor for BioClean system							
	1665060	1665060	1665060	1665060	1665060	1665060	1665060

### Accessories

Unit type	KWD 25 EC	KWD 35 EC	KWD 45 EC	KWD 55 EC	KWD 70 EC	KWD 85 EC	KWD 100 EC
KP-5 condensate pump							
·	1613168	1613168	1613168	1613168	1613168	1613168	1613168
Condensate tube, separate							
For condensate pump KP-5	1613097	1613097	1613097	1613097	1613097	1613097	1613097



### Room temperature controller RR-22.2

For the surface mounting and control of the essential unit functions.



### Two-way/three-way valve assembly

For interrupting/controlling the medium volume flow rate in cooling or heating operation.



### BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



### Radio control for BioClean system

For switching the BioClean system on and off by means of a surface-mounted radio switch.

### **REMKO** KWD EC COANDA SERIES

Ceiling cassette in 2-pipe design with 360-degree air outlet







#### **REMKO** KWD EC COANDA SERIES

## Ceiling cassettes with EC fans and Coanda screen for low-flow unit operation and optimum air distribution

KWD EC Coanda ceiling cassettes use the physical properties of flowing air to evenly air-condition a room. Due to the specially designed unit cover, the air outlet is located at a small distance parallel to the ceiling, which creates a vacuum and increases the range. The flowing air thus falls into the room only slowly and draught-free.

Compared to conventional systems, a more even air distribution is possible with the Coanda screen. A significantly more pleasant feelgood climate is created without drafts.

Air distribution with standard screen

### EPA filter for air cleaning

As an option, the units can be equipped with an EPA filter (high-performance particle filter), which can meet particularly high demands on room air quality. This filters out about 99.5% of all suspended particles from the air, including pollen, mites, smoke particles and bacteria. This enables a particularly high level of air purity.



Air distribution with Coanda screen

### Areas of application of the EPA filter

- Medical practices
- Clean rooms for measuring technology
- Laboratories
- Rooms with increased air quality requirements



Cabled remote control KF-21

For surface mounting, operation of individual units.

Group switching of up to a maximum of 32 units possible.



Precision room temperature controller RR-21.2

Parametrisable regulation for surface mounting with various additional functions.



Room temperature controller RR-22.2

For the surface mounting and control of the essential unit functions.

reeminear data								
Unit type		KWD 25 EC Coanda	KWD 35 EC Coanda	KWD 45 EC Coanda	KWD 55 EC Coanda	KWD 70 EC Coanda	KWD 85 EC Coanda	KWD 100 EC Coanda
Data with standard filter (nylon)								
Cooling capacity 1) 2)	kW	2.6	3.2	4.4	5.2	6.9	8.4	9.7
Heating capacity 1) 3)	kW	3.7	4.1	5.4	6.8	8.7	11.2	12.3
Air flow rate per speed setting	m³/h	180/220/320/ 390/440	220/320/390/ 440/520	215/343/397/ 566/684	229/606/665/ 793/974	385/610/700/ 780/1030	395/835/1057/ 1285/1587	393/1057/1157/ 1380/1678
Sound pressure level per speed setting 4)	dB(A)	21/21/23/ 25/27	21/23/25/ 27/33	22/26/29/ 37/42	21/35/38/ 42/47	28/29/30/ 34/37	27/34/43/ 45/50	28/45/46/ 48/53
Data with EPA filter (class E12)								
Cooling capacity 1) 2)	kW	1.5	1.9	2.5	3.0	_	4.3	4.5
Heating capacity 1) 3)	kW	2.0	2.4	3.1	3.9	_	5.7	5.9
Air flow rate per speed setting	m³/h	122/133/194/ 236/267	133/194/236/ 267/316	141/225/261/ 372/449	147/390/428/ 510/626	-	222/469/594/ 722/890	222/570/623/ 744/904
Sound pressure level per speed setting 4)	dB(A)	21/21/23/ 25/27	21/23/25/ 27/33	22/26/29/ 37/42	21/35/38/ 42/47	_	24/34/43/ 45/50	24/45/46/ 48/53
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	kW	0.01	0.02	0.04	0.06	0.04	0.11	0.12
Electr. rated current consumption	A	0.09	0.13	0.22	0.33	0.22	0.54	0.62
Operating medium			Water;	max. 35% ethy	lene glycol; max	. 35% propyler	e glycol	
Max. operating pressure	kPa	1400	1400	1400	1400	1400	1400	1400
Medium connectors	Inch	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Rated flow rate, medium	m³/h	0.45	0.55	0.78	0.91	0.98	1.45	1.66
Rated pressure drop, internal	kPa	10.2	15.0	25.1	23.1	29.7	39.9	49.4
Medium volume, cooling register	L	1.3	1.3	1.3	1.8	2.1	3.2	3.2
Ceiling cassette dimensions H	mm	258	258	258	298	298	298	298
Ceiling cassette dimensions B	mm	580	580	580	580	580	580	580
Ceiling cassette dimensions D	mm	580	580	580	580	1110	1110	1110
Dimensions of cover H	mm	50	50	50	50	50	50	50
Dimensions of cover B	mm	600	600	600	600	600	600	600
Dimensions of cover T	mm	600	600	600	600	1200	1200	1200
Weight	kg	31	31	31	34	63	64	64
Serial colour				White	e, similar to RAL	. 9010		
With standard filter								
Ref. no.		1611950	1611952	1611954	1611956	1611958	1611960	1611962
With EPA filter								
Ref. no.		1611964	1611966	1611968	1611970	_	1611974	1611976

#### Accessories

Unit type	KWD 25 EC Coanda	KWD 35 EC Coanda	KWD 45 EC Coanda	KWD 55 EC Coanda	KWD 70 EC Coanda	KWD 85 EC Coanda	KWD 100 EC Coanda
Cabled remote control KF-21	1611398	1611398	1611398	1611398	1611398	1611398	1611398
Precision room temperature controller RR-21.2	1611401	1611401	1611401	1611401	1611401	1611401	1611401
Room temperature controller RR-22.2	1611403	1611403	1611403	1611403	1611403	1611403	1611403
Two-way valve assembly	1611507	1611507	1611507	1611507	1611508	1611508	1611508
Three-way valve assembly	1611511	1611511	1611511	1611511	1611512	1611512	1611512
EPA filter (class E12)	1108886	1108886	1108886	1108886	_	2x 1108886	2x 1108886
BioClean system, installed	1665062	1665062	1665062	1665062	1665062	1665062	1665062
Radio control for BioClean system	1665063	1665063	1665063	1665063	1665063	1665063	1665063
Quartz capacitor for BioClean system	1665060	1665060	1665060	1665060	1665060	1665060	1665060

### Accessories

Unit type	KWD 25 EC Coanda	KWD 35 EC Coanda	KWD 45 EC Coanda	KWD 55 EC Coanda	KWD 70 EC Coanda	KWD 85 EC Coanda	KWD 100 EC Coanda
KP-5 condensate pump							
···	1613168	1613168	1613168	1613168	1613168	1613168	1613168
Condensate tube, separate							
For condensate pump KP-5	1613097	1613097	1613097	1613097	1613097	1613097	1613097



### **EPA** filter

Class E12 high-performance particle filter. Filter change recommended after 500 operating hours.



### Two-way/three-way valve assembly

For interrupting/controlling the medium volume flow rate in cooling or heating operation.



### BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



### Radio control for BioClean system

For switching the BioClean system on and off by means of a surface-mounted radio switch.

 $<sup>^{1)}</sup>$  Rated flow rate of medium; 0% glycol concentration; max. air flow rate  $^{2)}$  Room temperature TK 27°C, FK 19°C, medium inlet 7°C, medium outlet 12°C

 $<sup>^{3)}</sup>$  Room temperature TK 20°C, FK 14°C; medium inlet 50°C, medium outlet 45°C

<sup>4)</sup> Distance 1 m in open air

### **REMKO** DKT-4 SERIES

### Ceiling cassettes in 4-pipe design



#### **REMKO DKT-4 SERIES**

### Ceiling cassettes for heating and cooling

The hot room air is suctioned in a centred manner via an internal regenerative air filter. The four-sided special diffuser cover allows two, three or four sided air distribution below the ceiling. The three-stage radial low-noise radial fan allows the optimal adaptation of the airflow volume to prevailing conditions. The copper-aluminium heat exchangers are designed for medium temperatures of up to 80°C. The units are fitted as standard with a condensate pump. Optionally, fresh air can be blown in, or adjoining rooms can also be cooled. A "cooling" valve assembly is supplied as standard for medium control. The control of the heating circuit can be adapted to the unit.

#### Regulation

Ceiling mounted cassettes for insertion into false ceilings are operated using a room temperature control or a precision room temperature control, either individually or in groups. The elegant and functional controls can be integrated into any wall decoration. The operating panel has a selector switch for the operating mode and the fan speed, a main switch, and a temperature controller for setting the desired room temperature.

- The ideal solution for optically discreet air conditioning
- Dimensions in European standard grid format
- Quiet operation
- Service-friendly device structure
- Air outlet with adjustable slats
- Installed condensate pump
- With "Cooling" valve assembly, including connection piping



### Precision room temperature controller RR-21

Parametrisable regulation for surface mounting with various additional functions.



### Room temperature controller RR-22

For the surface mounting and control of the essential unit functions.

Unit type		DKT 21-4	DKT 51-4	DKT 71-4
Cooling capacity 1) 2)	kW	2.2	4.1	6.7
Heating capacity 1) 3)	kW	1.9	6.8	11.5
Air flow rate per speed setting	m³/h	360/450/660	485/625/900	500/825/1160
Sound pressure level per speed setting 4)	dB(A)	23/28/38	33/39/48	28/37/44
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50
Electr. rated power consumption	kW	0.06	0.09	0.09
Electr. rated current consumption	Α	0.27	0.41	0.46
Operating medium		Water; ma	x. 35% ethylene glycol; max	r. 35% propylene glycol
Max. operating pressure	kPa	1400	1400	1400
Medium connectors - cooling register	Inch	3/4	3/4	1
Medium connectors - heating register	Inch	1/2	1/2	3/4
Rated flow rate, medium - cooling	m³/h	0.40	1.10	1.52
Rated flow rate, medium - heating	m³/h	0.10	0.60	0.99
Rated pressure drop, internal - cooling	kPa	13.7	13.10	23.20
Rated pressure drop, internal - heating	kPa	31.4	29.2	13.60
Medium volume, cooling register/heating register	L	0.4/0.1	1.1/0.6	2.4/1.2
Dimensions, ceiling cassette - height	mm	298	298	298
Dimensions, ceiling cassette - width	mm	570	570	825
Dimensions, ceiling cassette - depth	mm	570	570	825
Dimensions of cover - height	mm	30	30	30
Dimensions of cover - width	mm	720	720	960
Dimensions of cover - depth	mm	720	720	960
Weight of ceiling cassette/cover	kg	19.0/2.5	20.0/2.5	39.6/5.0
Serial colour		white	white	white
Ref. no.		1611302	1611322	1611342

#### **Accessories**

Unit type	DKT 21-4	DKT 51-4	DKT 71-4
Precision room temperature controller RR-21			
	1611396	1611396	1611396
Room temperature controller RR-22			
	1611397	1611397	1611397
Room temperature sensor			
For controllers RR-21 and RR-22	1611380-1	1611380-1	1611380-1
Flow temperature sensor			
For controllers RR-21 and RR-22	1611381-1	1611381-1	1611381-1
Switching relay SR-1			
	1661105	1661105	1661105
Three-way valve assembly			
4-pipe system	1611322-1	1611322-1	1611342-1
Fault message module SB-1			
	1611506	1611506	1611506

### Accessories

Unit type	DKT 21-4	DKT 51-4	DKT 71-4
KP-5 condensate pump			
	1613168	1613168	1613168
Condensate tube, separate			
For condensate pump KP-5	1613097	1613097	1613097



### Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



Three-way valve assembly, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Fault message module SB-1

With potential-free contact for the display of fault messages in cooling operation.



KP-5 condensate pump

For draining the condensate that occurs.

 $<sup>^{1)}</sup>$  Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate  $^{2)}$  Room temperature TK 27°C, FK 19°C; medium inlet 7°C, medium outlet 12°C  $^{3)}$  Room temperature TK 20°C, FK 14°C; medium inlet 70 °C, medium outlet 60 °C  $^{4)}$  Distance of 1 m in the open air with hypotetic sound absorption of -9 dB(A) indoors

## **REMKO** KWK (DM) SERIES

Wall and ceiling chests in 2-pipe or 4-pipe design



KWK DM series



### **REMKO** KWK (DM) SERIES

### The wall and ceiling chests are characterised by a discreet design

The wall and ceiling cabinets can be used for both vertical installation on the wall or for horizontal installation under the ceiling. They are extremely well-suited for installation in offices and meeting rooms, banks, business and in private residences.

REMKO wall or ceiling chests are equipped with the latest technology and offer exceptional flexibility in terms of installation. The medium connections are fitted as standard in the housing on the left-hand side. The controller can optionally be mounted right on the device or on a wall. It is possible for the connections and controls to exchange sides. The standard colour of the elegant housing is white, and the outlet grille is finished in white plastic. The air passes through a reclaimable filter in the unit. An extremely low-noise three-stage tangential fan provides impeccable air distribution and maximises vent output. The copperaluminium register is designed for medium temperatures of up to 80°C. The unit can easily be upgraded to a 4-pipe system through the installation of a heating register.

- The ideal solution for optically discreet air conditioning
- Quiet operation
- Simple equipping of the unit in a 4-pipe design
- For horizontal and vertical installation



### Technical data

Ref. no.

Unit type	
Cooling capacity 1) 2)	kW
Heating capacity 1) 3)	kW
Air flow rate per speed setting	m³/h
Sound pressure level per speed setting 4)	dB(A)
Voltage supply	V/Ph/Hz
Rated power consumption 1)	W
Rated current consumption 1)	Α
Operating medium	
Max. operating pressure	kPa
Medium connectors - cooling register	Inch
Rated flow volume, medium K <sup>2</sup> /H <sup>3</sup>	m³/h
Rated pressure drops, medium K <sup>2)</sup> /H <sup>3)</sup>	kPa
Medium volume	L
Dimensions - height	mm
Dimensions - width	mm
Dimensions - depth	mm
Serial colour	
Weight of KWK	kg
Weight of KWK DM	kg
KWK chest unit for wall/upright installation	
Ref. no.	
KWK DM chest unit for ceiling installation	

- 1) Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
- <sup>2)</sup> Room temperature TK 27 C, FK 19 C; medium inlet 7 C, medium outlet 12 C
- 3) Room temperature TK 20 C, FK 14 C; medium inlet 45 C, medium outlet 40 C
- <sup>4)</sup> Measured in 100 m³ room with a reverberation period of 0.3 seconds, distance 1.0 m



KWK 125 (DM)	KWK 165 (DM)	KWK 205 (DM)	KWK 255 (DM)	KWK 305 (DM)	KWK 355 (DM)	KWK 455 (DM)	KWK 535 (DM)	KWK 595 (DM)	KWK 725 (DM)
1.20	1.63	2.09	2.51	3.08	3.51	4.54	5.35	5.92	7.24
1.49	2.02	2.42	2.87	3.47	4.03	4.95	5.77	6.27	7.65
120/200/260	140/220/290	190/290/370	210/320/410	280/390/490	310/420/530	400/570/730	430/610/780	420/630/870	450/670/920
17/25/32	17/25/32	23/31/39	23/31/39	21/27/33	21/27/33	26/34/42	26/34/42	24/33/43	24/33/43
230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
35	39	47	51	59	71	97	107	120	139
0.15	0.17	0.20	0.22	0.26	0.31	0.42	0.47	0.52	0.60
			Water; max. 35	% ethylene gly	col; max. 35% p	ropylene glycol			
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
0.21/0.26	0.28/0.35	0.36/0.42	0.43/0.49	0.53/0.60	0.60/0.69	0.78/0.87	0.92/0.99	1.02/1.08	1.24/1.31
10.5/13.0	13.3/16.5	15.3/17.7	17.3/19.7	18.6/20.9	19.9/22.9	20.2/22.5	22.6/24.3	22.6/24.0	23.4/24.8
0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	2.0	2.0
477	477	477	477	477	477	477	477	477	477
670	670	870	870	1070	1070	1270	1270	1470	1470
220	220	220	220	220	220	220	220	220	220
				similar to	RAL 9010				
13.5	14.0	16.4	17.2	22.5	23.5	26.0	27.5	30.0	31.5
14.7	15.2	18.0	18.8	24.5	25.5	28.4	29.9	32.8	34.3
1664100	1664110	1664120	1664130	1664140	1664150	1664160	1664170	1664180	1664190
1664200	1664210	1664220	1664230	1664240	1664250	1664260	1664270	1664280	1664290

# **REMKO** KWK (DM) SERIES

Wall and ceiling chests in 2-pipe or 4-pipe design

### Wall/ceiling chests

Unit type	KWK 125 (DM)	KWK 165 (DM)	KWK 205 (DM)	KWK 255 (DM)
KWK chest unit for wall/upright installation	1664100	1664110	1664120	1664130
KWK DM chest unit for ceiling installation	1664200	1664210	1664220	1664230

Accessories				
Regulation				
Built-in controller RR-15	1665001	1665001	1665001	1665001
Built-in controller RR-16	1665002	1665002	1665002	1665002
Built-in controller RR-17	1665003	1665003	1665003	1665003
Precision room temperature controller RR-21	1611396	1611396	1611396	1611396
Room temperature controller RR-22	1611397	1611397	1611397	1611397
Room temperature sensor for RR-21 and RR-22	1611380-1	1611380-1	1611380-1	1611380-1
Flow temperature sensor for RR-21 and RR-22	1611381-1	1611381-1	1611381-1	1611381-1
Switching relay SR-1	1661105	1661105	1661105	1661105
Valve assemblies, 2-pipe system				
Two-way, vert. Wall installation	1665020	1665020	1665020	1665020
Two-way, horiz. Ceiling installation (KWK DM)	1665025	1665025	1665025	1665025
Three-way, vert. Wall installation	1665010	1665010	1665010	1665010
Three-way, horiz. Ceiling installation (KWK DM)	1665015	1665015	1665015	1665015
Valve assemblies, 4-pipe system				
Two-way, vert. Wall installation	1665040	1665040	1665040	1665040
Two-way, horiz. Ceiling installation (KWK DM)	1665045	1665045	1665045	1665045
Three-way, vert. Wall installation	1665030	1665030	1665030	1665030
Three-way, horiz. Ceiling installation (KWK DM)	1665035	1665035	1665035	1665035
Other accessories				
Condensate pump, vertical	1665050	1665050	1665050	1665050
Condensate pump, horizontal (KWK DM)	1665051	1665051	1665051	1665051
Air inlet socket	1665130	1665130	1665131	1665131
Stand support	1665120	1665120	1665120	1665120
Connecting line, flexible, 100 mm, 2-pipe	1665125	1665125	1665125	1665125
Connecting line, flexible, 200 mm, 2-pipe	1665126	1665126	1665126	1665126
Connecting line, flexible, 100 mm, 4-pipe	1665127	1665127	1665127	1665127
Connecting line, flexible, 200 mm, 4-pipe	1665128	1665128	1665128	1665128
Heating register, 4-pipe system	1665175	1665175	1665176	1665176
Fault message module SB-1	1611506	1611506	1611506	1611506
BioClean system, installed	1665061	1665061	1665061	1665061
Radio control for BioClean system	1665063	1665063	1665063	1665063
Quartz capacitor for BioClean system	1665060	1665060	1665060	1665060



Built-in controller RR-15

For setting the operating mode and choosing between 3 fan speeds.



Built-in controller RR-16

For setting the operating mode and choosing between 3 fan speeds and automatic mode.



**Built-in controller RR-17** 

With digital display of actual and set temperature, as well as various adjustment options.



Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



Precision room temperature controller RR-21

Parametrisable regulation for surface mounting with various additional functions.



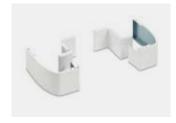
Room temperature controller RR-22

For the surface mounting and control of the essential unit functions.



Air inlet socket

With air inlet grid for the optical disguising of the air inlet area.



Stand support

For mounting to the bottom of the unit when erecting the unit on the floor.

KWK	305 (DM)	KWK 355 (DM)	KWK 455 (DM)	KWK 535 (DM)	KWK 595 (DM)	KWK 725 (DM)
16641	140	1664150	1664160	1664170	1664180	1664190
16642	240	1664250	1664260	1664270	1664280	1664290
16650	001	1665001	1665001	1665001	1665001	1665001
16650	002	1665002	1665002	1665002	1665002	1665002
16650	003	1665003	1665003	1665003	1665003	1665003
16113	396	1611396	1611396	1611396	1611396	1611396
16113	397	1611397	1611397	1611397	1611397	1611397
161138	80-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
161138	81-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1
16611		1661105	1661105	1661105	1661105	1661105
10050	220	4665020	1665020	1665020	4665020	4665020
16650		1665020	1665020	1665020	1665020	1665020
16650		1665025	1665025	1665025	1665025	1665025
16650		1665010	1665010	1665010	1665010	1665010
16650	)15	1665015	1665015	1665015	1665015	1665015
16650	040	1665040	1665040	1665040	1665040	1665040
16650	)45	1665045	1665045	1665045	1665045	1665045
16650	030	1665030	1665030	1665030	1665030	1665030
16650	)35	1665035	1665035	1665035	1665035	1665035
16650	050	1665050	1665050	1665050	1665050	1665050
16650		1665051	1665051	1665051	1665051	1665051
16651		1665132	1665133	1665133	1665134	1665134
16651		1665120	1665120	1665120	1665120	1665120
16651		1665125	1665125	1665125	1665125	1665125
16651		1665126	1665126	1665126	1665126	1665126
16651		1665127	1665127	1665127	1665127	1665127
16651		1665128	1665128	1665128	1665128	1665128
16651		1665177	1665178	1665178	1665179	1665179
16115		1611506	1611506	1611506	1611506	1611506
16650		1665061	1665061	1665061	1665061	1665061
					1005001	1005001
16650		1665063	1665063	1665063	1665063	1665063



Two-way valve assemblies, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Connecting line, flexible

Extendable stainless steel corrugated tube in flat-sealing design for flexible connection of the indoor units.



Three-way valve assembly, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Condensation pump

Built-in condensate pump for dispersing the condensate in case of units for wall/upright installation.



Two-way valve assemblies, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Three-way valve assembly, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



Radio control for BioClean system

For switching the BioClean system on and off by means of a surface-mounted radio switch.

# **REMKO** KWK ZW SERIES



### **REMKO** KWK ZW SERIES

#### Ceiling chests for niche installation

The optimum, invisible solution for offices, banks or hotels because of its small installation height. The rectangular device air outlet is designed to accommodate adjustable air outlet grilles for an individual distribution of air. The air is filtered in the unit's air intake with a reclaimable plug-in filter. The internal tangential fan allows multiple airflow settings. The diagonally fitted copper-aluminium heat exchanger is designed for cooling medium temperatures of up to 80°C. The unit can easily be upgraded to a 4-pipe system through the installation of a heating register. The register connections can be mounted on either side of the unit in a condensate-insulated housing. A valve assembly for 2- and 4-pipe systems are available as accessories for cooling control.

- Invisible mounting in intermediate spaces
- Low installation height
- Can be positioned flexibly
- Minimum weight
- User-friendly control
- Quiet operation
- Particularly narrow dimensions
- Simple equipping of the unit in a 4-pipe design
- For horizontal installation arrangement



### Technical data

Unit type	
Cooling capacity 1) 2)	kW
Heating capacity 1) 3)	kW
Air flow rate per speed setting	m³/h
Sound pressure level per speed setting 4)	dB(A)
Voltage supply	V/Ph/Hz
Rated power consumption 1)	W
Rated current consumption 1)	Α
Operating medium	
Max. operating pressure	kPa
Medium connectors - cooling register	Inch
Rated flow volume, medium K <sup>2)</sup> /H <sup>3)</sup>	m³/h
Rated pressure drops, medium K <sup>2)</sup> /H <sup>3)</sup>	kPa
Medium volume	L
Dimensions - height	mm
Dimensions - width	mm
Dimensions - depth	mm
Weight	kg

### Ref. no.

- $^{1)}$  Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
- <sup>2)</sup> Room temperature TK 27 C, FK 19 C; medium inlet 7 C, medium outlet 12 C
  <sup>3)</sup> Room temperature TK 20 C, FK 14 C; medium inlet 45 C, medium outlet 40 C
  <sup>4)</sup> Measured in 100 m<sup>3</sup> room with a reverberation period of 0.3 seconds, distance 1.0 m



1.20 1.63 2.09 2.51 3.08 3.51			KWK 595 ZW	KWK 725 ZW
1.20 1.05 2.09 2.51 5.08 5.51	4.54	5.35	5.92	7.24
1.49 2.02 2.42 2.87 3.47 4.03	4.95	5.77	6.27	7.65
120/200/260 140/220/290 190/290/370 210/320/410 280/390/490 310/420/530	400/570/730	430/610/780	420/630/870	450/670/920
17/25/32 17/25/32 23/31/39 23/31/39 21/27/33 21/27/33	26/34/42	26/34/42	24/33/43	24/33/43
230/1~/50 230/1~/50 230/1~/50 230/1~/50 230/1~/50 230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
35 39 47 51 59 71	97	107	120	139
0.15 0.17 0.20 0.22 0.26 0.31	0.42	0.47	0.52	0.60
Water; max. 35% ethylene glycol; max. 35% pr	ropylene glycol			
1500 1500 1500 1500 1500 1500	1500	1500	1500	1500
1/2 1/2 1/2 1/2 1/2	1/2	1/2	1/2	1/2
0.21/0.26	0.78/0.87	0.92/0.99	1.02/1.08	1.24/1.31
10.5/13.0 13.3/16.5 15.3/17.7 17.3/19.7 18.6/20.9 19.9/22.9	20.2/22.5	22.6/24.3	22.6/24.0	23.4/24.8
0.7 0.7 1.0 1.0 1.4 1.4	1.7	1.7	2.0	2.0
215 215 215 215 215	215	215	215	215
545 545 745 745 945 945	1145	1145	1345	1345
450 450 450 450 450 450	450	450	450	450
11.1 11.6 13.9 14.7 19.9 20.9	23.3	24.8	27.2	28.7
1664300 1664310 1664320 1664330 1664340 1664350	1664360	1664370	1664380	1664390

# **REMKO** KWK ZW SERIES

Ceiling chests in 2-pipe or 4-pipe design for installation into false ceilings

### **Ceiling chests**

Unit type	KWK 125 ZW	KWK 165 ZW	KWK 205 ZW	KWK 255 ZW	
In 2-pipe or 4-pipe design	1664300	1664310	1664320	1664330	
Accessories					
Regulation	4644206	1611206	1611206	1511205	
Precision room temperature controller RR-21	1611396	1611396	1611396	1611396	
Room temperature controller RR-22	1611397	1611397	1611397	1611397	
Room temperature sensor for RR-21 and RR-22	1611380-1	1611380-1	1611380-1	1611380-1	
Flow temperature sensor for RR-21 and RR-22	1611381-1	1611381-1	1611381-1	1611381-1	
Switching relay SR-1	1661105	1661105	1661105	1661105	
Valve assemblies, 2-pipe system					
Two-way, horiz. Ceiling installation	1665025	1665025	1665025	1665025	
Three-way, horiz. Ceiling installation	1665015	1665015	1665015	1665015	
Valve assemblies, 4-pipe system					
Two-way, horiz. Ceiling installation	1665045	1665045	1665045	1665045	
Three-way, horiz. Ceiling installation	1665035	1665035	1665035	1665035	
, ,	1005055	1003033	1003033	1003033	
Duct connection					
Canvas connecting adapter, air inlet	1665100	1665100	1665101	1665101	
Canvas connecting adapter, air outlet	1665105	1665105	1665106	1665106	
Duct elbow, air inlet	1665110	1665110	1665111	1665111	
Duct elbow, air outlet	1665115	1665115	1665116	1665116	
Flange connection, air inlet	1665140	1665140	1665141	1665141	
Flange connection, air outlet	1665145	1665145	1665146	1665146	
Duct piece, 100 mm, air inlet	1665165	1665165	1665166	1665166	
Duct piece, 100 mm, air outlet	1665150	1665150	1665151	1665151	
Duct piece, 200 mm, air outlet	1665155	1665155	1665156	1665156	
Duct piece, 500 mm, air outlet	1665160	1665160	1665161	1665161	
Telescopic piece	1665170	1665170	1665171	1665171	
Air inlet grille, including filter, plastic	1665180	1665180	1665181	1665181	
Air outlet grille, plastic	1665185	1665185	1665186	1665186	
Air inlet grille, including filter, stainless steel	1665190	1665190	1665191	1665191	
Air outlet grille, stainless steel	1665195	1665195	1665196	1665196	
Other accessories					
Condensate pump, horizontal	1665051	1665051	1665051	1665051	
Connecting line, flexible, 100 mm, 2-pipe system	1665125	1665125	1665125	1665125	
Connecting line, flexible, 200 mm, 2-pipe system	1665126	1665126	1665126	1665126	
Connecting line, flexible, 100 mm, 4-pipe system	1665127	1665127	1665127	1665127	
Connecting line, flexible, 200 mm, 4-pipe system	1665128	1665128	1665128	1665128	
Heating register, 4-pipe system	1665175	1665175	1665176	1665176	
Fault message module SB-1	1611506	1611506	1611506	1611506	
BioClean system, installed	1665061	1665061	1665061	1665061	
Radio control for BioClean system	1665063	1665063	1665063	1665063	
	1665060	1665060	1665060	1665060	
Quartz capacitor for BioClean system	1000000	1000000	1000000	UOUCOOI	



### Precision room temperature controller RR-21

Parametrisable regulation for surface mounting with various additional functions.



### Canvas connecting adapter, air inlet

Elastic connecting piece for structure-borne sound installation.



### Room temperature controller RR-22

For the surface mounting and control of the essential unit functions.



### Canvas connecting adapter, air outlet

Elastic connecting piece for structure-borne sound installation.



### Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



Duct elbow, air inlet

For air inlet, 90°.



### Flange connection, air inlet/air outlet

For connection with on-site duct components.



Duct elbow, air outlet

For air outlet, 90°.

KWK 305 ZW	KWK 355 ZW	KWK 455 ZW	KWK 535 ZW	KWK 595 ZW	KWK 725 ZW
1664340	1664350	1664360	1664370	1664380	1664390
1304340	100-1330	100-1300	1007370	100-300	100-350
1611206	4644206	1611206	4644206	1611206	4644306
1611396	1611396	1611396	1611396	1611396	1611396
1611397	1611397	1611397	1611397	1611397	1611397
1611380-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
1611381-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1
1661105	1661105	1661105	1661105	1661105	1661105
1665025	1665025	1665025	1665025	1665025	1665025
1665015	1665015	1665015	1665015	1665015	1665015
1665045	1665045	1665045	1665045	1665045	1665045
1665035	1665035	1665035	1665035	1665035	1665035
1665102	1665102	1665103	1665103	1665104	1665104
1665107	1665107	1665108	1665108	1665109	1665109
1665112	1665112	1665113	1665113	1665114	1665114
1665117	1665117	1665118	1665118	1665119	1665119
1665142	1665142	1665143	1665143	1665144	1665144
1665147	1665147	1665148	1665148	1665149	1665149
1665167	1665167	1665168	1665168	1665169	1665169
1665152	1665152	1665153	1665153	1665154	1665154
1665157	1665157	1665158	1665158	1665159	1665159
1665162	1665162	1665163	1665163	1665164	1665164
1665172	1665172	1665173	1665173	1665174	1665174
1665182	1665182	1665183	1665183	1665184	1665184
1665187	1665187	1665188	1665188	1665189	1665189
1665192	1665192	1665193	1665193	1665194	1665194
1665197	1665197	1665198	1665198	1665199	1665199
1665051	1665051	1665051	1665051	1665051	1665051
1665125	1665125	1665125	1665125	1665125	1665125
1665126	1665126	1665126	1665126	1665126	1665126
1665127	1665127	1665127	1665127	1665127	1665127
1665128	1665128	1665128	1665128	1665128	1665128
1665177	1665177	1665178	1665178	1665179	1665179
1611506	1611506	1611506	1611506	1611506	1611506
1665061	1665061	1665061	1665061	1665061	1665061
1665063	1665063	1665063	1665063	1665063	1665063
1665060	1665060	1665060	1665060	1665060	1665060



# Two-way valve assemblies, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Air inlet/outlet grille

Made of plastic with stationary fins.



# Three-way valve assembly, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Condensate pump, horizontal

For draining the condensate that occurs.



Two-way valve assemblies, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Three-way valve assembly, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



### BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



### Radio control for BioClean S

For switching the BioClean system on and off by means of a surface-mounted radio switch.

## **REMKO** KWK EC (DM) SERIES

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



KWK DM series





#### **REMKO** KWK EC (DM) SERIES

### The wall and ceiling chests are characterised by a discreet design

The wall and ceiling chests can be used for both vertical installation on the wall or for horizontal installation under the ceiling. They are extremely well-suited for installation in offices and meeting rooms, banks, business and in private residences.

Thanks to the modern, energy-efficient EC motor, the installed fan is infinitely variable. This increases the user's comfort.

REMKO wall or ceiling chests are equipped with the latest technology and offer exceptional flexibility in terms of installation. The medium connections are fitted as standard in the housing on the left-hand side. The controller can optionally be mounted right on the device or on a wall. It is possible for the connections and controls to exchange sides. The standard colour of the elegant housing is white, and the outlet grille is finished in white plastic. The air passes through a reclaimable filter in the unit. An extremely low-noise three-stage tangential fan provides impeccable air distribution and maximises vent output. The copper-aluminium register is designed for medium temperatures of up to 80°C. The unit can easily be upgraded to a 4-pipe system through the installation of a heating register.

- The ideal solution for optically discreet air conditioning
- Quiet operation
- Simple equipping of the unit in a 4-pipe design
- For horizontal and vertical installation
- Infinitely variable EC fans



#### Technical data

Ref. no.

100111110111111111111111111111111111111	
Unit type	
Cooling capacity 1) 2)	kW
Heating capacity 1) 3)	kW
Air flow rate per speed setting	m³/h
Sound pressure level per speed setting 4)	dB(A)
Voltage supply	V/Ph/Hz
Rated power consumption 1)	W
Rated current consumption 1)	Α
Operating medium	
Max. operating pressure	kPa
Medium connectors - cooling register	Inch
Rated flow volume, medium K <sup>2</sup> /H <sup>3</sup> )	m³/h
Rated pressure drops, medium K <sup>2</sup> /H <sup>3</sup> )	kPa
Medium volume	L
Dimensions - height	mm
Dimensions - width	mm
Dimensions - depth	mm
Serial colour	
Weight of KWK EC	kg
Weight of KWK EC DM	kg
KWK EC chest unit for wall/upright installation	
Ref. no.	
KWK EC DM chest unit for ceiling installation	

- $^{1)}$  Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
- <sup>2)</sup> Room temperature TK 27 C, FK 19 C; medium inlet 7 C, medium outlet 12 C
- 3) Room temperature TK 20 C, FK 14 C; medium inlet 45 C, medium outlet 40 C
- <sup>4)</sup> Measured in 100 m<sup>3</sup> room with a reverberation period of 0.3 seconds, distance 1.0 m



KWK 135 EC (DM)	KWK 175 EC (DM)	KWK 225 EC (DM)	KWK 265 EC (DM)	KWK 345 EC (DM)	KWK 395 EC (DM)	KWK 525 EC (DM)	KWK 605 EC (DM)	KWK 735 EC (DM)	KWK 875 EC (DM)
1.31	1.75	2.18	2.60	3.43	3.89	5.22	6.06	7.34	8.78
1.63	2.06	2.58	2.95	3.81	4.30	5.69	6.44	7.76	9.16
84-298	98-321	133-394	147-432	196-580	217-623	320-882	344-924	378-1205	405-1232
19-38	19-38	20-42	20-42	21-38	21-38	18-46	18-46	20-52	20-52
230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
31	33	35	36	35	36	58	61	77	82
0.13	0.14	0.15	0.16	0.15	0.16	0.25	0.27	0.33	0.36
			Water; max. 35	5% ethylene gly	col; max. 35% p	propylene glycol			
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
0.23/0.28	0.30/0.35	0.37/0.44	0.45/0.51	0.59/0.65	0.67/0.74	0.90/0.98	1.04/1.11	1.26/1.33	1.51/1.57
14.4/18.0	17.1/20.2	18.3/21.7	19.4/22.1	26.8/29.8	27.5/30.4	25.7/28.0	27.6/29.4	27.7/29.3	27.8/29.0
0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	2.0	2.0
477	477	477	477	477	477	477	477	477	477
670	670	870	870	1070	1070	1270	1270	1470	1470
220	220	220	220	220	220	220	220	220	220
				similar to	RAL 9010				
13.8	14.3	16.7	17.5	22.8	23.8	26.3	27.8	30.3	31.8
15.0	15.5	18.3	19.1	24.8	25.8	28.7	30.2	33.1	34.6
1664400	1664410	1664420	1664430	1664440	1664450	1664460	1664470	1664480	1664490
1664500	1664510	1664520	1664530	1664540	1664550	1664560	1664570	1664580	1664590

# **REMKO** KWK EC (DM) SERIES

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

### Wall/ceiling chests

Unit type	KWK 135 EC (DM)	KWK 175 EC (DM)	KWK 225 EC (DM)	KWK 265 EC (DM)
KWK EC chest unit for wall/upright installation	1664400	1664410	1664420	1664430
KWK EC DM chest unit for ceiling installation	1664500	1664510	1664520	1664530

Accessories					
Regulation					
Built-in controller RR-21.2E	1665004	1665004	1665004	1665004	
Precision room temperature controller RR-21.2	1611401	1611401	1611401	1611401	
Room temperature controller RR-22.2	1611403	1611403	1611403	1611403	
Room temperature sensor for RR-21.2 and RR-22.2	1611380-1	1611380-1	1611380-1	1611380-1	
Flow temperature sensor for RR-21.2 and RR-22.2	1611381-1	1611381-1	1611381-1	1611381-1	
Valve assemblies, 2-pipe system					
Two-way, vert. Wall installation	1665020	1665020	1665020	1665020	
Two-way, horiz. Ceiling installation (KWK EC DM)	1665025	1665025	1665025	1665025	
Three-way, vert. Wall installation	1665010	1665010	1665010	1665010	
Three-way, horiz. Ceiling installation (KWK EC DM)	1665015	1665015	1665015	1665015	
Valve assemblies, 4-pipe system					
Two-way, vert. Wall installation	1665040	1665040	1665040	1665040	
Two-way, horiz. Ceiling installation (KWK EC DM)	1665045	1665045	1665045	1665045	
Three-way, vert. Wall installation	1665030	1665030	1665030	1665030	
Three-way, horiz. Ceiling installation (KWK EC DM)	1665035	1665035	1665035	1665035	
Other accessories					
Condensate pump, vertical	1665050	1665050	1665050	1665050	
Condensate pump, horizontal (KWK EC DM)	1665051	1665051	1665051	1665051	
Air inlet socket	1665130	1665130	1665131	1665131	
Stand support	1665120	1665120	1665120	1665120	
Connecting line, flexible, 100 mm, 2-pipe	1665125	1665125	1665125	1665125	
Connecting line, flexible, 200 mm, 2-pipe	1665126	1665126	1665126	1665126	
Connecting line, flexible, 100 mm, 4-pipe	1665127	1665127	1665127	1665127	
Connecting line, flexible, 200 mm, 4-pipe	1665128	1665128	1665128	1665128	
Heating register, 4-pipe system	1665175	1665175	1665176	1665176	
Fault message module SB-1	1611506	1611506	1611506	1611506	
BioClean system, installed	1665061	1665061	1665061	1665061	
Radio control for BioClean system	1665063	1665063	1665063	1665063	
Quartz capacitor for BioClean system	1665060	1665060	1665060	1665060	



Built-in controller RR-21.2E

Built-in, parametrisable controller with various additional functions.



Precision room temperature controller RR-21.2

Parametrisable regulation for surface mounting with various additional functions.



Room temperature controller RR-22.2

For the surface mounting and control of the essential unit functions.



Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



Air inlet socket

With air inlet grid for the optical disguising of the air inlet area.



Stand support

For mounting to the bottom of the unit when erecting the unit on the floor.



Connecting line, flexible

Extendable stainless steel corrugated tube in flat-sealing design for flexible connection of the indoor units.



Fault message module SB-1

With potential-free contact for the display of fault messages in cooling operation.

KWK 345 EC (DM)	KWK 395 EC (DM)	KWK 525 EC (DM)	KWK 605 EC (DM)	KWK 735 EC (DM)	KWK 875 EC (DM)
1664440	1664450	1664460	1664470	1664480	1664490
1664540	1664550	1664560	1664570	1664580	1664590
1665004	1665004	1665004	1665004	1665004	1665004
1611401	1611401	1611401	1611401	1611401	1611401
1611403	1611403	1611403	1611403	1611403	1611403
1611380-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
1611381-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1
1665020	1665020	1665020	1665020	1665020	1665020
1665025	1665025	1665025	1665025	1665025	1665025
1665010	1665010	1665010	1665010	1665010	1665010
1665015	1665015	1665015	1665015	1665015	1665015
1003013	1003013	1003013	1003013	1003013	1003013
1665040	1665040	1665040	1665040	1665040	1665040
1665045	1665045	1665045	1665045	1665045	1665045
1665030	1665030	1665030	1665030	1665030	1665030
1665035	1665035	1665035	1665035	1665035	1665035
1665050	1665050	1665050	1665050	1665050	1665050
1665051	1665051	1665051	1665051	1665051	1665051
1665132	1665132	1665133	1665133	1665134	1665134
1665120	1665120	1665120	1665120	1665120	1665120
1665125	1665125	1665125	1665125	1665125	1665125
1665126	1665126	1665126	1665126	1665126	1665126
1665127	1665127	1665127	1665127	1665127	1665127
1665128	1665128	1665128	1665128	1665128	1665128
1665177	1665177	1665178	1665178	1665179	1665179
1611506	1611506	1611506	1611506	1611506	1611506
1665061	1665061	1665061	1665061	1665061	1665061
1665063	1665063	1665063	1665063	1665063	1665063
1665060	1665060	1665060	1665060	1665060	1665060
1003000	100000	1003000	100000	100000	1000000



Two-way valve assemblies, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Three-way valve assembly, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Two-way valve assemblies, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Three-way valve assembly, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Condensate pump, vertical

Built-in condensate pump for dispersing the condensate in case of units for wall/upright installation.



Condensate pump, horizontal

Built-in condensate pump for dispersing the condensate in case of units for wall installation.



BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



Radio control for BioClean S

For switching the BioClean system on and off by means of a surface-mounted radio switch.

### **REMKO** KWK EC ZW SERIES

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



#### **REMKO** KWK EC ZW SERIES

#### Ceiling chests for niche installation

The optimum, invisible solution for offices, banks or hotels because of its small installation height. Thanks to the modern, energy-efficient EC motor, the installed fan is infinitely variable. This increases the user's comfort.

The rectangular device air outlet is designed to accommodate adjustable air outlet grilles for an individual distribution of air. The air is filtered in the unit's air intake with a reclaimable plug-in filter. The internal tangential fan allows multiple airflow settings. The diagonally fitted copper-aluminium heat exchanger is designed for cooling medium temperatures of up to 80°C. The unit can easily be upgraded to a 4-pipe system through the installation of a heating register. The register connections can be mounted on either side of the unit in a condensate-insulated housing. A valve assembly for 2- and 4-pipe systems are available as accessories for cooling control.

- Invisible mounting in intermediate spaces
- Low installation height
- Can be positioned flexibly
- Minimum weight
- User-friendly control
- Quiet operation
- Particularly narrow dimensions
- Simple equipping of the unit in a 4-pipe design
- For horizontal installation arrangement
- Infinitely variable EC fans





#### **Technical data**

Unit type		
Cooling capacity 1) 2)		kW
Heating capacity 1) 3)		kW
Air flow rate per speed setting		m³/h
Sound pressure level per speed setti	ng 4)	dB(A)
Voltage supply		V/Ph/Hz
Rated power consumption 1)		W
Rated current consumption 1)		Α
Operating medium		
Max. operating pressure		kPa
Medium connectors - cooling regist	er	Inch
Rated flow volume, medium K2)/H33		m³/h
Rated pressure drops, medium K2)/H	H <sup>3)</sup>	kPa
Medium volume		L
Dimensions - height		mm
Dimensions - width		mm
Dimensions - depth		mm
Weight		kg

- $^{1)}$  Rated volume flow rate of medium; 0% glycol concentration; max. air volume flow rate
- <sup>2)</sup> Room temperature TK 27 C, FK 19 C; medium inlet 7 C, medium outlet 12 C <sup>3)</sup> Room temperature TK 20 C, FK 14 C; medium inlet 45 C, medium outlet 40 C
- <sup>4)</sup> Measured in 100 m<sup>3</sup> room with a reverberation period of 0.3 seconds, distance 1.0 m



KWK 135 EC ZW	KWK 175 EC ZW	KWK 225 EC ZW	KWK 265 EC ZW	KWK 345 EC ZW	KWK 395 EC ZW	KWK 525 EC ZW	KWK 605 EC ZW	KWK 735 EC ZW	KWK 875 EC ZW
1.31	1.75	2.18	2.60	3.43	3.89	5.22	6.06	7.34	8.78
1.63	2.06	2.58	2.95	3.81	4.30	5.69	6.44	7.76	9.16
84-298	98-321	133-394	147-432	196-580	217-623	320-882	344-924	378-1205	405-1232
19-38	19-38	20-42	20-42	21-38	21-38	18-46	18-46	20-52	20-52
230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
31	33	35	36	35	36	58	61	77	82
0.13	0.14	0.15	0.16	0.15	0.16	0.25	0.27	0.33	0.36
			Water; max. 35	5% ethylene gly	col; max. 35% p	propylene glycol			
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
0.23/0.28	0.30/0.35	0.37/0.44	0.45/0.51	0.59/0.65	0.67/0.74	0.90/0.98	1.04/1.11	1.26/1.33	1.51/1.57
14.4/18.0	17.1/20.2	18.3/21.7	19.4/22.1	26.8/29.8	27.5/30.4	25.7/28.0	27.6/29.4	27.7/29.3	27.8/29.0
0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	2.0	2.0
215	215	215	215	215	215	215	215	215	215
545	545	745	745	945	945	1145	1145	1345	1345
450	450	450	450	450	450	450	450	450	450
11.4	11.9	14.2	15.0	20.2	21.2	23.6	25.1	27.5	29.0
1664600	1664610	1664620	1664630	1664640	1664650	1664660	1664670	1664680	1664690

## **REMKO** KWK EC ZW SERIES

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

### **Ceiling chests**

_				
Unit type	KWK 135 EC ZW	KWK 175 EC ZW	KWK 225 EC ZW	KWK 265 EC ZW
In 2-pipe or 4-pipe design	1664600	1664610	1664620	1664630
11 11 0				
Accessories				
Regulation				
Precision room temperature controller RR-21.2	1611401	1611401	1611401	1611401
Room temperature controller RR-22.2	1611403	1611403	1611403	1611403
Room temperature sensor for RR-21.2 and RR-22.2	1611380-1	1611380-1	1611380-1	1611380-1
Flow temperature sensor for RR-21.2 and RR-22.2	1611381-1	1611381-1	1611381-1	1611381-1
Valve assemblies, 2-pipe system				
Two-way, horiz. Ceiling installation	1665025	1665025	1665025	1665025
Three-way, horiz. Ceiling installation	1665015	1665015	1665015	1665015
Valve assemblies, 4-pipe system				
Two-way, horiz. Ceiling installation	1665045	1665045	1665045	1665045
Three-way, horiz. Ceiling installation	1665035	1665035	1665035	1665035
, ,	1003033	1005035	1003033	1005035
Duct connection				
Canvas connecting adapter, air inlet	1665100	1665100	1665101	1665101
Canvas connecting adapter, air outlet	1665105	1665105	1665106	1665106
Duct elbow, air inlet	1665110	1665110	1665111	1665111
Duct elbow, air outlet	1665115	1665115	1665116	1665116
Flange connection, air inlet	1665140	1665140	1665141	1665141
Flange connection, air outlet	1665145	1665145	1665146	1665146
Duct piece, 100 mm, air inlet	1665165	1665165	1665166	1665166
Duct piece, 100 mm, air outlet	1665150	1665150	1665151	1665151
Duct piece, 200 mm, air outlet	1665155	1665155	1665156	1665156
Duct piece, 500 mm, air outlet	1665160	1665160	1665161	1665161
Telescopic piece	1665170	1665170	1665171	1665171
Air inlet grille, including filter, plastic	1665180	1665180	1665181	1665181
Air outlet grille, plastic	1665185	1665185	1665186	1665186
Air inlet grille, including filter, stainless steel	1665190	1665190	1665191	1665191
Air outlet grille, stainless steel	1665195	1665195	1665196	1665196
	1005155	1005155	1005150	1003130
Other accessories				
Condensate pump, horizontal	1665051	1665051	1665051	1665051
Connecting line, flexible, 100 mm, 2-pipe system	1665125	1665125	1665125	1665125
Connecting line, flexible, 200 mm, 2-pipe system	1665126	1665126	1665126	1665126
Connecting line, flexible, 100 mm, 4-pipe system	1665127	1665127	1665127	1665127
Connecting line, flexible, 200 mm, 4-pipe system	1665128	1665128	1665128	1665128
Heating register, 4-pipe system	1665175	1665175	1665176	1665176
Fault message module SB-1	1611506 1665061	1611506	1611506 1665061	1611506
BioClean system, installed		1665061		1665061
Radio control for BioClean system Quartz capacitor for BioClean system	1665063 1665060	1665063 1665060	1665063 1665060	1665063 1665060
Quartz capacitor for bioclean system	1000000	100000	100000	100000



### Precision room temperature controller RR-21.2

Parametrisable regulation for surface mounting with various additional functions.



Canvas connecting adapter, air inlet

Elastic connecting piece for structure-borne sound installation.



### Room temperature controller RR-22.2

For the surface mounting and control of the essential unit functions.



Canvas connecting adapter, air outlet

Elastic connecting piece for structure-borne sound installation.



#### Switching relay SR-1

For the operation and control of a maximum of four indoor units using a room temperature controller in a group control.



Flange connection, air inlet/air outlet

For connection with on-site duct components.



Duct elbow, air inlet

For air inlet, 90°.



Duct elbow, air outlet

For air outlet, 90°.

KWK 345 EC ZW	KWK 395 EC ZW	KWK 525 EC ZW	KWK 605 EC ZW	KWK 735 EC ZW	KWK 875 EC ZW
1664640	1664650	1664660	1664670	1664680	1664690
1611401	1611401	1611401	1611401	1611401	1611401
1611403	1611403	1611403	1611403	1611403	1611403
1611380-1	1611380-1	1611380-1	1611380-1	1611380-1	1611380-1
1611381-1	1611381-1	1611381-1	1611381-1	1611381-1	1611381-1
1665025	1665025	1665025	1665025	1665025	1665025
1665015	1665015	1665015	1665015	1665015	1665015
			,		
1665045	1665045	1665045	1665045	1665045	1665045
1665035	1665035	1665035	1665035	1665035	1665035
1000000	1000000	100000	1000000	100000	1000000
1665102	1665102	1665103	1665103	1665104	1665104
1665107	1665107	1665108	1665108	1665109	1665109
1665112	1665112	1665113	1665113	1665114	1665114
1665117	1665117	1665118	1665118	1665119	1665119
1665142	1665142	1665143	1665143	1665144	1665144
1665147	1665147	1665148	1665148	1665149	1665149
1665167	1665167	1665168	1665168	1665169	1665169
1665152	1665152	1665153	1665153	1665154	1665154
1665157	1665157	1665158	1665158	1665159	1665159
1665162	1665162	1665163	1665163	1665164	1665164
1665172	1665172	1665173	1665173	1665174	1665174
1665182	1665182	1665183	1665183	1665184	1665184
1665187	1665187	1665188	1665188	1665189	1665189
1665192	1665192	1665193	1665193	1665194	1665194
1665197	1665197	1665198	1665198	1665199	1665199
1665051	1665051	1665051	1665051	1665051	1665051
1665125	1665125	1665125	1665125	1665125	1665125
1665126	1665126	1665126	1665126	1665126	1665126
1665127	1665127	1665127	1665127	1665127	1665127
1665128	1665128	1665128	1665128	1665128	1665128
1665177	1665177	1665178	1665178	1665179	1665179
1611506	1611506	1611506	1611506	1611506	1611506
1665061	1665061	1665061	1665061	1665061	1665061
1665063 1665060	1665063 1665060	1665063 1665060	1665063 1665060	1665063 1665060	1665063 1665060



Two-way valve assemblies, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Air inlet/outlet grille

Made of plastic with stationary fins.



Three-way valve assembly, 2-pipe system

For controlling the medium volume flow rate in cooling or heating mode.



Condensate pump, horizontal

For draining the condensate that occurs.



Two-way valve assemblies, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



BioClean system, installed

For natural disinfection of the unit and removal of allergens, germs, bacteria and viruses.



Three-way valve assembly, 4-pipe system

For controlling the medium volume flow rate in cooling and heating mode.



Radio control for BioClean S

For switching the BioClean system on and off by means of a surface-mounted radio switch.

## **REMKO** PWL HK SERIES

### Ceiling cassettes for cooling and heating



### **REMKO PWL HK SERIES**

### Modern technology in an attractive design

The possibility of altering the rotation of the fans allows optimal air distribution in both low-ceilinged and high-ceilinged rooms. In addition, this technology is ideal for always achieving the perfect outlet layout for heating and cooling operations. Ease of service and a simple, uncomplicated assembly are the characteristic features of these units. The elegant plastic housing can easily be removed from its bearing elements thanks to the rapid release couplings. The units are fitted as standard with a high-performance condensate pump.

- Quiet operation
- Installation-friendly design
- Service friendliness
- Universal use
- Self-extinguishing plastic housing, fire class V-0



#### Planning aids

Extensive planning aids can be found under: www.remko.de/planung/pwl.pdf

#### **Technical data**

Unit type		PWL 101 H	K	PWL 102 H	K	PWL 103 H	K
Max. cooling capacity at 7/12 °C and air inlet temperature 32 °C	kW	4.7		7.7		10.8	
PKW coolant	°C	7/12	11/16	7/12	11/16	7/12	11/16
Cooling capacity per speed stage	kW	4.7/4.2	3.3/2.9	7.7/6.8	5.2/4.7	10.8/9.4	7.6/6.6
At air intake temperature	tLE °C	32	32	32	32	32	32
At air outlet temperature	tLA °C	26/25	27/27	22/21	24/23	18/18	21/20
Air volume per level	m³/h	2030/1685	2030/1685	1960/1610	1960/1610	1885/1530	1885/1530
Sound pressure level per speed setting 1)	dB(A)	56/47	56/47	56/47	56/47	56/47	56/47
Medium connectors	Inch	1	1	1	1	1	1
Voltage supply	V/Ph/Hz	400/3~N/5	0	400/3~N/5	0	400/3~N/50	0
Weight	kg	31		35		38	
Ref. no.		1688101		1688102		1688103	

Distance of 1 m in open air Note: The heating capacity of the PWL HK units is identical to that of units in the PWL H series. From page 214.

#### **Accessories**

Unit type	PWL 101 HK	PWL 102 HK	PWL 103 HK
Electronic temperature control ATR-7	1011292	1011292	1011292
Moisture-proof room thermostat RTK-1	1011242	1011242	1011242
Temperature probe set	1011343	1011343	1011343

### Accessories

Unit type	PWL 101 HK	PWL 102 HK	PWL 103 HK
Motor terminal box AKG-5	385303	385303	385303
Switchgear SW2-PU 4.0	385201	385201	385201
Frequency converter	1687405	1687405	1687405





# Elect. Temperature control ATR-7

For surface installation with temperature probe, type of protection IP 54



# Moisture-proof room thermostat RTK-1

For cooling operation without connection accessories, type of protection IP 54



### Motor terminal box AKG-5

For the parallel operation of up to five units, including thermal contacts.



### Switchgear SW2-PU 4.0

2-speed, 400 V, with integrated pole changeover switch.

PWL 201 HK	PWL 202 I	PWL 202 HK		PWL 203 HK		PWL 301 HK		PWL 302 HK		PWL 303 HK	
5.0	10.7		14.5		6.5		10.6		18.8		
7/12 11/16	7/12	11/16	7/12	11/16	7/12	11/16	7/12	11/16	7/12	11/16	
5.0/4.5 3.9/3	5 10.7/9.6	7.4/6.6	14.5/12.8	10.1/8.8	6.5/5.1	5.1/3.9	10.6/8.0	8.3/5.9	18.8/10.9	13.2/7.7	
32 32	32	32	32	32	32	32	32	32	32	32	
27/27 28/28	22/22	24/24	20/19	22/21	27/26	28/28	24/23	26/24	20/17	22/20	
3110/2580 3110/	2580 2900/2400	2900/2400	2850/2350	2850/2350	4300/2650	4300/2650	4150/2400	4150/2400	3900/1710	3900/1710	
61/53 61/53	61/56	61/56	61/56	61/56	66/59	66/59	66/59	66/59	68/61	68/61	
1	1	1	1	1	1	1	1	1	1	1	
400/3~N/50	400/3~N/	400/3~N/50		400/3~N/50		400/3~N/50		400/3~N/50		400/3~N/50	
32 35		38		43		46		48			
1688201	1688202	1688202		1688203		1688301		1688302		1688303	

PWL 201 HK	PWL 202 HK	PWL 203 HK	PWL 301 HK	PWL 302 HK	PWL 303 HK
1011292	1011292	1011292	1011292	1011292	1011292
1011242	1011242	1011242	1011242	1011242	1011242
1011343	1011343	1011343	1011343	1011343	1011343

PWL 201 HK	PWL 202 HK	PWL 203 HK	PWL 301 HK	PWL 302 HK	PWL 303 HK
385303	385303	385303	385303	385303	385303
385201	385201	385201	385201	385201	385201
1687405	1687405	1687405	1687405	1687405	1687405

## **REMKO** PWN HK SERIES

Hot water heaters in low-temperature design with EC fan for heating and cooling



#### **REMKO PWN HK SERIES**

### The efficient heating system for warehouses and supermarkets

The PWN HK hot water heaters are optimally suited for use in commercial applications due to their high-quality, robust plastic housing. Through the universal colouring of the devices, they fit in discreetly in almost every environment.

Thanks to the modern, energy-efficient EC motors, the user obtains not only energy savings in comparison with conventional AC motors, but also a considerably increased regulating comfort as the fan can be adapted variably to the operating conditions as required. Individually adjustable air control fins guarantee a precise adaptation of the air flow and reduce the flow resistance to a minimum. The interaction of housing design, fan selection and heat exchanger dimensioning ensure an even flow-through of the fin heat exchanger and therefore an optimum utilisation of the heat exchanger surface for the transmission of power.

A sophisticated mounting system guarantees that, in addition to the wall or ceiling mounting, a mounting inclined by 30° is also possible. The mounting bar on the device itself can continue to be inclined by up to 70°, therefore enabling an adaptation of the device alignment to the most difficult mounting conditions. The brackets are included in the scope of supply of the standard version. An condensate drip pan included in delivery enables an operation of the device even in cooling mode in case of wall mounting, therefore forming the ideal addition for securing the comfort zone.

- High-quality plastic housing for industrial applications
- Discreet design
- Modern, efficient EC technology
- Versatile mounting possibilities using series-standard bracket
- Cooling optionally possible in case of wall mounting
- Including built-in condensate drip pan

### Accessories

- Room temperature controller
- Air control fins, vertical



Room temperature controller RR 21.2



Pivotable 3D mounting system for optimum air distribution



Unit type		PWN 35-1 HK	PWN 45-2 HK	PWN 75-3 HK	PWN 95-2 HK	PWN 105-3 HK
Heating capacity 1) 2)	kW	9.7 / 8.1	19.0 / 15.2	33.9 / 27.0	54.9 / 44.1	69.4 / 55.3
Cooling capacity 3)	kW	2.53	4.38	7.85	14.81	16.19
Air flow rate	m³/h	300 - 2850	250 - 2550	350 - 3900	1270 - 8560	715 - 7950
Rated flow rate, heating 1)	m³/h	0.43	0.83	1.49	2.41	3.05
Rated flow rate, cooling 3)	m³/h	0.46	0.81	1.47	2.69	2.99
Sound pressure level 4)	dB(A)	29.4 - 64.2	29.0 - 63.8	32.0 - 67.3	36.5 - 70.9	35.0 - 70.3
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Power consumption 1)	W	108	111	315	635	635
Current consumption 1)	Α	0.77	0.83	2.10	4.24	4.16
Operating limit temperature	°C	105	105	105	105	105
Maximum operating pressure	bar	16	16	16	16	16
Pressure loss, heating 1)	kPa	2.4	5.7	11.8	12.3	9.4
Pressure loss, cooling 3)	kPa	2.8	5.5	14.5	19.2	11.5
Maximum blowing range (wall mounting)	m	15.4	13.9	21.2	23.6	22.3
Water volume of registers	1	1.8	2.5	3.2	5.3	6.5
Medium connectors	Inch	3/4	3/4	3/4	1	1
Dimensions - height	mm	730	730	730	730	730
Dimensions - width	mm	765	765	765	1390	1390
Dimensions - depth with mounting bar	mm	595	595	595	595	595
Weight	kg	20	21	26	38	40
-	_					
Ref. no.		1682035	1682045	1682075	1682095	1682105

<sup>&</sup>lt;sup>1)</sup> Water inlet temp. 70°C, water outlet temp. 50°C, water inlet temp. 15°C, maximum air volume flow rate <sup>2)</sup> Water inlet temp. 55°C, water outlet temp. 45°C, water inlet temp. 15°C, maximum air volume flow rate <sup>3)</sup> Water inlet temp. 7°C, water outlet temp. 12°C, water inlet temp. 27°C TK, air volume flow rate at 5V <sup>4)</sup> Measured in a 100 m³ room with a reverberation period of 0.3 seconds, distance of 1.5 m

### Accessories

Unit type	PWN 35-1 HK	PWN 45-2 HK	PWN 75-3 HK	PWN 95-2 HK	PWN 105-3 HK
Air control fins, vertical for mounting into the device					
for the adjustability of the vertical distribution of air.	1684193	1684193	1684193	1684193	1684193
Room temperature controller RR 21.2 for controlling one					
or more indoor units (max. 50), programmable, electronic	1684401	1684401	1684401	1684401	1684401
controller with summer/winter operation changeover,					
external start/stop, infinitely variable control of EC fans					
across 0-10 V and many other features					
Room temperature controller RR 21.2,					
Type of protection IP54	1611405	1611405	1611405	1611405	1611405



### Planning aids

Extensive planning aids can be found under: www.remko.de/planung/pwn.pdf

# **CHILLED WATER PIPE NETWORK**

### Planning | Quickfinder

The following table serves for the easy selection of the pipe network sizes of copper, plastic and steel pipes.

The basic preconditions for the table are a starting temperature of  $7^{\circ}$ C, a temperature spread of 5 K, an ambient temperature of  $30^{\circ}$ C and  $70^{\circ}$ C relative humidity, and a medium control system with  $34^{\circ}$ C ethylene glycol filling.

The precise assessment should be performed by a designated plan-

ning specialist after taking into consideration all of the requirements.

The components and parts to be used in the construction must be planned in the assessment with regard to the design and manufacturer type specifics.

The current provisions of the Energy Saving Regulation must be adhered to during the creation of equipment for cooling and heating.

		Coppe	er pipe	Plast	ic pipe	Steel pipe				
Cooling capacity kW	Pipeline length m	Ø mm	R Pa/m	Ø DN	R Pa/m	Ø DN	R Pa/m	Insulation thick- ness mm	Water content Cu L/m	Ethylene glycol 34% L/m
2.5	010 1030	15 18	750 330	15 20	590 180			13.0 13.0	0.13 0.20	0.04 0.07
5.0	010 1030	22 28	400 130	20 25	450 150			13.0 13.5	0.31 0.50	0.10 0.17
7.5	010 1030	22 28	980 280	20 25	890 280			13.0 13.5	0.31 0.50	0.10 0.17
10.0	010 1030	28 35	790 170	25 32	420 190			13.5 14.0	0.50 0.80	0.17 0.27
15.0	010	28	930	25	850	25	1060	13.5	0.50	0.17
	1030	35	310	32	160	32	225	14.0	0.80	0.27
20.0	010	35	550	32	560	32	440	14.0	0.80	0.27
	1030	42	220	40	160	40	200	14.5	1.20	0.40
25.0	010	35	940	32	840	32	650	14.0	0.80	0.27
	1030	42	330	40	260	40	305	14.5	1.20	0.40
30.0	010	42	430	40	370	32	930	14.5	1.20	0.40
	1030	54	120	50	130	40	465	14.5	1.96	0.65
35.0	010	42	610	40	460	32	1260	14.5	1.20	0.40
	1030	54	190	50	170	40	600	14.5	1.96	0.65
40.0	010	42	790	40	600	40	800	14.5	1.20	0.40
	1030	54	240	50	220	50	265	14.5	1.96	0.65
50.0	010	54	420	50	310	40	1060	14.5	1.96	0.65
	1030	64	170	60	150	50	375	16.0	2.83	0.94
60.0	010	54	620	60	220	50	535	14.5	1.96	0.65
	1030	64	240	70	100	65	115	16.0	2.83	0.94
70.0	010	64	300	60	300	65	160	16.0	2.83	0.94
	1030	76	155	75	110	80	65	16.0	4.07	1.36
80.0	010	64	390	60	370	65	200	16.0	2.83	0.94
	1030	76	170	75	160	80	85	16.0	4.07	1.36
90.0	010	64	450	75	180	65	320	16.0	2.83	0.94
	1030	76	20	90	80	80	100	16.0	4.07	1.36
100.0	010	76	250	75	200	80	125	16.0	4.07	1.36
	1030	89	150	90	90	100	55	16.0	5.55	1.85
120.0	010	76	270	90	110	80	180	16.0	4.07	1.36
	1030	89	160	100	80	100	60	16.0	5.55	1.85
140.0	010	89	170	90	120	100	70	16.0	5.55	1.85
	1030	108	70	110	90	125	25	16.0	8.47	2.88
160.0	010 1030	89 108	240 100			100 125	115 40	16.0 19.0	8.47 13.41	2.88 4.56
180.0	010 1030	89 108	300 120			100 125	145 50	16.0 19.0	8.47 13.41	2.88 4.56
200.0	010 1030	89 108	360 145			100 125	170 65	16.0 19.0	8.47 13.41	2.88 4.56
220.0	010 1030	89 108	420 170			100 125	200 75	16.0 19.0	8.47 13.41	2.88 4.56
240.0	010 1030	89 108	500 200			100 125	240 85	16.0 19.0	8.47 13.41	2.88 4.56
260.0	010 1030					125 150	90 40	19.0 19.0	13.41 19.85	4.56 6.75
280.0	010 1030					125 150	120 50	19.0 19.0	13.41 19.85	4.56 6.75
300.0	010 1030					125 150	140 60	19.0 19.0	13.41 19.85	4.56 6.75



### Sample calculation

### **Parameters**

- Cooling capacity 40 kW
- Pipeline length 20 m
- Copper piping used
- Anti-freeze protection to -20°C (34% ethylene glycol)

### Solution

### Values taken from table

Copper pipe Ø 54 mm Pressure loss ΔP 240 Pa/m

### Pressure loss per partial section

240 Pa/m x 20 m = 4800 Pa = 4.8 kPa

### Feed and return lines

4.8 kPa x 2 = 9.6 kPa

### Insulation thickness

Values taken from table = 14.5 mm

### Glycol requirement

0.65 l/m x 20 m x 2 = <u>26.0 l</u>



# **REMKO** QUALITY WITH SYSTEMS

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