



SMART HEAT PUMPS

Intelligent and highly efficient
Air/water system for heating and cooling

**SPECIAL
EDITION**



Edition 2019



REMKO WKF NEO COMPACT SERIES

Smart heat pumps



REMKO WKF NEO COMPACT SERIES

The compact class saves space and installation effort

The WKF NEO compact series does not require a large mounting area due to its compact construction and integrated components. In connection with underfloor heating, this unit is perfectly suited for new buildings. This construction saves space in the mounting area. The costs for installation are strongly reduced by the high percentage of premounted components.

Profit from these advantages

- Low spatial requirements in utility room
- Low investment costs
- Flow temperatures up to 55 °C
- Power-modulated operation due to modern inverter mode
- Low operating costs due to high COP value (see technical data)
- Ready for connection of solar system to domestic water supply
- Night operation to reduce noise
- Heating and cooling
- Mounting-friendly installation All connections from the top.
- High hot-water comfort due to integrated, enamelled domestic water tank with a volume of 200 or 300 litres
- Smart-Control intelligent control system – use in intelligent Smart-Grid power mains possible
- Technical unit handover by REMKO Technical Service possible
- Integrated heating circuit pump for the supply of the heating system
- Integrated electronic bypass valve for guaranteeing the minimum volume flow rate
- Intelligent thawing logic circuit
- Monoenergetic operation through REMKO Smart-Serv
- Chimney sweep function
- Wi-Fi ready



Scope of supply

- REMKO Smart-Control Touch – the intelligent control system
- Indoor unit with highly-efficient domestic water tank
- Outdoor unit with inverter technology
- Highly efficient, controlled heating circuit pump
- Outdoor probe/immersion probe
- Smart-Serv, built-in heating rod 6 kW
- Built-in industrial water set, including 3-way switchover valve
- Built-in dirt filter 1"
- Built-in electrically controlled bypass mixer
- Prepared (flange) for solar domestic water heating



Technical data

Area of use: heating ⁵⁾		2-7 kW	7-12 kW	12-18 kW
Series		WKF 70 NEO compact	WKF 120 NEO compact	WKF 180 NEO compact
Design		Singlesplit	Singlesplit	Singlesplit
System		Air/water	Air/water	Air/water
Operating mode		Heating/hot water/ cooling	Heating/hot water/ cooling	Heating/cooling
Inverter technology		Series	Series	Series
Smart-Control Touch		Series	Series	Series
Preparation for domestic water		Series	Series	Series
Integrated domestic water tank EWS 200-E/EWS 301-E (enamelled)	litre	200/300	200/300	200/300
Number of indoor units/outdoor units		1/1	1/1	1/1
Night operation (power control)		Series	Series	Series
Service limits, heating	°C	-20 to +35	-20 to +35	-20 to +35
Rated heating capacity (min. - max.)	kW	6,0 (0,9 - 6,0)	10,0 (2,5 - 12,5)	14,0 (3,1 - 17,7)
Energy efficiency rating for heating ⁴⁾		A++ / A++	A++ / A+	A++ / A++
Rated heating capacity / COP for A7/W35 ¹⁾	kW / -	5,45 / 4,6	9,86 / 4,4	14,02 / 4,5
Rated heating capacity / COP for A2/W35 ¹⁾	kW / -	4,61 / 3,5	6,95 / 3,6	9,32 / 3,5
Rated heating capacity / COP for A-7/W35 ¹⁾	kW / -	4,50 / 2,8	6,14 / 2,9	8,20 / 2,9
Max. supply temperature, heating water	°C	+ 55	+ 55	+ 55
Service limits, cooling	°C	+15 to + 45	+15 to + 45	+15 to + 45
Rated cooling capacity (min. - max.)	kW	5,0 (1,1 - 8,9)	6,0 (3,3 - 11,9)	11,0 (5,5 - 14,0)
Rated cooling capacity / EER for A35/W7 ¹⁾	kW / -	4,90 / 2,8	6,79 / 2,3	12,20 / 2,6
Rated cooling capacity / EER for A35/W18 ¹⁾	kW / -	6,70 / 3,6	5,30 / 3,7	12,77 / 3,8
Rated cooling capacity / EER for A27/W18 ¹⁾	kW / -	6,80 / 3,9	9,46 / 3,6	18,20 / 4,1
Min. supply temperature, cooling water	°C	+ 7	+ 7	+ 7
Refrigerant ²⁾		R410A	R410A	R410A
Basic refrigerant filling volume / CO ₂ equivalent	kg/t	1,2 / 2,5	2,0 / 4,2	2,85 / 5,8
Refrigerant connections	inch	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8
Max. refrigerant line length	m	30	50	75
Max. refrigerant line height	m	20	30	30
Voltage supply	V/Ph/Hz	230/1~/50	230/1~/50	400/3~/50
Rated power consumption for A7/W35	kW	1,18	2,22	3,09
Rated current consumption for A7/W35	A	5,19	10,44	5,02
Rated flow rate of water at Δt 5 K	m ³ /h	0,95	1,7	2,4
External maximum pressure loss (heating system)	kPa	80	80	80
Hydraulic connection, inlet flow/return line, flat-sealing	inch	1¼" AG	1¼" AG	1¼" AG
Pipeline diameter to be used on site, Cu pipe	mm	28	28	35
Rated sound pressure level Lp _A (outdoor unit)	dB(A)	38/37	42/41	42/42
Rated sound power level Lw _A (outdoor unit)	dB(A)	63/60	67/64	68/64
Dimensions of indoor unit, height/width/depth (200 l)	mm	1350/555/850	1350/555/850	1350/555/850
Dimensions of indoor unit, height/width/depth (300 l)	mm	1420/650/950	1420/650/950	1420/650/950
Dimensions of outdoor unit, height/width/depth	mm	640/880/310	1010/940/330	1430/940/330
Weight indoor unit/outdoor unit (200 l)	kg	131/50	133/74	135/100
Weight indoor unit/outdoor unit (300 l)	kg	154/50	156/74	158/100

¹⁾ COP / EER according to EN 14511 ²⁾ GWP = 2088 ³⁾ Distance 5 m, full sphere, A7/W55

⁴⁾ Average, composite system W35/55°C incl. Smart-Control

⁵⁾ Total heating requirement, intake flow line 35°C, monoenergetic

Prices

Series	WKF 70 NEO com.	WKF 120 NEO com.	WKF 180 NEO com.
With domestic water tank EWS 200-E incl. Smart-Control Touch Outdoor unit in white Ref. no.	258070	258120	258180
With domestic water tank EWS 200-E incl. Smart-Control Touch S-Line outdoor unit in silver, similar RAL 9006 Ref. no.	258072	258122	258182
With domestic water tank EWS 301-E incl. Smart-Control Touch Outdoor unit in white Ref. no.	258080	258130	258190
With domestic water tank EWS 301-E incl. Smart-Control Touch S-Line outdoor unit in silver, similar RAL 9006 Ref. no.	258082	258132	258192

Accessories

Series	WKF 70 NEO com.	WKF 120 NEO com.	WKF 180 NEO com.
REMKO Smart-Control Touch remote control all functions of the heat pump and heating circuits can be set using the cabled remote control. A room-temperature-guided control of the heating circuits (FBH or radiators) and dew point control are possible due to the separately available Modbus moisture and temperature probe.	248104	248104	248104
Room temperature/moisture sensor for dew point regulation in case of surface cooling	248103	248103	248103
REMKO Smart-Web ethernet interface for the connection of commercial home router software. For dialling in to Smart-Control. Setting and reading operating parameters using a smartphone, tablet PC, laptop, etc.	248120	248120	248120
REMKO Smart-Com additional software for the integration of the heat pump into a smart home system such as KNX via the Ethernet interface of Smart Control, including the heat meter installed at the factory (Smart Count)	254090	254090	254090
REMKO Smart-Count Factory-installed heat meter for the separate counting of the quantity of heat of heating and hot water	259010	259010	259010
ARTdesign noise protection hood SWK for the noise reduction of the outdoor unit and protection against the influences of weather, like hail or snow, or vandalism. Further explanations see brochure ARTdesign noise protection hoods.	260904 black	260905 black	260907 black
	260914 silver/black	260915 silver/black	260917 silver/black
Floor bracket BK-600 Plus robust floor bracket made of reinforced of rubber with high intrinsic weight and good damping properties. Length 0,6 m.	260023	260023	260023
Floor bracket BK-1000 Plus robust floor bracket made of reinforced of rubber with high intrinsic weight and good damping properties. Length 1,0 m.	260024	260024	260024
Connecting line between the outdoor and indoor units	260010	260010	260010
Condensate drip tray including oil separator made of aluminium for each outdoor unit, including temperature-controlled electronic condensate drip tray heating, leaf guard grating, and oil separator. According to § 62, Abs.1, WHG (German Water Resources Act).	260135	260135	260135
Pipe bushing robust EPDM seal for watertight sealing of the refrigerant and electrical lines. Ø 100 mm	259061	259061	259061
External dew point monitor incl. 1 contact probe. Dew point monitoring is installed for additional security to prevent the occurrence of humidity. The humidity is checked directly on the corresponding surfaces. It is possible to connect up to 5 measuring probes.	259070	259070	259070
Additional contact probe for external dew point monitor	259071	259071	259071
Flow sensor tap volume ≤ 25l/min dynamic hygiene function with frequency output for recording the cold water volume flow rate in the domestic water tank. Regulation according to DIN 1988-200	254070	254070	254070
Flow sensor tap volume ≥ 25l/min dynamic hygiene function with frequency output for recording the cold water volume flow rate in the domestic water tank. Regulation according to DIN 1988-200	254080	254080	254080
Immersion probe PT1000 for integrating the following: solar reference probe for buffer tank, general buffer probe	259062	259062	259062
Collector probe PT1000 for the integration of solar thermal systems	260102	260102	260102
Contact sensor PT1000 for the integration of a temperature-controlled circulation pump via SmartControl, a heating circuit with mixer (2 pcs. required)	259060	259060	259060
Wall brackets for mounting to suitable faces and masonry, including vibration dampers	260079	260079	260079
Bidirectional power meter Current meter for Smart Heating/Cooling function, PV integration. 400V/3~/50Hz with S0 interface	259065	259065	259065
Electrical condensate drainage heating temperature-regulated for the safe discharge of defrost water with outside temperatures below the freezing point	260045	260045	260045
Pulse generator circulation for the realisation of a pulse-controlled circulation pump via REMKO Smart-Control	259045	259045	259045

REMKO SMART-CONTROL TOUCH

The intelligent control



Fig. Remote control



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

REMKO SMART-CONTROL TOUCH

The future is smart

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

The controller offers extensive setting possibilities

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



Smart-Com for integration into a Smart-Home system



Remote control through the Internet Smart-Web



Graphic representation of the heating curve



Representation of the refrigeration circuit



REMKO QUALITY WITH SYSTEM

Climate | Heating | New energies

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