

30RQ

AIR-TO-WATER HEAT PUMPS WITH INTEGRATED HYDRONIC MODULE



AIR-TO-WATER HEAT PUMPS WITH INTEGRATED HYDRONIC MODULE 30RQ

Physical data

30RQ		262	302	342	372	402	432	462	522
Nominal cooling capacity*	kW	249	275	307	326	366	389	430	465
Total power input, cooling mode	kW	100	106	124	128	146	150	165	192
Nominal heating capacity**	kW	276	302	335	366	407	445	505	552
Total power input, heating mode	kW	96	110	119	128	148	158	180	201
Operating weight***									
With Euro Pack option	kg	2619	3285	3481	3544	3718	4328	4530	4704
With Euro Pack option and high-pressure dual-pump hydronic module option	kg	2864	3590	3786	3889	4063	4673	4945	5119
Standard unit	kg	2429	3045	3241	3284	3458	4028	4210	4384
Refrigerant		R410A							
Compressors		Hermetic scroll, 48.3 r/s							
Control		Pro-Dialog							
Air heat exchangers		Grooved copper tubes and aluminium fins							
Fans		Axial FLYING BIRD 4 with rotating shroud							
Quantity		4	5	5	6	7	8	8	
Total air flow	l/s	18056	22569	22569	27083	27083	31597	36111	36111
Water heat exchangers		Direct expansion, two-circuits, shell-and-tube							
Hydronic module (option)		Low or high pressure, single or twinned dual pump (as required)							
Water pump		Low or high pressure, single or twinned dual pump (as required)							

- * Based on a water heat exchanger entering/leaving water temperature of 12°C/7°C, an outside air temperature of 35°C, and a water heat exchanger fouling factor 0.00018 m² K/W
 ** Based on a water heat exchanger entering/leaving water temperature of 40°C/45°C, an outside air temperature of 7°C, and 87% rh
 *** Weights are for guidance only. To find out the unit refrigerant charge, please refer to the unit name plate.

Electrical data

30RQ		262	302	342	372	402	432	462	522
Power circuit									
Nominal power supply	V-ph-Hz	400-3-50 ± 10%							
Control circuit supply		24 V, via internal transformer							
Maximum unit power input*									
Circuits A+B (one power supply)	kW	127	140	159	166	191	204	229	255
Nominal current draw**									
Circuits A+B (one power supply)	A	167	185	209	219	251	269	302	334
Maximum start-up current, standard unit ***									
Circuits A + B	A	426	448	481	492	536	558	601	645

- * Power input of the compressor(s) + fan(s) at maximum unit operating conditions saturated suction temperature 10°C, saturated condensing temperature 65°C at 400 V nominal voltage (values given on the unit name plate).
 ** Based on a water heat exchanger entering/leaving water temperature of 12°C/7°C and an outside air temperature of 35°C
 *** Maximum instantaneous starting current (maximum operating current of the smallest compressor(s) + fan current + locked rotor current of the largest compressor).

Hydronic module

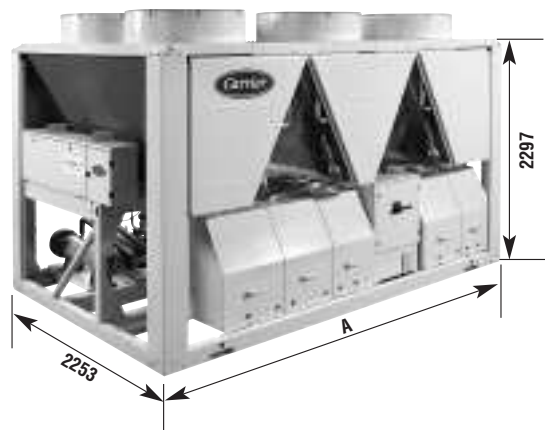
		262	302	342	372	402	432	462	522
Single and dual low-/high-pressure pump									
Shaft power	kW	2.2/4.0	3.0/5.5	3.0/5.5	4.0/7.5	4.0/7.5	4.9/7.5	6/11	6/11
Power input*	kW	2.7/4.7	3.6/6.4	3.6/6.4	4.6/8.5	4.6/8.5	4.6/8.5	6.3/12.2	6.3/12.2
Power input*	kW	4.5/7.6	6.0/10.3	6.0/10.3	7.6/13.9	7.6/13.9	7.6/13.9	10.3/19.5	10.3/19.5
Maximum current draw at 400 V**	A	4.7/8.2	6.4/11.2	6.4/11.2	8.2/15.4	8.2/15.4	8.2/15.4	11.2/21.2	11.2/21.2

Note: The water pump power input values are given for guidance only.

- * To obtain the maximum power input for a unit with hydronic module add the maximum unit power input from the electrical data table in section 5 to the pump power input* in the table above..
 ** To obtain the maximum unit operating current draw for a unit with hydronic module add the maximum unit current draw from the electrical data table in section 5 to the pump current draw** in the table above.

Dimensions, mm

30RQ	262	302-402	432-522
A	2410	3604	4798





PRO-DIALOG Plus

30RQ AIR-TO-WATER HEAT PUMPS WITH INTEGRATED HYDRONIC MODULE

AQUASNAP™
with PURON® refrigerant

Model shown is with Euro Pack option



Pro-Dialog Plus operator interface

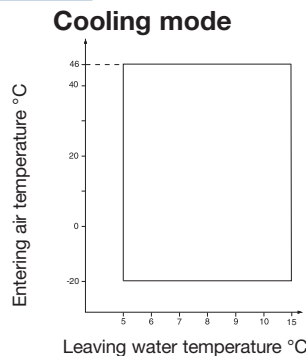
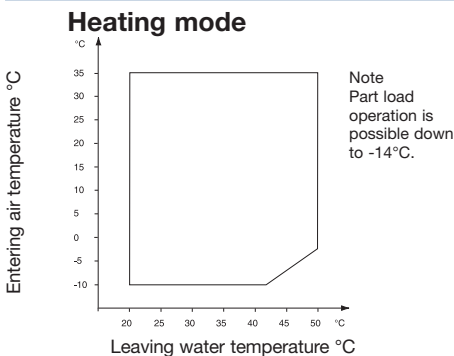
OPTIONS AND ACCESSORIES

- Euro Pack: enclosure panels, water heat exchanger frost protection, main disconnect switch and low noise level (option)
- Air heat exchanger with pretreated fins (option)
- Suction valve (option)
- Enclosure panels and grilles (option)
- Water heat exchanger and hydronic module with aluminium jacket (option)
- High or low-pressure single or dual-pump hydronic modules (option)
- Water heat exchanger frost protection (option)
- Low noise level (option)
- Twinning (option)
- Main disconnect switch with or without fuse (option)
- JBus, BacNet or LON gateway (option)
- Winter operation in cooling mode (option)
- Coil defrost resistance heaters (option)
- Energy Management module EMM (option/accessory)
- Connection sleeve (accessory)
- Scrolling Marquee Interface (accessory)
- Power cable connection side extension (accessory)

FEATURES

- Eight sizes with nominal cooling capacities from 249 to 465 kW and nominal heating capacities from 276 to 552 kW
- State-of-the-art Aquasnap Puron heat pumps featuring the latest technological innovations and operating on the ozone-friendly refrigerant R410A.
- Integrated hydronic module with water pump and expansion tank.
- Low-noise scroll compressors with low vibration levels
- V-shaped air heat exchanger coils, allowing quieter air flow across the coil
- Low-noise 4th generation Flying Bird fans, now even quieter. Rigid fan installation prevents start-up noise
- Simplified electrical connections
- Fast commissioning, as all units are systematically run tested before shipment
- Economical operation with increased energy efficiency at part load and dynamic superheat management.
- Leak-tight refrigerant circuit and reduced maintenance costs
- Auto-adaptive control algorithm and automatic compressor unloading for increased reliability
- Exceptional endurance tests

Operating range



Notes:
1. Water heat exchanger $\Delta t = 5\text{ K}$
2. With the water heat exchanger frost protection option the water heat exchanger is protected against frost down to -20°C .