

AIR-TO-WATER HEAT PUMPS WITH INTEGRATED HYDRONIC MODULE



Heating 30RQ

AQUASNAP
Reversible

Options

- Euro Pack: enclosure panels, water heat exchanger frost protection, main disconnect switch and low noise level
- Air heat exchanger corrosion protection
- Units for indoor installation with discharge ducts
- Low noise levels
- Grilles on all four unit faces
- Enclosure panels on each end of coils
- Winter operation
- Water heat exchanger frost protection
- Water heat exchanger and hydronic module frost protection
- Partial heat reclaim
- Master/slave operation
- Main disconnect switch with or without fuse (302-522)
- Water heat exchanger (all) or water heat exchanger and hydronic module (302-522) with aluminium jacket
- High and low-pressure single or dual-pump hydronic modules
- JBus, BacNet or LonTalk gateways
- Energy Management Module EMM
- Safety valve with three-way valve fitted
- Conforms to Australian codes
- Unit storage above 48°C
- Coil defrost resistance heaters
- Traditional Cu/Al coils
- Shell-and-tube water heat exchanger
- Connection sleeve
- Power cable connection side extension (302-522)
- Electronic starter

Features

- Eleven sizes with nominal cooling capacities from 175 to 470 kW and nominal heating capacities from 181 to 554 kW.
- State-of-the-art Aquasnap heat pumps featuring the latest technological innovations and operating on the ozone-friendly refrigerant R-410A.
- 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.



Pro-Dialog Plus operator interface

Physical data, 30RQ 182-262 "B" + 30RQ 302-522 units

30RQ 182-262 "B" + 30RQ 302-522	182	202	232	262	302	342	372	402	432	462	522		
Air conditioning application as per EN14511-3:2011													
Nominal cooling capacity	kW	177	198	217	250	279	309	333	368	392	435	470	
EER	kW/kW	2.93	2.70	2.84	2.62	2.63	2.46	2.63	2.49	2.59	2.59	2.40	
Eurovent class, cooling		B	C	C	D	D	E	D	E	D	D	E	
ESEER	kW/kW	3.97	3.68	4.18	3.67	4.03	3.75	3.50	3.54	3.61	3.43	3.25	
Air conditioning application (1)													
Nominal cooling capacity	kW	178	199	217	251	280	310	334	370	394	437	472	
EER	kW/kW	2.98	2.75	2.89	2.66	2.67	2.49	2.65	2.52	2.62	2.63	2.43	
ESEER	kW/kW	4.16	3.83	4.38	3.84	4.20	3.87	3.60	3.66	3.75	3.58	3.40	
Heating application as per EN14511-3:2011													
Nominal heating capacity	kW	184	205	221	268	303	336	367	408	446	507	554	
COP	kW/kW	2.85	2.83	2.98	2.85	2.73	2.79	2.84	2.74	2.79	2.79	2.72	
Eurovent class, heating		C	C	C	C	D	D	C	D	D	D	D	
Heating application (1)													
Nominal heating capacity	kW	184	205	221	267	302	335	366	407	445	505	551	
COP	kW/kW	2.88	2.85	3.00	2.87	2.75	2.81	2.86	2.75	2.81	2.81	2.74	
Operating weight - standard unit*	kg	1683	1785	1820	2020	2799	2986	3079	3233	3669	3909	4083	
Compressors		Hermetic scroll, 48.3 r/s											
Refrigerant		R-410A											
Capacity control		Pro-Dialog Plus											
Air heat exchangers		Grooved copper tubes and aluminium fins											
Fans		Axial Flying Bird 4 fans with rotating shroud											
Quantity		4	4	4	4	5	5	6	6	7	8	8	
Total air flow	l/s	18056	18056	18056	18056	22569	22569	27083	27083	31597	36111	36111	
Water heat exchanger		Twin-circuit plate heat exchanger					Direct-expansion twin-circuit, shell-and-tube heat exchanger						
Dimensions													
Length x depth x height	mm	2457 x 2253 x 2297				3604 x 2253 x 2297				4798 x 2253 x 2297			

NOTE: For the conditions please refer to page 69.

* Weight shown is a guideline only. To find out the unit refrigerant charge, please refer to the unit nameplate.

Electrical data, 30RQ 182-262 "B" + 30RQ 302-522 units

30RQ (without hydronic module)	182	202	232	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 power input* - circuits A + B/C	kW	85	98	102	127	140	159	166	191	204	229	255
Nominal current draw** - circuits A + B/C	A	113	129	135	167	185	209	219	251	269	302	334
Maximum start-up current*** - circuits A + B/C	A	353	375	348	426	448	481	492	536	558	601	645

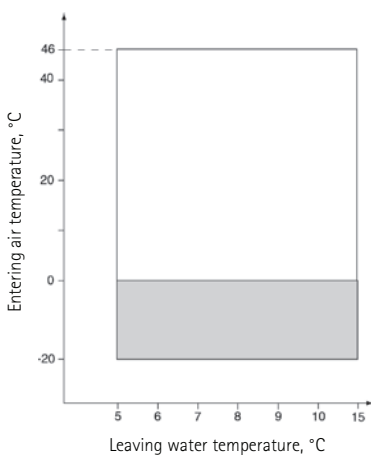
* Power input of the compressor(s) + fan(s) at maximum unit operating conditions saturated suction temperature 10°C, saturated condensing temperature 65°C at 400 V nominal voltage (values given on the unit name plate).

** Standardised Eurovent conditions: water heat exchanger entering/leaving water temperature 12°C/7°C, outside air temperature 35°C

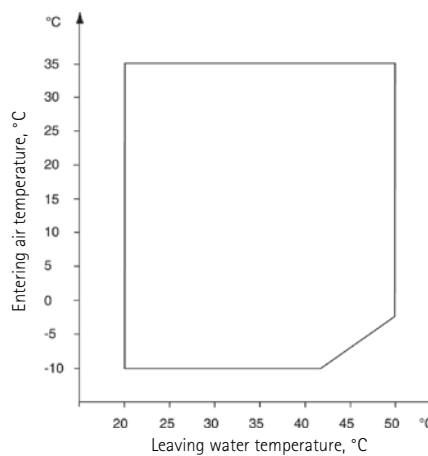
*** Maximum instantaneous starting current at operating limit values (maximum operating current of the smallest compressor(s) + fan current + locked rotor current of the largest compressor).

Operating range

Cooling mode



Heating mode



Note: Water heat exchanger and air heat exchanger $\Delta t = 5$ K

- Operating range, standard unit
- Operating range, unit equipped with option 28 (winter operation). In addition the unit must either be equipped with the frost protection option for the water heat exchanger and the hydronic module (if used), or the water loop must be protected against frost by the installer, using an anti-freeze solution.