

AIR-COOLED LIQUID CHILLERS WITH INTEGRATED HYDRONIC MODULE



Air conditioning

30RB

AQUASNAP®

Options

- Low leaving water temperature from +3°C to -10°C (162-402)
- Units for indoor installation with discharge ducts
- Low and very low noise levels
- Grilles on all four unit faces
- Enclosure panels each end
- Electronic starter (162-522)
- Winter operation to -10°C or -20°C
- Evaporator (including water piping) and evaporator and hydronic module frost protection (162-522)
- Partial heat reclaim
- Total heat reclaim (262-522)
- Master/slave operation
- Main disconnect switch with or without fuse (302-802)
- Evaporator (all) or evaporator & hydronic module (302-522) with aluminium jacket
- Compressor suction valve (302-802) or suction & discharge valves (162-262)
- High/low-pressure single/dual-pump hydronic modules (162-522)
- JBus, BacNet or LonTalk gateways
- DX free-cooling system (232-522)
- Energy Management Module EMM
- Fitted safety valves
- Conforms to Australian codes
- Unit storage above 48°C
- MCHE anti-corrosion protection
- Shell-and-tube evaporator (162-262)
- Connection sleeve
- Power cable connection side extension (302-802)

Features

- Five sizes (162 to 262) with plate heat exchanger and sixteen sizes (162 to 802) with shell-and-tube heat exchanger with cooling capacities from 162 to 774 kW.
- Eurovent energy efficiency class (in accordance with EN14511-3:2011) B to D
- Aquasnap liquid chillers featuring the latest technological innovations and operating on the ozone-friendly refrigerant R-410A.
- All-aluminium micro-channel condenser (MCHE) for extra efficiency.
- Integrated hydronic module (option) with water pump and expansion tank.
- Low-noise scroll compressors with low vibration levels.
- V-shaped condenser coils, allowing quieter air flow across the coil.
- Low-noise 4th generation Flying Bird fans, now even quieter. 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



30RB 162-262 "B" and 30RB 302-802 units	162	182	202	232	262	302	342	372	402	432	462	522	602	672	732	802	
Air conditioning application as per EN14511-3 : 2011																	
Nominal cooling capacity	kW	170	184	208	222	265	297	331	366	395	422	452	503	607	657	712	774
EER	kW/kW	2.95	2.96	2.86	3.00	2.67	2.77	2.69	2.80	2.60	2.71	2.59	2.58	2.72	2.68	2.59	2.58
Eurovent class		B	B	C	B	D	C	D	C	D	C	D	D	C	D	D	D
ESEER part-load performance	kW/kW	3.71	3.53	3.82	3.87	3.69	3.80	3.81	3.95	3.72	3.71	3.65	3.56	3.97	3.88	3.75	3.71
Air conditioning application (1)																	
Nominal cooling capacity	kW	171	185	209	223	266	298	332	367	397	424	454	506	609	660	714	778
EER	kW/kW	3.00	3.02	2.92	3.05	2.71	2.81	2.72	2.83	2.64	2.75	2.62	2.63	2.75	2.72	2.63	2.62
ESEER part-load performance	kW/kW	3.87	3.70	4.00	4.06	3.90	3.96	3.95	4.11	3.89	3.86	3.81	3.74	4.11	4.03	3.91	3.88
Operating weight – standard unit*	kg	1310	1420	1519	1539	1714	2489	2680	2779	2879	3224	3431	3600	4627	4873	5362	5609
Compressors	Hermetic scroll, 48.3 r/s																
Refrigerant	R-410A																
Capacity control	Pro-Dialog Plus																
Condensers	All aluminium micro-channel heat exchanger (MCHE)																
Fans	Axial Flying Bird 4 with rotating shroud																
Quantity		3	4	4	4	4	5	5	6	6	7	7	8	9	10	11	12
Total air flow (high speed)	l/s	13542	18056	18056	18056	18056	22569	22569	27083	27083	31597	31597	36111	40623	45139	49653	54167
Evaporator	Twin-circuit plate heat exchanger Direct expansion, shell-and-tube																
Dimensions**																	
Length x depth x height	mm	2457 x 2253 x 2297					3604 x 3353 x 2297			4798 x 2253 x 2297			5992 x 2253 x 2297		7186 x 2253 x 2297		

NOTE: For the conditions please refer to page 31.

For 30RB 162-262 units with option 280 (shell-and-tube heat exchanger) please refer to the specific product literature

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

Electrical data, 30RB 162-262 "B" and 30RB 302-802 units

30RB (without hydronic module)	162	182	202	232	262	302	342	372	402	432	462	522	602	672	732	802	
Power circuit																	
Nominal power supply	V-ph-Hz	400-3-50 ± 10%															
Control circuit supply	24 V, via internal transformer																
Max. power input* - circuits A + B/C	kW	76/-	85/-	98/-	102/-	127/-	140/-	159/-	172/-	191/-	204/-	223/-	255/-	191/96	191/127	255/96	255/127
Nom. current draw** - circuits A + B/C	A	101/-	113/-	129/-	135/-	167/-	185/-	209/-	227/-	251/-	269/-	293/-	334/-	251/125	251/167	334/125	334/167
Max. start-up current*** - circuits A + B/C	A	304/-	353/-	375/-	348/-	426/-	448/-	481/-	502/-	535/-	557/-	590/-	645/-	535/371	535/426	645/371	645/426

* Power input, compressors and fans, at the unit operating limits (saturated suction temperature 10°C, saturated condensing temperature 65°C) and nominal voltage of 400 V (data given on the unit nameplate).

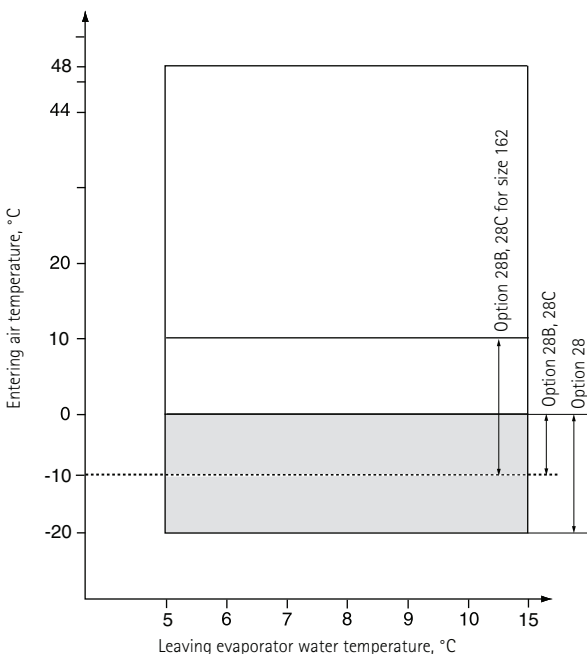
** Nom. unit current draw at standardised Eurovent conditions: evaporator entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

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

Note: Units 30RB 602-802 have two electrical connection points.

Operating range

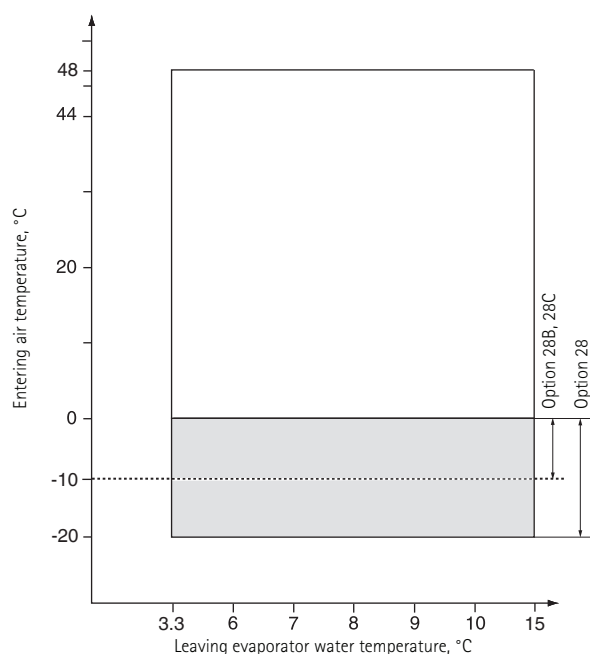
30RB 162-262 "B" units and units with option 280



Legend:

- Standard unit operating at full load.
- Operating range, units equipped with options 28, 28B and 28C "Winter operation".
- Option 28 (with variable-speed lead fan for each circuit) allows operation down to -20°C outside temperature.
- Option 28B, 28C (with two-speed lead fan for each circuit) allows operation down to -10°C outside temperature. In addition to options 28, 28B and 28C the unit must either be equipped with the evaporator frost protection option (for units without hydronic module option) or the evaporator and hydronic module frost protection option (for units with hydronic module option) or the water loop must be protected by the installer by adding a frost protection solution.

30RB 302-802 units



Notes:

Evaporator $\Delta T = 5$ K

The evaporator is protected against frost down to -20°C.