AIR-COOLED LIQUID CHILLERS WITH INTEGRATED HYDRONIC MODULE

Air conditioning

30RBM/30RBP

AQUASNAP greenspeed

NEW 2014 CARRIER

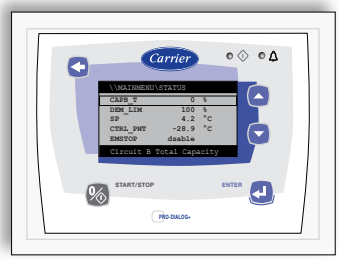
Options

- Low leaving water temperature down to -6°C*
- Very low leaving water temperature down to -12°C*
- High static fan for ducted application*
- Low noise level
- Very low noise level
- Grilles
- Side panels
- Electronic starter
- Winter operation for OAT down to -10°C
- Winter operation for OAT down to -20°C
- High ambient temperature
- Evaporator frost protection
- Evaporator and hydronic module frost protection
- Partial heat reclaim*
- Total Heat reclaim*
- Master/slave operation
- Suction and discharge valves
- Hydronic module with high-pressure single or dual pump
- Hydronic module with low-pressure single or dual pump
- Hydronic module with greenspeed® single or dual pump
- Expansion tank
- Direct-expansion free-cooling (one or two circuits)*
- Hydronic free-cooling*
- J-Bus, BacNet or LonTalk gateways
- Enviro-Shield, Super Enviro-Shield coatings for MCHE coils
- Connection sleeve
- 230V electrical plug
- Touch Pilot control
- Power Factor correction*
- Electric energy meter*

* Options available after official product launch. Please contact your sales representative for more information.

Features

- Twelve sizes with nominal cooling capacities from 164 to 528 kW
- Aquasnap liquid chillers for commercial and industrial applications.
- 30RBM version with full load energy efficiency up to 3.1 (in accordance with EN14511-3: 2013)
- 30RBP version with enhanced part-load energy efficiency using greenspeed® condenser fans.
- 30RBP version with greenspeed® condenser fans for start-stop noise elimination.
- Extra energy savings through multiple options*: greenspeed® variable speed pump, partial or total heat reclaim, partial or total free-cooling, electric energy meter.
- Novation® aluminium micro channel condenser (MCHE) and brazed plate heat exchanger for low R-410A refrigerant charge.
- Night mode control.
- V-shaped condenser coils allowing protection against hail.
- Fast commissioning, as all units are systematically run tested before shipment.
- Leak-tight refrigerant circuit and reduced maintenance costs.
- Auto-adaptive control algorithm and automatic compressor unloading for increased and efficiency optimization.
- Exceptional endurance tests for superior reliability.



Pro-Dialog+ user interface

Touch Pilot user interface

Physical data

30RBM		160	180	200	220	260	300	330	360	400	430	470	520
Air conditioning application as per EN14511-3 : 2013													
Nominal cooling capacity*	kW	164	180	200	217	262	297	333	363	400	432	463	528
EER*	kW/kW	3.04	3.14	3.00	3.00	2.88	2.97	2.91	2.95	2.90	2.96	2.90	2.90
ESEER*	kW/kW	4.00	4.01	3.97	3.95	3.98	4.00	4.07	4.00	4.06	4.07	4.00	4.04
Standard unit sound power level	dB(A)	91	91	91	92	92	93	93	93	93	94	94	94
Unit with option 15 sound power level	dB(A)	89	89	89	90	90	91	91	92	92	93	93	93
Unit with option 15LS sound power level	dB(A)	85	85	85	86	86	86	86	87	87	88	88	88
Operating weight - standard unit **	kg	1216	1257	1257	1387	1408	1865	1901	2069	2125	2545	2563	2761
Compressors													
Compressors No. Circuit A / No. Circuit B		1/2	1/2	1/2	2/2	2/2	2/3	2/3	3/3	3/3	3/4	3/4	4/4
Minimum capacity	%	33%	33%	33%	25%	25%	20%	20%	17%	17%	14%	14%	13%
Control		Prodialog+ / Touch Pilot (option)											
Refrigerant		R410-A											
Refrigerant charge**	kg	20.7	23.6	23.8	25.9	26.2	32.1	36.2	42.5	43.3	50.2	51.4	53.7
Condensers		All aluminium micro-channel heat exchanger (MCHE)											
Fans		Fixed speed, axial Flying Bird 4 with rotating shroud											
Quantity		3	4	4	4	4	5	5	6	6	7	7	8
Evaporator		Twin-circuit plate heat exchanger											
Dimensions													
Length	mm	2410					3604				4797		
Width	mm	2253					2253				2253		
Height	mm	2297					2297				2297		

* Preliminary performance data given at evaporator entering/leaving water temperature 12/7°C, outside air temperature 35°C.

** Unit weight and refrigerant charge shown are guidelines only. To find out values, please refer to the unit nameplate.

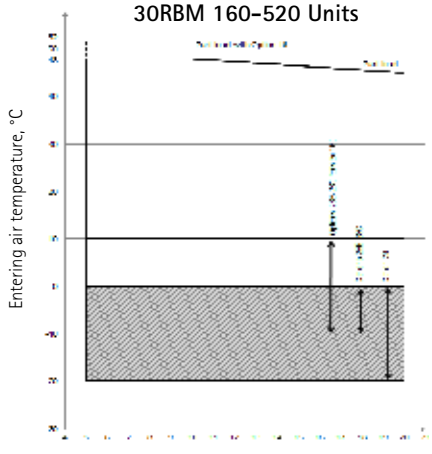
30RBP		160	180	200	220	260	300	330	360	400	430	470	520
Air conditioning application as per EN14511-3 : 2013													
Nominal cooling capacity*	kW	164	180	200	217	262	297	333	363	400	432	463	528
EER*	kW/kW	3.04	3.14	3.00	3.00	2.88	2.97	2.91	2.95	2.90	2.96	2.90	2.90
ESEER*	kW/kW	4.08	4.09	4.05	4.07	4.15	4.20	4.29	4.20	4.26	4.36	4.24	4.31
Standard unit sound power level	dB(A)	91	91	91	92	92	93	93	93	93	94	94	94
Unit with option 15 sound power level	dB(A)	89	89	89	90	90	91	91	92	92	93	93	93
Unit with option 15LS sound power level	dB(A)	85	85	85	86	86	86	86	87	87	88	88	88
Operating weight - standard unit **	kg	1252	1293	1293	1423	1445	1901	1937	2105	2162	2603	2621	2827
Compressors													
Compressors No. Circuit A / No. Circuit B		1/2	1/2	1/2	2/2	2/2	2/3	2/3	3/3	3/3	3/4	3/4	4/4
Minimum capacity	%	33%	33%	33%	25%	25%	20%	20%	17%	17%	14%	14%	13%
Control		Prodialog+ / Touch Pilot (option)											
Refrigerant		R410-A											
Refrigerant charge**	kg	20.7	23.6	23.8	25.9	26.2	32.1	36.2	42.5	43.3	50.2	51.4	53.7
Condensers		All aluminium micro-channel heat exchanger (MCHE)											
Fans		Variable speed, axial Flying Bird 4 with rotating shroud											
Quantity		3	4	4	4	4	5	5	6	6	7	7	8
Evaporator		Twin-circuit plate heat exchanger											
Dimensions													
Length	mm	2410					3604				4797		
Width	mm	2253					2253				2253		
Height	mm	2297					2297				2297		

* Preliminary performance data given at evaporator entering/leaving water temperature 12/7°C, outside air temperature 35°C.
** Unit weight and refrigerant charge shown are guidelines only. To find out values, please refer to the unit nameplate.

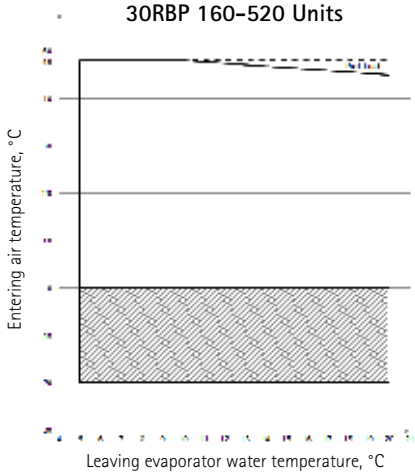
- At time of printing this catalogue, units are not yet certified within the Eurovent LCP-HP program so data should be treated as preliminary
- Preliminary data is provided for the purposes of early design sizing and physical dimensioning
- Carrier, as an active particpant of Eurovent Certified Performance (ECP) programs, will submit data to the Eurovent Certita Certification (ECC) once development is finalized and products are available for market launch.

Operating range

30RBM 160-520 Units



30RBP 160-520 Units



Notes:
Evaporator ΔT = 5 K

Legend:

Standard unit 30RBM/30RBP operating at full load

Operating range extension, 30RBM 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.
- Options 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 for 30RBM or for 30RBP operating under 0°C, 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.

Order No: 10001, 05.2014 - Supersedes order No: New.