

30XA

AIR-COOLED LIQUID CHILLERS



Physical data

30XA		252	302	352	402	452	502	602	702	752	802	852	902	1002	1102	1202	1302	1352	1402	1502	1702	
Nominal cooling capacity*																						
Standard unit	kW	268	293	320	382	438	492	605	653	706	764	802	869	951	1116	1216	1296	1382	1426	1478	1605	
Option 119***	kW	274	300	326	393	451	508	616	677	726	792	837	899	999	1146	1245	1352	1440	1466	1521	1673	
Operating weight**																						
Standard unit and option 119***	kg	3840	3880	3920	4780	4850	5330	6260	6410	6710	7010	7560	7860	8440	10440	10880	11260	11620	4250/8380	4250/8530	7560/7560	
Option 254***	kg	4160	4190	4710	5190	5260	5830	6870	7030	7820	8140	8260	9010	9260	11470	11890	12250	12640	4650/9180	4650/9340	8270/8270	
Refrigerant		R134a																				
Compressors		06T semi-hermetic screw compressors, 50 r/s																				
Control		PRO-DIALOG, electronic expansion valve (EXV)																				
Condensers		Aluminium micro-channel heat exchangers																				
Fans		Axial Flying Bird IV fans with rotating shroud																				
Quantity, standard unit - option 119/option 254		6/6	6/6	6/7	8/8	8/8	9/9	11/11	12/12	12/13	12/13	14/14	14/15	16/16	16/19	20/20	20/20	20/20	24/24	24/24	28/28	
Evaporator		Flooded multi-pipe type																				

* Nominal conditions: evaporator entering/leaving water temperature = 12°C/7°C. Outdoor air temperature = 35°C, evaporator fouling factor = 0.000018 m² K/W

** Weights are guidelines only. The values for sizes 1402, 1502 and 1702 are for modules 1 and 2.

*** Options: 119 = high energy efficiency; 254 = traditional coils.

Notes:

Unit sizes 30XA 1402 to 1702 are supplied in two field-assembled modules.

Option 119 can be used together with options 254 and 255.

Electrical data

30XA		252	302	352	402	452	502	602	702	752	802	852	902	1002	1102	1202	1302	1352	1402	1502	1702	
Power circuit																						
Nominal power supply	V-ph-Hz	400-3-50 ± 10%																				
Control circuit		24 V via internal transformer																				
Max. start-up current, circuits A + B/C + D*																						
Standard unit	A	262/-	262/-	284/-	395/-	502/-	502/-	571/-	597/-	770/-	795/-	796/-	880/-	932/-	571/587	770/587	795/587	878/587	880/587	932/587	796/796	
High-energy efficiency unit	A	262/-	262/-	283/-	400/-	507/-	507/-	579/-	608/-	778/-	803/-	807/-	892/-	945/-	579/587	778/587	803/587	889/587	892/587	945/587	807/807	
Max. power input, circuits A + B/C + D**																						
Standard unit	kW	121/-	131/-	141/-	165/-	185/-	204/-	247/-	267/-	293/-	312/-	343/-	359/-	420/-	247/210	293/210	342/210	388/209	390/210	420/210	343/343	
High-energy efficiency unit	kW	126/-	136/-	147/-	172/-	192/-	212/-	257/-	278/-	304/-	323/-	356/-	372/-	435/-	257/217	304/217	353/217	400/216	405/217	435/217	356/356	
Max. unit current draw, circuits A + B/C + D**																						
Standard unit	A	198/-	215/-	233/-	270/-	303/-	335/-	404/-	436/-	492/-	522/-	572/-	611/-	707/-	404/354	492/354	568/354	655/352	661/354	707/354	572/572	
High-energy efficiency unit	A	208/-	226/-	243/-	284/-	316/-	350/-	423/-	457/-	512/-	542/-	596/-	635/-	734/-	423/367	512/367	588/367	678/364	688/367	734/367	596/596	

* Instantaneous start-up current (operating current of the smallest compressor + fan current + locked rotor current in star connection of the largest compressor). Values obtained at operation with maximum unit power input.

** Values obtained at operation with maximum unit power input. Values given on the unit name plate

Unit sizes 30XA 1102 to 1702 have two power connection points (circuits A + B and circuits C + D).

Operating limits

Evaporator water temperature	°C	Minimum	Maximum
Water entering temperature at start-up		-	45
Water entering temperature during operation		6.8	21
Water leaving temperature during operation		3.3	15

Note: If the leaving water temperature is below 4°C, a glycol/water solution or the frost protection option must be used.

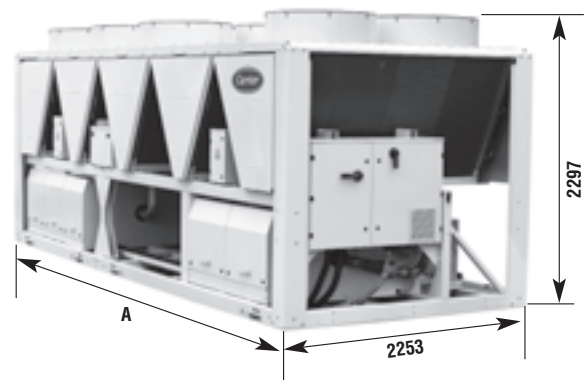
Condenser air temperature	°C	Minimum	Maximum
Storage		-20	68
Operation			
Standard unit		-10	55*
With winter operation option (option 28)		-20	55*
With high energy efficiency option (option 119)		-10	55*

Note: If the air temperature is below 0°C, a glycol/water solution or the frost protection option must be used.

* Part-load operation

Dimensions, mm

30XA	252-352 + 252-302 Cu/Al	402-452 + 352-452 Cu/Al	502 + 502 Cu/Al	602-802 + 602/702 Cu/Al	852-902 + 752-852 Cu/Al	1002 + 902-1002 Cu/Al	1102-1352 + 1102-1353 Cu/Al
A	3604	4798	5992	7186	8380	9574	11962
30XA	1402-1502 + 1402-1502 Cu/Al module 1/2	1702 + 1702 Cu/Al module 1/2					
A	9574/4798	8380/8380					





AQUAFORCE™

FEATURES

- Twenty sizes with nominal cooling capacities from 270 to 1700 kW.
- The ideal solution for industrial and commercial applications with optimal performances and maximum quality.
- Available in two versions: one with extremely low noise levels and superior energy efficiency; the other with unequalled energy efficiency for minimised operating costs.
- Twin-rotor screw compressors with high-efficiency motor and a variable capacity valve for exact matching of the cooling capacity to the load.
- All aluminium micro-channel heat exchanger (MCHX) with increased corrosion resistance and higher efficiency than a copper/aluminium coil.
- Use of R134a refrigerant with zero ozone depletion potential - the micro-channel heat exchangers reduce the refrigerant charge by 30%
- Low-noise 4th generation Flying Bird fans made of composite material.
- Touch-screen Pro-Dialog control system.
- Flooded multi-pipe evaporator.
- Economizer system with electronic expansion device for increased cooling capacity.
- V-shape condenser coils allow quieter air flow across the coil
- Simplified electrical connections
- Units are run-tested before shipment and include a quick-test function for fast commissioning
- Leak-tight refrigerant circuit
- Comprehensive endurance tests
- Aquaforce offers multiple remote control, monitoring and diagnostic possibilities.

PRO-DIALOG



Touch-screen Pro-Dialog operator interface

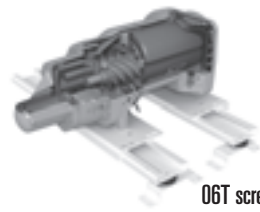
OPTIONS/ACCESSOIRES

- Winter operation*
- Suction valve*
- High energy efficiency version*
- Unit without enclosure*
- Energy Management module EMM***
- One or three-pass evaporator*
- Reversed water connections*
- Low or high-pressure, single or dual-pump hydronic module*
- Traditional coils*
- Corrosion protection, traditional coils*
- Evaporator and hydronic module frost protection*
- IP54 control box*
- High-temperature version (Middle East)*
- JBus/BacNet or LON gateway***
- Connection sleeve**
- Lead lag kit**

* Option

** Accessory

*** Option/accessory



O6T screw compressor



All aluminium micro-channel heat exchanger