

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	437	492	605	653	706	764	802	869	952	1116	1216	1297	1382	1426	1478	1605
Option 119***	kW	274	300	326	393	451	508	616	677	726	792	838	899	1000	1147	1247	1354	1442	1468	1523	1675
Operating weight**																					
Standard unit and option 119***	kg	3740	3780	3820	4673	4743	5174	6097	6247	6547	6847	7308	7648	8226	10170	10610	10990	11350	4128/8141	4143/8737	7348/7348
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	6	6	6	8	8	9	11	12	12	12	14	14	16	19	20	20	20	24	24	24	28
Quantity, option 254	6	6	7	8	8	9	11	12	13	13	14	15	16	19	20	20	20	24	24	24	28
Evaporator	Flooded shell-and-tube 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 Cu/Al coils. Option 119 can be used together with options 254 and 255.

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

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	269	269	287	402	505	505	574	606	773	803	805	893	941	574/587	773/587	803/587	891/587	893/587	941/587	805/805
High-energy efficiency unit	A	274	274	292	407	510	510	583	616	782	812	815	905	954	583/587	782/587	812/587	901/587	905/587	954/587	815/815
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. Circuit D for size 1702 only.

Note: 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.

* Depending on the installation type and temperature

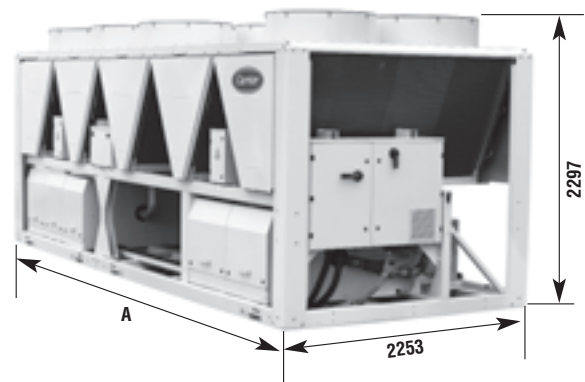
** Part load, depending on the water temperature

*** Recommended for operation above 46°C

**** Full or part-load operation, depending on the model

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 + 1102-1352 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 shell-and-tube 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

- Corrosion protection, traditional coils*
- Low and very low temperature glycol solution*
- Unit equipped for air discharge ducting*
- IP54 control box*
- Tropical applications*
- Grilles on all four sides*
- Enclosure panels
- Winter operation*
- Evaporator and hydronic module frost protection*
- Heat reclaim*
- Single power connection point*
- Service/discharge valve*
- Evaporator with one pass more or less*
- 21 bar evaporator*
- Reversed water connections*
- Low or high-pressure, single or dual-pump hydronic module*
- Direct-expansion free-cooling system*
- High energy efficiency version*
- JBus, BacNet or LON gateway***
- Energy Management module EMM***
- High-pressure switch to comply with German and Dutch standards*
- Dual safety valve with fitted three-way valve*
- Swiss, Russian and Australian code compliance*
- Unit without enclosure*
- Traditional coils*
- Suction piping insulation*
- Low and very low sound level*
- MCHX anti-corrosion protection*
- Connection sleeve**
- Lead lag kit**
- Anti-vibration mountings**

* Option ** Accessory *** Option/accessory