

# AIR-COOLED LIQUID CHILLERS



Air conditioning

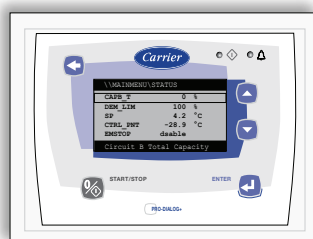
**AQUAFORCE** 30XAS "A"

## Options

- Corrosion protection, traditional coils
- Unit equipped for air discharge ducting
- IP54 control box
- Grilles
- Enclosure panels
- Winter operation
- Evaporator and hydronic module frost protection
- Heat reclaim
- Service valve
- Discharge valve
- High-pressure dual-pump hydronic module
- High energy efficiency version
- JBus, BacNet or LON gateways
- Energy Management module EMM
- Russian and Australian code compliance
- Compressor enclosure
- Traditional coils and traditional coils without slots
- Suction piping insulation
- Low and very low sound levels (second attenuation level)
- MCHE anti-corrosion protection
- Master/slave operation
- Welded Victaulic evaporator water connections
- Evaporator with aluminium jacket
- Dual relief valve with installed three-way valve

## Features

- Five sizes with nominal cooling capacities from 232 to 486 kW.
- Ideal for industrial and commercial applications with optimal performances and maximum quality.
- Available in two versions: one with very low noise levels and superior energy efficiency; the other with optimal energy efficiency to minimise operating costs.
- Extremely high full load and part load energy efficiencies: Eurovent energy efficiency class A to C, in accordance with EN14511-3:2011. Standardised Eurovent values in accordance with EN 14511-3:2011: EER up to 3.2 and ESEER up to 4.
- 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 condenser (MCHE) with high-efficiency microchannels and increased corrosion resistance.
- Use of R-134a refrigerant with zero ozone depletion potential - the microchannel condensers reduce the refrigerant charge by 30%.
- Low-noise 4th generation Flying Bird fans made of composite material.
- Pro-Dialog+ capacity control system.
- Flooded shell-and-tube evaporator to increase heat exchange efficiency.
- Economizer system with electronic expansion device to increase 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+ operator interface

## Physical data

30XAS		242	282	342	442	482
<b>Air conditioning application as per EN14511-3 : 2011</b>						
Nominal cooling capacity, standard unit/unit with option 119*	kW	232/245	284/285	334/345	430/461	467/486
EER, standard unit/unit with option 119*	kW/kW	2.76/2.97	3.00/3.15	3.08/3.24	2.93/3.15	2.87/3.09
Eurovent class, standard unit/unit with option 119*	C/B	C/B	B/A	B/A	B/A	C/B
ESEER part-load performance, standard unit/unit with option 119*	kW/kW	3.78/3.69	3.93/3.69	3.99/3.80	3.87/3.75	3.96/3.79
<b>Air conditioning application (1)</b>						
Nominal cooling capacity, standard unit/unit with option 119*	kW	233/245	285/286	335/346	432/462	469/488
EER, standard unit/unit with option 119*	kW/kW	2.78/2.99	3.03/3.18	3.11/3.28	2.96/3.18	2.91/3.13
ESEER part-load performance, standard unit/unit with option 119*	kW/kW	3.85/3.75	4.01/3.76	4.09/3.90	3.97/3.84	4.07/3.89
Operating weight**	kg	2390	2810	2870	3630	3720
With option 116C*	kg	-	3070	3190	3990	4150
With options 254 or 255*	kg	2540	3060	3140	3950	4070
Compressor	06T semi-hermetic screw compressor, 50 r/s					
Refrigerant	R-134a, one refrigerant circuit					
Capacity control	PRO-DIALOG+, electronic expansion valve (EXV)					
Condensers	All aluminium micro-channel heat exchanger					
Condenser fans	Axial Flying Bird IV fans with rotating shroud					
Standard units and units with option 119 - 254*						
Quantity		4	5	6	7	8
Total air flow, standard unit/unit with option 119	l/s	13667/18055	17083/22569	20500/27083	23917/31597	27333/ 36111
Evaporator	Flooded shell-and-tube type					
Chassis paint colour	Colour code: RAL7035					
<b>Dimensions</b>						
Length x depth x height	mm	2410 x 2253 x 2297	3604 x 2253 x 2297		4798 x 2253 x 2297	

NOTE: For the conditions please refer to page 31.

- \* Options: 116C = high-pressure dual-pump hydronic module; 119 = high energy efficiency units; 254 = units with copper/aluminium coils with slots; 255 = units with copper/aluminium coils with plain fins.  
 \*\* Weights are guidelines only. The refrigerant charge is also given on the unit nameplate.

## Electrical data

30XAS		242	282	342	442	482
<b>Power circuit</b>						
Nominal power supply	V-ph-Hz	400-3-50 ± 10%				
<b>Control circuit</b>						
		24 V via internal transformer				
Start-up current*	A	303	388	388	587	587
<b>Standard unit/unit with option 119</b>						
Maximum power input**	kW	101/105	113/118	134/139	184/190	213/221
Maximum current draw (Un)**	A	165/172	185/194	218/229	305/318	353/368

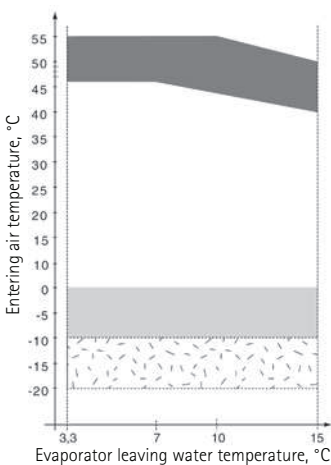
\* Instantaneous start-up current (locked rotor current in star connection of the compressor).

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

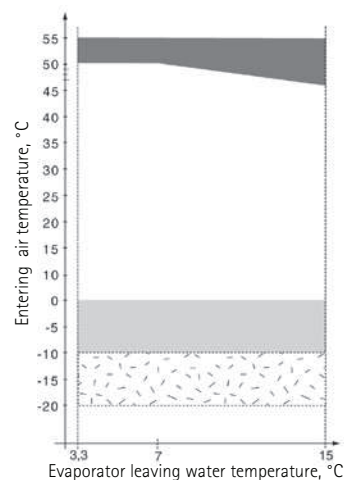
Note: Motor and fan electrical data if the unit operates at Eurovent conditions (motor ambient temperature 50°C): 1.9 A, start-up current: 8.4 A, power input: 760 W.

## Operating range

### Standard unit



### High energy efficiency unit or option 119



#### Legend



Operating range, unit equipped with option 28 "Winter operation"



Below 0°C air temperature the unit must either be equipped with the evaporator frost protection option (41A or 41B), or the water loop must be protected against frost by using a frost protection solution (by the installer).



Part load average