WATER-COOLED BRINE CHILLERS

Industrial

AQUAFORCE

30XW

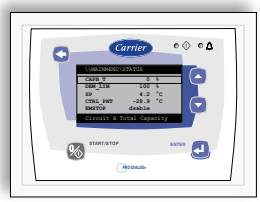
Options/accessories

- Medium and low temperature applications*
- Unit supplied in two assembled parts*
- No disconnect switch, but with short-circuit protection*
- Single power connection point
- Low sound level, -2 dB(A)*
- Evaporator/condenser pump electrical power/control circuit options*
- Service valve set*
- Evaporator/condenser arrangement with one pass*
- Condenser insulation*
- 21 bar evaporator and condenser*
- Reversed evaporator water connections*
- JBus, BacNet and LON gateways*
- Various condensing temperature options*
- Energy Management Module EMM*
- Code compliance for Switzerland and Australia*
- Master/slave operation*
- Touch Screen interface*
- Low noise level (-3 dB(A) compared to standard unit)*
- Thermal compressor insulation*
- Water connection kit for welded or flanged evaporator/condenser connections*
- Very low noise level (-20 dB(A) compared to standard unit)**

* Option ** Accessory

Features

- Four sizes with nominal cooling capacities from 298 to 705 kW (at -6°C leaving water temperature).
- The premium solution for industrial process and food industry applications, with products that can operate either with ethylene or propylene glycol to maximise the operating range.
- Two versions: a medium-temperature range that goes down to 6°C leaving water temperature and a low-temperature range down to -12°C leaving water temperature.
- Twin-rotor screw compressors with high-efficiency motor and a variable capacity valve for exact matching of the cooling capacity to the load.
- Use of R-134a refrigerant with zero ozone depletion potential.
- Pro-Dialog control system.
- Flooded mechanically cleanable heat exchangers.
- Exceptional full and part load energy efficiency.
- Economizer system with electronic expansion device for increased cooling capacity (30XW-P).
- 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

Touch-screen Pro-Dialog operator interface (option)

Physical data, low-temperature units

Standard and high-efficiency 30XW-/30XWH units (options 5 and 6)

		Option 5 (medium temperature)				Option 6 (low temperature)			
Reference number		**P0512**	**P0562**	**P1012**	**-1154**	**P0512**	**P0562**	**P1012**	**-1154**
Air conditioning application as per EN14511-3 : 2011									
Nominal cooling capacity	kW	481	533	1012	1137	472	519	971	1067
Nominal heating capacity	kW	411	454	855	961	394	433	805	887
EER (cooling)/COP (heating)	kW/kW	4.8/3.7	4.8/3.7	5.0/3.8	4.9/3.8	4.7/3.5	4.6/3.5	4.7/3.5	4.6/3.5
ESEER part-load performance, cooling	kW/kW	5.5	5.5	5.8	5.8	5.4	5.3	5.5	5.4
Air conditioning application (1)									
Nominal cooling capacity*	kW	293	328	619	705	212	236	431	499
EER	kW/kW	3.44	3.52	3.58	3.63	2.67	2.73	2.67	2.79
Heating capacity	kW	371	413	776	882	285	315	579	662
Coefficient of performance (COP)	kW/kW	4.36	4.43	4.49	4.54	3.58	3.64	3.58	3.70
Air conditioning application (1)									
Nominal cooling capacity**	kW	308	346	654	755	234	253	474	556
EER	kW/kW	3.58	3.66	3.74	3.81	2.90	2.88	2.88	3.03
Heating capacity	kW	387	432	813	935	308	334	623	723
Coefficient of performance (COP)	kW/kW	4.49	4.57	4.65	4.72	3.81	3.80	3.79	3.94
Heating/cooling floor application as per EN14511-3 : 2011									
Nominal heating capacity	kW	417	462	871	982	408	449	834	921
EER (cooling)/COP (heating)	kW/kW	4.5	4.5	4.6	4.6	4.2	4.1	4.3	4.2

Gross performances, not in accordance with EN14511-3:2011. These performances do not take into account the correction for the proportional heating capacity and power input generated by the water pump to overcome the internal pressure drop in the heat exchanger.

Option 5

* Values based on 25% ethylene glycol, evaporator entering/leaving water temperatures of -2°C/-6°C and condenser entering/leaving water temperatures of 30°C/35°C.

** Values based on 24% propylene glycol, evaporator entering/leaving water temperatures of +1°C/-3°C and condenser entering/leaving water temperatures of 30°C/35°C.
Note: Evaporator with 2 pass configuration with water inlet and outlet on the same side.

Option 6

* Values based on 35% ethylene glycol, evaporator entering/leaving water temperatures of -8°C/-12°C and condenser entering/leaving water temperatures of 30°C/35°C.

** Values based on 30% propylene glycol, evaporator entering/leaving water temperatures of -4°C/-8°C and condenser entering/leaving water temperatures of 30°C/35°C.
Note: Evaporator with 3 pass configuration with water inlet and outlet on opposite sides.

Electrical data

Standard and high-efficiency 30XW-/30XWH units (options 5 and 6)

		Options 5 and 6			
Reference number		**P0512**	**P0562**	**P1012**	**-1152**
Power circuit					
Nominal power supply	V-ph-Hz	400-3-50 ± 10%			
Control circuit		24 V via the built-in transformer			
Maximum start-up current*					
Circuit A	A	587	587	587	587
Circuit B		-	-	587	587
Option 81	A	-	-	862	887
Maximum power input**					
Circuit A	kW	173	191	173	191
Circuit B		-	-	173	191
Option 81	kW	-	-	346	382
Maximum current drawn (Un)**					
Circuit A	A	275	300	275	300
Circuit B		-	-	275	300
Option 81	A	-	-	550	600

* Instantaneous start-up current (maximum operating current of the smallest compressor(s) + locked rotor current or reduced start-up current 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.

Operating range, options 5 and 6