

# 30XW/XWH

## WATER-COOLED LIQUID CHILLERS



### Physical data, standard units

Standard-efficiency units		452	552	602	652	702	802	852	1002	1052	1152	1252	1352	1452	1552	1652	1702
30XW--/30XWH																	
<b>Nominal cooling capacity*</b>	kW	476	536	541	681	735	796	844	1024	1068	1156	1265	1349	1463	1560	1664	1739
Power input	kW	85	98	98	120	131	144	148	184	193	200	211	232	255	274	279	290
EER	kW/kW	5.58	5.47	5.52	5.68	5.61	5.53	5.69	5.57	5.54	5.78	6.00	5.81	5.73	5.70	5.96	5.99
ESEER part-load performance	kW/kW	6.30	6.40	6.50	6.93	6.85	6.86	6.91	7.13	7.48	7.46	7.72	7.47	7.35	7.16	7.36	7.30
<b>Heating capacity**</b>	kW	498	568	596	707	770	820	892	1070	1121	1246	1308	1405	1531	1629	1790	1867
Power input	kW	110	127	130	158	173	184	195	238	251	264	278	303	334	356	375	388
Coefficient of performance (COP)	kW/kW	4.51	4.46	4.57	4.46	4.46	4.45	4.58	4.49	4.47	4.71	4.70	4.64	4.59	4.57	4.78	4.81
<b>Operating weight</b>	kg	2575	2613	2644	3247	3266	3282	3492	5370	5408	5705	7066	7267	7305	7337	8681	8699
<b>Compressors</b>	Semi-hermetic 06T screw compressors, 50 r/s																
<b>Refrigerant</b>	R-134a																
<b>Capacity control</b>	Pro-Dialog, electronic expansion valves (EXV)																
<b>Evaporator</b>	Shell-and-tube flooded type, maximum operating pressure 1000 kPa, 3/8" NPT drain and vent connections																
<b>Condenser</b>	Shell-and-tube type, maximum operating pressure 1000 kPa, 3/8" NPT drain and vent connections																
<b>Dimensions</b>																	
Length	mm	2742	2742	2742	3059	3059	3059	2780	4025	4025	4025	4730	4730	4730	4730	4790	4790
Depth	mm	936	936	936	1044	1044	1044	1044	1036	1036	1036	1162	1162	1162	1162	1902	1902
Height	mm	1693	1693	1693	1848	1848	1848	1898	1870	1870	1926	2051	2051	2051	2051	1541	1541

### High-efficiency units

30XW-P/30XWHP		512	562	712	812	862	1012	1162	1312	1462	1612	1762
<b>Nominal cooling capacity*</b>	kW	512	581	740	789	865	1047	1165	1320	1474	1632	1764
Power input	kW	86	97	122	134	145	174	191	216	242	266	290
EER	kW/kW	5.97	5.99	6.07	5.87	5.96	6.03	6.09	6.12	6.09	6.13	6.08
ESEER part-load performance	kW/kW	6.78	6.79	7.00	7.05	6.98	7.64	7.99	7.72	7.59	7.65	7.18
<b>Heating capacity**</b>	kW	547	621	793	854	924	1110	1246	1411	1584	1752	1872
Power input	kW	113	129	163	182	193	228	253	287	322	361	396
Coefficient of performance (COP)	kW/kW	4.85	4.81	4.87	4.69	4.78	4.86	4.92	4.92	4.92	4.85	4.73
<b>Operating weight</b>	kg	2981	3020	3912	3947	3965	6872	6950	9099	9307	10910	10946
<b>Compressors</b>	Semi-hermetic 06T screw compressors, 50 r/s											
<b>Refrigerant</b>	R-134a											
<b>Capacity control</b>	Pro-Dialog, electronic expansion valves (EXV)											
<b>Evaporator</b>	Shell-and-tube flooded type, maximum operating pressure 1000 kPa, 3/8" NPT drain and vent connections											
<b>Condenser</b>	Shell-and-tube type, maximum operating pressure 1000 kPa, 3/8" NPT drain and vent connections											
<b>Dimensions</b>												
Length	mm	3059	3059	3290	3290	3290	4795	4795	4812	4812	4832	4832
Depth	mm	936	936	1065	1070	1070	1039	1039	1935	1935	2129	2129
Height	mm	1743	1743	1950	1950	1950	1997	1997	1541	1541	1594	1594

\* Standard Eurovent conditions, cooling: evaporator entering/leaving water temp. = 12°C/7°C, condenser entering/leaving water temp. = 30°C/35°C.

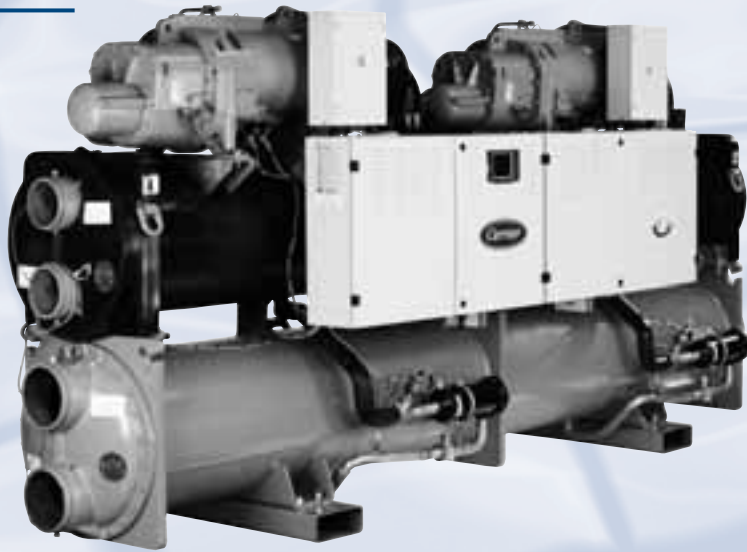
\*\* Standard Eurovent conditions, heating: condenser entering/leaving water temp. = 40°C/45°C, evaporator entering water temp. 10°C, same flow rate as for Eurovent conditions in cooling mode.

### Electrical data, standard units

Standard-efficiency units		452	552	602	652	702	802	852	1002	1052	1152	1252	1352	1452	1552	1652	1702
30XW--/30XWH																	
Nominal power supply	V-ph-Hz	400-3-50 ± 10%															
<b>Control circuit</b>	24 V via the built-in transformer																
<b>Maximum start-up current*</b>																	
Circuit A	A	414	414	414	587	587	587	587	414	414	414	587	587	587	587	587	587
Circuit B	A	-	-	-	-	-	-	-	414	414	414	414	587	587	587	587	587
<b>Maximum power input**</b>																	
Circuit A	kW	134	151	151	184	200	223	223	150	151	151	184	184	200	223	223	223
Circuit B	kW	-	-	-	-	-	-	-	134	151	151	151	184	200	223	202	223
<b>Maximum current drawn (Un)**</b>																	
Circuit A	A	217	242	242	295	317	351	351	242	242	242	295	295	317	351	351	351
Circuit B	A	-	-	-	-	-	-	-	217	242	242	242	295	317	351	317	351
<b>High-efficiency units</b>																	
30XW-P/30XWHP		512	562	712	812	862	1012	1162	1312	1462	1612	1762					
Nominal power supply	V-ph-Hz	400-3-50 ± 10%															
<b>Control circuit</b>	24 V via the built-in transformer																
<b>Maximum start-up current*</b>																	
Circuit A	A	414	414	587	587	587	414	414	587	587	587	587					
Circuit B	A	-	-	-	-	-	414	414	414	587	587	587					
<b>Maximum power input**</b>																	
Circuit A	kW	134	151	184	200	223	134	151	184	184	200	223					
Circuit B	kW	-	-	-	-	-	134	151	151	184	200	223					
<b>Maximum current drawn (Un)**</b>																	
Circuit A	A	217	242	295	317	351	217	242	295	295	317	351					
Circuit B	A	-	-	-	-	-	217	242	242	295	317	351					

\* 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.



WATER-COOLED 400 TO 1800kW  
**AQUAFORCE**<sup>®</sup>

PRO-DIALOG

30XW/XWH WATER-COOLED LIQUID CHILLERS



Pro-Dialog Touch-screen operator interface

## FEATURES

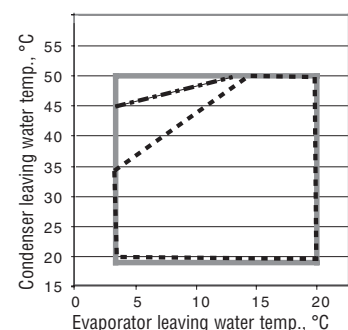
- Sixteen standard-efficiency sizes with nominal cooling capacities from 476 to 1739 kW and nominal heating capacities from 498 to 1867 kW and eleven high-efficiency sizes with nominal cooling capacities from 512 to 1764 kW and nominal heating capacities from 547 to 1872 kW.
- The premium solution for industrial and commercial applications that require optimal performances and maximum quality.
- Two versions: 30XW for air conditioning and refrigeration applications, and 30XWH for heating applications.
- Two efficiency classes: the standard-efficiency 30XW offers an optimised balance of technical and economical aspects and superior energy efficiency, whilst the high-efficiency 30XW-P offers unequalled energy efficiency at minimised operating cost.
- 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 R134a refrigerant with zero ozone depletion potential
- Touch-screen 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.

## OPTIONS AND ACCESSORIES

- Medium and low temperature applications (512, 562, 1012, 1152)\*
- Unit supplied in two assembled parts (1312, 1462, 1612-1762\*)
- No disconnect switch with or without short-circuit protection\*
- Single power connection point (1002-1762)
- Evaporator/condenser pump electrical power/control circuit options (452-1252)\*
- Service valve set\*
- Evaporator with one pass (all sizes)/condenser with one pass (1002-1762)\*
- Condenser insulation (452-602, 1002-1162)\*
- 21 bar evaporator and condenser\*
- Reversed evaporator and condenser water connections\*
- JBus, BacNet and LON gateways\*\*\*
- Various condensing temperature options\*
- Energy Management Module EMM\*\*\*
- Code compliance for Switzerland and Australia\*
- Lead-lag kit\*\*
- Water connection kit for welded or flanged connections\*\*

\* Option \*\* Accessory \*\*\* Option/accessory

### Operating range, standard units



— From approx. 45% to full load  
 - - - Part load limit approx. 35%  
 . . . Minimum load limit approx. 15%