

30HXC

WATER-COOLED SCREW-COMPRESSOR LIQUID CHILLERS



Physical data

30HXC		080	090	100	110	120	130	140	155	175	190	200	230	260	285	310	345	375	
Nominal cooling capacity*	kW	286	312	348	374	412	449	509	541	598	651	699	812	897	985	1106	1204	1300	
Operating weight	kg	2274	2279	2302	2343	2615	2617	2702	2712	3083	3179	3873	4602	4656	4776	5477	5553	5721	
Refrigerant charge**		HFC-134a																	
Compressors		Semi-hermetic, twin-screw																	
Quantity - Circuit A		1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	
Quantity - Circuit B		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	
Capacity control		PRO-DIALOG Plus control																	
No. of control steps		6	6	6	6	6	6	6	6	6	6	8	8	8	8	10	10	10	
Evaporator		Shell and tube with internally finned copper tubes																	
Water connections		Flat flange factory-supplied, to be welded on site																	
Inlet/outlet	in	4	4	4	5	5	5	5	5	5	5	6	6	6	6	8	8	8	
Condenser		Shell and tube with internally finned copper tubes																	
Water connections		Flat flange factory-supplied, to be welded on site																	
Inlet/outlet	in	5	5	5	5	5	5	5	5	6	6	6	8	8	8	8	8	8	

* Standard Eurovent conditions: Evaporator entering/leaving water temperature 12°C and 7°C. Condenser entering/leaving water temperature 30°C/35°C. Evaporator and condenser fouling factor = 0.000044 m² K/W. Not applicable to high condensing temperature units - please refer to electronic selection catalogue.

Electrical data

30HXC		080	090	100	110	120	130	140	155	175	190	200	230	260	285	310	345	375	
Power circuit		400-3-50																	
Nominal power supply (Un)*	V-ph-Hz	400-3-50																	
Control circuit supply		The control circuit is supplied via the factory-installed transformer																	
Nominal power input*	kW	57	62	67	76	80	89	102	112	121	129	140	164	192	195	221	250	263	
Nominal current drawn *	A	101	115	127	143	149	168	190	207	226	234	255	294	337	354	399	448	477	
Maximum starting current, standard unit***	A	181	206	223	249	267	298	333	355	382	442	841	978	1027	1200	1129	1184	1373	
Circuit A**	A	-	-	-	-	-	-	-	-	-	-	712	822	871	1028	844	871	1028	
Circuit B**	A	-	-	-	-	-	-	-	-	-	-	605	715	715	856	844	871	1028	

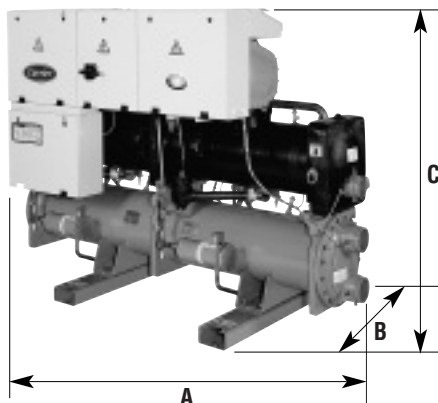
* Standard Eurovent conditions: Evaporator entering/leaving water temperature 12°C and 7°C. Condenser entering/leaving water temperature 30°C/35°C.

** Maximum unit operating current at maximum unit power input.

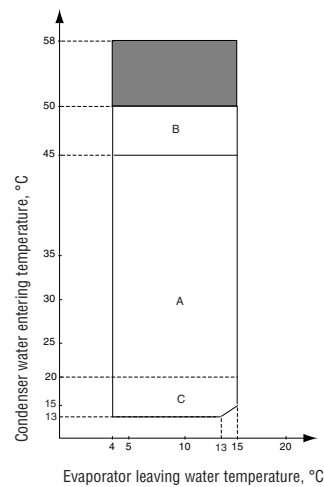
*** Maximum instantaneous starting current (maximum operating current of the smallest compressor(s) + locked rotor current or reduced starting current of the largest compressor)

Dimensions/clearances, mm

30HXC	A	B	C
080-090-100	2558	980	1800
110	2565	980	1850
120-130-140-155	3275	980	1816
175-190	3275	980	1940
200	3903	1015	1980
230-260-285	3924	1015	2060
310-345-375	4533	1015	2112



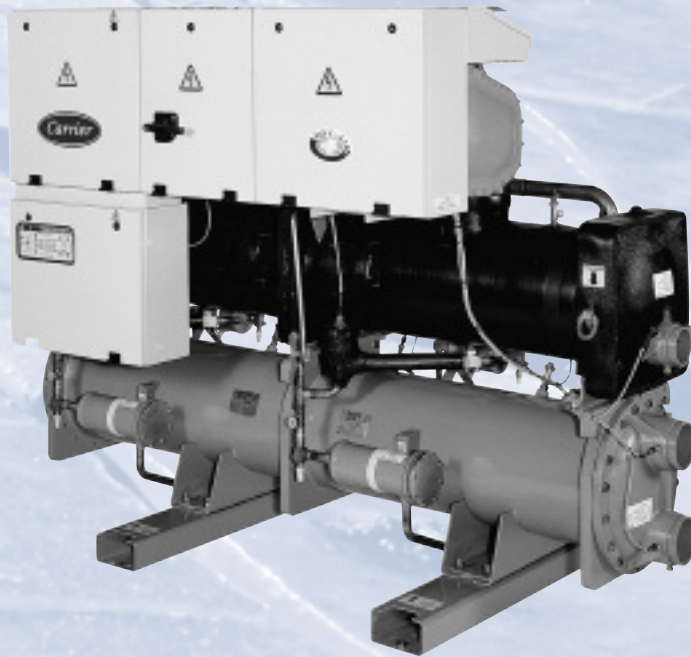
Unit operating range at full load



Notes:

- Evaporator and condenser $\Delta T = 5$ K
 - For start-up at full load with a condenser water entering temperature below 20°C, a three-way valve must be used to maintain the correct condensing temperature
 - Maximum condenser water leaving temperature 50°C (at full load)
- A Standard unit operating at full load.
 B Standard unit operating at reduced load.
 C Units operating with head pressure control with analogue water control valve. For transient operating modes (start-up and part load) the unit can operate down to a condenser entering water temperature of 13°C.

Additional operating range for high condensing temperature units and non-reversible heat pumps.



PRO-DIALOG Plus

GLOBAL CHILLER

FEATURES

- Seventeen sizes with nominal cooling capacities from 286 to 1300 kW.
- PRO-DIALOG Plus control to optimise the efficiency of the refrigerant circuit.
- Ozone-friendly HFC-134a refrigerant, proven, non-toxic, non-flammable.
- Equipped with screw compressors for extremely quiet operation and low vibration levels.
- Control is fully automatic and includes autodiagnosics.
- Two independent refrigerant circuits.
- Multiple compressor concept.
- Series star/delta starter, limiting the start-up current on (30HXC 080-190).
- Easy installation - compact design, fits through a standard door opening. Supplied as a complete package for easy installation. No extra controls, timers, starters or other items to install.
- Single power point (30HXC 080 to 190), and one power point per circuit (30HXC 200 to 375).
- Simple to service: mechanically cleanable evaporator and condenser, twin-screw compressors with minimum routine service.
- Very low temperature option available for part of the range, allows evaporator leaving water temperatures down to -10°C .



PRO-DIALOG Plus operator interface



Carrier twin-screw compressor

OPTIONS/ACCESSORIES

- Compressor suction valve (option)
- Evaporator or condenser with one pass less (option)
- Evaporator or condenser maximum water-side operating pressure of 21 bar (option)
- RS485 communications interface with JBus, BacNet, LON protocol (accessory)
- Electronic compressor starter (30HXC 200-375) (option)
- Electrical protection to IP44C (option)
- High condensing temperature unit and non-reversible heat pump (option)
- Reversed evaporator or condenser water inlet/outlet (option)
- Tropicalized control box (option)
- Disassembled unit (option)
- Evaporator or condenser water pump starter (option)
- Three-way control valve, condenser (option)
- Heat exchanger water connection kit (accessory)
- Low evaporator leaving water temperatures $< +4^{\circ}\text{C}$ to $> -6^{\circ}\text{C}$ (option).
- Very low evaporator leaving water temperatures $< 0^{\circ}\text{C}$ to $> -10^{\circ}\text{C}$ (option).