



United Technologies
turn to the experts 

30XW

Water-Cooled Screw Chiller

Enhanced cooling capacity with excellent efficiency

AQUAFORCE[®]

Cooling capacity: 250kW-3467kW



30XW

Water-Cooled Screw Chiller



High efficiency

- Certified to Air-Conditioning, Heating, and Refrigeration Institute (**AHRI**) **Standard 550/590**.
- New generation 06T high efficiency twin screw compressor, which has sliding valves with stepless regulation to precisely match capacity and building load. This compressor's full-load efficiency can reach 0.57 kW/ton and it delivers exceptional performance even when operating at its minimum capacity of **4%**.
- Flooded-type heat exchanger with high-performance tubing to enhance heat transfer efficiency of both water and refrigerant.
- Electronic expansion valves (EEV) with a **4260**-step stepper motor to accurately control refrigerant flow and optimise operation.
- Multiple-compressor system that flexibly loads and unloads compressors to maximize system efficiency. This achieves **7%** higher overall integrated part load value (IPLV) than a single compressor unit, effectively reducing operating cost.



Environmental stewardship

- Non-ozone depleting refrigerant **HFC-134a**.
- Excellent cooling performance and low energy consumption, reducing carbon dioxide emissions.



Easy installation

- Footprint as small as **2.6m²**, **30%** less than conventional units.
- With a width of less than 1 m, easily fits through a standard door in new builds and energy-saving retrofit projects.
- Victaulic connections on the evaporator and condenser water pipes, for convenient on-site installation.



Intelligent control

- Intelligent **Pro-Dialog7** controls, with an LCD interface and English language menus to make operations simpler and faster.
- Energy-saving restart during transitional seasons (spring and autumn), when the chiller automatically adjusts the output water temperature to reduce operating cost by **2%**.
- Integrates with the **CCN** (Carrier Comfort Network) to provide centralised control.
- Supports standard protocols (such as JBus, BACNet, LON Works and ModBus) to allow building automation.



Reliable operation

- Patented line-design screw rotors and **microprocessor**-based control to guarantee accurate meshing and enhance service life.
- Reduced number of moving parts, with compressor rotors directly driven by the motor, to lower the failure rate and enhance reliability.
- Refrigerant-cooled motor with a low operating temperature to improve reliability.
- Multiple-compressor design ensures each compressor has a backup.
- 100% performance testing of every chiller prior to leaving the factory.



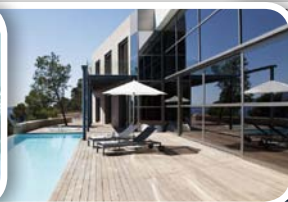
Wide applications

- Water source heat pumps application maximum temperature up to **50°C/63°C**
- Ice storage application with temperature down to **-6°C/-12°C** to take advantage of off-peak electrical pricing and reduce operating cost
- Suitable for **LEED**-certified buildings and green projects, including underground rail systems, five-star hotels and high-end offices.

Wide variety of green applications



Underground urban rail systems



Luxury hotels



Grade A offices



Industrial plants

Newly enhanced cooling capacity: 250kW-520kW

Performance data

		30XW																	
Model		0262	0312	0352	0412	0422	0452	0502	0552	0612	0652	0692	0702	0802	0852	0902	0912	1012	
Capacity	kW	250	304	367	424	453	469	520	538	610	662	697	715	772	826	852	881	1048	
	USRT	71	86	104	121	129	133	148	153	173	188	198	203	220	235	242	251	298	
COP		kW/kW	5.28	5.31	5.27	5.29	5.26	5.45	5.29	5.48	5.28	5.45	5.20	5.49	5.33	5.52	5.83	5.35	5.23
Compressor	Circuit A	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Circuit B	No.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Min. capacity		%	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	8	
Shipping weight (with refrigerant)		kg	2298	2359	2394	2792	2792	2946	2983	3032	3700	3770	3700	3770	3778	3958	3977	4000	5402
Operating weight		kg	2002	2063	2098	2518	2518	2580	2617	2666	3426	3486	3426	3486	3493	3711	3923	3946	5109
Dimensions	Length	mm	2742	2742	2742	2746	2746	2746	2746	2746	3056	3056	3056	3056	3056	2780	3080	3080	4008
	Width	mm	960	960	960	970	970	970	970	970	1119	1119	1119	1119	1119	1085	1135	1135	1050
	Height	mm	1568	1568	1568	1694	1694	1693	1693	1693	1849	1849	1849	1849	1849	1900	1900	1900	1846

		30XW																
Model		1052	1152	1262	1402	1502	1602	1712	2052	2302	2602	2902	3052	3302	3452			
Capacity	kW	1075	1128	1245	1436	1501	1609	1709	2036	2287	2594	2887	3046	3323	3467			
	USRT	306	321	354	408	427	457	486	579	650	738	821	866	945	986			
COP		kW/kW	5.61	5.57	5.73	5.65	5.71	5.77	5.75	5.66	5.66	5.87	5.90	5.80	5.82	5.80		
Compressor	Circuit A	No.	1	1	1	1	1	1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1		
	Circuit B	No.	1	1	1	1	1	1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1		
Min. capacity		%	8	8	8	8	8	8	4	4	4	4	4	4	4	4		
Shipping weight (with refrigerant)		kg	5491	5781	6994	7549	7664	8955	9373	11246	11894	14878	16034	15994	19267	19295		
Operating weight		kg	5198	5553	6794	7352	7566	8535	8953	10870	11648	14842	16140	16100	18729	18757		
Dimensions	Length	mm	4008	4008	4695	4695	4695	4761	4761	4593	4602	5321	5359	5358	5422	5422		
	Width	mm	1050	1050	1188	1231	1231	1338	1338	2570	2570	2846	2932	2932	3066	3066		
	Height	mm	1846	1896	2064	2064	2064	2307	2307	1846	1896	2064	2064	2064	2307	2307		

		30XW-P																
Model		0532P	0552P	0702P	0802P	0852P	0902P	1052P	1152P	1262P	1402P	1412P	1652P	1712P				
Capacity	kW	536	572	730	784	852	966	1075	1146	1253	1466	1461	1616	1747				
	USRT	152	163	207	223	242	275	306	326	356	417	415	459	497				
COP		kW/kW	5.93	5.97	6.02	5.86	5.90	5.95	5.98	5.94	6.14	6.12	6.04	6.17	6.17			
Compressor	Circuit A	No.	1	1	1	1	1	1	1	1	1	1	1	1	1			
	Circuit B	No.	-	-	-	-	-	1	1	1	1	1	1	1	1			
Min. capacity		%	15	15	15	15	15	8	8	8	8	8	8	8	8			
Shipping weight (with refrigerant)		kg	3249	3312	4331	4349	4379	6190	6238	6749	8633	9418	9324	9418	9418			
Operating weight		kg	2962	3025	4155	4173	4204	6003	6001	6684	7963	9368	8904	9368	9368			
Dimensions	Length	mm	3055	3055	3286	3286	3286	4695	4695	4694	4761	4783	4761	4783	4783			
	Width	mm	1008	1008	1135	1135	1135	1220	1070	1070	1338	1985	1338	1985	1985			
	Height	mm	1743	1743	1949	1949	1949	1947	1947	1998	2197	1520	2307	1520	1520			

Note: 1. Based on AHRI conditions:

Evaporator leaving water temperature of 6.7°C, 0.043 l/s·kW, fouling factor of 0.018m² K/kW

Condenser entering water temperature of 29.4°C, 0.054 l/s·kW, fouling factor of 0.044m² K/kW

2. Evaporator and condenser feature two-pass design and the standard chiller water pressure is 1.0 MPa.



Carrier improves the world around us; Carrier improves people's lives; our products and services improve building performance; our culture of improvement will not allow us to rest when it comes to the environment.

