

XTW

WATER-CONDENSED CHILLERS WITH OIL-FREE CENTRIFUGAL COMPRESSORS

500–2400 kW



XTW offers the most innovative, efficient water condensed chiller solution. A meticulous choice of components and equipment layout has led to **a solution with numerous advantages as regards both energy performance and noise emissions**. The special component layout lets users maximise **the advantages provided by the oil-free centrifugal compressor** (maximum heat exchange efficiency, ultra-high efficiency at partial loads, reduced inrush current) and **the compact flooded exchangers** (minimal approach temperature between water and refrigerant, lower load compared to traditional flooded units). The larger sizes have a double refrigerant circuit configuration **and high system efficiency and redundancy**.

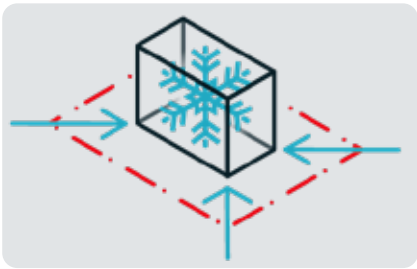
New refrigerant R1234ze

XTW range water condensed chillers use **the new HFO refrigerant with low GWP** (GWPR1234ze=6) as part of a wider Green Technology approach. (Also available with R134a refrigerant.)

Top-class thermodynamic performance!

An effective combination of “oil-free” centrifugal compressor and flooded exchangers **allows maximisation of thermal exchange efficiency**; this is largely due to the absence of oil in the circuit and the reduced approach temperature between water and refrigerant (1K) as a result of no overheating in the evaporator. Cycle efficiency is enhanced by the centrifugal compressor, **which features ultra-high efficiency at partial loads**, and by the economiser, which **ensures intermediate regenerative exchange in the circuit**.

- Refrigerant R1234ze and R515B
- Refrigerant leak sensor
- Fast restart technology
- Water connections with Vic-Taulic quick couplings
- Modulation and supervision managed by the software
- Low noise set-up with compressor insulation
- Ductable electrical panel (separate electrical panel ventilation)



Reduced footprint

Careful assessment of component layout and sizing **allows the system footprint to be reduced**, freeing up more space within the facility and during handling operations.



“Silent” layout

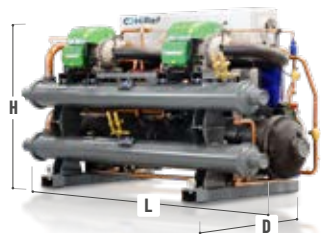
The piping layout is designed and sized to ensure low noise emissions under all working conditions and **mitigate Coriolis force acceleration**. The use of high performance sound absorbing material in the **Low Noise configuration** results in a further **reduction of the compressor noise emissions**.

Two-level evaporation

The evaporator with spray technology and single pass on the water side **guarantees up to 5% more efficiency than traditional shell and tube versions**, thanks to the permanently countercurrent heat exchange on two separate evaporation levels - and with a **smaller refrigerant charge than a standard flooded shell and tube model**.

24 hour operation

The configuration with dual refrigerant circuit and dual centrifugal compressor with permanent magnets **guarantees high operational reliability**, making the XTW range particularly suitable **for installation in Data Centers or wherever high-value, continuous cycle industrial processes are carried out**.



XTW		0500	0600	0902	1202	1403	1603	1904	2254
Cooling: User water temperature 30/20°C, source water temperature 40/45°C									
Cooling capacity	kW	500	600	900	1200	1400	1600	1900	2400
Total absorbed power	kW	77	92.1	134	184.2	210	234.8	286.7	368.5
EER		6.49	6.51	6.72	6.51	6.67	6.81	6.63	6.51
Dimensions [LxHxD]	mm	4000x2530x1800		5000x2530x1800		5000x2530x1950		5500x2530x1950	

Also available with 60 Hz power supply | Declared data with R1234ze refrigerant