

# XSA

## WATER CONDENSED CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS

54-535 kW



The XSA range consists of a wide range of units available in cooling only (D), heating only (W) and reversible heat pump (H) versions. The many refrigerating configuration options, together with specific construction choices, make XSA units suitable for a wide range of plant engineering requirements: **redundancy, efficiency at partial loads, compactness to make the most of limited space in technical enclosures, low noise levels, auxiliary unit control and easy installation.** The units of the XSA range **feature high nominal efficiency**, including at seasonal and partial loads, which makes them **the best choice** among small and medium-power water-condensed units.

Available versions:

- D** Cooling only unit, suitable for combined use with Dry Cooler
- W** Heating only unit
- H** Reversible heat pump



### Maximised energy efficiency

The units of the XSA range all feature **high energy efficiency ratings up to class A**, both in cooling and in heating mode. This is thanks to **a careful selection of internal components**, which also includes the adoption of **innovative high efficiency Scroll compressors with direct start, permanent magnet motor technology.** The high modulation range guaranteed by the multi-Scroll technology allows cooling/heating requirements to be met at any time, **minimising energy waste and increasing seasonal efficiency.** The high degree of partial load operation (**up to 11% of the rated power**), combined with water flow rate modulation (**up to 20% of the nominal flow**) allows **operating costs and system maintenance costs to be reduced.**

- Electronically controlled expansion valve supplied as standard
- Optional Vic-Taubic hydraulic couplings
- Available in Standard and Low Noise versions
- Programmable electronic control as part of standard equipment
- Smart management of several units in parallel
- Suitable for coupling to Polymorph module (PLM)
- Compliance with ERP regulations



### Plate heat exchangers

The XSA range uses braze-welded plate exchangers with asymmetrical channels, suitable for the use of high and medium pressure refrigerant gases. The configuration with asymmetrical channels **allows high exchange efficiencies to be reached while maintaining pressure drops low** on the water side - **reducing pumping costs** at both full and partial load.



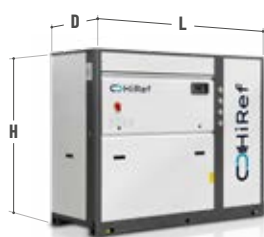
### More space in the heating unit

The possibility of installing the pumping units directly on the machine **avoids having to install external hydronic modules with the resulting coupling costs**. This, together with the adoption of compact plate heat exchangers directly facing the right side panel of the unit, guarantees **maximised unit compactness to make the most of the available space in the thermal power plant**.



### Integrated hydronic module

XSA units are available with **integrated hydronic module** (optional), which includes user side and/or source side circulation pumps.



XSA		061H	062H	071H	072H	081H	082H	091H	092H	111H	112H	131H	132H	141H	142H	144H	161H
User water values 12/7°C, 40/45°C source water side																	
Cooling capacity	kW	54.3	54.4	60.9	61	68.7	68.8	80.5	80.6	93.1	93.3	104.9	105.1	119.3	119.3	92.5	132.6
Total absorbed power	kW	15.4	15.4	17.2	17.2	19.2	19.2	23.3	23.2	26.9	26.8	31	30.9	35	35	25.3	39.6
EER		3.52	3.54	3.53	3.55	3.58	3.58	3.46	3.47	3.46	3.47	3.38	3.4	3.4	3.41	3.66	3.35
User water values 40/45°C, 12/7°C source water side																	
Thermal power	kW	69.3	69.4	77.7	77.7	87.5	87.5	103.1	103.2	119.3	119.4	135.1	135.2	153.4	153.4	117.1	171.1
Total absorbed power	kW	15.4	15.4	17.2	17.2	19.2	19.2	23.3	23.2	26.9	26.8	31	30.9	35	35	25.3	39.6
COP		4.49	4.51	4.51	4.52	4.55	4.56	4.43	4.45	4.43	4.45	4.35	4.37	4.37	4.38	4.63	4.32
SCOP		4.9	5.04	4.91	5.07	4.95	5.07	4.85	5.01	4.78	4.86	4.74	4.89	4.75	4.88	5.24	4.75
Sound power [Standard]	dB(A)	77	77	78	78	81	81	81	81	81	81	82	82	83	83	81	85
Sound power [Low noise]	dB(A)	74	74	75	75	78	78	78	78	78	78	79	79	80	80	78	82
Dimensions [LxHxD]	mm	1174x1930x772									1644x1930x772						2374x1930x877

XSA		162H	164H	181H	182H	184H	204H	214H	243H	244H	283H	284H	314H	344H	374H	424H	484H
User water values 12/7°C, 40/45°C source water side																	
Cooling capacity	kW	132.7	136.9	174.4	174.6	162	173.7	185.5	199.3	210.2	259.1	236.7	261.3	302.3	343.4	371.6	407.1
Total absorbed power	kW	39.5	39	51.6	51.6	46.2	50.3	54.5	59.1	62.1	79.1	71.3	81.1	93.5	105.8	113.8	132
EER		3.36	3.51	3.38	3.39	3.51	3.45	3.4	3.37	3.38	3.28	3.32	3.22	3.23	3.24	3.26	3.08
User water values 40/45°C, 12/7°C source water side																	
Thermal power	kW	171.2	174.8	224.6	224.7	206.9	222.7	238.3	256.8	270.4	335.4	305.6	339.8	392.9	445.9	481.7	534.6
Total absorbed power	kW	39.6	39	51.7	51.6	46.2	50.4	54.5	59.2	62.1	79.1	71.3	81.1	93.5	105.9	113.9	132
COP		4.33	4.48	4.35	4.36	4.48	4.42	4.37	4.34	4.35	4.24	4.29	4.19	4.2	4.21	4.23	4.05
SCOP		4.9	5.18	4.78	4.94	5.18	5.09	5	5.03	5.03	4.98	4.99	4.98	4.97	5.02	5.02	4.84
Sound power [Standard]	dB(A)	85	84	87	87	84	84	84	86	85	88	86	88	89	90	89	91
Sound power [Low noise]	dB(A)	82	81	84	84	81	81	81	83	82	85	83	85	86	87	86	88
Dimensions [LxHxD]	mm	1644x1930x772	2374x1990x877	1644x1930x772						2374x1990x877							