



WSW Techno

WATER COOLED CHILLER



A BRAND OF **STULZ**
COSMOTEC
INDUSTRIAL COOLING

Company Profile

Founded in 1989, Cosmotec in 2001 joined the Stulz GmbH group with head offices in Hamburg. In 2004 Cosmotec SpA changed its name to Stulz SpA.

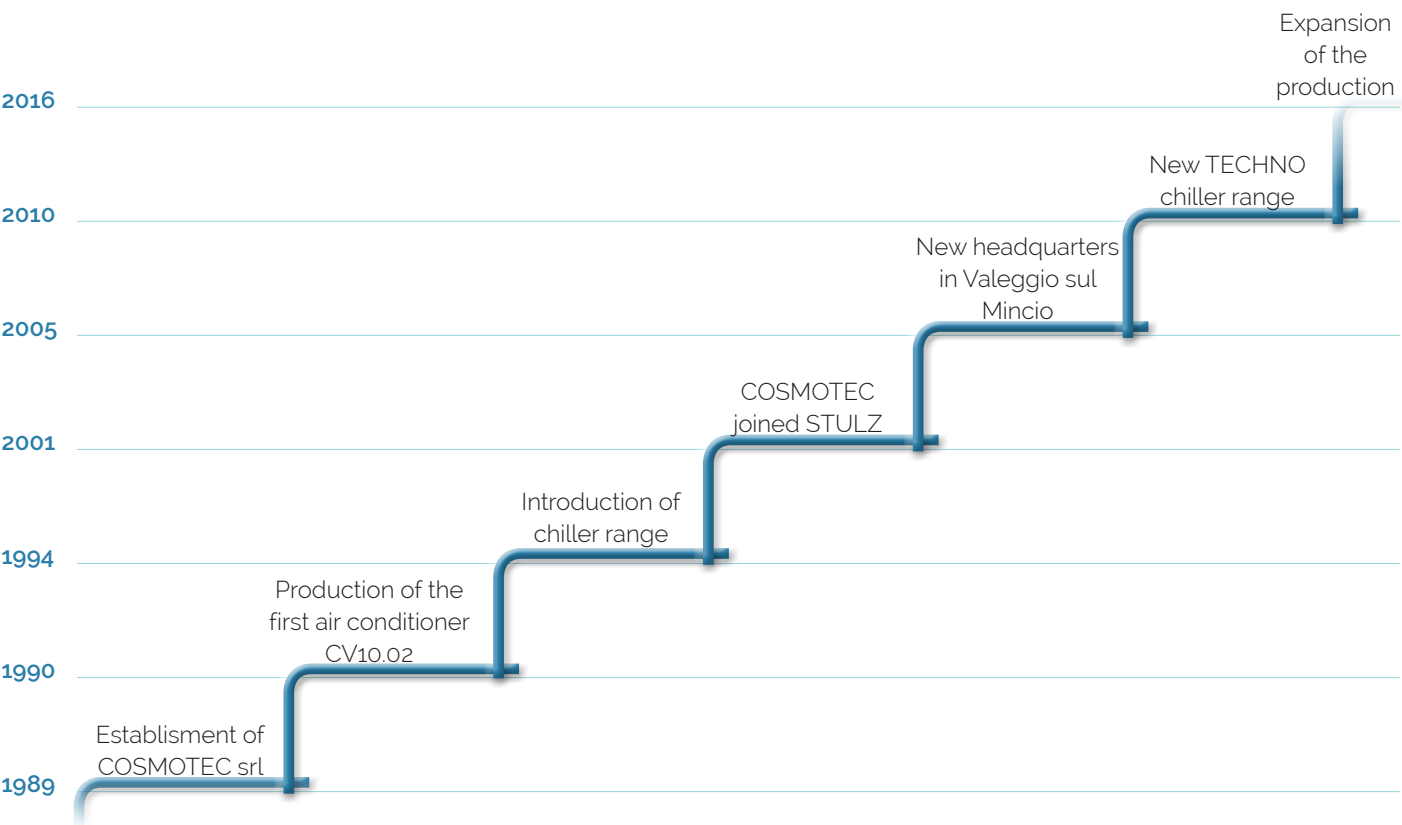
STULZ SpA immediately emerged as a major force in the air conditioning and refrigeration production field for the industrial and ICT market.

Innovation, flexibility and respect for the environment are the Stulz quality factors behind ISO9001 certification.

The Integrated Quality, Environment, and Safety System reaches the goal to ensure the achievement of the highest levels of quality, reliability, economic competitiveness of the product, with the maximum respect for the Environment, Health and Safety of workers and customers.

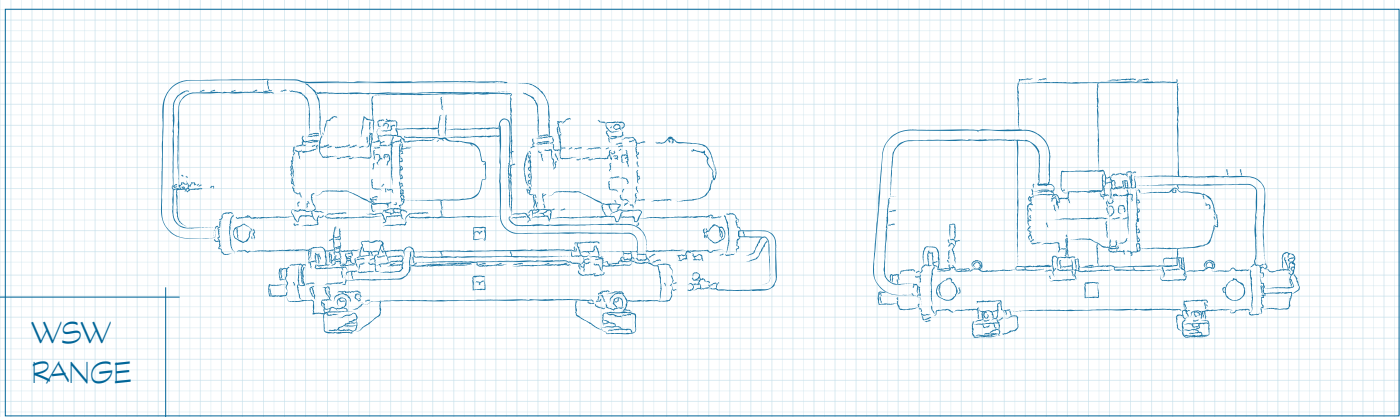
All the activities related to the Integrated System are aimed to the Continuous Improvement of the Quality, Environment and safety standards, with the cooperation of every company resource, suppliers and customers.

The Integrated Quality, Environment, and Safety System include the ISO14001 (Environmental Management System) and ISO50001 (Energy Management System) certifications.



Cosmotec has commercial partners and technical assistance centre worldwide; this allow us to ensure Timeliness and completeness of replies to the Customer. Thanks to the advice of technical experts and to installation and maintenance services, Cosmotec is by your side along the complete life cycle of the product.

WSW Techno Range



WSW Techno range expands the series of high efficiency chillers for industrial, IT and comfort applications. WSW are chillers for indoor installation, specifically designed to have high performance with small footprint.



Energy Efficiency

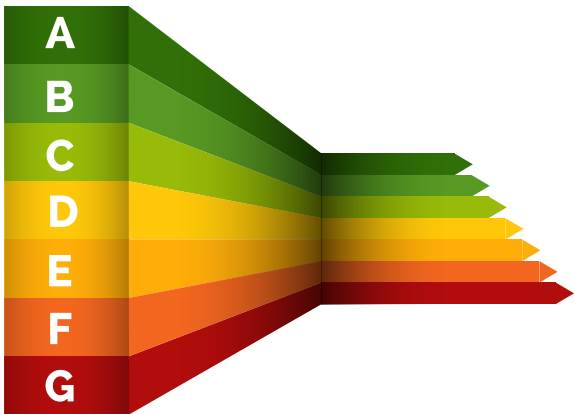
The Techno units are designed for a high energy class (Class A or B) or to work in extreme environmental conditions. They also come in very precise configurations with temperature controls dedicated to the application.

WSW Techno units closely match all environmental and load conditions, achieving a high seasonal efficiency (ESEER), even higher than 5. High ESEER values lead to significant energy savings.

Gas R134a

All units of the WSW Techno range use refrigerant gas R134a, which ensures a higher cooling capacity with low footprint of the machine.

The R134a assures a very low environmental impact, no impact on the ozone and a greenhouse gas coefficient lower than the usual refrigerants.



Maximum Reliability

The WSW Techno units are designed to guarantee the integrity during the transport both on road and in container, thanks to their sturdiness and flexibility. The components assembly is realized to ensure the maximum reliability and accessibility during the maintenance.


The double refrigerant circuit with semi-hermetic screw compressors guarantees the best performance at different loads, paying particular attention to intensive uses (h24/365) and providing extra durability.

Applications

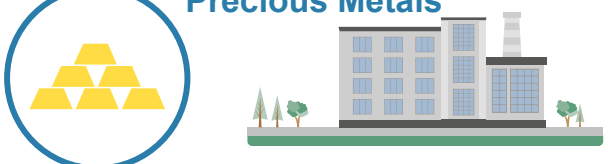
One technology, many uses

Process Cooling & Industrial applications

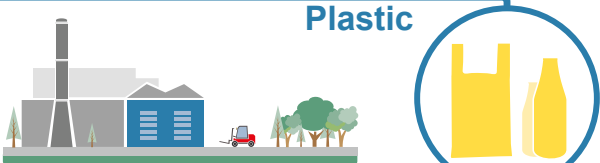
Food & Beverage




Precious Metals



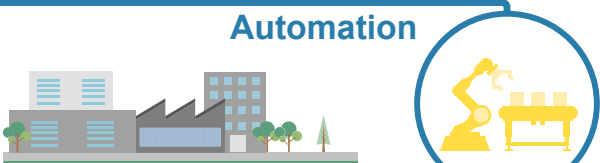
Plastic




Oil & Gas



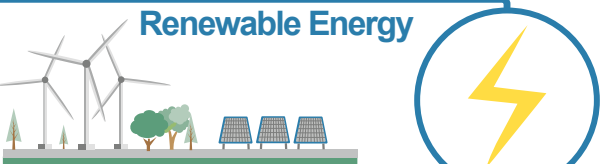
Automation




Aerospace



Renewable Energy



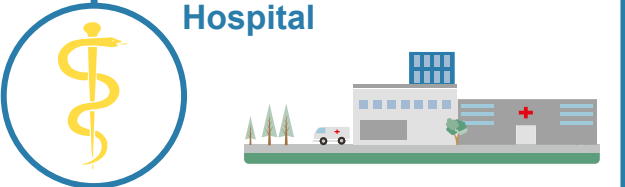
Automotive



Air ambient temperature: -20°C / +45°C Water inlet temperature: +0°C / +30°C Water outlet temperature: -5°C / +25°C

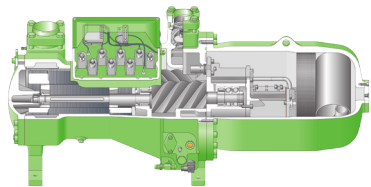
Comfort

Hospital



Air ambient temperature: -20°C / +45°C Water inlet temperature: +12°C / +22°C Water outlet temperature: +7°C / +18°C

Overview



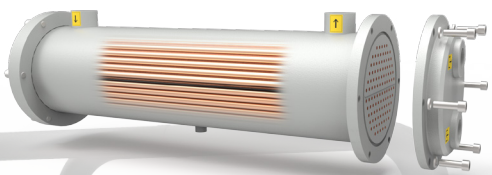
SCREW COMPRESSOR The heart of WSW Techno

State of the art compressors, able to achieve high compression ratios with reduced consumption.
Compressor with part-winding (WSW080-250, except WSW140) or star-delta (WSW140, WSW265-560) starts



ELECTRICAL PANEL Protection & Accessibility

Large electric panel to allow installation of all options designed, installed in the front side of the chiller.
Double or Triple door, ventilated, equipped with external power switch and display to manage the chiller operating.

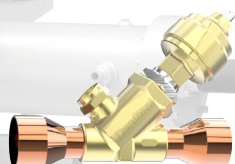


CONDENSER Designed for the best performance

Double passage Shell & Tube condenser coils are made in carbon steel and inner pipes in copper.
Externally fully treated with epoxy powders with same colour of the chiller. Victaulic® hydraulic connections for a quick installation.
The small dimension of the copper internal pipes maximizes the heat exchange from the refrigerant to water.

EVAPORATOR Designed for the best performance

Shell&Tube evaporator with double cooling circuit and mono circuit water side, disposed in countercurrent flow to maximize the heat exchange between the refrigerant and the fluid, while keeping pressure losses very low on both circuits.

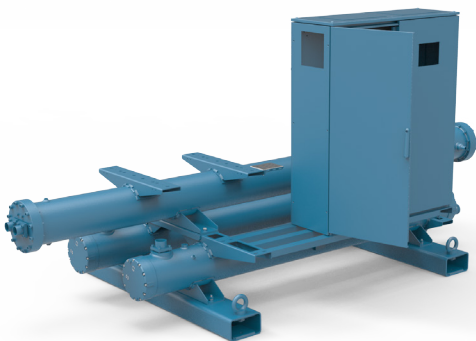


EXPANSION VALVE Quality in every component

The valves optimize the thermal exchange into the evaporator, preserving the upstream and downstream components from high temperatures or icing.

DISPLAY TOUCH Full control one touch away

The user interface to the electronic controller C2020 is a 7" colour touch screen display, with synoptic useful menus. All the chiller's data, warnings and alarms will be shown on the display. The menus are available in many languages: Italian, German, English, French, Russian, Spanish.



STRUCTURE Made to be strong

Full metal structure to ensure the resistant of the structure also during the movement operations.
Corrosion resistant parts guarantee for all the fixing small parts.

Technical Data

Standard version

CODE	M.U.	WSW080	WSW090	WSW110	WSW125	WSW140	WSW160	WSW180	WSW220
Cooling capacity (¹)	kW	230	286	310	352	429	459	570	616
Absorbed power ca. (²)	kW	45	55	60	69	83	90	110	120
Refrigerant gas		R134a							
Refrigerant gas Charge	kg	61	76	82	93	113	15+15	75+75	81+81
No. Cooling circuits / No. Compressors		1 / 1					2 / 2		
Power supplies	V - Hz	400/3/50 - 460/3/60							
Height x Width x Depth	mm	1880x1340x3010		1880x1460x3306	1905x1340x3790	1905x1340x3790	1970x1871x4416	1970x1871x4916	2100x1871x4558
Shipping weight	Kg	2625	2992	3029	3166	3640	3818	4420	4735

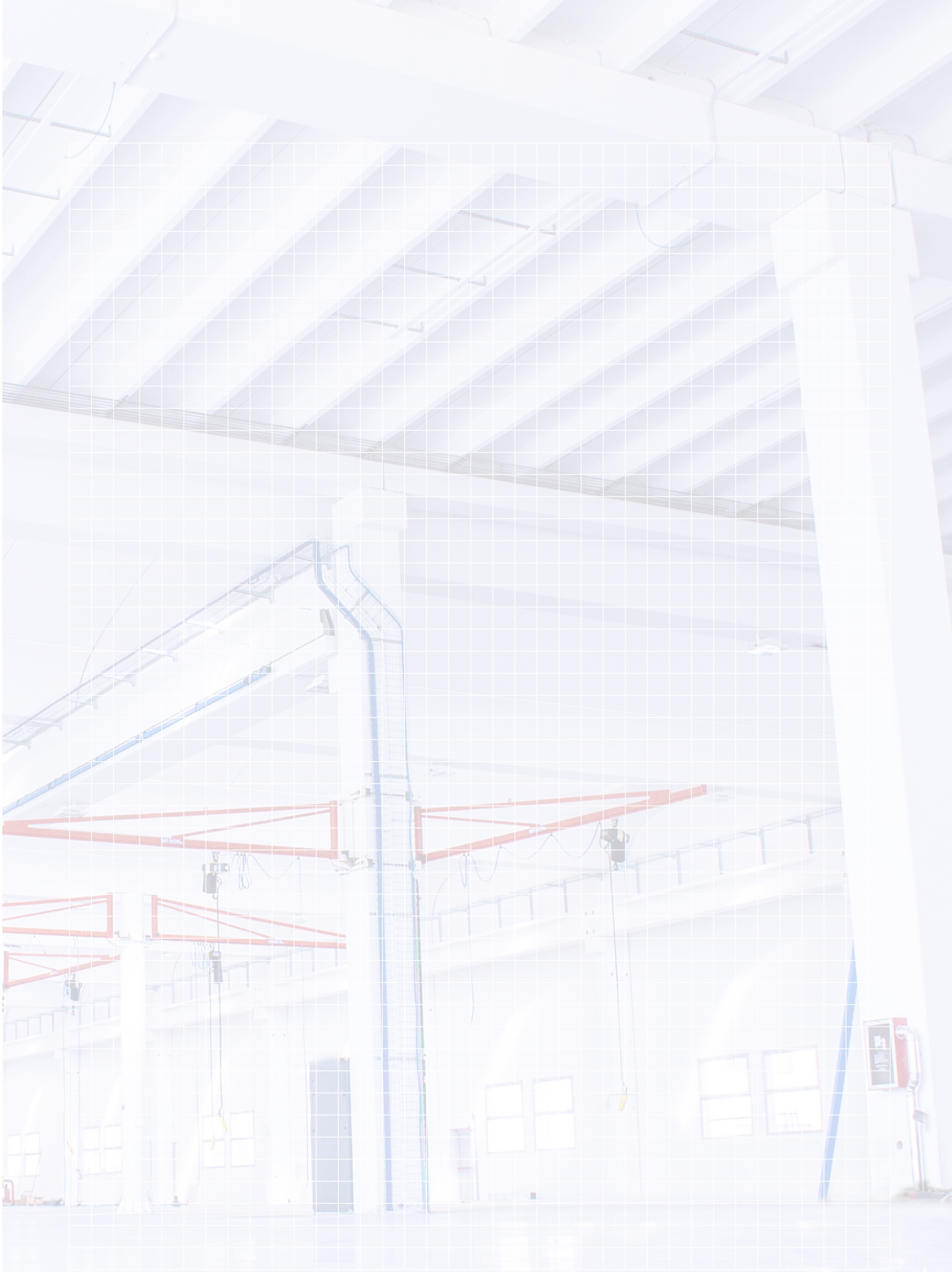
CODE	M.U.	WSW250	WSW265	WSW280	WSW320	WSW360	WSW420	WSW480	WSW560
Cooling capacity ⁽¹⁾	kW	704	780	856	974	1104	1261	1376	1529
Absorbed power ca. ⁽²⁾	kW	139	154	167	189	213	240	272	300
Refrigerant gas		R134a							
Refrigerant gas Charge	kg	92+92	103+103	113+113	128+128	145+145	160+160	180+180	200+200
No. Cooling circuits / No. Compressors		2 / 2							
Power supplies	V - Hz	400/3/50 - 460/3/60							
Height x Width x Depth	mm	1970x1871x4916	1986x1871x5084	1986x1871x4745	1993x1931x4856	2026x1891x5278	2129x1951x4583	2165x1936x5096	2165x1931x5390
Shipping weight	Kg	5069	5555	6073	6487	6736	7194	7576	7800

Low Noise version

CODE	M.U.	WSW080SL	WSW090SL	WSW110SL	WSW125SL	WSW140SL	WSW160SL	WSW180SL	WSW220SL
Cooling capacity ⁽¹⁾	kW	230	286	310	352	429	459	570	616
Absorbed power ca. ⁽²⁾	kW	45	55	60	69	83	90	110	120
Refrigerant gas		R134a							
Refrigerant gas Charge	kg	61	76	82	93	113	15+15	75+75	81+81
No. Cooling circuits / No. Compressors		1 / 1					2 / 2		
Power supplies	V - Hz	400/3/50 - 460/3/60							
Height x Width x Depth	mm	1880x1340x3010		1880x1460x3306	1905x1340x3790	1905x1340x3790	1970x1871x4416	1970x1871x4916	2100x1871x4558
Shipping weight	Kg	2650	3017	3054	3190	3665	3868	4470	4785

CODE	M.U.	WSW250SL	WSW265SL	WSW280SL	WSW320SL	WSW360SL	WSW420SL	WSW480SL	WSW560SL
Cooling capacity ⁽¹⁾	kW	704	780	856	974	1104	1261	1376	1529
Absorbed power ca. ⁽²⁾	kW	139	154	167	189	213	240	272	300
Refrigerant gas		R134a							
Refrigerant gas Charge	kg	92+92	103+103	113+113	128+128	145+145	160+160	180+180	200+200
No. Cooling circuits / No. Compressors		2 / 2							
Power supplies	V - Hz	400/3/50 - 460/3/60							
Height x Width x Depth	mm	1970x1871x4916	1986x1871x5084	2060x1871x4745	2050x1931x4856	2100x1891x5278	2202x1951x4583	2232x1936x5096	2232x1931x5390
Shipping weight	Kg	5119	5605	6123	6537	6786	7244	7626	7850

⁽¹⁾ Evaporator water (in/out) 12/7 °C; Condenser water (in/out) 35/30 °C. Fluid: water
⁽²⁾ Unit at full capacity. According to ISO 3744. Pumps contribution is not considered.





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