

Chiller, Close control and Water terminals

Air Conditioning

Light Commercial, Commercial and Industrial



Index

Systemair						2	
Product Range						4	
Application						6	
Air Cooled Chiller, Heat Pumps						7	
AQH DCI 20-30			20-29 kW		19-26 kW	 410A	8
AQL 20-35			19-36 kW			 410A	10
AQL 40-75			40-76 kW			 410A	12
AQH 20-35			18-33 kW		17-33 kW	 410A	16
AQH 40-75			36-71 kW		40-77 kW	 410A	18
AQVSL 85-160			82-157 kW			 410A	22
AQVSH 85-160			75-152 kW		83-167 kW	 410A	26
AQVL 85-140			84-137 kW			 410A	30
AQVH 85-140			81-129 kW		92-146 kW	 410A	34
VLS 524-1204			137-308 kW			 410A	38
VLH 524-1204			134-300 kW		150-336 kW	 410A	44
AQWL 1404-2406			380-634 kW			 410A	50
AQWH 1404-2406			360-602 kW		418-702 kW	 410A	56
AQSL 2612-4212			602-908 kW			 134a	62
SLS STD/HE 1402-8404			293-1687 kW			 134a	68
Water Cooled Chiller, Heat Pumps and Condenserless						85	
WQL/WQH/WQRC 20-190			21-193 kW		23-211 kW	 410A	86
WQL/WQH/WQRC 524-1204			150-380 kW		170-420 kW	 410A	94
RWC/RWR 170-360			161-312 kW			 407C	96
SWS/SWR 1602-4802			272-1118 kW			 134a	99
Hydrokit HPT						104	
Condensing Unit						107	
AQC 40-75			43-85 kW			 410A	108
AQVC 85-140			92-151 kW			 410A	112
VLC 524-1204			154-347 kW			 410A	116
AQWC 1404-2406			428-715 kW			 410A	122
Close control						127	
CW			5-153 kW		Chilled water		128
CD			10-22.1 kW		 407C		129
MD			18.3-64.1 kW		 407C		130
CG			9.4-56.2 kW		 407C		131
Water Terminals						133	
Fan coils & Cassette						134	
SYSCOIL, SYSCOIL SLIM, SYSCOIL MINI, SYSCASSETTE, SYSDUCT, SYSWALL							
Chilled Beam						148	
CIRRUS, STRATUS							

Systemair

The straight way

The straight way was our first production idea and led to the circular duct fan. Today it represents our ambition to simplify the life of our customers. Stocked products are delivered in Europe within 24 hours from local warehouses and within 72 hours from distribution centres. High product quality, correct technical data and fast deliveries are always our main focus.

Systemair

Systemair was established in Sweden in 1974 and is today the parent company in an international group with 60 subsidiaries and approximately 3000 employees. The Group's head office and largest production plant is located in Skinnskatteberg, Sweden with some 400 employees and a floor area of 50.000 m².

Production

We are proud of our production units. The aim has been to have both effective production of bulk products and, at the same time, an efficient and flexible approach to producing small volumes. This has steered our choice of machinery and how we plan our production, with focus on the working environment. Our premises are light and pleasant and we invest in tools that facilitate work and provide our employees with a safe and efficient workplace.

Technical data

Our development centre in Skinnskatteberg is one of the most modern in Europe for airflow, acoustic, efficiency and low velocity measurements on air terminal devices, etc. All measurements are performed in compliance with applicable standards as set out in AMCA and ISO.

Quality and environment

Systemair is certified according to ISO 9001 and ISO 14001. Our quality system allows us to continuously improve our products and our customer service. Certification means that we have undertaken to minimise our environmental impact. We always take the environment into consideration when choosing sub-suppliers, materials, production methods, etc. An important factor is that we continuously work to reduce our energy consumption and reduce waste. Through increased recovery and heightened awareness we have been able to reduce our waste by 90%. Quality and environment management systems are under continuous development. These are audited twice a year by the certification body BVQI (Bureau Veritas Quality International).

Detailed product information can be found on our website, www.systemair.com.

Dal, Eidsvoll – Norway

In Eidsvoll, Norway we manufacture air handling units for the Norwegian market. The Norwegian warehouse for fans is also located here.

Bouctouche – Canada

In Bouctouche, Canada we primarily produce ventilation products for the North American market.

Kansas City – USA

In Kansas City we produce ventilation products for the North American market.



Barlassina (Italy). Air or Water cooled Chiller & Heat Pump, cooling capacity till 1.690 kW.

Skinnskatteberg – Sweden

Main plant

The main plant in Skinnskatteberg houses one of the company's three central warehouses and the largest production facility as well as the group's head office. Fans and accessories are produced here as stock items.

Klockargården

Systemair's compact air handling units are made at Klockargården in Skinnskatteberg. Frico's central warehouse of approximately 8.000 m² is also located here.

Hässleholm – Sweden

VEAB

VEAB in Hässleholm manufactures heating and cooling coils as well as fan heaters.

Ukmerge – Lithuania

Production of air handling units.

Bratislava – Slovakia

The factory in Bratislava manufactures air distribution products and fire dampers.

Maribor – Slovenia

The factory in Maribor, Slovenia specialises in high temperature centrifugal fans for flue gas ventilation.

Istanbul – Turkey

Systemair HSK is Turkey's leading manufacturer of air handling units.

New Delhi – India

The factories in New Delhi and Noida manufacture grilles and diffusers. Systemair Software is also based here. The combined factory area has a size of approximately 6.500 m² with a total of 290 employees.

Kuala Lumpur – Malaysia

Production and central warehouse for the Asian market.

Windischbuch – Germany

In Windischbuch, Germany a broad assortment of fans are manufactured, of which the majority are stock items. One of Systemair's central warehouses is located here.

Barlassina – Italy

The factory in Barlassina manufactures chillers in ranges up to 1700 kW.

Madrid – Spain

The factory in Madrid, Spain produces air handling units mainly for the southern European, Asian, and African market.

Hasselager – Denmark

The factory in Hasselager, Denmark manufactures large air handling units to Eurovent standards.

Product range

Systemair has an extensive range of ventilation products: fans including smoke extract, tunnel and car park fans, explosion proof fans, air handling units from large central units to small residential units with energy recovery, air distribution products and fire dampers. These products are installed in a variety of locations, including homes, offices, healthcare premises, shops, industrial buildings, tunnels, parking garages, training facilities, sports centres etc.



Fans

Systemair has the wider range of fans for use in different applications. Our range includes any type of fans, from circular ducts – historical product – boxed up to those of extraction, axial, and explosion-proof for the extraction of fumes. All products listed above are made in different dimensions from 100 mm in diameter to fans of large size for tunnel. All our fans are designed to meet the strict requirements, easy to use, high quality and durability.

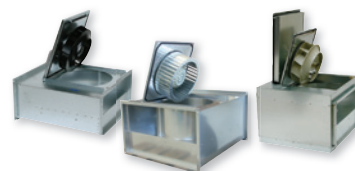
Duct fans

Duct fans for circular duct installation.



Rectangular duct fans

Duct fans with rectangular connection.



Centrifugal fans

Centrifugal supply single fans.



Square duct fans

For different applications, there are models for ambient with high temperature.



Axial fans

Axial fans for duct or wall application.



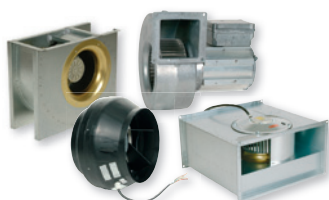
Roof fans

Roof fans with circular or square connection.



Explosion proof fans

Explosion proof fans in duct, roof or wall design.



Jet Axial Fans

Jet Axial Fans for car park, tunnels and air overpressure.



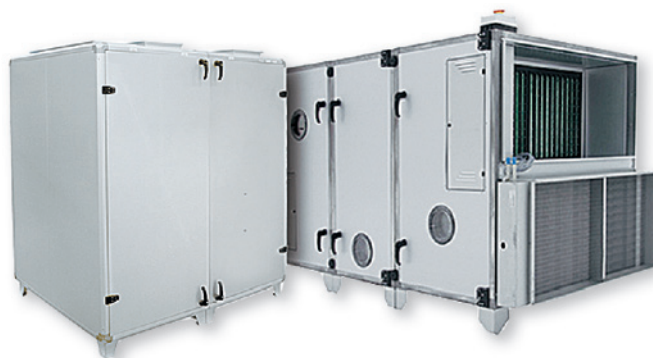
High temperature fans

Systemair provides high fire resistance fans till 600°C/2 hours.



Air handling units

Systemair produces a wide range of air handling units for several applications, from small office to large industrial building. All range is been developped to satisfy strict needs of low energy consumption.



Fire and smoke dampers

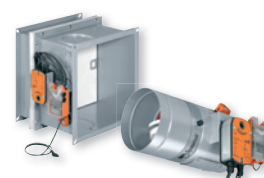
Smoke extract fans

High efficient fans to extract the combustion smoke.



Fire & smoke dampers

Dampers that reduce the spread of smoke and fire.



Residential ventilation

Complete energy-efficient air handling units with heat recovery and built in control systems. Designed to be mounted over the cooker, on walls or horizontally in attics.

Residential units

For homes with living areas of 60-320 m².



Cooker hoods

Ideal for capturing odours even at low airflows.



Air distribution products

The range also includes a wide selection of air distribution products and accessories.

Supply, extract & transfer devices

For mounting in ceilings or walls.



Nozzle diffusers

Optimum flexibility and comfort in air distribution for rooms.



Water terminals

The strength point of Systemair water terminals is a wide range and configurations (2 pipes, 4 pipes), wide control system and accessories selection.



Applications

Offices

In buildings for tertiary application, the air conditioning and the ventilation are necessary during the day. The heat loads to be removed are generally generated by people present, from the lighting system, from solar radiation and by machines.

Normally it is necessary the use of

chillers, Heat Pump to produce cold and/or hot water to be sent to hydronic (fan coils, cassettes, ducted) to obtain an optimum air conditioning of offices.



Schools

In buildings for school, the load to be disposed is variable during the day due to the presence of people only for some periods, thus it is mandatory to control the users requirements during daily plant use. Systemair offers a wide range of equipment suitable for this purpose, the fan coils with EC mo-

tors allow to obtain the required flexibility.



Commercial buildings

Normally the number of people varies continuously; the optimal solution would be to use machinery for the conditioning with variable flow and with constant monitoring of concentration of pollutants (VOC and CO₂). Systemair AC's products can easily meet the plant's requirement.



Industry

Industrial plants generate a large amount of heat that must be dissipated in the appropriate way.

Systemair AC offers a wide range of products (chillers from 20 kW to 1.680 kW) that can be readily integrated in industrial installation. The chiller can be used both for air conditioning and for

the cooling equipment process (production of chilled water up to -10°C).



Hotel

In the hotel rooms, it is needed a high level of comfort with the minimum impact with respect to the noise level. Systemair ducted products equipped with EC motors fully comply with requirements efficiency, cooling capacity and sound impact, required by this type of installations.



Air Cooled Chiller and Heat Pumps



AQH DCI 20-30

- 20-29 kW
- 19-26 kW
- 410A
- Scroll



AQL/AQH 20-35

- 19-36 kW
- 17-33 kW
- 410A
- Scroll



AQL/AQH 40-75

- 40-76 kW
- 40-77 kW
- 410A
- Scroll



AQVSL/AQVSH 85-160

- 82-157 kW
- 83-167 kW
- 410A
- Scroll



AQVL/AQVH 85-140

- 84-137 kW
- 92-146 kW
- 410A
- Scroll



VLS/VLH/VLR 524-1204

- 137-308 kW
- 150-336 kW
- 410A
- Scroll



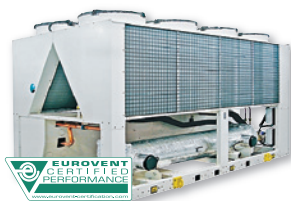
AQWL/AQWH/AQWR 1404-2406

- 380-634 kW
- 418-702 kW
- 410A
- Scroll



AQSL 2612-4212

- 602-908 kW
- 134a
- Screw



SLS STD/HE 1402-8404

- 293-1687 kW
- 134a
- Screw

Inverter Air Cooled Heat Pump

AQH DCI 20-30

 20-29 kW

 19-26 kW

 410A

 Scroll

Technical feature

- 3 sizes.
- Cooling capacity from 20 to 29 kW.
- Heating capacity from 19 to 26 kW.
- Operating Range:
from -10 to 46°C cooling;
from -15 to 40°C heating.
- Inverter compressors.
- Reliable and efficient scroll compressor, three-phase power.
- Brushless motor with variable frequency (20-120 Hz).
- One refrigerant circuit.
- Electronic expansion valve.
- Pump as standard.
- Bluefin coil.
- Operating low water content in the plant.

Accessories and Options

- Buffer tank placed under unit.
- Water filter (standard).
- Differential pressure switch (standard).
- Flow switch.
- Sequence phases control (standard).
- Fan speed control (standard).
- Automatic circuit breaker (standard).
- Hydrometer (standard).
- Mechanical gauges.
- Softstart (standard).
- Power factor corrector capacitors (standard).
- Coils treatments.
- Coil grilles (standard).



Operating limit

Cooling mode

AQH		20		25		30	
		Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	-8	18	-8	18	-8	18
Δ T water	K	3	8	3	8	3	8
Air temperature**	°C	-10	45	-10	45	-10	45

Heating mode

AQH		20		25		30	
		Min	Max	Min	Max	Min	Max
Leaving water temperatur	°C	25	55	25	55	25	55
Δ T water	K	3	8	3	8	3	8
Air temperature**	°C	-15	20	-15	20	-15	20

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Chillers suitable for operation without buffer tank for water content greater than 2.5 liters of water per kW of output.

Technical feature AQH DCI 20-30

Model AQH DCI		20			25			30		
Cooling capacity (1)	kW	7,05	20,2	25,6	8,87	25,0	30,5	10,1	29,3	31,8
Power input (2)	kW	6,01			7,45			9,43		
EER		3,35			3,36			3,11		
Heating capacity (3)	kW	6,08	18,1	22,9	8,45	21,7	28,6	9,24	25,1	29,9
Power input (2)	kW	6,21			7,13			8,50		
COP		2,92			3,04			2,95		
Part load steps		Stepless								
Power supply	V/ph/Hz	400/3+N/50								
Startup type		Inverter								
Refrigerant										
Type		HFC 410A								
Compressor										
Number		1								
Type		Scroll (BLDC Motor)								
Crankcase heater	W	40								
Evaporator										
Qty		1								
Type		Plate exchanger AISI 316								
Antifreeze heater	W	35								
Connection type		Male gas threaded								
Inlet/outlet diameter	inch	1½"/1½"								
Water drain connection	inch	¾"								
Condenser										
Qty		1								
Frontal surface	mm	1.350x1.500			1.350x1.500			1.350x1.500		
Number of rows		2			3			3		
Fan										
Qty		2			2			2		
Air flow	m³/h	12.220			11.400			11.400		
Speed	rpm/min	630			630			630		
Power input	kW	0,6			0,6			0,6		
Pump										
Qty		1			1			1		
Power input	kW	0,65			0,65			0,65		
Weight										
Shipping	Kg	269			285			285		
Operating	Kg	262			279			279		
Dimensions										
Lenght	mm	1.477			1.477			1.477		
Width	mm	538			538			538		
Height	mm	1.625			1.625			1.625		
Acoustical data										
Sound power level	dB(A)	74			75			75		
Sound pressure level (4)	dB(A)	43			44			44		

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) The sound pressure is calculated from a distance of 10 m.
EER-COP: efficiency in cooling unit according to EN14511-2011.

Air cooled chiller

AQL 20-35

 **19-36 kW**
 **410A**
 **Scroll**

Technical feature

- 4 sizes.
- Cooling capacity from 19 to 36 kW.
- One refrigerant circuit.
- Scroll tandem compressors.
- ILTC control.
- Operating low water content in the plant.
- Pump as standard.

Accessories and options

- Water filter (standard).
- Flow switch.
- Differential pressure switch (standard).
- Fan speed control (standard).
- Sequence phases control (standard).
- Automatic circuit breaker (standard).
- Hydrometer (standard).
- Mechanical gauges.
- Softstart.
- Power factor corrector capacitors.
- Buffer tank placed under unit.
- Coils treatments.
- Coil grilles (standard).



Operating limit

AQL		20		25		30		35	
		Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	-8	18	-8	18	-8	18	-8	18
Δ T water	K	3 -8							
Air temperature**	°C	-10	50	-10	50	-10	50	-10	50

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Chillers suitable for operation without buffer tank for water content greater than 2.5 liters of water per kW of output.

Technical feature AQL 20-35

Model AQL		20	25	30	35
Cooling capacity (1)	kW	19,1	24,9	30,9	35,9
Power input (2)	kW	5,5	7,5	10,0	11,2
GROSS EER		3,13	3,07	2,92	3,04
Energy class		A	B	B	B
GROSS ESEER		4,86	4,29	4,37	4,08
EER		3,24	3,15	2,97	3,07
ESEER		4,67	4,10	4,16	3,85
Number of refrigerant circuits		1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-50-100
Power supply	V/Ph/Hz	400/3+N/50			
Startup type		Direct			
Refrigerant					
Type		HFC 410A			
Qty	kg	5,7	7,2	7,2	8,0
Compressor					
Qty		2	2	2	2
Type		Scroll			
Crankcase heater	W	70	70	70	70
Evaporator					
Qty		1	1	1	1
Type		Plate exchanger AISI 316			
Water flow	m³/h	3.285	4.282	5.314	6.174
Pressure drop	kPa	21	38	39	53
Antifreeze heater	kW	35	35	35	35
Connection type		Male gas threaded			
Inlet/outlet diameter	inch	1½"	1½"	1½"	1½"
Water drain connection	inch	¾"	¾"	¾"	¾"
Condenser					
Qty		1	1	1	1
Frontal surface	mm	986x1.500	1.350x1.500	1.350x1.500	1.350x1.500
Number of rows		2	2	2	3
Fan					
Qty		2	2	2	2
Air flow	m³/h	11.300	13.000	13.000	12.500
Speed	rpm/min	630	630	630	630
Power input	kW	0,6	0,6	0,6	0,6
Pump					
Qty		1	1	1	1
Power input	kW	0,49	0,53	0,80	0,83
Static head pressure	kPa	163	128	174	129
Weight					
Shipping	kg	283	301	308	322
Operating	kg	276	294	302	316
Dimensions					
Lenght	mm	1.477	1.477	1.477	1.477
Width	mm	538	538	538	538
Height	mm	1.625	1.625	1.625	1.625
Acoustical data					
Sound power level (3)	dB(A)	74	75	75	75
Sound pressure level at 10 m (4)	dB(A)	43	44	44	44

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Sound pressure values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Air cooled chiller

AQL 40-75



40-76 kW



Technical feature

- 6 sizes.
- Cooling capacity from 40 to 76 kW.
- 2 versions:
STD (standard version);
SIF (special inverter fans).
- 2 Low Noise versions:
Standard version (STD) and Extra Low Noise version (ELN).
- One refrigerant circuit.
- Scroll tandem compressors.
- ILTC control.
- Operating low water content in the plant.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Water filter (standard).
- Water pressure switch (standard).
- Flow switch (standard).
- Fan speed control (standard).
- Sequence phases control (standard).
- Automatic circuit breaker.
- Compressors acoustic box (standard on ELN).
- Mechanical gauges.
- Hydrometer (standard).
- Softstart.
- Power factor corrector capacitors.
- Coils treatments.
- Coils grilles (standard).
- Desuperheater.
- Compressors jackets (standard ELN).



Operating limit

AQL		40		45		50		60		65		75	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	-8	18	-8	18	-8	18	-8	18	-8	18	-8	18
Δ T water	K	3	8	3	8	3	8	3	8	3	8	3	8
Air temperature**	°C	-10	50	-10	50	-10	50	-10	50	-10	50	-10	50

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Chillers suitable for operation without buffer tank for water content greater than 2.5 liters of water per kW of output.

Technical feature AQL 40-75 BLN

Model AQL BLN		40	45	50	60	65	75
Cooling capacity (1)	kW	40,0	44,0	51,0	60,0	67,9	75,8
Power input (2)	kW	12,7	14,8	17,2	18,1	21,0	25,4
GROSS EER		2,92	2,79	2,81	2,99	2,95	2,77
Energy class		B	C	C	B	B	C
GROSS ESEER		4,32	4,11	4,14	4,27	4,34	3,99
EER		2,75	2,59	2,55	2,83	2,69	2,54
ESEER		3,87	3,62	3,58	3,85	3,77	3,50
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/Ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kg	8,2	9,5	10,6	11,6	13,5	14,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	6.880,0	7.568,0	8.772,0	10.320,0	11.678,8	13.037,6
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	14.000	14.000	13.200	21.100	21.100	21.100
Speed	rpm/min	680	680	680	900	900	900
Power input	kW	0,98	0,98	0,98	2,00	2,00	2,00
Weight							
Shipping	kg	403	411	436	476	483	488
Operating	kg	413	421	446	489	496	502
Dimensions							
Lenght	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (3)	db(A)	80,5	81,0	81,0	85,5	85,6	85,8
Sound pressure level at 10 m (4)	db(A)	48,9	49,4	49,4	53,8	53,9	54,1

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Sound pressure values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQL 40-75 ELN

Model AQL ELN		40	45	50	60	65	75
Cooling capacity (1)	kW	38,7	42,4	48,7	58,0	63,1	72,8
Power input (2)	kW	13,4	15,7	18,4	19,0	21,9	26,9
GROSS EER		2,77	2,61	2,57	2,86	2,72	2,58
Energy class		C	D	D	C	C	D
GROSS ESEER		4,09	3,84	3,79	4,09	4,00	3,73
EER		2,90	2,76	2,78	2,95	2,91	2,72
ESEER		4,08	3,87	3,89	4,01	4,07	3,73
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/Ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kg	8,2	9,5	10,6	11,6	13,5	14,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	6.656,4	7.292,8	8.376,4	9.976,0	10.853,2	12.521,6
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	¾"	¾"	¾"	¾"	¾"	¾"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	11.000	11.000	10.300	16.000	16.000	16.000
Speed	rpm/min	530	530	530	720	720	720
Power input	kW	0,57	0,57	0,57	1,27	1,27	1,27
Weight							
Shipping	kg	403	411	436	476	483	488
Operating	kg	413	421	446	489	496	502
Dimensions							
Lenght	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (3)	db(A)	74,0	75,3	75,3	78,0	78,5	79,0
Sound pressure level at 10 m (4)	db(A)	42,4	43,7	43,7	46,3	46,8	47,3

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Sound pressure values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQL 40-75 SIF

Model AQL SIF		40	45	50	60	65	75
Cooling capacity (1)	kW	42,1	46,6	54,3	60,8	66,4	77,0
Power input (2)	kW	11,7	13,5	15,5	17,7	20,3	24,7
GROSS EER		2,93	2,89	2,99	2,98	2,89	2,81
Energy class		B	C	B	B	C	C
GROSS ESEER		4,33	4,24	4,39	4,27	4,13	3,99
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/Ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kg	8,2	9,5	10,6	11,6	13,5	14,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	7.243,7	8.012,5	9.346,0	10.451,7	11.426,8	13.242,6
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	25.284	25.284	24.300	25.284	25.284	25.284
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110
Power input	kW	2,67	2,67	2,67	2,67	2,67	2,67
Weight							
Shipping	kg	403	411	436	476	483	488
Operating	kg	413	421	446	489	496	502
Dimensions							
Lenght	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.685	1.685	1.685	1.685	1.685	1.685
Acoustical data							
Sound power level (3)	db(A)	95,2	95,2	95,2	95,3	95,3	95,3
Sound pressure level at 10 m (4)	db(A)	63,6	63,6	63,6	63,6	63,6	63,6

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Sound pressure values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air cooled Heat Pump AQH 20-35

 18-33 kW

 17-33 kW

 410A

 Scroll

Technical feature

- 4 sizes.
- Cooling capacity from 18 to 33 kW.
- Heating capacity from 17 to 33 kW.
- One refrigerant circuit.
- Scroll compressors.
- ILTC control.
- Operating low water content in the plant.
- Pump as standard.

Accessories and options

- Water filter (standard).
- Flow switch.
- Fan speed control (standard).
- Differential pressure switch (standard).
- Sequence phases control (standard).
- Automatic circuit breaker (standard).
- Hydrometer (standard).
- Mechanical gauges.
- Softstart.
- Power factor corrector capacitors (standard).
- Buffer tank placed under unit.
- Coils treatments.
- Coil grilles (standard).



Operating limit

Cooling mode

AQH		20		25		30		35	
		Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	-8	18	-8	18	-8	18	-8	18
Δ T water	K	3	8	3	8	3	8	3	8
Air temperature**	°C	-10	50	-10	50	-10	50	-10	50

Heating mode

AQH		20		25		30		35	
		Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	20	50	20	50	20	50	20	50
Δ T water	K	3	8	3	8	3	8	3	8
Air temperature**	°C	-10	20	-10	20	-10	20	-10	20

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Chillers suitable for operation without buffer tank for water content greater than 2.5 liters of water per kW of output.

Technical feature AQH 20-35

Model AQH		20	25	30	35
Cooling capacity (1)	kW	17,8	23,2	28,8	33,5
Power input (2)	kW	5,83	7,69	10,20	11,5
GROSS EER		2,77	2,8	2,67	2,77
Energy class		C	C	D	C
GROSS ESEER		4,73	4,06	4,13	3,86
EER		2,87	2,88	2,73	2,81
ESEER		4,29	3,86	3,82	3,69
ESEER a carico parziale		4,97	4,26	4,34	4,05
Heating capacity (3)	kW	17,0	23,6	29,0	33,1
Power input (2)	kW	4,70	7,14	8,91	10,4
GROSS COP		3,21	3,05	3,05	3,02
COP		3,12	2,98	2,98	2,94
Number of refrigerant circuits		1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3+N/50			
Startup type		Direct			
Refrigerant					
Type		HFC 410A			
Charge	kW	5,6	7,5	7,6	8,1
Compressor					
Qty		2	2	2	2
Type		Scroll			
Crankcase heater	W	70	70	70	70
Evaporator					
Qty		1	1	1	1
Type		Plate exchanger AISI 316			
Water flow	l/h	3.062	3.990	4.954	5.762
Pressure drop	kPa	21	38	39	53
Antifreeze heater	W	35	35	35	35
Connection type		Male gas threaded			
Inlet/outlet diameter	inch	1½"	1½"	1½"	1½"
Water drain connection	inch	¾"	¾"	¾"	¾"
Condenser					
Qty		1	1	1	1
Frontal surface	mm	986x1.500	1.350x1.500	1.350x1.500	1.350x1.500
Number of rows		2	2	2	2
Fan					
Qty		2	2	2	2
Air flow	m³/h	11.300	13.000	13.000	12.500
Speed	rpm/min	630	630	630	630
Power Input	kW	0,6	0,6	0,6	0,6
Pump					
Qty		1	1	1	1
Power Input	kW	0,49	0,53	0,80	0,83
Static head pressure	kPa	163	128	174	129
Weight					
Shipping	kg	296	314	322	337
Operating	kg	289	307	316	331
Dimensions					
Length	mm	1.477	1.477	1.477	1.477
Width	mm	538	538	538	538
Height	mm	1.625	1.625	1.625	1.625
Acoustical data					
Sound power level (4)	dB(A)	74	75	75	75
Sound pressure level (5)	dB(A)	43	44	44	44

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound pressure values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Air Cooled Heat Pumps AQH 40-75

 36-71 kW

 40-77 kW

 410A

 Scroll

Technical feature

- 6 sizes.
- Cooling capacity from 36 to 71 kW.
- Heating capacity from 40 to 77 kW.
- 2 versions:
STD (Standard version) e SIF (Special Inverter Fans).
- 2 Low Noise versions:
Standard version (STD) e Extra Low Noise version (ELN).
- One refrigerant circuit.
- Scroll compressors tandem.
- ILTC control.
- Low operating water content in the plant.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Water filter (standard).
- Water pressure switch (standard).
- Flow switch (standard).
- Fan speed control (standard).
- Sequence phases control (standard).
- Automatic circuit breaker.
- Compressors acoustic box (standard on ELN).
- Hydrometer (standard).
- Mechanical gauges.
- Softstart.
- Power factor corrector capacitors.
- Coils treatments.
- Coil grilles (standard).
- Desuperheater.
- Electric heater inside buffer tank for additional heating.
- Compressors jackets (standard ELN).



Operating limit

Cooling mode

AQH		40		45		50		60		65		75	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature*	°C	-8	18	-8	18	-8	18	-8	18	-8	18	-8	18
Δ T water	K	3	8	3	8	3	8	3	8	3	8	3	8
Air temperature**	°C	-20	50	-20	50	-20	50	-20	50	-20	50	-20	50

Heating mode

AQH		40		45		50		60		65		75	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	°C	20	55	20	55	20	55	20	55	20	55	20	55
Δ T water	K	3	8	3	8	3	8	3	8	3	8	3	8
Air temperature**	°C	-10	20	-10	20	-10	20	-10	20	-10	20	-10	20

* Below 5°C, glycol is required.

** -10°C is given for unit with fan speed controller (optional). Without fan speed controller, the limit is 10°C.

Technical feature AQH 40-75 BLN

Model AQH		40	45	50	60	65	75
Cooling capacity (1)	kW	36,1	41,0	47,5	55,9	63,3	70,7
Power input (2)	kW	12,3	14,3	16,7	17,5	20,4	24,6
GROSS EER		2,72	2,68	2,69	2,87	2,83	2,66
Energy class		C	D	D	C	C	D
GROSS ESEER		3,96	3,89	3,92	4,04	4,11	3,77
Heating capacity (3)	kW	39,9	44,4	52,6	59,0	70,0	77,2
Power input (2)	kW	12,0	13,1	14,9	18,9	20,5	24,3
GROSS COP		3,07	3,15	3,31	2,82	3,11	2,94
Energy class		B	B	A	C	B	C
COP		2,92	3,00	3,15	2,70	2,97	2,80
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	9,5	10,8	11,6	12,9	14,0	15,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	6.209,2	7.052,0	8.170,0	9.614,8	10.887,6	12.160,4
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	14.800	14.800	14.800	22.250	22.250	22.250
Speed	rpm/min	680	680	680	900	900	900
Power Input	kW	0,98	0,98	0,98	2,00	2,00	2,00
Weight							
Shipping	kg	422	430	457	504	511	517
Operating	kg	431	440	467	517	524	530
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (4)	dB(A)	80,5	81,0	81,0	85,5	85,6	85,8
Sound pressure level (5)	dB(A)	48,9	49,4	49,4	53,8	53,9	54,1

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-20101.

Technical feature AQH 40-75 ELN

Modello AQH ELN		40	45	50	60	65	75
Cooling capacity (1)	kW	36,1	39,5	45,4	54,1	58,8	67,9
Power input (2)	kW	13,0	15,2	17,9	18,4	21,2	26,2
GROSS EER		2,66	2,50	2,46	2,75	2,62	2,47
Energy class		D	D	E	C	D	E
GROSS ESEER		3,87	3,63	3,59	3,87	3,78	3,53
EER		2,64	2,48	2,44	2,72	2,58	2,43
ESEER		3,82	3,45	3,41	3,80	3,63	3,36
Heating capacity (3)	kW	40,5	43,5	51,0	57,7	68,2	75,0
Power input (2)	kW	11,9	12,7	15,0	18,8	20,5	24,2
GROSS COP		3,25	3,28	3,28	2,87	3,13	2,94
Energy class		A	A	A	C	B	C
COP		3,08	3,11	3,11	2,75	2,99	2,81
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	9,5	10,8	11,6	12,9	14,0	15,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	6.209,2	6.794,0	7.808,8	9.305,2	10.113,6	11.678,8
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet Diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	11.500	11.500	10.800	17.000	17.000	17.000
Speed	rpm/min	530	530	530	720	720	720
Power Input	kW	0,57	0,57	0,57	1,27	1,27	1,27
Weight							
Shipping	kg	422	430	457	504	511	517
Operating	kg	431	440	467	517	524	530
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (4)	dB(A)	74,0	75,3	75,3	78,0	78,5	79,0
Sound pressure level (5)	dB(A)	42,4	43,7	43,7	46,3	46,8	47,3

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQH 40-75 SIF

Model AQH SIF		40	45	50	60	65	75
Cooling capacity (1)	kW	42,1	46,6	54,3	60,8	66,4	77,0
Power input (2)	kW	11,7	13,5	15,5	17,7	20,3	24,7
GROSS EER		2,93	2,89	2,99	2,98	2,89	2,81
Energy class		B	C	B	B	C	C
GROSS ESEER		4,33	4,24	4,39	4,27	4,13	3,99
Heating capacity (3)	kW	46,3	50,4	58,7	65,5	77,8	85,9
Power input (2)	kW	13,9	14,8	17,4	19,5	21,3	25,1
GROSS COP		2,80	2,89	2,92	2,96	3,25	3,09
Energy class		C	C	C	C	A	B
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	9,5	10,8	11,6	12,9	14,0	15,0
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	7.243,7	8.012,5	9.346,0	10.451,7	11.426,8	13.242,6
Antifreeze heater	W	35	35	35	35	35	35
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2"	2"	2"	2"	2"	2"
Water drain connection	inch	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"	3⁄8"
Condenser							
Qty		1	1	1	1	1	1
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	2	2	2	2
Fan							
Qty		1	1	1	1	1	1
Air flow	m³/h	25.284	25.284	24.300	25.284	25.284	25.284
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110
Power Input	kW	2,67	2,67	2,67	2,67	2,67	2,67
Weight							
Shipping	kg	422	430	457	504	511	517
Operating	kg	431	440	467	517	524	530
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.685	1.685	1.685	1.685	1.685	1.685
Acoustical data							
Sound power level (4)	dB(A)	95,2	95,2	95,2	95,3	95,3	95,3
Sound pressure level (5)	dB(A)	63,6	63,6	63,6	63,6	63,6	63,6

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Data based on 45°C leaving chilled water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchange.

Air cooled chiller

AQVSL 85-160

 82-157 kW

 410A

 Scroll

Technical feature

- 6 sizes.
- Cooling capacity from 82 to 157 kW.
- 3 Versions:
STD (Standard version);
HT (High Temperature version);
HPF (High Pressure Fans version).
- 2 acoustic versions:
Standard version (STD) and Extra Low Noise version (ELN).
- One refrigerant circuit, scroll compressors.
- Microchannel coils.
- Microprocessor control.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Flow switch (standard).
- Mechanical gauges kit.
- Fan speed control.
- Electronic expansion valve.
- Pressure switch.
- Water filter.
- Power factor corrector capacitors (standard).
- Compressors acoustic box (standard).
- Sequence phases control (standard).
- Coils treatments.
- Compressors jackets.



Operating limit

AQVSL			85-95		115-160	
			Min	Max	Min	Max
Leaving water temperature	Water	°C	+5	+18	+5	+18
	Water with glycol + electronic expansion valve	°C	-6	+5	-6	+5
	Δ T Water	K	3	8	3	8
Air temperature	BLN	°C	+5	+48	+5	+45
	ELN	°C	-18	+45	-18	+42
	HT	°C	-18	+50	-18	+48
External static pressure	Standard fans	Pa	0			
	High pressure fans (HPF)	Pa	< 120			

Technical feature AQVSL 85-160 BLN

Model AQVSL BLN		85	95	115	125	140	160
Cooling capacity (1)	kW	82,3	94,9	105,8	121,0	134,3	157,2
Power input (2)	kW	24,4	28,4	34,9	39,9	46,5	52,7
GROSS EER		3,08	2,98	2,75	2,78	2,68	2,71
GROSS ESEER		4,31	4,17	3,85	3,9	3,75	3,79
EER		3,03	2,93	2,71	2,74	2,64	2,66
ESEER		4,03	3,99	3,51	3,69	3,47	3,56
GROSS EER HPF		2,76	2,61	2,63	2,68	2,59	2,59
GROSS ESEER HPF		3,87	3,65	3,68	3,75	3,63	3,63
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	10	11	13	15	16	19
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	14.148	16.308	18.216	20.808	23.112	27.036
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Water drain connection	inch	¾"	¾"	¾"	¾"	¾"	¾"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fans							
Qty		2	3	2	2	2	2
Air flow	m³/h	36.360	50.040	45.000	43.920	43.920	62.280
Speed	rpm/min	690	690	900	900	900	900
Power input	kW	2,3	3,5	3,6	3,6	3,6	5,4
Weight							
Shipping	kg	945	1.062	1.148	1.170	1.261	1.345
Operating	kg	965	1.083	1.172	1.194	1.288	1.373
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (3)	dB(A)	84	85	88	88	88	90
Sound pressure level (4)	dB(A)	52	53	56	56	56	58

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQVSL 85-160 ELN

Model AQVSL ELN		85	95	115	125	140	160
Cooling capacity (1)	kW	80,1	92,4	101,9	117,2	129,5	152,2
Power input (2)	kW	25,4	29,7	37,0	41,8	48,7	55,2
GROSS EER		2,99	2,90	2,59	2,66	2,54	2,6
GROSS ESEER		4,18	4,06	3,63	3,72	3,55	3,64
EER		2,94	2,85	2,56	2,62	2,50	2,55
ESEER		3,96	4,01	3,53	3,67	3,38	3,54
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	10	11	12	14	16	18
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	13.752	15.876	17.532	20.160	22.284	26.172
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fans							
Qty		2	3	2	2	2	3
Air flow	m³/h	29.880	40.320	36.360	36.720	36.720	51.120
Speed	rpm/min	550	550	690	690	690	690
Power input	kW	1,4	2,1	2,3	2,3	2,3	3,5
Weight							
Shipping	kg	962	1.080	1.166	1.188	1.278	1.365
Operating	kg	983	1.100	1.189	1.211	1.306	1.393
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (3)	dB(A)	82	83	84	85	85	87
Sound pressure level (4)	dB(A)	50	51	52	53	53	55

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQVSL 85-160 HT

Model AQVSL HT		85	95	115	125	140	160
Cooling capacity (1)	kW	86,1	98,9	108,6	123,6	138	160,8
Power input (2)	kW	22,8	26,3	33,4	38,5	44,8	50,9
GROSS EER		3,06	2,88	2,8	2,82	2,75	2,73
GROSS ESEER		4,29	4,04	3,92	3,95	3,86	3,82
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	10	12	13	15	17	19
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	14.832	17.028	18.684	21.276	23.724	27.648
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fan							
Qty		2	3	2	2	2	3
Air flow	m³/h	54.000	75.960	53.280	50.760	50.760	72.720
Speed	rpm/min	1.100	1.100	1.100	1.100	1.100	1.100
Power input	kW	5,3	8	5,3	5,3	5,3	8
Weight							
Shipping	kg	965	1.092	1.168	1.190	1.281	1.375
Operating	kg	985	1.113	1.192	1.214	1.308	1.403
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (3)	dB(A)	95	97	95	95	95	97
Sound pressure level (4)	dB(A)	63	65	63	63	63	65

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air cooled Heat Pump AQVSH 85-160

 75-152 kW

 83-167 kW

 410A

 Scroll

Technical feature

- 6 sizes.
- Cooling capacity from 75 to 152 kW.
- Heating capacity from 83 to 167 kW.
- 3 versions: STD (Standard versions); HT (High Temperature version); HPF (High Pressure Fans version).
- 2 acoustic versions: Standard version (STD) and Extra Low Noise version (ELN).
- One refrigerant circuit.
- Scroll compressors.
- Microprocessor control.
- Bluefin coil.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control.
- Flow switch (standard).
- Electronic expansion valve.
- Mechanical gauges kit.
- Pressure switch.
- Water filter.
- Power factor corrector capacitors (standard).
- Compressors acoustic box (standard).
- Sequence phases control (standard).
- Electric heater inside buffer tank for additional heating.
- Compressors jackets.



Operating limit

AQVSH			85-95		115-160	
			Min	Max	Min	Max
Leaving water temperature (cooling)	Water	°C	+5	+18	+5	+18
	Water with glycol + electronic expansion valve	°C	-6	+5	-6	+5
	Δ T	K	3	8	3	8
Leaving water temperature (heating)	Water	°C	+20	+50	+20	+50
	Δ T	K	3	8	3	8
Air temperature (cooling)	BLN	°C	+5	+42	+5	+45
	ELN	°C	-18	+40	-18	+42
	HT	°C	-18	+48	-18	+48
Air temperature (heating)	BLN	°C	-10	+20	-10	+20
	ELN	°C	-7	+20	-7	+20
	HT	°C	-10	+20	-10	+20
External static pressure	Standard Fans	Pa	0			
	High Pressure Fans (HPF)	Pa	< 120			

Technical feature AQVSH 85-160 BLN

Model AQVSH BLN		85	95	115	125	140	160
Cooling capacity (1)	kW	75,4	85,4	102,6	114,6	132,2	152,4
Power input (2)	kW	26,6	32	35,1	41,8	46,5	54,1
GROSS EER		2,61	2,41	2,65	2,52	2,64	2,56
GROSS ESEER		3,65	3,37	3,71	3,53	3,70	3,59
EER		2,58	2,38	2,61	2,48	2,60	2,52
ESEER		3,43	3,24	3,38	3,35	3,42	3,37
Heating capacity (3)	kW	82,9	96,0	112,2	127,9	143,2	167,6
Power input	kW	24,6	30,1	34,5	39,5	44,3	51,7
GROSS COP		3,08	2,86	2,94	2,97	2,99	2,94
COP		3,05	2,83	2,92	2,94	2,96	2,91
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	17	20	24	26	30	35
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	12.690	14.688	17.640	19.692	22.716	26.208
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fan							
Qty		2	3	2	2	2	3
Air flow	m³/h	35.640	48.240	42.120	42.120	39.960	52.200
Speed	rpm/min	690	690	900	900	900	900
Power input	kW	2,3	3,5	3,6	3,6	3,6	5,4
Weight							
Shipping	kg	996	1.114	1.207	1.235	1.329	1.415
Operating	kg	1.016	1.134	1.231	1.258	1.356	1.442
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (4)	dB(A)	84	85	88	88	88	90
Sound pressure level (5)	dB(A)	52	53	56	56	56	58

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQVSH 85-160 ELN

Model AQVSH ELN		85	95	115	125	140	160
Cooling capacity (1)	kW	72,8	82,1	98,8	109,7	126,5	145,0
Power input (2)	kW	27,8	33,9	37,3	44,4	49,2	57,8
GROSS EER		2,50	2,28	2,50	2,35	2,46	2,37
GROSS ESEER		3,50	3,19	3,49	3,28	3,44	3,31
EER		2,47	2,25	2,46	2,31	2,43	2,33
ESEER		3,32	3,14	3,40	3,28	3,28	3,23
Heating capacity (3)	kW	81,0	93,7	109,5	124,4	139	161,7
Power input	kW	24,6	30,1	34,5	39,5	44,3	51,6
GROSS COP		3,12	2,91	2,97	2,98	2,99	2,94
COP		3,09	2,88	2,95	2,95	2,96	2,91
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	17	19	23	25	29	33
Compressor							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	12.528	14.112	16.992	18.864	21.780	24.948
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fan							
Qty		2	3	2	2	2	3
Air flow	m³/h	30.600	39.960	33.840	33.840	32.040	39.960
Speed	rpm/min	550	550	690	690	690	690
Power input	kW	1,4	2,1	2,3	2,3	2,3	3,5
Weight							
Shipping	kg	1.013	1.131	1.225	1.253	1.346	1.435
Operating	kg	1.034	1.152	1.248	1.276	1.374	1.462
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (4)	dB(A)	82	83	84	85	85	87
Sound pressure level (5)	dB(A)	50	51	52	53	53	55

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQVSH 85-160 HT

Model AQVSH HT		85	95	115	125	140	160
Cooling capacity (1)	kW	80,5	91,5	105,3	118,1	136,2	157,3
Power input (2)	kW	24,4	28,7	33,7	40,0	44,5	51,7
GROSS EER		2,71	2,49	2,7	2,6	2,73	2,63
GROSS ESEER		3,79	3,49	3,78	3,65	3,82	3,69
Heating capacity (3)	kW	86,5	100,4	114,0	130,3	147,4	171,3
Power input	kW	24,7	30,1	34,5	39,5	44,2	51,7
GROSS COP		2,88	2,63	2,86	2,90	2,98	2,87
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-50-100	0-43-100	0-50-100	0-44-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	19	21	24	27	31	36
Compressors							
Qty		2	2	2	2	2	2
Type		Scroll					
Crankcase heater	W	70	120	120	150	150	150
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	13.824	15.732	18.108	20.304	23.436	27.036
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Victaulic					
Inlet/outlet Diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970	2.600x970
Fans							
Qty		2	3	2	2	2	3
Air flow	m³/h	51.120	72.360	49.680	49.680	47.520	64.080
Speed	rpm/min	1.100	1.100	1.100	1.100	1.100	1.100
Power input	kW	5,3	8	5,3	5,3	5,3	8
Weight							
Shipping	kg	1.016	1.144	1.227	1.255	1.349	1.445
Operating	kg	1.036	1.164	1.251	1.278	1.376	1.472
Dimensions							
Length	mm	2.950	2.950	2.950	2.950	2.950	2.950
Width	mm	1.110	1.110	1.110	1.110	1.110	1.110
Height	mm	2.250	2.250	2.250	2.250	2.250	2.250
Acoustical data							
Sound power level (4)	dB(A)	95	97	95	95	95	97
Sound pressure level (5)	dB(A)	63	65	63	63	63	65

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air cooled chiller

AQVL 85-140

 84-137 kW

 410A

 Scroll

Technical feature

- 6 sizes.
- Cooling capacity from 84 to 137 kW.
- 4 versions:
STD (Standard);
HSE (High Seasonal Efficiency);
HT (High Temperature);
HPF (High Pressure Fans).
- 2 acoustic versions:
Standard version (STD);
Extra Low Noise version (ELN).
- Two refrigerant circuits.
- Scroll compressors.
- Microprocessor control.
- Low operating water content in the plant.
- Electronic expansion valve as standard.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control.
- Flow switch (standard).
- Mechanical gauges kit.
- Pressure switch.
- Water filter.
- Power factor corrector capacitors.
- Compressors acoustic box as standard.
- Sequence phases control as standard.
- Compressors jackets.



Operating limit

AQVL			Min	Max
Leaving water temperature	Water	°C	+5	+18
	Water with glycol	°C	-8	+18
Air temperature	BLN	°C	+5	+47
	ELN	°C	-18	+44
	HSE/HT	°C	-18	+50 (85-115) +47 (125-140)
External static pressure	Standard fans	Pa	0	
	High Pressure Fans (HPF)	Pa	< 120	

Technical feature AQVL 85-140 BLN

Model AQVL BLN		85	95	105	115	125	140
Cooling capacity (1)	kW	83,6	93,7	102,8	110,6	122,3	137,1
Power input (2)	kW	24,6	28,5	31,1	33,9	37,2	42,1
GROSS EER		3,13	3,07	3,1	3,08	3,01	3,01
GROSS ESEER		4,39	4,29	4,34	4,31	4,22	4,22
GROSS EER HSE		3,24	3,16	3,19	3,15	3,09	3,08
GROSS ESEER HSE		4,77	4,64	4,69	4,64	4,54	4,53
EER		3,08	3,01	3,05	3,02	2,97	2,96
ESEER		4,16	4,15	4,07	4,12	3,95	4,01
EER HSE		3,19	3,09	3,13	3,10	3,05	3,03
ESEER HSE		4,06	4,12	4,23	4,19	3,96	4,08
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	0-25-50-75-100	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	17,6	19,7	21,6	23,2	25,7	28,8
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	m³/h	14.377	16.116	17.681	19.023	21.033	23.588
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Fan							
Qty		2	2	2	2	2	2
Air flow	m³/h	34.000	34.000	33.200	32.400	44.000	42.800
Speed	rpm/min	690	690	690	690	900	900
Power input	kW	2,1	2,1	2,1	2,1	3,4	3,4
Power input HSE	kW	1,2	1,2	1,2	1,2	2,4	2,4
Power input HPF	kW	3,6	3,6	3,6	3,6	4,6	4,6
Weight							
Shipping	kg	1.033	1.047	1.084	1.116	1.151	1.230
Operating	kg	1.058	1.072	1.111	1.143	1.183	1.262
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (3)	dB(A)	85	85	85	85	89	89
Sound pressure level (4)	dB(A)	53	53	53	53	57	57
Sound power level HSE (3)	dB(A)	92	92	92	92	95	95
Sound pressure level HSE (4)	dB(A)	60	60	60	60	63	63

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQVL 85-140 ELN

Model AQVL ELN		85	95	105	115	125	140
Cooling capacity (1)	kW	80,9	90,3	98,7	105,8	119,5	133,6
Power input (2)	kW	26,0	30,4	33,3	36,4	38,6	43,9
GROSS EER		2,91	2,80	2,81	2,77	2,93	2,91
GROSS ESEER		4,07	3,93	3,94	3,88	4,11	4,07
GROSS EER HSE		3,04	2,91	2,91	2,86	3,00	2,96
GROSS ESEER HSE		4,46	4,28	4,28	4,20	4,41	4,36
EER		2,87	2,75	2,77	2,73	2,90	2,86
ESEER		3,91	3,78	3,81	3,67	3,92	3,93
EER HSE		3,00	2,87	2,87	2,81	2,96	2,91
ESEER HSE		3,91	3,87	3,87	3,79	3,99	3,94
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	0-25-50-75-10	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	17,0	19,0	20,7	22,2	25,1	28,1
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	13.906	15.532	16.971	18.204	20.550	22.988
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Fan							
Qty		2	2	2	2	2	2
Air flow	m³/h	25.200	25.200	24.600	24.000	36.500	35.000
Speed	rpm/min	500	500	500	500	690	690
Power input	kW	1,8	1,8	1,8	1,8	2,1	2,1
Power input HSE	kW	0,6	0,6	0,6	0,6	1,2	1,2
Weight							
Shipping	kg	1.063	1.077	1.114	1.146	1.181	1.260
Operating	kg	1.088	1.102	1.141	1.173	1.213	1.292
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (3)	dB(A)	82	82	82	82	86	86
Sound pressure level (4)	dB(A)	50	50	50	50	54	54

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQVL 85-140 HT

Model AQVL BLN		85	95	105	115	125	140
Cooling capacity (1)	kW	86,2	97,0	106,9	115,3	124,6	139,6
Power input (2)	kW	23,2	26,6	28,9	31,4	36,1	40,9
GROSS EER		3,10	3,10	3,19	3,21	3,06	3,07
GROSS ESEER		4,34	4,34	4,46	4,49	4,29	4,30
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	0-25-50-75-100	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	18	20	22	24	26	29
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	14.835	16.680	18.381	19.838	21.427	24.014
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Fans							
Qty		2	2	2	2	2	2
Air flow	m³/h	49.700	49.700	48.950	48.200	52.200	50.700
Speed	rpm/min	1.130	1.130	1.130	1.130	1.130	1.130
Power input	kW	4,6	4,6	4,6	4,6	4,6	4,6
Weight							
Shipping	kg	1.033	1.047	1.084	1.116	1.151	1.230
Operating	kg	1.058	1.072	1.111	1.143	1.183	1.262
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power leve (3)	dB(A)	95	95	95	95	95	95
Sound pressure level (4)	dB(A)	63	63	63	63	63	63

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air Cooled Heat Pump AQVH 85-140

 81-129 kW

 92-146 kW

 410A

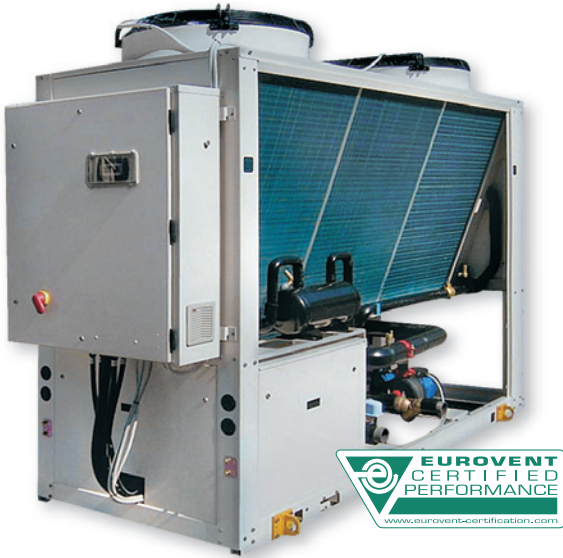
 Scroll

Technical feature

- 6 sizes.
- Cooling capacity from 81 to 137 kW.
- Heating capacity from 92 to 146 kW.
- 4 versions:
STD (Standard);
HSE (High Seasonal Efficiency);
HT (High Temperature);
HPF (High Pressure Fans).
- 2 acoustic versions:
BLN (Basic Low Noise) and ELN (Extra Low Noise).
- Two refrigerant circuit.
- Scroll compressors.
- Microprocessor control.
- Low operating water content in the plant.
- Electronic expansion valve as standard.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control.
- Flow switch (standard).
- Mechanical gauges kit.
- Pressure switch.
- Water filter.
- Power factor corrector capacitors.
- Compressors acoustic box as standard.
- Sequence phases control as standard.
- Compressors jackets.
- Electric heater inside buffer tank for additional heating.



Operating limit

AQVH			Min	Max
Leaving water temperature (cooling)	Water	°C	+5	+18
	Water with glycol	°C	-8	+18
Leaving water temperature (heating)		°C	+20	+55
Air temperature (heating)		°C	-15	+20
Air temperature (cooling)	BLN	°C	+5	+47
	ELN	°C	-18	+44
	HT	°C	-18	+50 (85-115) +47 (125-140)
External static pressure	Standard fans	Pa	0	
	High Pressure Fans (HPF)	Pa	< 120	

Technical feature AQVH 85–140 BLN

Model AQVH BLN		85	95	115	125	140	160	
Cooling capacity (1)		kW	81,2	90,2	99,2	107,2	116,2	129,6
Power input (2)	kW	25,1	29,1	31,8	34,5	38,0	42,6	
GROSS EER			2,99	2,89	2,93	2,93	2,8	2,82
GROSS ESEER			4,18	4,04	4,10	4,10	3,93	3,95
GROSS EER HSE			3,09	2,97	3,01	3,00	2,87	2,88
GROSS ESEER HSE			4,54	4,37	4,42	4,41	4,22	4,23
EER			2,95	2,85	2,89	2,90	2,78	2,78
ESEER			3,78	3,81	3,86	3,96	3,69	3,77
EER HSE			3,05	2,94	2,97	2,96	2,84	2,84
ESEER HSE			4,21	4,14	4,27	4,28	3,96	4,03
Heating capacity (3)		kW	91,5	102,4	110,7	118,6	133,9	146,3
Power input	kW	24,4	28,0	30,0	32,7	37,1	40,8	
GROSS COP			3,45	3,40	3,45	3,41	3,31	3,31
GROSS COP HSE			3,57	3,50	3,55	3,50	3,39	3,39
COP			3,39	3,23	3,29	3,26	3,13	3,14
COP HSE			3,54	3,47	3,52	3,47	3,36	3,36
Number of refrigerant circuits			2	2	2	2	2	2
Part load steps	%	0-25-50-75-100	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100	
Power supply	V/ph/Hz	400/3/50						
Startup type		Direct						
Refrigerant								
Type		HFC 410A						
Charge	kW	21,1	23,4	25,8	27,9	30,2	33,7	
Compressor								
Qty		4	4	4	4	4	4	
Type		Scroll						
Crankcase heater	W	90	90	90	90	90	90	
Evaporator								
Qty		1	1	1	1	1	1	
Type		Plate exchanger AISI 316						
Water flow	l/h	13.967	15.508	17.060	18.431	19.987	22.288	
Antifreeze heater	W	130	130	130	130	130	130	
Connection type		Male gas threaded						
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	
Condenser								
Qty		2	2	2	2	2	2	
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200	
Fan								
Qty		2	2	2	2	2	2	
Air flow	m³/h	34.700	34.700	34.050	33.400	44.500	43.200	
Speed	rpm/min	690	690	690	690	900	900	
Power input	kW	2,1	2,1	2,1	2,1	3,4	3,4	
Weight								
Shipping	kg	1.065	1.080	1.122	1.153	1.196	1.270	
Operating	kg	1.090	1.105	1.149	1.180	1.227	1.301	
Dimension								
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155	
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095	
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185	
Acoustical data								
Sound power level (4)	dB(A)	85	85	85	85	89	89	
Sound pressure level (5)	dB(A)	53	53	53	53	57	57	
Sound power level HSE (3)	dB(A)	92	92	92	92	95	95	
Sound pressure level HSE (4)	dB(A)	60	60	60	60	63	63	

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQVH 85–140 ELN

Model AQVH ELN		85	95	115	125	140	160
Cooling capacity (1)	kW	78,5	86,8	95,1	102,5	112,5	125,0
Power input (2)	kW	26,6	31,2	34,1	37,1	40,8	45,1
GROSS EER		2,76	2,63	2,65	2,64	2,62	2,65
GROSS ESEER		3,87	3,69	3,71	3,69	3,67	3,71
GROSS EER HSE		2,88	2,73	2,74	2,72	2,68	2,70
GROSS ESEER HSE		4,24	4,02	4,03	4,00	3,94	3,97
EER		2,73	2,60	2,62	2,61	2,59	2,62
ESEER		3,57	3,57	3,61	3,52	3,50	3,59
EER HSE		2,84	2,70	2,71	2,69	2,65	2,67
ESEER HSE		4,07	3,94	3,94	3,97	3,72	3,85
Heating capacity (3)	kW	89,5	99,9	107,8	115,3	129,4	142,0
Power input	kW	24,4	28,0	29,9	32,6	36,8	40,4
GROSS COP		3,42	3,35	3,40	3,35	3,33	3,34
COP		3,37	3,20	3,24	3,20	3,18	3,17
COP HSE		3,55	3,46	3,50	3,45	3,38	3,38
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	0-25-50-75-100	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	20,4	22,6	24,7	26,7	29,2	32,5
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	13.496	14.924	16.355	17.632	19.349	21.508
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Fan							
Qty		2	2	2	2	2	2
Air flow	m³/h	25.800	25.800	25.300	24.800	36.900	35.800
Speed	rpm/min	500	500	500	500	690	690
Power input	kW	1,8	1,8	1,8	1,8	2,1	2,1
Weight							
Shipping	kg	1.095	1.110	1.152	1.183	1.226	1.300
Operating	kg	1.120	1.135	1.179	1.210	1.257	1.331
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (4)	dB(A)	82	82	82	82	86	86
Sound pressure level (5)	dB(A)	50	50	50	50	54	54

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQVH 85-140 HT

Modello AQVH HT		85	95	115	125	140	160
Cooling capacity (1)	kW	83,6	93,4	103,8	111,7	118,0	132,1
Power input (2)	kW	23,6	27,2	29,5	32,0	37,0	41,2
GROSS EER		2,96	2,94	3,04	3,05	2,83	2,88
GROSS ESEER		4,14	4,12	4,25	4,27	3,97	4,03
Heating capacity (3)	kW	93,5	104,9	113,7	121,9	135,6	148,3
Power input	kW	24,5	28,1	30,1	32,8	37,2	40,9
GROSS COP		3,22	3,21	3,28	3,26	3,25	3,26
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	0-25-50-75-100	0-25-50-75-100	0-24-47-74-100	0-25-50-75-100	0-22-43-72-100	0-25-50-75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Charge	kW	22	24	27	29	31	34
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Evaporator							
Qty		1	1	1	1	1	1
Type		Plate exchanger AISI 316					
Water flow	l/h	14.371	16.073	17.847	19.219	20.291	22.718
Antifreeze heater	W	130	130	130	130	130	130
Connection type		Male gas threaded					
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"
Condenser							
Qty		2	2	2	2	2	2
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Fan							
Qty		2	2	2	2	2	2
Air flow	m³/h	50.700	50.700	49.700	48.700	52.700	51.700
Speed	rpm/min	1.130	1.130	1.130	1.130	1.130	1.130
Power input	kW	4,6	4,6	4,6	4,6	4,6	4,6
Weight							
Shipping	kg	1.065	1.080	1.122	1.153	1.196	1.270
Operating	kg	1.090	1.105	1.149	1.180	1.227	1.301
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (4)	dB(A)	95	95	95	95	95	95
Sound pressure level (5)	dB(A)	63	63	63	63	63	63

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(4) Sound power values in accordance with ISO 3744.

(5) The sound pressure is calculated from a distance of 10 m.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air Cooled Chiller

VLS 524-1204



137-308 kW



HFC 410A



Scroll

Technical feature

- 8 sizes.
- Cooling capacity from 137 to 308 kW.
- 4 versions: STD (Standard); HSE (High Seasonal Efficiency); HT (High Temperature); HPF (High Pressure Fans).
- 3 acoustic versions: BLN (Basic Low Noise), LN (Low Noise) and ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.
- Microprocessor control.
- Electronic expansion valve.
- Inverter fans (Standard HSE & HT).

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank (500 lt).
- Desuperheater and total heat recovery VLR.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Flow switch.
- Differential pressure switch (standard).
- Water filter.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control (standard).
- Mechanical gauges kit.
- Compressors acoustic box (standard).
- Compressors jackets.



Operating limit

VLS			524		604		704		804		904		1004		1004		1204	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +6 to +15															
	Water with glycol	°C	from -8 to +15															
	Δ T	K	from 3 to 8															
Air temperature	BLN	°C	from 0 to +46 (3)		from -5 to +47 (3)		from -5 to +47 (3)		from 0 to +46 (3)		from 0 to +47 (3)		from 0 to +46 (3)		from 0 to +45 (3)		from 0 to +45 (3)	
	LN/ELN (1)	°C	from 0 to +44		from -5 to +45 (3)		from -5 to +45 (3)		from 0 to +44 (3)		from 0 to +45 (3)		from 0 to +44 (3)		from 0 to +42 (3)		from 0 to +42 (3)	
	HT	°C	from -18 to +48		from -18 to +49 (3)		from -18 to +49 (3)		from -18 to +48 (3)		from -18 to +49 (3)		from -18 to +48 (3)		from -18 to +47 (3)		from -18 to +47 (3)	
External static pressure	Standard fans	Pa	0															
	Inverter fans SIF	Pa	≤120															

(1) Minimum air temperature -18°C with Fan speed control (standard ELN).

(3) High Pressure at 40.5 ba.

Chillers suitable for operation without buffer tank for water content greater than 3 liters of water per kW of output.

Technical feature VLS STD/HSE/SIF 524–1204 BLN

Model VLS STD/HSE/SIF-BLN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	136,6	154,3	176,9	198,8	228,9	250,9	279,6	307,7
Power input (2)	kW	45,0	49,7	59,4	65,5	74,6	78,5	91,6	106,2
GROSS EER		2,80	2,79	2,72	2,79	2,78	2,91	2,82	2,70
GROSS ESEER		3,79	3,77	3,68	3,78	3,77	3,94	3,81	3,66
EER		2,76	2,75	2,67	2,74	2,75	2,88	2,79	2,67
ESEER		3,62	3,50	3,47	3,44	3,43	3,59	3,52	3,45
GROSS EER HSE		2,87	2,87	2,79	2,86	2,86	2,99	2,89	2,76
GROSS ESEER HSE		4,36	4,37	4,24	4,35	4,36	4,55	4,39	4,20
EER HSE		2,83	2,82	2,74	2,81	2,83	2,95	2,85	2,71
ESEER HSE		3,89	3,81	3,79	3,89	3,90	4,07	3,97	3,86
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	26,6	30,0	34,4	39,4	47,3	49,2	55,1	60,4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	23.495	26.540	30.427	34.194	39.371	43.155	48.091	52.924
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	900	900	900	900	900	900	900	900
Air flow	m³/h	46.300	63.000	68.300	68.300	85.000	80.000	75.500	75.500
Power input	kW	3,8	5,7	5,7	5,7	7,6	7,6	7,6	7,6
Power input*	kW	2,6	4,0	4,0	4,0	5,3	5,3	5,3	5,3
Static head pressure	Pa	from 0 to 120 Pa**							
Weight									
Shipping	kg	1.188	1.413	1.603	1.746	1.880	2.010	2.100	2.110
Operating	kg	1.200	1.425	1.615	1.760	1.905	2.035	2.125	2.135
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (3)	dB(A)	92	93	93	93	94	94	95	95
Sound pressure level (4)	dB(A)	60	61	61	61	62	62	63	63

** For version with High Pressure Fans (HPF).

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature VLS STD/HSE 524-1204 LN

Model VLS STD/HSE-LN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	132,2	149,8	172,2	193,1	222,8	241,6	267,2	292,8
Power input (2)	kW	47,3	52,1	62,2	68,9	78,4	83,1	98,2	114,5
GROSS EER		2,66	2,69	2,62	2,66	2,68	2,75	2,59	2,45
GROSS ESEER		3,90	3,94	3,84	3,90	3,93	4,03	3,80	3,60
EER		2,63	2,65	2,58	2,62	2,66	2,72	2,56	2,43
ESEER		3,79	3,72	3,63	3,65	3,58	3,75	3,66	3,57
GROSS EER HSE		2,72	2,78	2,69	2,73	2,75	2,82	2,65	2,50
GROSS ESEER HSE		4,30	4,38	4,24	4,31	4,35	4,45	4,19	3,95
EER		2,69	2,74	2,65	2,68	2,73	2,80	2,64	2,48
ESEER		4,05	4,10	3,95	3,96	3,89	4,07	4,00	3,84
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	26,6	30,0	34,4	39,4	43,7	49,2	55,1	60,4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	22.738	25.765	29.618	33.213	38.321	41.555	45.958	50.361
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	700	700	700	700	700	700	700	700
Air flow	m³/h	35.400	47.300	52.200	52.200	63.700	58.800	54.900	54.900
Power input	kW	2,4	3,6	3,6	3,6	4,8	4,8	4,8	4,8
Power input*	kW	1,2	1,9	1,9	1,9	2,5	2,5	2,5	2,5
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.188	1.413	1.603	1.746	1.880	2.010	2.100	2.110
Operating	kg	1.200	1.425	1.615	1.760	1.905	2.035	2.125	2.135
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (3)	dB(A)	86	87	87	87	88	88	89	89
Sound pressure level (4)	dB(A)	54	55	55	55	56	56	57	57

* For version High Seasonal Efficiency (HSE) with inverter fans.

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature VLS STD/HSE 524-1204 ELN

Model VLS STD/HSE-ELN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	127,7	146,0	167,2	186,8	216,7	234,7	258,8	282,9
Power input (2)	kW	49,7	54,2	65,1	72,4	81,8	86,6	102,6	120,0
GROSS EER		2,47	2,55	2,46	2,48	2,53	2,59	2,43	2,28
GROSS ESEER		3,85	3,98	3,83	3,86	3,94	4,04	3,78	3,56
GROSS EER HSE		2,54	2,65	2,53	2,55	2,61	2,67	2,49	2,33
GROSS ESEER HSE		4,21	4,39	4,20	4,23	4,33	4,43	4,14	3,87
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	26,6	30	34,4	39,4	43,7	49,2	55,1	60,4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	21.964	25.112	28.758	32.129	37.272	40.368	44.513	48.658
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	550	550	550	550	550	550	550	550
Air flow	m³/h	28.300	38.500	41.800	41.800	52.000	48.900	46.200	46.200
Power input	kW	2	3	3	3	4	4	4	4
Power input*	kW	0,6	0,9	0,9	0,9	1,2	1,2	1,2	1,2
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.218	1.448	1.638	1.781	1.915	2.050	2.140	2.150
Operating	kg	1.230	1.460	1.650	1.795	1.940	2.075	2.165	2.175
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (3)	dB(A)	83	83	83	83	84	84	85	85
Sound pressure level (4)	dB(A)	51	51	51	51	52	52	53	53

* For version High Seasonal Efficiency (HSE) with inverter fans.

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature VLS HT 524-1204

Model VLS HT		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	138,1	156,1	178,6	200,9	231,7	254,2	282,4	313,3
Power input (2)	kW	44,2	48,7	58,4	64,4	73,2	76,8	89,9	103,1
GROSS EER		2,84	2,79	2,74	2,82	2,80	2,93	2,83	2,77
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	26,6	30	34,4	39,4	43,7	49,2	55,1	60,4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	23.753	26.849	30.719	34.554	39.852	43.722	48.572	53.887
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110	1.110	1.110
Air flow	m³/h	51.700	71.800	76.200	76.200	95.800	91.200	87.600	87.600
Power input*	kW	4,5	7,2	6,9	6,9	9,6	9,9	10	10
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.218	1.443	1.633	1.776	1.920	2.050	2.140	2.150
Operating	kg	1.230	1.455	1.645	1.790	1.945	2.075	2.165	2.175
Additional weights									
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (3)	dB(A)	97	99	99	99	100	100	100	100
Sound pressure level (4)	dB(A)	65	67	67	67	68	68	68	68

* For version High Temperature (HT) with inverter fans.

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature VLR 524–1204 with total heat recovery

Modello VLR		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	136,0	152,0	176,0	200,0	230,0	250,0	277,0	306,0
Power input (2)	kW	44,5	49,0	58,5	64,5	73,5	77,0	90,0	103,0
Total heat rejection	kW	171,5	191,0	222,8	251,3	288,3	310,7	348,7	388,6
GROSS EER		3,06	3,10	3,01	3,10	3,13	3,25	3,08	2,97
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	26,6	30,4	34,4	39,4	43,7	49,2	55,1	60,4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	23.392	26.144	30.272	34.400	39.560	43.000	47.644	52.632
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Heat recovery									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water volume	l	11,5	11,5	11,5	13,3	25,2	25,2	25,2	25,2
Connection type		Male gas threaded							
Inlet/outlet connection diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Weight									
Shipping	kg	1.290	1.513	1.702	1.853	2.051	2.180	2.270	2.279
Operating	kg	1.313	1.536	1.725	1.880	2.101	2.230	2.320	2.329
Additional weights									
Version ELN	kg	30	35	35	35	35	40	40	40
Versions HSE/SIF/HT	kg	30	30	30	30	40	40	40	40
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air Cooled Heat Pump VLH 524-1204

 134-300 kW

 150-336 kW

 HFC 410A

 Scroll

Technical feature

- 8 sizes.
- Cooling capacity from 134 to 300 kW.
- Heating capacity from 150 to 336 kW.
- 4 versions:
 - STD (Standard);
 - HSE (High Seasonal Efficiency);
 - HT (High Temperature);
 - HPF (High Pressure Fans).
- 3 acoustic versions:
 - BLN (Base Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.
- Microprocessor control.
- Electronic expansion valve.
- Inverter fans (Standard on HSE and HT).

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank (500 lt).
- Desuperheater.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Flow switch.
- Differential pressure switch as standard.
- Water filter.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.
- Compressors jackets.



Operating limit

VLH			524		604		704		804	
			Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +6 to +15							
	Water + glycol	°C	from -8 to +15							
	Δ T	K	from 3 to 8							
Air temperature	BLN	°C	from 0 to +46		from -5 to +47		from -5 to +47		from 0 to +46	
	Cooling LN	°C	from 0 to +44		from -5 to +45		from -5 to +45		from 0 to +44	
	Cooling ELN	°C	from -18 to +40		from -18 to +41		from -18 to +41		from -18 to +40	
	Cooling HT/HSE	°C	from -18 to +48		from -18 to +49		from -18 to +49		from -18 to +48	
	Heating	°C	from -10 to + 20							
High pressure fans	Standard fans	Pa	0							
	Invert fans SIF	Pa	≤120							

VLH			904		1004		1104		1201	
			Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +6 to +15							
	Water + glycol	°C	from -8 to +15							
	Δ T	K	from 3 to 8							
Air temperature	BLN	°C	from 0 to +47		from 0 to +46		from 0 to +45		from 0 to +45	
	Cooling LN	°C	from 0 to +45		from 0 to +44		from 0 to +42		from 0 to +42	
	Cooling ELN	°C	from -18 to +41		from -18 to +40		from -18 to +38		from -18 to +38	
	Cooling HT/HSE	°C	from -18 to +49		from -18 to +48		from -18 to +47		from -18 to +47	
	Heating	°C	from -10 to + 20							
External static pressure	Standard fans	Pa	0							
	Invert fans SIF	Pa	≤120							

Chillers suitable for operation without buffer tank for water content greater than 3 liters of water per kW of output.

Technical feature VLH STD/HSE/SIF 524-1204 BLN

Model VLH STD/HSE/SIF-BLN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	134,2	150,1	174,0	197,6	226,7	246,8	273,9	300,5
Power input (3)	kW	45,0	50,2	59,4	65,5	74,2	78,4	91,3	105,7
GROSS EER		2,75	2,69	2,67	2,78	2,77	2,87	2,77	2,65
GROSS ESEER		3,72	3,63	3,62	3,75	3,75	3,88	3,75	3,59
GROSS EER HSE		2,82	2,77	2,74	2,84	2,85	2,95	2,84	2,71
GROSS ESEER HSE		4,29	4,21	4,17	4,32	4,34	4,48	4,31	4,12
EER		2,72	2,65	2,62	2,73	2,74	2,84	2,74	2,63
ESEER		3,55	3,38	3,41	3,43	3,45	3,57	3,46	3,41
EER HSE		2,78	2,73	2,69	2,79	2,82	2,92	2,81	2,68
ESEER HSE		3,90	3,83	3,79	3,93	3,95	3,77	3,91	3,80
Heating capacity (2)	kW	149,6	169,0	199,2	221,9	254,1	270	300,8	335,8
Power input (3)	kW	44,7	51,3	60,6	63,5	71,4	79,3	91,3	103,4
GROSS COP		3,35	3,29	3,29	3,49	3,56	3,40	3,29	3,25
COP		3,06	2,93	2,97	3,17	3,20	3,09	3,02	3,00
COP HSE		3,13	3,03	3,05	3,25	3,29	3,17	3,09	3,06
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	32,9	37,2	42,6	48,8	54,1	61,0	68,3	74,8
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	23.082	25.817	29.928	33.987	38.992	42.449	47.110	51.686
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	900	900	900	900	900	900	900	900
Air flow	m³/h	46.300	63.000	68.300	68.300	85.000	80.000	75.500	75.500
Power input	kW	3,8	5,7	5,7	5,7	7,6	7,6	7,6	7,6
Power input HSE	kW	2,6	4,0	4,0	4,0	5,3	5,3	5,3	5,3
Static head pressure	Pa	from 0 to 120**							
Weight									
Shipping	kg	1.248	1.473	1.663	1.806	1.955	2.100	2.190	2.200
Operating	kg	1.260	1.485	1.675	1.820	1.980	2.125	2.215	2.225
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (4)	dB(A)	92	93	93	93	94	94	95	95
Sound pressure level (5)	dB(A)	60	61	61	61	62	62	63	63

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature VLH STD/HSE 524-1204 LN

Model VLH STD/HSE-LN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	130,0	145,9	169,2	191,6	221,2	237,8	262,1	286,2
Power input (3)	kW	47,3	52,5	62,1	68,8	78,3	82,9	97,7	113,8
GROSS EER		2,62	2,60	2,58	2,65	2,66	2,71	2,56	2,41
GROSS ESEER		3,83	3,81	3,78	3,88	3,90	3,98	3,75	3,54
GROSS EER HSE		2,68	2,68	2,64	2,71	2,74	2,78	2,62	2,46
GROSS ESEER HSE		4,23	4,23	4,17	4,28	4,32	4,39	4,13	3,88
EER		2,59	2,56	2,54	2,61	2,63	2,68	2,54	2,38
ESEER		3,74	3,60	3,58	3,64	3,59	3,70	3,63	3,49
EER HSE		2,65	2,65	2,61	2,66	2,71	2,76	2,59	2,44
ESEER HSE		4,07	3,97	3,88	3,93	3,93	4,02	3,93	3,78
Heating capacity (2)	kW	145,6	164,5	194,2	215,6	246,5	262,1	287,6	320,7
Power input (3)	kW	44,6	51,4	60,6	63,3	71,2	79,1	91,2	103,3
GROSS COP		3,26	3,20	3,20	3,41	3,46	3,31	3,15	3,10
COP		3,08	2,96	2,99	3,18	3,22	3,09	2,98	2,95
COP HSE		3,15	3,06	3,08	3,27	3,33	3,18	3,05	3,00
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	32,9	37,2	42,6	48,8	54,1	61,0	68,3	74,8
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	22.360	25.094	29.102	32.955	38.046	40.901	45.081	49.226
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	700	700	700	700	700	700	700	700
Air flow	m³/h	35.400	47.300	52.200	52.200	63.700	58.800	54.900	54.900
Power input	kW	2,4	3,6	3,6	3,6	4,8	4,8	4,8	4,8
Power input HSE	kW	1,2	1,9	1,9	1,9	2,5	2,5	2,5	2,5
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.248	1.473	1.663	1.806	1.955	2.100	2.190	2.200
Operating	kg	1.260	1.485	1.675	1.820	1.980	2.125	2.215	2.225
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (4)	dB(A)	86	87	87	87	88	88	89	89
Sound pressure level (5)	dB(A)	54	55	55	55	56	56	57	57

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature VLH STD/HSE 524-1204 ELN

Model VLH STD/HSE-ELN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	125,6	142,2	164,6	185,7	214,8	231,0	254,1	276,7
Power input (3)	kW	49,7	54,6	64,9	72,3	81,6	86,3	102,2	119,4
GROSS EER		2,43	2,47	2,42	2,47	2,51	2,56	2,39	2,24
GROSS ESEER		3,79	3,85	3,78	3,84	3,91	3,99	3,73	3,50
GROSS EER HSE		2,50	2,56	2,50	2,54	2,59	2,64	2,46	2,29
GROSS ESEER HSE		4,14	4,25	4,15	4,21	4,30	4,38	4,08	3,81
EER		2,40	2,44	2,38	2,43	2,49	2,54	2,37	2,21
ESEER		3,61	3,49	3,46	3,51	3,60	3,67	3,51	3,40
EER HSE		2,47	2,53	2,46	2,50	2,57	2,61	2,44	2,27
ESEER HSE		4,01	3,96	3,84	3,88	3,91	3,98	3,88	3,70
Heating capacity (2)	kW	137,1	156,4	183,7	202,4	232,4	244,5	266,3	296,0
Power input (3)	kW	44,6	51,5	60,7	63,1	71,1	78,8	90,1	103,1
GROSS COP		3,07	3,04	3,03	3,21	3,27	3,10	2,96	2,87
COP		2,92	2,85	2,85	3,03	3,07	2,93	2,81	2,75
COP HSE		3,01	2,95	2,95	3,13	3,19	3,04	2,90	2,83
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	32,9	37,2	42,6	48,8	54,1	61,1	68,3	74,8
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	21.603	24.458	28.311	31.940	36.945	39.732	43.705	47.592
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	550	550	550	550	550	550	550	550
Air flow	m³/h	28.300	38.500	41.800	41.800	52.000	48.900	46.200	46.200
Power input	kW	2	3	3	3	4	4	4	4
Power input HSE	kW	0,6	0,9	0,9	0,9	1,2	1,2	1,2	1,2
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.278	1.508	1.698	1.841	1.990	2.140	2.230	2.240
Operating	kg	1.290	1.520	1.710	1.855	2.015	2.165	2.255	2.265
Additional weights									
Versions HSE/SIF	kg	30	30	30	30	40	40	40	40
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (4)	dB(A)	83	83	83	83	84	84	85	85
Sound pressure level (5)	dB(A)	51	51	51	51	52	52	53	53

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature VLH HT 524-1204

Model VLH HT		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	135,8	151,7	175,6	199,7	229,5	250,1	276,5	305,6
Power input (3)	kW	44,2	49,2	58,4	64,4	73,2	76,8	89,9	102,8
GROSS EER		2,79	2,69	2,69	2,80	2,77	2,88	2,77	2,71
Heating capacity (2)	kW	150,9	170,5	200,7	224,0	256,6	273,7	305,5	341,5
Power input (3)	kW	44,6	51,3	60,6	63,5	71,4	79,3	91,4	103,5
GROSS COP		3,07	2,91	2,97	3,18	3,17	3,07	3,01	3,01
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Refrigerant									
Type		HFC 410A							
Charge	kW	32,9	37,2	42,6	48,8	54,1	61,0	68,3	74,8
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Plate exchanger AISI 316							
Water flow	l/h	23.357	26.092	30.203	34.348	39.474	43.017	47.558	52.563
Connection type		Male gas threaded							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	3"	3"	3"	3"
Condenser									
Qty		2	2	2	2	2	2	2	2
Frontal surface	mm²	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110	1.110	1.110
Air flow	m³/h	51.700	71.800	76.200	76.200	95.800	91.200	87.600	87.600
Power input	kW	4,5	7,2	6,9	6,9	9,6	9,9	10	10
Static head pressure	Pa	0							
Weight									
Shipping	kg	1.278	1.503	1.693	1.836	1.995	2.140	2.230	2.240
Operating	kg	1.290	1.515	1.705	1.850	2.020	2.165	2.255	2.265
Additional weights									
With desuperheater	kg	20	20	20	30	30	30	30	30
With one pump	kg	50	50	85	85	90	90	95	95
With two pumps	kg	140	140	200	200	205	205	215	215
With copper/copper coils	kg	380	380	520	520	520	700	880	880
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Acoustical data									
Sound power level (4)	dB(A)	97	99	99	99	100	100	100	100
Sound pressure level (5)	dB(A)	65	67	67	67	68	68	68	68

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air Cooled Chiller

AQWL 1404-2406

 **380-634 kW**
 **410A**
 **Scroll**

Technical feature

- 5 sizes.
- Cooling capacity from 380 to 602 kW.
- Heating capacity from 418 to 702 kW.
- 4 versions:
 - STD (Standard);
 - HSE (High Seasonal Efficiency);
 - HT (High Temperature);
 - HPF (High Pressure Fans).
- 3 acoustic versions:
 - BLN (Basic Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.
- Electronic expansion valve.
- Inverter fans (Standard HSE and HT).



Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater and totally heat recover AQWR.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Flow switch.
- Differential pressure switch as standard.
- Water filter.
- S&T evaporator.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.
- Compressors jackets.

Operating limit

AQWL			1404		1604		1806		2106		2406	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +6 to +15									
	Water + glycol	°C	from -8 to +15									
	Δ T	K	from 3 to 8									
Air temperature	BLN	°C	from 0 to +44	from 0 to +44	from -5 to +44	from 0 to +44	from -5 to +44	from 0 to +44	from -5 to +44	from 0 to +44	from -5 to +44	from 0 to +44
	LN	°C	from 0 to +42	from 0 to +42	from -5 to +42	from 0 to +42	from -5 to +42	from 0 to +42	from -5 to +42	from 0 to +42	from -5 to +42	from 0 to +42
	ELN	°C	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40	from -18 to +40
	HT	°C	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45
External static pressure	Standard fans	Pa	0									
	Inverter fans SIF	Pa	<120									

Technical feature AQWL STD/HSE/HPF 1404-2406 BLN

Model AQWL STD/HSE/HPF BLN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	380,0	422,9	496,0	562,0	634,4
Power input (2)	kW	116,6	131,2	153,0	174,9	196,8
GROSS EER		2,90	2,90	2,90	2,91	2,90
GROSS ESEER		4,07	4,08	4,07	4,09	4,08
GROSS EER HSE		2,93	2,93	2,93	2,94	2,93
GROSS ESEER HSE		4,22	4,22	4,22	4,23	4,22
EER		2,85	2,86	2,86	2,86	-
ESEER		3,73	3,79	3,80	3,84	-
EER HSE		2,89	2,89	2,89	2,89	-
ESEER HSE		3,85	3,91	3,92	3,96	-
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type		HFC 410A				
Charge	kg	40+40	44+44	52+52	67+52	67+67
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	l/h	65.360	72.739	85.312	96.664	109.117
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	880	880	880	880	880
Air flow	m³/h	162.000	153.000	190.000	204.000	227.000
Power input	kW	14,4	14,4	18,0	18,0	21,6
Power input HSE	kW	13,0	13,0	16,3	16,3	19,6
Static head pressure	Pa	from 0 to 120**				
Weight						
Shipping	kg	2.633	2.850	3.559	3.814	3.932
Operating	kg	2.668	2.887	3.599	3.854	3.975
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (3)	db(A)	97	97	98	98	99
Sound pressure level (4)	db(A)	65	65	66	66	67

** For version with High Pressure Fans (HPF).

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQWL STD/HSE 1404-2406 LN

Modello AQWL STD/HSE LN		1404	1604	1806	2106	2406	
Cooling capacity (1)		kW	368,2	410,3	481,0	544,0	615,4
Power input (2)		kW	122,0	137,0	160,0	182,0	205,0
GROSS EER			2,80	2,80	2,80	2,80	2,80
GROSS ESEER			4,08	4,08	4,08	4,09	4,09
GROSS EER HSE			2,86	2,86	2,86	2,86	2,86
GROSS ESEER HSE			4,28	4,27	4,27	4,27	4,28
EER			2,76	2,76	2,76	2,76	2,76
ESEER			3,83	3,88	3,93	3,95	3,95
EER HSE			2,82	2,82	2,82	2,81	2,81
ESEER HSE			3,92	3,93	4,08	4,08	4,08
Number of refrigerant circuits			2	2	2	2	2
Part load steps		%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant							
Type				HFC 410A			
Charge		kg	40+40	44+44	52+52	67+52	67+67
Compressor							
Qty			4	4	6	6	6
Type			Scroll				
Evaporator							
Qty			1	1	1	1	1
Type			Plate exchanger AISI 316				
Water flow		l/h	63.330	70.571	82.732	93.568	105.848
Connection type			Victaulic				
Inlet/outlet diameter		inch	4"	4"	4"	4"	4"
Condenser							
Qty			4	4	4	4	4
Frontal surface		mm²	4,4	4,4	5,6	6,7	6,7
Fan							
Qty			8	8	10	10	12
Speed		rpm/min	700	700	700	700	700
Air flow		m³/h	124.000	116.000	142.000	156.000	172.000
Power input		kW	9,6	9,6	12,0	12,0	14,4
Power input HSE		kW	6,6	6,6	8,2	8,2	9,8
Static head pressure		Pa	0				
Weight							
Shipping		kg	2.633	2.850	3.559	3.814	3.932
Operating		kg	2.668	2.887	3.599	3.854	3.975
Dimensions							
Length		mm	4.000	4.000	5.000	6.000	6.000
Width		mm	2.200	2.200	2.200	2.200	2.200
Height		mm	2.550	2.550	2.550	2.550	2.550
Acoustical data							
Sound power level (3)		db(A)	91	91	92	92	93
Sound pressure level (4)		db(A)	59	59	60	60	61

(1) Data based on 7 °C leaving chilled water temperature and 35 °C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQWL STD/HSE 1404-2406 ELN

Model AQWL STD/HSE ELN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	349,8	389,0	456,5	517,2	584,0
Power input (2)	kW	129,4	145,2	170,4	194,1	217,8
GROSS EER		2,52	2,51	2,50	2,51	2,52
GROSS ESEER		3,81	3,80	3,78	3,79	3,80
GROSS EER HSE		2,65	2,63	2,63	2,62	2,64
GROSS ESEER HSE		4,10	4,07	4,07	4,06	4,08
EER		2,49	2,48	2,47	2,47	2,47
ESEER		3,53	3,64	3,73	3,74	3,74
EER HSE		2,62	2,60	2,60	2,58	2,58
ESEER HSE		3,79	3,88	3,96	3,93	3,93
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type		HFC 410A				
Charge	kg	40+40	44+44	52+52	67+52	67+67
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	l/h	60.165	66.908	78.518	88.958	100.448
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	550	550	550	550	550
Air flow	m³/h	97.000	91.000	112.000	122.000	135.000
Power input	kW	9,6	9,6	12,0	12,0	14,4
Power input HSE	kW	2,6	2,6	3,2	3,2	3,8
Static head pressure	Pa	0				
Weight						
Shipping	kg	2.633	2.850	3.559	3.814	3.932
Operating	kg	2.668	2.887	3.599	3.854	3.975
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (3)	db(A)	88	88	89	89	90
Sound pressure level (4)	db(A)	56	56	57	57	58

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQWL HT 1404-2406

Model AQWL HT		1404	1604	1806	2106	2406	
Cooling capacity (1)		kW	383,8	427,1	501,0	567,6	640,7
Power input (2)		kW	115,4	129,9	151,5	173,2	194,8
GROSS EER			3,33	3,29	3,31	3,28	3,29
GROSS ESEER			2,82	2,83	2,82	2,85	2,83
Number of refrigerant circuits			2	2	2	2	2
Part load steps		%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant							
Type			HFC 410A				
Charge		kg	40+40	44+44	52+52	67+52	67+67
Compressor							
Qty			4	4	6	6	6
Type			Scroll				
Evaporator							
Qty			1	1	1	1	1
Type			Plate exchanger AISI 316				
Water flow		l/h	66.013	73.461	86.172	97.627	110.200
Connection type			Victaulic				
Inlet/outlet diameter		inch	4"	4"	4"	4"	4"
Condenser							
Qty			4	4	4	4	4
Frontal surface		mm²	4,4	4,4	5,6	6,7	6,7
Fan							
Qty			8	8	10	10	12
Speed		rpm/min	1.100	1.100	1.100	1.100	1.100
Air flow		m³/h	198.000	187.000	232.000	249.000	277.000
Power input		kW	20,8	20,8	26,0	26,0	31,2
Static head pressure		Pa	0				
Weight							
Shipping		kg	2.633	2.850	3.559	3.814	3.932
Operating		kg	2.668	2.887	3.599	3.854	3.975
Dimensions							
Length		mm	4.000	4.000	5.000	6.000	6.000
Width		mm	2.200	2.200	2.200	2.200	2.200
Height		mm	2.550	2.550	2.550	2.550	2.550
Acoustical data							
Sound power level (3)		db(A)	103	103	104	104	105
Sound pressure level (4)		db(A)	71	71	72	72	73

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature AQWR 1404-2406

Modello AQWR		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	380	423	496	562	634
Power input (2)	kW	117	131	153	175	197
EER (2)		3,26	3,22	3,24	3,21	3,22
ESEER		489	546	639	726	818
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	880	880	880	880	880
Air flow	m³/h	162.000	153.000	190.000	204.000	227.000
Power input	kW	14,4	14,4	18,0	18,0	21,6
Power input HSE	kW	13,0	13,0	16,3	16,3	19,6
Static head pressure	Pa	from 0 to 120**				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	m³/h	65.360	72.739	85.312	96.664	109.117
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Scambiatore di calore						
Qty		4	4	4	4	4
Type		Plate exchanger AISI 316				
Water flow	m³/h	84.108	93.912	109.908	124.872	140.696
Inlet/outlet diameter	inch	3"	3"	3"	3"	3"
Weight						
Shipping	kg	2.896	3.133	3.922	4.177	4.315
Operating	kg	2.966	3.207	4.002	4.257	4.400
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550

** For version with High Pressure Fans (HPF).

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature..

(2) Only compressors.

Air Cooled Heat Pumps AQWH 1404-2406

 360-602 kW

 418-702 kW

 410A

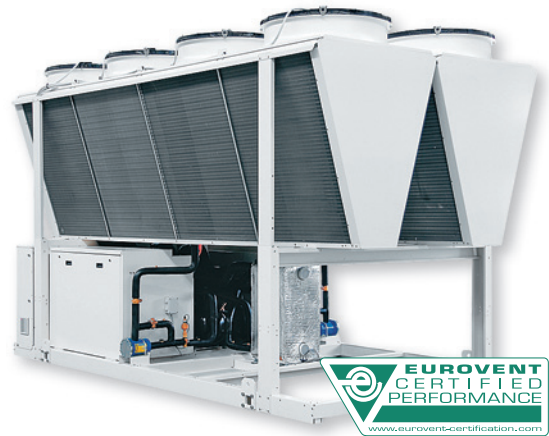
 Scroll

Technical feature

- 5 sizes.
- Cooling capacity from 360 to 602 kW.
- Heating capacity from 418 to 702 kW.
- 4 versions:
 - STD (Standard);
 - HSE (High Seasonal Efficiency);
 - HT (High Temperature);
 - HPF (High Pressure Fans).
- 3 acoustic versions:
 - BLN (Basic Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two refrigerant circuit.
- Scroll compressors.
- Electronic expansion valve.
- Inverter fans (standard HSE and HT).

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater and total heat recovery.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Flow switch.
- Differential pressure switch as standard.
- Water filter.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.
- Compressors jackets.



Operating limit

AQWH			1404		1604		1806		2106		2406	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature (cooling)	Water	°C	from +6 to +15									
	Water + glicol	°C	from -8 to +15									
	Δ T	K	from 3 to 8									
Leaving water temperature (heating)		°C	from 30 to 50									
Air temperature	BLN	°C	from -5 to +44		from 0 to +44		from 0 to +44		from 0 to +44		from 0 to +44	
	LN	°C	from -5 to +42		from 0 to +42		from 0 to +42		from 0 to +42		from 0 to +42	
	ELN	°C	from -18 to +40		from -18 to +40		from -18 to +40		from -18 to +40		from -18 to +40	
	HT	°C	from -18 to +45		from -18 to +45		from -18 to +45		from -18 to +45		from -18 to +45	
	Heating	°C	from -10 to +20									
External static pressure	Standard fans	Pa	0									
	Inverter fans SIF	Pa	< 120									

Technical feature AQWH STD/HSE/HPF 1404-2406 BLN

Model AQWH STD/HSE/HPF BLN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	360,2	401,7	472,2	537,0	601,9
Power input (3)	kW	119,0	134,0	156,0	178,5	201,0
GROSS EER		2,77	2,71	2,77	2,71	2,70
GROSS ESEER		3,90	3,80	3,89	3,80	3,80
GROSS EER HSE		2,80	2,73	2,79	2,73	2,73
GROSS ESEER HSE		4,03	3,94	4,02	3,94	3,93
EER		2,66	2,67	2,68	2,68	2,68
ESEER		3,47	3,54	3,55	3,59	3,59
EER HSE		2,69	2,70	2,71	2,71	2,71
ESEER HSE		3,57	3,69	3,73	3,79	3,73
Heating capacity (2)	kW	418,1	467,6	545,7	623,9	702,0
Power input (3)	kW	116,0	130,0	151,8	173,4	195,0
GROSS COP		3,60	3,60	3,59	3,60	3,60
GROSS COP HSE		3,24	3,27	3,25	3,29	3,27
COP		3,17	3,21	3,18	3,23	3,18
COP HSE		3,21	3,24	3,22	3,26	3,22
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type		HFC 410A				
Charge	kg	47+47	52+52	61+61	78+61	78+78
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	l/h	61.950	69.092	81.210	92.371	103.532
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	880	880	880	880	880
Air flow	m³/h	181.000	181.000	200.000	214.500	242.000
Power input	kW	14,4	14,4	18,0	18,0	21,6
Power input HSE	kW	13,0	13,0	16,3	16,3	19,6
Static head pressure	Pa	from 0 to 120**				
Weight						
Shipping	kg	2.896	3.018	3.967	4.083	4.465
Operating	kg	2.931	3.056	4.007	4.123	4.507
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (4)	db(A)	97	97	98	98	99
Sound pressure level (5)	db(A)	65	65	66	66	67

** For version with High Pressure Fans (HPF).

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQWH STD/HSE 1404-2406 LN

Model AQWH STD/HSE LN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	347,8	388,3	457,3	520,2	582,0
Power input (3)	kW	124,0	139,0	163,0	186,0	209,0
GROSS EER		2,65	2,61	2,65	2,61	2,60
GROSS ESEER		3,86	3,81	3,86	3,81	3,80
GROSS EER HSE		2,70	2,67	2,70	2,67	2,66
GROSS ESEER HSE		4,03	3,98	4,03	3,99	3,97
EER		2,57	2,58	2,58	2,59	-
ESEER		3,57	3,63	3,68	3,70	-
EER HSE		2,63	2,63	2,64	2,64	-
ESEER HSE		3,74	3,85	3,94	3,95	-
Heating capacity (2)	kW	396,4	443,9	517,1	591,2	665,4
Power input (3)	kW	115,0	130,0	152,0	173,0	194,0
GROSS COP		3,45	3,41	3,13	3,42	3,43
GROSS COP HSE		3,26	3,25	3,23	3,26	3,26
COP		3,15	3,15	3,13	3,16	3.13
COP HSE		3,22	3,22	3,20	3,23	3.22
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type		HFC 410A				
Charge	kg	47+47	52+52	61+61	78+61	78+78
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	l/h	59.821	66.787	78.655	89.474	100.104
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	700	700	700	700	700
Air flow	m³/h	142.000	142.000	153.000	165.000	183.000
Power input	kW	9,6	9,6	12,0	12,0	14,4
Power input HSE	kW	6,6	6,6	8,2	8,2	9,8
Static head pressure	Pa	0				
Weight						
Shipping	kg	2.896	3.018	3.967	4.083	4.465
Operating	kg	2.931	3.056	4.007	4.123	4.507
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (4)	db(A)	91	91	92	92	93
Sound pressure level (5)	db(A)	59	59	60	60	61

(1) Data based on 7°C leaving chilled water temperature and 35 °C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQWH STD/HSE 1404-2406 ELN

Model AQWH STD/HSE ELN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	330,2	367,7	433,6	492,3	551,1
Power input (3)	kW	132,0	148,0	174,0	198,0	222,0
GROSS EER		2,37	2,33	2,36	2,33	2,33
GROSS ESEER		3,59	3,53	3,57	3,52	3,52
GROSS EER HSE		2,47	2,44	2,46	2,44	2,44
GROSS ESEER HSE		3,82	3,78	3,80	3,78	3,78
EER		2,30	2,31	2,31	2,32	2,32
ESEER		3,28	3,38	3,48	3,49	3,49
EER HSE		2,42	2,42	2,42	2,42	2,42
ESEER HSE		3,51	3,61	3,69	3,67	3,67
Heating capacity (2)	kW	379,8	426,4	496,3	567,6	639,0
Power input (3)	kW	115,0	129,0	151,8	172,8	193,8
GROSS COP		3,30	3,31	3,05	3,28	3,30
GROSS COP HSE		3,23	3,24	3,20	3,23	3,23
COP		3,02	3,05	3,01	3,04	-
COP HSE		3,20	3,21	3,17	3,19	-
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type		HFC 410A				
Charge	kg	47+47	52+52	61+61	78+61	78+78
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		A piastre AISI 316				
Water flow	l/h	56.794	63.244	74.579	84.675	94.789
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	550	550	550	550	550
Air flow	m³/h	112.000	112.000	120.000	130.000	144.000
Power input	kW	9,6	9,6	12,0	12,0	14,4
Power input HSE	kW	2,6	2,6	3,2	3,2	3,8
Static head pressure	Pa	0				
Weight						
Shipping	kg	2.896	3.018	3.967	4.083	4.465
Operating	kg	2.931	3.056	4.007	4.123	4.507
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (4)	db(A)	88	88	89	89	90
Sound pressure level (5)	db(A)	56	56	57	57	58

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature AQWH HT 1404-2406

Model AQWH HT		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	363,8	405,7	477,0	542,3	608,0
Power input (3)	kW	117,8	132,7	154,4	176,7	199,0
GROSS EER		2,73	2,64	2,72	2,64	2,64
Heating capacity (2)	kW	422,0	473,0	551,0	630,0	709,0
Power input (3)	kW	114,8	128,7	150,3	171,7	193,0
GROSS COP		3,11	3,16	3,13	3,19	3,16
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Refrigerant						
Type				HFC 410A		
Charge	kg	47+47	52+52	61+61	78+61	78+78
Compressor						
Qty		4	4	6	6	6
Type		Scroll				
Evaporator						
Qty		1	1	1	1	1
Type		Plate exchanger AISI 316				
Water flow	l/h	62.573,6	69.780	82.044	93.275	104576
Connection type		Victaulic				
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"
Condenser						
Qty		4	4	4	4	4
Frontal surface	mm²	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	1.100	1.100	1.100	1.100	1.100
Air flow	m³/h	220.000	220.000	244.000	278.000	295.000
Power input	kW	20,8	20,8	26,0	26,0	31,2
Static head pressure HSE	Pa	0				
Weight						
Shipping	kg	2.896	3.018	3.967	4.083	4.465
Operating	kg	2.931	3.056	4.007	4.123	4.507
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Acoustical data						
Sound power level (4)	db(A)	103	103	104	104	105
Sound pressure level (5)	db(A)	71	71	72	72	73

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Data based on 45°C leaving hot water temperature and 7°C ambient air temperature.

(3) Only compressors.

(4) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1.

(5) Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Air Cooled Chiller Class A

AQSL 2612-4212

 602-908 kW

 HFC 134a

 Screw

Technical feature

- 7 sizes.
- Cooling capacity from 602 to 908 kW.
- 4 versions:
 - STD (Standard);
 - HSE (High Seasonal Efficiency);
 - HT (High Temperature);
 - HPF (High Pressure Fans).
- 3 acoustic versions:
 - BLN (Basic Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two refrigerant circuits.
- Screw compressors.
- Electronic expansion valve.
- Inverter fans (HSE and HPF).

Accessories and options

- Hydrokit with 1 or 2 pumps.
- Desuperheater and totally heat recover AQSR.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Flow switch.
- Water filter.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.
- Compressors stepless control.



Operating limit

AQSL			2612		2812		3012		3212	
			Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15							
	ΔT	K	from 3 to 8							
Air temperature	BLN	°C	from -5 to +49		from -5 to +47		from -5 to +47		from -5 to +49	
	LN	°C	from -5 to +46		from -5 to +45		from -5 to +45		from -5 to +47	
	ELN	°C	from -18 to +43		from -18 to +43		from -18 to +43		from -18 to +44	
	HT	°C	from -18 to +50		from -18 to +49		from -18 to +49		from -18 to +50	
External static pressure	Standard fans	Pa	0							
	Inverter fans	Pa	< 120							

AQSL			3412		3612		4212	
			Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15					
	ΔT	K	from 3 to 8					
Air temperature	BLN	°C	from -5 to +48		from -5 to +48		from -5 to +49	
	LN	°C	from -5 to +47		from -5 to +47		from -5 to +48	
	ELN	°C	from -18 to +43		from -18 to +43		from -18 to +46	
	HT	°C	from -18 to +49		from -18 to +49		from -18 to +50	
External static pressure	Standard fans	Pa	0					
	Inverter fans	Pa	< 120					

Technical feature AQSL STD/HSE/HPF 2612-4212 BLN

Model AQSL STD/HSE/HPF BLN		2612	2812	3012	3212	3412	3612	4212
Cooling capacity (1)	kW	602	638	693	762	811	853	908
Power input (2)	kW	176	187	204	216	232	246	257
GROSS EER		3,11	3,11	3,10	3,12	3,11	3,10	3,14
Energy class		A	A	A	A	A	A	A
GROSS ESEER		4,15	4,17	4,08	3,95	4,02	4,07	4,05
GROSS EER HSE		3,13	3,13	3,13	3,15	3,14	3,13	3,17
Energy class		A	A	A	A	A	A	A
GROSS ESEER HSE		4,51	4,51	4,50	4,54	4,52	4,51	4,57
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6 or infinity if stepless						
Refrigerant								
Type		HFC 134a						
Charge	kW	60+68	68+68	68+82	82+82	82+89	89+89	98+98
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Type of oil		Polyester						
Part load steps	%	50/75/100 (50-100 stepless control option)						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	103.544	109.736	119.196	131.064	139.492	146.716	156.176
Connection type		Victaulic						
Inlet/outlet diameter	inch	8"	8"	8"	8"	8"	8"	8"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	6	6	6	8	8	8	11
Number of rows		4	4	4	3	3	3	3
Fan								
Qty		10	10	11	16	16	16	18
Air flow	m³/h	185.000	179.000	188.000	308.000	308.000	308.000	338.000
Speed	rpm/min	900	900	900	900	900	900	900
Power input	kW	18	18	19,8	28,8	28,8	28,8	32,4
Power input HSE	kW	16,3	16,3	17,9	26,1	26,1	26,1	29,3
Static head pressure	Pa	from 0 to 120 Pa**						
Weight								
Shipping	kg	5.149	5.259	5.568	6.447	6.938	6.955	7.538
Operating	kg	4.911	5.022	5.340	6.161	6.569	6.586	7.168
Dimensions								
Length	mm	6.170	6.170	6.170	8.110	8.110	8.110	10.050
Width	mm	2.172	2.172	2.172	2.172	2.172	2.172	2.172
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	96	96	96	97	97	97	98
Sound pressure level at 10 m (4)	dB(A)	64	64	64	65	65	65	66

** For version with High Pressure Fans (HPF).

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQSL STD/HSE 2612-4212 LN

Model AQSL STD/HSE LN		2612	2812	3012	3212	3412	3612	4212
Cooling capacity (1)	kW	549	580	627	706	750	794	859
Power input (2)	kW	190	207	226	228	245	262	270
GROSS EER		2,72	2,66	2,63	2,87	2,85	2,83	2,96
GROSS EER HSE		2,77	2,70	2,67	2,93	2,90	2,89	3,02
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6 or infinity if stepless						
Refrigerant								
Type		HFC 134a						
Charge	kW	60+68	68+68	68+82	82+82	82+89	89+89	98+98
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Type of oil		Polyester						
Part load steps	%	50/75/100 (50-100 stepless control option)						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	94.428	99.760	107.844	121.432	129.000	136.568	147.748
Connection type		Victaulic						
Inlet/outlet diameter	inch	8"	8"	8"	8"	8"	8"	8"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	6	6	6	8	8	8	11
Number of rows		4	4	4	3	3	3	3
Fan								
Qty		10	10	11	16	16	16	18
Speed	rpm/min	700	700	700	700	700	700	700
Power input	kW	11,5	11,5	12,7	18,4	18,4	18,4	20,7
Power input HSE	kW	8,2	8,2	9,0	13,1	13,1	13,1	14,8
Static head pressure	Pa	0						
Weight								
Shipping	kg	5.149	5.259	5.568	6.447	6.938	6.955	7.538
Operating	kg	4.911	5.022	5.340	6.161	6.569	6.586	7.168
Dimensions								
Length	mm	6.170	6.170	6.170	8.110	8.110	8.110	10.050
Width	mm	2.172	2.172	2.172	2.172	2.172	2.172	2.172
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	94	94	94	95	95	95	96
Sound pressure level at 10 m (4)	dB(A)	62	62	62	63	63	63	64

(1) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQSL STD/HSE 2612-4212 ELN

Model AQSL STD/HSE ELN		2612	2812	3012	3212	3412	3612	4212
Cooling capacity (1)	kW	528	558	596	661	715	744	822
Power input (2)	kW	200	216	239	240	262	284	286
GROSS EER		2,50	2,45	2,37	2,56	2,55	2,46	2,68
GROSS EER HSE		2,60	2,55	2,46	2,69	2,68	2,57	2,82
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6 or infinity if stepless						
Refrigerant								
Type		HFC 134a						
Charge	kW	60+68	68+68	68+82	82+82	82+89	89+89	98+98
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Type of oil		Polyester						
Part load steps	%	50/75/100 (50-100 stepless control option)						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	90.816	95.976	102.512	113.692	122.980	127.968	141.384
Connection type		Victaulic						
Inlet/outlet diameter	inch	8"	8"	8"	8"	8"	8"	8"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	6	6	6	8	8	8	11
Number of rows		4	4	4	3	3	3	3
Fan								
Qty		10	10	11	16	16	16	18
Air flow	m³/h	110.000	106.000	109.000	170.000	170.000	170.000	204.000
Speed	rpm/min	550	550	550	550	550	550	550
Power input	kW	11,5	11,5	12,7	18,4	18,4	18,4	20,7
Power input HSE	kW	3,2	3,2	3,5	5,1	5,1	5,1	5,8
Static head pressure	Pa	0						
Weight								
Shipping	kg	5.264	5.374	5.683	6.562	7.053	7.070	7.653
Operating	kg	5.026	5.137	5.455	6.276	6.684	6.701	7.283
Dimensions								
Length	mm	6.170	6.170	6.170	8.110	8.110	8.110	10.050
Width	mm	2.172	2.172	2.172	2.172	2.172	2.172	2.172
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	92	92	92	93	93	93	94
Sound pressure level at 10 m (4)	dB(A)	60	60	60	61	61	61	62

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature AQSL 2612-4212 HT

Model AQSL HT		2612	2812	3012	3212	3412	3612	4212
Cooling capacity (1)	kW	605	642	696	771	816	855	924
Power input (2)	kW	174	187	204	214	231	248	253
GROSS EER		3,01	3,00	2,98	3,01	2,98	2,94	3,07
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6 or infinity if stepless						
Refrigerant								
Type		HFC 134a						
Charge	kW	60+68	68+68	68+82	82+82	82+89	89+89	98+98
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Type of oil		Polyester						
Part load steps	%	50/75/100 (50-100 stepless control option)						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	104.060	110.424	119.712	132.612	140.352	147.060	158.928
Connection type		Victaulic						
Inlet/outlet diameter	inch	8"	8"	8"	8"	8"	8"	8"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	6	6	6	8	8	8	11
Number of rows		4	4	4	3	3	3	3
Fan								
Qty		10	10	11	16	16	16	18
Air flow	m³/h	226.000	219.000	229.000	376.000	376.000	376.000	413.000
Speed	rpm/min	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Power input	kW	26,7	26,7	29,4	42,7	42,7	42,7	48,1
Static head pressure	Pa	0						
Weight								
Shipping	kg	5.149	5.259	5.568	6.447	6.938	6.955	7.538
Operating	kg	4.911	5.022	5.340	6.161	6.569	6.586	7.168
Dimensions								
Length	mm	6.170	6.170	6.170	8.110	8.110	8.110	10.050
Width	mm	2.172	2.172	2.172	2.172	2.172	2.172	2.172
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	103	103	103	102	102	102	105
Sound pressure level at 10 m (4)	dB(A)	71	71	71	72	72	72	73

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(2) Compressors only.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Air Cooled Chiller

SLS STD/HE 1402-8404

 293-1687 kW

 HFC 134a

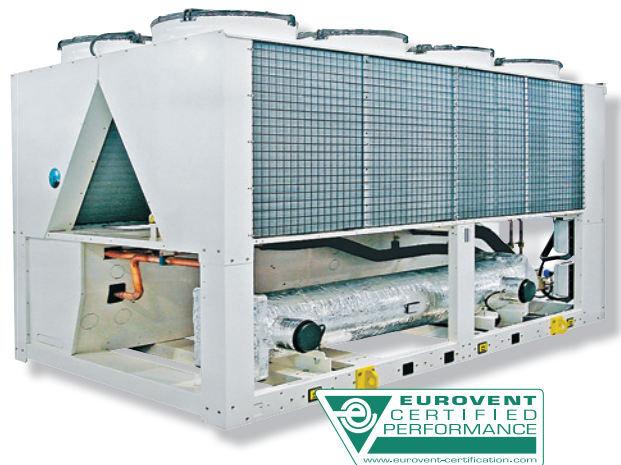
 Screw

Technical features

- 17 sizes STD and 18 sizes HE.
- Cooling capacity from 293 to 1687 kW.
- 2 versions:
 - STD (Standard);
 - HE (High Efficiency).
- 3 acoustic versions:
 - BLN (Basic Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two or four refrigerant circuits.
- Screw compressors.

Accessories and options

- Hydrokit with 1 or 2 pumps with or without buffer tank.
- Desuperheater and total heat recovery.
- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Flow switch.
- Water filter.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.
- Compressors stepless control.



Operating limit**SLS STD 1402-1902**

SLS STD			1402		1602		1802		1902		2002	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15									
	Δ T	K	from 3 to 8									
Air temperature	BLN	°C	from -5(2) to 45		from -5(2) to 44		from -5(2) to 45		from -5(2) to 44		from -5(2) to 45	
	LN	°C	from -5(2) to 42		from -5(2) to 41		from -5(2) to 42		from -5(2) to 41		from -5(2) to 42	
	ELN	°C	from -18 to 42		from -18 to 41		from -18 to 42		from -18 to 41		from -18 to 42	
External static pressure	Standard fans	Pa	0									
	High pressure fans (HPF)	Pa	100									

(2) Minimum air temperature -18°C with fan speed control (option).

SLS STD 2202-5404

SLS STD			2202		2502		2702		5004		2002		5404	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15											
	Δ T	K	from 3 to 8											
Air temperature	BLN	°C	from -5 (2) to 44		from -5 (2) to 43		from -5 (2) to 43		from -5 (2) to 44		from -5 (2) to 43		from -5 (2) to 43	
	LN	°C	from -5 (2) to 41		from -5 (2) to 40		from -5 (2) to 40		from -5 (2) to 41		from -5 (2) to 40		from -5 (2) to 40	
	ELN	°C	from -18 to 41		from -18 to 40		from -18 to 40		from -18 to 41		from -18 to 40		from -18 to 40	
External static pressure	Standard fans	Pa	0											
	High pressure fans (HPF)	Pa	100											

(2) Minimum air temperature -18°C with fan speed control (option).

SLS STD 5704-8404

SLS STD			5704		6004		6404		6804		7204		8404	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15											
	Δ T	K	from 3 to 8											
Air temperature	BLN	°C	from -5 (2) to 43		from -5 (2) to 45		from -5 (2) to 45		from -5 (2) to 45		from -5 (2) to 45		from -5 (2) to 43	
	LN	°C	from -5 (2) to 40		from -5 (2) to 42		from -5 (2) to 42		from -5 (2) to 42		from -5 (2) to 42		from -5 (2) to 40	
	ELN	°C	from -18 to 40		from -18 to 42		from -18 to 42		from -18 to 42		from -18 to 42		from -18 to 40	
External static pressure	Standard fans	Pa	0											
	High pressure fans (HPF)	Pa	100											

(2) Minimum air temperature -18°C with fan speed control (option).

Operating limit**SLS HE 1402-2402**

SLS HE			1402		1602		1802		1902		2002		2402	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15											
	Δ T	K	from 3 to 8											
Air temperature	BLN	°C	from -5 (2) to 48		from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 48	
	LN	°C	from -5 (2) to 45		from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 45	
	ELN	°C	from -18 to 45		from -18 to 44		from -18 to 44		from -18 to 44		from -18 to 44		from -18 to 45	
External static pressure	Standard fans	Pa	0											
	High pressure fans (HPF)	Pa	100											

(2) Minimum Air Temperature -18°C with fan speed control (option).

SLS HE 2602-5604

SLS HE			2602		4602		4802		4804		5204		5604	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15											
	Δ T	K	from 3 to 8											
Air temperature	BLN	°C	from -5 (2) to 48		from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 48		from -5 (2) to 48		from -5 (2) to 48	
	LN	°C	from -5 (2) to 45		from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 45		from -5 (2) to 45		from -5 (2) to 45	
	ELN	°C	from -18 to 45		from -18 to 44		from -18 to 44		from -18 to 45		from -18 to 45		from -18 to 45	
External static pressure	Standard fans	Pa	0											
	High pressure fans (HPF)	Pa	100											

(2) Minimum Air Temperature -18°C with fan speed control (option).

SLS HE 6004-8404

SLS HE			6004		6404		6804		7204		7804		8404	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Leaving water temperature	Water	°C	from +5 to +15											
	Δ T	K	from 3 to 8											
Air temperature	BLN	°C	from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 47		from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 44	
	LN	°C	from -5 (2) to 44		from -5 (2) to 44		from -5 (2) to 41		from -5 (2) to 41		from -5 (2) to 41		from -5 (2) to 41	
	ELN	°C	from -18 to 44		from -18 to 44		from -18 to 41		from -18 to 41		from -18 to 41		from -18 to 41	
External static pressure	Standard fans	Pa	0											
	High pressure fans (HPF)	Pa	100											

(2) Minimum Air Temperature -18°C with fan speed control (option).

Technical feature SLS STD 1402-2702 BLN

Model SLS STD BLN		1402	1602	1802	1902	2002	2202	2502	2702
Cooling capacity (1)	kW	293,0	326,2	365,6	410,6	455,5	480,5	513,6	546,8
Power input	kW	95,8	111,8	126,2	150,4	159,6	175,6	189,6	203,6
GROSS EER		3,10	2,90	2,90	2,70	2,90	2,70	2,70	2,70
EER		2,80	2,47	2,46	2,70	2,62	2,48	2,57	2,49
ESEER		3,25	2,87	2,85	3,13	3,04	2,88	2,98	2,89
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6	6
Compressor									
Qty		2	2	2	2	2	2	2	2
Type		Screw							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Shell & Tube							
Water flow	l/h	50.396	56.106	62.883	70.623	78.346	82.646	88.339	94.049
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"	6"
Condenser									
Qty		4	4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	4	4	4	4
Number of rows		3	3	3	3	4	4	4	4
Fan									
Qty		4	4	6	7	8	8	8	8
Air flow	m³/h	95.000	95.000	131.800	134.900	138.000	138.000	138.000	138.000
Speed	rpm/min	900	900	900	900	900	900	900	900
Power input	kW	7,2	7,2	10,8	12,6	14,4	14,4	14,4	14,4
Weight									
Shipping	kg	3.529	3.547	3.629	4.068	4.587	4.587	4.609	4.627
Operating	kg	3.625	3.643	3.716	4.207	4.680	4.689	4.738	4.755
Dimensions									
Length	mm	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data									
Sound power level (3)	dB(A)	96	96	97	98	98	98	98	98
Sound pressure level at 10 m (4)	dB(A)	64	64	65	66	66	66	66	66

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS STD 4802-8404 BLN

Model SLS STD BLN		4802	5004	5404	5704	6004	6404	6804	7204	8404
Cooling capacity (1)	kW	962,4	1027,2	1093,6	1167,1	1240,6	1320,0	1437,2	1517,6	1646,6
Power input	kW	312,9	355,8	382,2	385,3	388,4	430,2	469,2	508,2	579,0
GROSS EER		3,10	2,90	2,90	3,00	3,20	3,10	3,10	3,00	2,80
Number of refrigerant circuits		2	4	4	4	4	4	4	4	4
Part load steps	%	6	9	9	9	9	9	9	9	9
Compressor										
Qty		2	4	4	4	4	4	4	4	4
Type		Screw								
Evaporator										
Qty		1	2	2	2	2	2	2	2	2
Type		Shell & Tube								
Water flow	l/h	165.532	176.678	188.099	200.741	213.383	227.040	247.198	261.027	283.215
Inlet/outlet diameter	inch	8"	6"	6"	6"	6"	8"	8"	8"	8"
Condenser										
Qty		4	8	8	8	8	8	8	8	8
Frontal surface	mm²	8	8	8	10	12	12	12	12	12
Number of rows		4	4	4	3/4	3	3	3/4	4	4
Fan										
Qty		14	16	16	20	24	24	24	24	24
Air flow	m³/h	275.000	276.000	276.000	369.000	462.000	462.000	450.000	440.000	440.000
Speed	rpm/min	900	900	900	900	900	900	900	900	900
Power input	kW	25,2	28,8	28,8	36	43,2	43,2	43,2	43,2	43,2
Weight										
Shipping	kg	8.791	9.218	9.254	10.856	12.449	13.205	13.534	13.831	14.072
Operating	kg	9.172	9.467	9.503	11.207	12.912	13.639	13.950	14.247	14.442
Dimensions										
Length	mm	8.000	8.000	8.000	10.000	12.000	12.000	12.000	12.000	12.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data										
Sound power level (3)	dB(A)	100	101	101	102	103	103	103	103	103
Sound pressure level at 10 m (4)	dB(A)	68	69	69	69	70	70	70	70	70

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS STD 1402-2702 LN

Model SLS STD LN		1402	1602	1802	1902	2002	2202	2502	2702
Cooling capacity (1)	kW	275,4	306,6	343,7	386,0	428,2	451,7	482,8	514,0
Power input	kW	95,7	111,4	125,6	144,3	158,2	174,6	188,6	202,6
GROSS EER		2,90	2,80	2,70	2,70	2,70	2,60	2,60	2,50
EER		2,71	2,60	2,55	2,50	2,52	2,42	2,41	2,39
ESEER		3,52	3,38	3,31	3,25	3,28	3,15	3,13	3,11
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6	6
Compressor									
Qty		2	2	2	2	2	2	2	2
Type		Screw							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Shell & Tube							
Water flow	l/h	47.368	52.735	59.116	66.392	73.650	77.692	83.041	88.408
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"	6"
Condenser									
Qty		4	4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	4	4	4	4
Number of rows		3	3	3	3	4	4	4	4
Fan									
Qty		4	4	6	7	8	8	8	8
Air flow	m³/h	64.600	64.600	89.624	91.732	93.840	93.840	93.840	93.840
Speed	rpm/min	700	700	700	700	700	700	700	700
Power input	kW	5	5	7,5	8,75	10	10	10	10
Weight									
Shipping	kg	3.637	3.655	3.737	4.176	4.695	4.695	4.717	4.735
Operating	kg	3.733	3.751	3.824	4.315	4.788	4.797	4.846	4.864
Dimensions									
Length	mm	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data									
Sound power level (3)	dB(A)	91	91	92	92	92	92	92	92
Sound pressure level at 10 m (4)	dB(A)	59	59	60	60	60	60	60	60

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS STD 4202-8404 LN

Model SLS STD LN		4802	5004	5404	5704	6004	6404	6804	7204	8404
Cooling capacity (1)	kW	904,7	965,6	1.028,0	1.097,1	1.166,2	1.240,8	1.351,0	1.426,5	1.547,8
Power input	kW	331,7	377,1	405,1	408,4	411,7	456,0	497,4	538,7	613,7
GROSS EER		2,70	2,60	2,50	2,70	2,80	2,70	2,70	2,60	2,50
Number of refrigerant circuits		2	4	4	4	4	4	4	4	4
Part load steps	%	6	9	9	9	9	9	9	9	9
Compressor										
Qty		2	4	4	4	4	4	4	4	4
Type		Screw								
Evaporator										
Qty		1	2	2	2	2	2	2	2	2
Type		Shell & Tube								
Water flow	l/h	155.608	166.083	176.816	188.701	200.586	213.417	232.372	245.358	266.221
Inlet/outlet diameter	inch	8"	6"	6"	6"	6"	8"	8"	8"	8"
Condenser										
Qty		4	8	8	8	8	8	8	8	8
Frontal surface	mm²	8	8	8	10	12	12	12	12	12
Number of rows		4	4	4	3/4	3	3	3/4	4	4
Fan										
Qty		14	16	16	20	24	24	24	24	24
Air flow	m³/h	187.000	187.680	187.680	250.920	314.160	314.160	306.000	299.200	299.200
Speed	rpm/min	700	700	700	700	700	700	700	700	700
Power input	kW	17,5	20	20	25	30	30	30	30	30
Weight										
Shipping	kg	9.065	9.434	9.470	11.072	12.665	13.421	13.750	14.047	14.288
Operating	kg	9.446	9.683	9.719	11.423	13.128	13.855	14.166	14.463	14.658
Dimensions										
Length	mm	8.000	8.000	8.000	10.000	12.000	12.000	12.000	12.000	12.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data										
Sound power level (3)	dB(A)	94	95	95	96	97	97	97	97	97
Sound pressure level at 10 m (4)	dB(A)	62	63	63	63	64	64	64	64	64

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS STD 1402-2602 ELN

Model SLS STD ELN		1402	1602	1802	1902	2002	2202	2502	2702
Cooling capacity (1)	kW	275,4	306,6	343,7	386,0	428,2	451,7	482,8	514,0
Power input	kW	95,7	111,4	125,6	144,3	158,2	174,6	188,6	202,6
GROSS EER		2,90	2,80	2,70	2,70	2,70	2,60	2,60	2,50
EER		2,58	2,48	2,43	2,39	2,41	2,31	2,30	2,28
ESEER		3,36	3,22	3,16	3,11	3,13	3,01	2,98	2,96
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6	6
Compressor									
Qty		2	2	2	2	2	2	2	2
Type		Screw							
Evaporator									
Qty		1	1	1	1	1	1	1	1
Type		Shell & Tube							
Water flow	l/h	47.368	52.735	59.116	66.392	73.650	77.692	83.041	88.408
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"	6"
Condenser									
Qty		4	4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	4	4	4	4
Number of rows		3	3	3	3	4	4	4	4
Fan									
Qty		4	4	6	7	8	8	8	8
Air flow	m³/h	64.600	64.600	89.624	91.732	93.840	93.840	93.840	93.840
Speed	rpm/min	700	700	700	700	700	700	700	700
Power input	kW	5	5	7,5	8,75	10	10	10	10
Weight									
Shipping	kg	3.637	3.655	3.737	4.176	4.695	4.695	4.717	4.735
Operating	kg	3.733	3.751	3.824	4.315	4.788	4.797	4.846	4.864
Dimensions									
Length	mm	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data									
Sound power level (3)	dB(A)	87	87	88	88	88	88	88	88
Sound pressure level at 10 m (4)	dB(A)	55	55	56	56	56	56	56	56

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS STD 4802-8404 ELN

Model SLS STD ELN		4802	5004	5404	5704	6004	6404	6804	7204	8404
Cooling capacity (1)	kW	904,7	965,6	1.028,0	1.097,1	1.166,2	1.240,8	1.351,0	1.426,5	1.547,8
Power input	kW	331,7	377,1	405,1	408,4	411,7	456,0	497,4	538,7	613,7
GROSS EER		2,70	2,60	2,50	2,70	2,80	2,70	2,70	2,60	2,50
Number of refrigerant circuits		2	4	4	4	4	4	4	4	4
Part load steps	%	6	9	9	9	9	9	9	9	9
Compressor										
Qty		2	4	4	4	4	4	4	4	4
Type		Screw								
Evaporator										
Qty		1	2	2	2	2	2	2	2	2
Type		Shell & Tube								
Water flow	l/h	155.608	166.083	17.681	188.701	200.586	213.417	232.372	245.358	266.221
Inlet/outlet diameter	inch	8"	6"	6"	6"	6"	8"	8"	8"	8"
Condenser										
Qty		4	8	8	8	8	8	8	8	8
Frontal surface	mm²	8	8	8	10	12	12	12	12	12
Number of rows		4	4	4	3/4	3	3	3/4	4	4
Fan										
Qty		14	16	16	20	24	24	24	24	24
Air flow	m³/h	187.000	187.680	187.680	250.920	314.160	314.160	306.000	299.200	299.200
Speed	rpm/min	700	700	700	700	700	700	700	700	700
Power input	kW	17,5	20	20	25	30	30	30	30	30
Weight										
Shipping	kg	9.065	9.434	9.470	11.072	12.665	13.421	13.750	14.047	14.288
Operating	kg	9.446	9.683	9.719	11.423	13.128	13.855	14.166	14.463	14.658
Dimensions										
Length	mm	8.000	8.000	8.000	10.000	12.000	12.000	12.000	12.000	12.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data										
Sound power level (3)	dB(A)	90	91	91	92	93	93	93	93	93
Sound pressure level at 10 m (4)	dB(A)	58	59	59	59	60	60	60	60	60

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS HE 1402-2602 BLN

Model SLS HE BLN		1402	1602	1802	1902	2002	2402	2602
Cooling capacity (1)	kW	304,0	338,0	378,0	425,0	467,2	531,0	571,0
Power input	kW	85,8	99,5	116,3	132,7	143,3	154,9	163,1
GROSS EER		3,50	3,40	3,30	3,20	3,30	3,40	3,50
EER		3,10	3,09	3,09	3,02	2,91	2,85	2,91
ESEER		3,60	3,58	3,58	3,50	3,38	3,31	3,38
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	52.288	58.136	65.016	73.100	80.358	91.332	98.212
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	4	4	4
Number of rows		3	3	3	3	4	4	4
Fan								
Qty		4	4	6	7	8	8	8
Air flow	m³/h	134.000	134.000	150.000	144.000	172.400	216.000	210.000
Speed	rpm/min	900	900	900	900	900	900	900
Power input	kW	10,8	10,8	14,4	14,4	14,4	18	18
Weight								
Shipping	kg	3.592	3.610	3.692	4.194	5.451	5.536	5.672
Operating	kg	3.697	3.715	3.788	4.333	5.544	5.665	5.790
Dimensions								
Length	mm	4.000	4.000	4.000	4.000	6.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	97	97	98	98	98	99	99
Sound pressure level at 10 m (4)	dB(A)	65	65	66	66	66	67	67

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS HE 4602–8404 BLN

Model SLS HE BLN		4602	4802	4804	5204	5604	6004	6404	6804	7204	7804	8404
Cooling capacity (1)	kW	933,0	989,0	1.062,0	1.142,0	1.208,0	1.292,8	1.406,4	1.482,2	1.557,9	1.637,2	1.686,9
Power input	kW	280,2	298,5	309,8	326,2	342,4	377,8	419,8	467	514,2	543,3	575,0
GROSS EER		3,30	3,30	3,40	3,50	3,50	3,40	3,40	3,20	3,00	3,00	2,90
Number of refrigerant circuits		2	2	4	4	4	4	4	4	4	4	4
Part load steps	%	6	6	9	9	9	9	9	9	9	9	9
Compressor												
Qty		2	2	4	4	4	4	4	4	4	4	4
Type		Screw										
Evaporator												
Qty		1	1	2	2	2	2	2	2	2	2	2
Type		Shell & Tube										
Water flow	l/h	160.476	170.108	182.664	196.424	207.776	222.361	241.900	254.938	267.958	281.598	290.146
Inlet/outlet diameter	inch	8"	8"	6"	6"	6"	6"	8"	8"	8"	8"	8"
Condenser												
Qty		8	8	8	8	8	8	8	8	8	8	8
Frontal surface	mm²	8	8	12	12	12	12	12	12	12	12	12
Number of rows		5	5	3	3/4	4	4	4	4	4	4	4
Fan												
Qty		16	16	20	20	20	24	24	24	24	24	24
Air flow	m³/h	265.000	265.000	432.000	420.000	408.000	440.000	440.000	440.000	440.000	440.000	440.000
Speed	rpm/min	900	900	900	900	900	900	900	900	900	900	900
Power input	kW	28,8	28,8	36	36	36	43,2	43,2	43,2	43,2	43,2	43,2
Weight												
Shipping	kg	8.815	9.257	11.072	11.344	12.089	12.936	13.679	13.756	13.944	14.050	14.167
Operating	kg	9.196	9.638	11.321	11.580	12.561	13.388	14.085	14.135	14.421	14.542	14.659
Dimensions												
Length	mm	8.000	8.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data												
Sound power level (3)	dB(A)	101	101	102	102	102	103	103	103	103	103	103
Sound pressure level at 10 m (4)	dB(A)	69	69	69	69	69	70	70	70	70	70	70

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS HE 1402-2602 LN

Model SLS HE LN		1402	1602	1802	1902	2002	2402	2602
Cooling capacity (1)	kW	291,8	324,5	362,9	408,0	448,5	509,8	548,2
Power input	kW	90,9	105,5	123,3	140,7	151,9	164,2	172,9
GROSS EER		3,20	3,10	2,90	2,90	3,00	3,10	3,20
EER		2,93	2,83	2,68	2,68	2,74	2,85	2,91
ESEER		3,81	3,68	3,49	3,49	3,57	3,70	3,79
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6
Compressors								
Qty		2	2	2	2	2	2	2
Type		Screw						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	50.189,6	55.814	62.418,8	70.176	77.142	87.685	94.290
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	6	6	6
Number of rows		3	3	3	3/4	3	3	3/4
Fan								
Qty		6	6	8	8	8	10	10
Air flow	m³/h	91.120	91.120	102.000	97.920	117.232	146.880	142.800
Speed	rpm/min	700	700	700	700	700	700	700
Power input	kW	7,5	7,5	10	10	10	12,5	12,5
Weight								
Shipping	kg	3.700	3.718	3.800	4.302	5.559	5.644	5.780
Operating	kg	3.805	3.823	3.896	4.441	5.652	5.773	5.898
Dimensions								
Length	mm	4.000	4.000	4.000	4.000	6.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	92	92	92	92	92	93	93
Sound pressure level at 10 m (4)	dB(A)	60	60	60	60	60	61	61

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS HE 4602–8404 LN

Model SLS HE LN		4602	4802	4804	5204	5604	6004	6404	6804	7204	7804	8404
Cooling capacity (1)	kW	895,7	949,4	1.019,5	1.096,3	1.159,7	1.241,1	1.350,1	1.422,9	1.495,6	1.571,7	1.619,4
Power input (2)	kW	297,0	316,4	328,4	345,8	362,9	400,5	445,0	495,0	545,1	575,9	609,5
GROSS EER		3,00	3,00	3,10	3,20	3,20	3,10	3,00	2,90	2,70	2,70	2,70
Number of refrigerant circuits		2	2	4	4	4	4	4	4	4	4	4
Part load steps	%	6	6	9	9	9	9	9	9	9	9	9
Compressor												
Qty		2	2	4	4	4	4	4	4	4	4	4
Tipo		Screw										
Evaporatore												
Quantità		1	1	2	2	2	2	2	2	2	2	2
Type		Shell & Tube										
Water flow	l/h	154.060	163.296	175.354	188.563	199.468	213.469	232.217	244.738	257.243	270.332	278.536
Inlet/outlet diameter	inch	8"	8"	6"	6"	6"	6"	8"	8"	8"	8"	8"
Condenser												
Qty		8	8	8	8	8	8	8	8	8	8	8
Frontal surface	mm²	8	8	12	12	12	12	12	12	12	12	12
Number of rows		5	5	3	3/4	4	4	4	4	4	4	4
Fan												
Qty		16	16	20	20	20	24	24	24	24	24	24
Air flow	m³/h	180.200	180.200	293.760	285.600	277.440	299.200	299.200	299.200	299.200	299.200	299.200
Speed	rpm/min	700	700	700	700	700	700	700	700	700	700	700
Power input	kW	20	20	25	25	25	30	30	30	30	30	30
Weight												
Shipping	kg	9.089	9.531	11.288	11.560	12.305	13.152	13.895	13.972	14.160	14.266	14.383
Operating	kg	9.470	9.912	11.537	11.796	12.777	13.604	14.301	14.351	14.637	14.758	14.875
Dimensions												
Length	mm	8.000	8.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data												
Sound power level (3)	dB(A)	95	95	96	96	96	97	97	97	97	97	97
Sound pressure level at 10 m (4)	dB(A)	63	63	63	63	63	64	64	64	64	64	64

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS HE 1402-2602 ELN

Model SLS HE ELN		1402	1602	1802	1902	2002	2402	2602
Cooling capacity (1)	kW	291,8	324,5	362,9	408,0	448,5	509,8	548,2
Power input (2)	kW	90,9	105,5	123,3	140,7	151,9	164,2	172,9
GROSS EER		3,20	3,10	2,90	2,90	3,00	3,10	3,20
EER		2,81	2,71	2,57	2,57	2,62	2,72	2,78
ESEER		3,65	3,52	3,34	3,34	3,41	3,54	3,62
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6
Compressor								
Qty		2	2	2	2	2	2	2
Type		Screw						
Evaporator								
Qty		1	1	1	1	1	1	1
Type		Shell & Tube						
Water flow	l/h	50.189	55.814	62.418	70.176	77.142	87.685	94.290
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"
Condenser								
Qty		4	4	4	4	4	4	4
Frontal surface	mm²	4	4	4	4	6	6	6
Number of rows		3	3	3	3/4	3	3	3/4
Fan								
Qty		6	6	8	8	8	10	10
Air flow	m³/h	91.120	91.120	102.000	97.920	117.232	146.880	142.800
Speed	rpm/min	700	700	700	700	700	700	700
Power input	kW	7,5	7,5	10	10	10	12,5	12,5
Weight								
Shipping	kg	3.700	3.718	3.800	4.302	5.559	5.644	5.780
Operating	kg	3.805	3.823	3.896	4.441	5.652	5.773	5.898
Dimensions								
Length	mm	4.000	4.000	4.000	4.000	6.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550
Acoustical data								
Sound power level (3)	dB(A)	86	86	87	87	87	87	87
Sound pressure level at 10 m (4)	dB(A)	54	54	55	55	55	55	55

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature SLS HE 4602–8404 ELN

Model SLS HE ELN		4602	4802	4804	5204	5604	6004	6404	6804	7204	7804	8404	
Cooling capacity (1)		kW	895,7	949,4	1.019,5	1.096,3	1.159,7	1.241,1	1.350,1	1.422,9	1.495,6	1.571,7	1.619,4
Power input	kW	297,0	316,4	328,4	345,8	362,9	400,5	445,0	495,0	545,1	575,9	609,5	
GROSS EER (3)			3,00	3,00	3,10	3,20	3,20	3,10	3,00	2,90	2,70	2,70	
Number of refrigerant circuits		2	2	4	4	4	4	4	4	4	4	4	
Part load steps	%	6	6	9	9	9	9	9	9	9	9	9	
Compressor													
Qty		2	2	4	4	4	4	4	4	4	4	4	
Type		Screw											
Evaporator													
Qty		1	1	2	2	2	2	2	2	2	2	2	
Type		Shell & Tube											
Water flow		l/h	154.060	163.296	175.354	188.563	199.468	213.469	232.217	244.738	257.243	270.332	278.536
Inlet/outlet diameter	inch	8"	8"	6"	6"	6"	6"	8"	8"	8"	8"	8"	
Condenser													
Qty		8	8	8	8	8	8	8	8	8	8	8	
Frontal surface	mm²	8	8	12	12	12	12	12	12	12	12	12	
Number of rows		5	5	3	3/4	4	4	4	4	4	4	4	
Fan													
Qty		16	16	20	20	20	24	24	24	24	24	24	
Air flow	m³/h	180.200	180.200	293.760	285.600	277.440	299.200	299.200	299.200	299.200	299.200	299.200	
Speed	rpm/min	700	700	700	700	700	700	700	700	700	700	700	
Power input	kW	20	20	25	25	25	30	30	30	30	30	30	
Weight													
Shipping		kg	9.089	9.531	11.288	11.560	12.305	13.152	13.895	13.972	14.160	14.266	14.383
Operating	kg	9.470	9.912	11.537	11.796	12.777	13.604	14.301	14.351	14.637	14.758	14.875	
Dimensions													
Length		mm	8.000	8.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	
Acoustical data													
Sound power level (3)		dB(A)	89	89	90	90	90	91	91	93	93	93	
Sound pressure level at 10 m (4)		dB(A)	57	57	57	57	57	58	58	60	60	60	

(1) Data based on 7°C leaving chilled water temperature and 35°C ambient air temperature.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS STD 1402–4802 with total heat recovery

Model SLS STD		1402	1602	1802	1902	2002	2202	2502	2702	4802
Cooling capacity (1)	kW	304,7	339,2	380,2	427,0	473,7	499,7	534,1	568,7	1.000,9
Power input (2)	kW	84,0	97,7	110,2	126,6	138,8	153,2	165,4	177,7	291,0
Total heat rejection (1)	kW	369,3	415,1	465,9	525,9	581,9	620,2	664,6	709,1	1.227,3
GROSS EER		3,60	3,50	3,50	3,40	3,40	3,30	3,20	3,20	3,40
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6	6	6
Compressor										
Qty		2	2	2	2	2	2	2	2	2
Type		Screw								
Evaporator										
Qty		1	1	1	1	1	1	1	1	1
Type		Shell & Tube								
Inlet/outlet diameter	inch	5"	5"	5"	5"	6"	6"	6"	6"	8"
Connection type		To be brazed								
Heat recovery condensers										
Qty		2	2	2	2	2	2	2	2	2
Type		Shell & Tube								
Inlet/outlet diameter I/Ø	inch	2½"	2½"	2½"	3"	3"	3"	3"	3"	5"
Connection type		Female gas threaded								
Water flow	l/h	63.520	71.397	80.135	90.455	100.087	106.674	114.311	121.965	211.096
Weight										
Shipping	kg	3.870	3.906	4.194	4.662	5.166	5.193	5.283	5.301	9.806
Operation	kg	3.996	4.041	4.374	4.860	5.364	5.400	5.508	5.526	10.334
Dimensions										
Length	mm	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	8.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550

(1) Data based on 7°C leaving chilled water temperature and 45°C ambient air temperature.

(2) Compressors only.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Technical feature SLS HE 1402–4802 with totally heat recovery

Model SLS STD		1402	1602	1802	1902	2002	2402	2602	4602	4802
Cooling capacity (1)	kW	304,7	339,2	380,2	427,0	485,9	533,5	580,1	945,2	1.000,9
Power input (2)	kW	84,0	97,7	110,2	126,6	133,3	147,2	154,9	272,2	291,0
Total heat rejection (1)	kW	369,3	415,1	465,9	525,9	588,2	646,6	698,3	1.156,5	1.227,3
GROSS EER		3,60	3,50	3,50	3,40	3,60	3,60	3,70	3,50	3,40
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Part load steps	%	6	6	6	6	6	6	6	6	6
Compressor										
Qty		2	2	2	2	2	2	2	2	2
Type		Screw								
Evaporator										
Qty		1	1	1	1	1	1	1	1	1
Type		Shell & Tube								
Inlet/outlet diameter	inch	5"	5"	6"	6"	6"	6"	6"	8"	8"
Connection type		To be brazed								
Water flow	l/h	52.408	58.342	65.394	73.444	83.575	91.762	99.777	162.574	172.155
Heat recovery condensers										
Qty		2	2	2	2	2	2	2	2	2
Type		Shell & Tube								
Inlet/outlet diameter I/Ø	inch	2½"	2½"	2½"	3"	3"	3"	3"	5"	5"
Connection type		Female gas threaded								
Water flow	l/h	63.520	71.397	80.135	90.455	101.170	111.215	120.108	198.918	211.096
Weight										
Shipping	kg	3.933	3.978	4.266	4.788	6.057	6.228	6.453	9.830	10.272
Operation	kg	4.068	4.104	4.437	4.986	6.255	6.453	6.714	10.358	10.800
Dimensions										
Length	mm	4.000	4.000	4.000	4.000	6.000	6.000	6.000	8.000	8.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550

(1) Data based on 7°C leaving chilled water temperature and 45°C ambient air temperature.

(2) Compressors only.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

Water Cooled Chiller, Heat Pump and Condenserless



WQL/WQH/WQRC 20-190

-  21-193 kW
-  23-211 kW
-  410A
-  Scroll



WQL/WQH/WQRC 524-1204

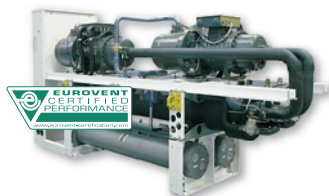
NEW available from Q3 2012

-  150-380 kW
-  170-420 kW
-  410A
-  Scroll



RWC/RWR 170-360

-  161-312 kW
-  407C
-  Scroll



SWS/SWR 1602-4802

-  272-1118 kW
-  134a
-  Screw



HPT Hydrokit

Pressure 83-450 kPa
Tank 300-2500 m³/h
1 or 2 pumps

Water Cooled Chiller, Heat Pump and Condenserless WQL/WQH/WQRC 20–190



21–193 kW



23–211 kW



410A



Scroll

Technical features

- 14 sizes.
- Cooling capacity from 21 to 193 kW.
- Heating capacity from 23 to 211 kW.
- 3 versions:
WQL (Cooling only);
WQH (Heat pump);
WQRC (Condenserless).
- 2 acoustic versions:
BLN (Basic Low Noise);
ELN (Extra Low Noise).
- 2 frames:
F1 (size from 20 to 45);
F2 (size from 50 to 190).
- One refrigerant circuit.
- Scroll compressors.

Accessories and options

- Hydrokit with 1 or 2 pumps for evaporator and condenser.
- Desuperheater available for frame 2.
- Sofstart.
- BMS interface.
- Flow switch.
- Power factor corrector capacitors.
- Electronic expansion valve.
- Water filter.
- Differential pressure switch as standard.
- Compressors jackets.
- Power factor corrector capacitors.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box (standard on ELN).



Operating limit**WQL-WQH 20-190**

WQL-WQH			
Leaving water temperature (cooling)	Water	°C	from +5 to +18
	Water + glycol	°C	-8 / +5 (with glycol + electronic expansion valve); +5/+18 (standard)
	ΔT	K	from 3 to 8
Leaving water temperature (heating)	Water	°C	from +25 to +55
	ΔT	°C	from 3 to 15

Note: maximum % glycol (ethylenic or propylenic): 40%.

WQRC 20-190

WQRC			
Leaving water temperature (cooling)	Water	°C	from +5 to +18
	Water + glycol	°C	-8 / +5 (with glycol + electronic expansion valve); +5/+18 (standard)
	ΔT	K	from 3 to 8

Note: maximum % glycol (ethylenic or propylenic): 40%.

Technical feature WQL 20–45 R410A

Model WQL		20	25	30	35	40	45
Cooling capacity (1)	kW	21,3	26,4	31,3	35,1	39,5	46,9
Power input (2)	kW	4,43	5,48	6,44	7,17	8,16	9,65
GROSS EER		4,81	4,82	4,86	4,90	4,84	4,86
GROSS ESEER		5,44	5,43	5,41	5,38	5,21	5,44
EER		4,58	4,54	4,46	4,53	4,48	4,57
ESEER		5,16	5,09	4,93	4,95	4,81	5,08
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Power supply	V/ph/Hz	400/3/50					
Refrigerant							
Type		HFC 410A					
Charge	kW	2,8	2,8	2,8	2,8	2,9	5,2
Compressor							
Qty		1					
Type		Scroll					
Crankcase heater	W	70	90	90	90	90	90
Evaporator							
Qty		1					
Type		Plate exchanger AISI 316					
Water flow	l/s	1,02	1,26	1,5	1,68	1,89	2,24
Water pressure drop	kPa	17,7	26,2	35,6	43,9	40,5	39,7
Connection type		Victaulic					
Inlet/outlet diameter	inch	1½"	1½"	1½"	1½"	1½"	1½"
Evaporator pump							
Power input	kW	1,06	1,06	1,06	1,32	1,32	1,32
Available static pressure	kPa	251	222	189	198	187	159
Condenser							
Qty		1					
Type		Plate exchanger AISI 316					
Water flow	l/s	1,23	1,52	1,80	2,02	2,28	2,70
Water pressure drop	kPa	14,5	21,4	57,4	35,8	44,8	26,5
Connection type		Victaulic					
Inlet/outlet diameter	inch	1½"	1½"	1½"	1½"	1½"	1½"
Condenser pump							
Power input	kW	1,06	1,06	1,32	1,32	1,32	1,32
Available static pressure	kPa	236	199	161	183	155	132
Weight							
Shipping	kg	156	176	174	179	185	203
Operating	kg	162	182	179	185	191	214
Dimensions							
Length	mm	821	821	821	821	821	821
Width	mm	455	455	455	455	455	455
Height	mm	1.350	1.350	1.350	1.350	1.350	1.350
Acoustical data							
Sound power level (3)/(4)	dB(A)	65/62	67/64	67/64	68/65	68/66	70/67
Sound pressure level at 10 m (3)/(4)*	dB(A)	34/31	36/33	36/33	37/34	38/35	39/36

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) Only compressors.

(3) BLN version.

(4) ELN version.

* Pressure power values in accordance with ISO 3744.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature WQH 20-45 R410A

Model WQH		20	25	30	35	40	45	
Cooling capacity (1)		kW	20,9	26,1	30,3	34,2	38,4	45,8
Power input (3)		kW	4,49	5,52	6,52	7,32	8,26	9,84
GROSS EER			4,65	4,73	4,65	4,67	4,65	4,65
GROSS ESEER			5,16	5,37	5,26	5,26	5,05	5,19
EER			4,45	4,47	4,28	4,35	4,34	4,39
ESEER			4,95	5,03	4,80	4,86	4,67	4,86
Heating capacity (2)			23,5	28,6	33,6	38,5	42,9	51,2
Power input (3)			5,66	6,90	8,06	9,21	10,3	12,2
COP			4,15	4,14	4,19	4,17	4,18	4,20
Number of refrigerant circuits			1	1	1	1	1	1
Part load steps		%	0-100	0-100	0-100	0-100	0-100	0-100
Power supply		V/ph/Hz	400/3/50					
Refrigerant								
Type			HFC 410A					
Charge		kW	3,0	3,1	3,1	3,1	3,2	5,5
Compressor								
Qty			1					
Type			Scroll					
Crankcase heater		W	70	90	90	90	90	90
Internal heat exchanger								
Qty			1					
Type			Plate exchanger AISI 316					
Water flow rate - cooling		l/s	1,00	1,25	1,45	1,63	1,83	2,19
Pressure drop - cooling		kPa	17,0	25,6	33,4	41,7	38,3	38,2
Water flow rate - heating		l/s	1,13	1,38	1,61	1,84	2,05	2,45
Pressure drop - heating		kPa	21,8	31,4	41,1	52,8	47,8	47,7
Connection type			Victaulic					
Inlet/outlet diameter		inch	1½"	1½"	1½"	1½"	1½"	1½"
Internal heat exchanger pump								
Power input		kW	1,06	1,06	1,06	1,32	1,32	1,32
Available static pressure - cooling		kPa	253	224	196	203	193	165
Available static pressure - heating		kPa	239	208	172	181	171	139
External heat exchanger								
Qty			1					
Type			Plate exchanger AISI 316					
Water flow		l/s	1,21	1,51	1,76	1,98	2,23	2,66
Water pressure drop		kPa	13,6	20,5	54,8	33,8	42,2	25,5
Connection type			Victaulic					
Inlet/outlet diameter		inch	1½"	1½"	1½"	1½"	1½"	1½"
Internal heat exchanger pump								
Power input		kW	1,06	1,06	1,32	1,32	1,32	1,32
Available static pressure - heating		kPa	238	201	167	187	161	137
Weight								
Shipping		kg	159	181	179	184	190	208
Operating		kg	165	187	184	190	195	219
Dimensions								
Length		mm	821	821	821	821	821	821
Width		mm	455	455	455	455	455	455
Height		mm	1.350	1.350	1.350	1.350	1.350	1.350
Acoustical data								
Sound power level (4)/(5)		dB(A)	65/62	67/64	67/64	68/65	68/66	70/67
Sound pressure level at 10 m (4)/(5)*		dB(A)	34/31	36/33	36/33	37/34	38/35	39/36

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) Data referred to evaporator water temperature 10/7°C and condenser water temperature 40/45°C.

(3) Only compressors.

(4) BLN version.

(5) ELN version.

* Pressure power values in accordance with ISO 3744.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature WQRC 20–45 R410A

Model WQRC		20	25	30	35	40	45
Cooling capacity (1)	kW	20,9	26,0	31,3	34,8	39,3	46,2
Power input (2)	kW	4,54	5,61	6,37	7,24	8,15	9,89
Number of refrigerant circuits		1	1	1	1	1	1
Part load steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Power supply	V/ph/Hz	400/3/50					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		1					
Type		Scroll					
Crankcase heater	W	70	90	90	90	90	90
Evaporator							
Qty		1					
Type		Plate exchanger AISI 316					
Water flow	l/s	1,00	1,24	1,50	1,66	1,88	2,21
Water pressure drop	kPa	17,1	25,4	35,6	43,7	34,3	38,9
Connection type		Victaulic					
Inlet/outlet diameter	inch	1½"	1½"	1½"	1½"	1½"	1½"
Evaporator pump							
Qty		1	1	1	1	1	1
Power input	kW	1,06	1 ,06	1,06	1,32	1,32	1,32
Available static pressure	kPa	253	225	188	200	188	163
Remore condenser refrigerant connections							
Connection type		To be brazed					
Inlet diameter	inch	⅝"	⅝"	⅝"	⅝"	⅝"	⅝"
Outlet diameter	inch	⅝"	⅞"	⅞"	⅞"	⅞"	⅞"
Weight							
Shipping	kg	142	161	163	163	169	168
Operating	kg	144	164	166	166	172	172
Dimensions							
Length	mm	821	821	821	821	821	821
Width	mm	455	455	455	455	455	455
Height	mm	1.350	1.350	1.350	1.350	1.350	1.350
Acoustical data							
Sound power level (3)/(4)	dB(A)	65/62	67/64	67/64	68/65	68/66	70/67
Sound pressure level at 10 m (3)/(4)*	dB(A)	34/31	36/33	36/33	37/34	38/35	39/36

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) Only compressors.

(3) BLN version.

(4) ELN version.

* Pressure power values in accordance with ISO 3744.

Technical feature WQL 50–190 R410A

Model WQL		50	60	75	90	120	150	170	190
Cooling capacity (1)	kW	51,1	61,3	77,6	91,4	118,8	147,5	170,5	193,3
Power input (2)	kW	11,30	13,10	16,60	20,10	25,70	31,90	36,50	41,40
GROSS EER		4,52	4,68	4,67	4,55	4,62	4,62	4,67	4,67
GROSS ESEER		6,45	6,62	6,11	6,59	6,24	5,95	6,05	6,04
EER		4,15	4,24	4,36	4,20	4,26	4,34	4,34	4,28
ESEER		5,48	5,62	5,43	5,60	5,25	5,22	5,31	5,09
Number of refrigerant circuits		1	1	1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50							
Refrigerant									
Type		HFC 410A							
Charge	kW	4,4	5,7	6,9	8,3	11,3	13,8	15,5	18,1
Compressor									
Qty		2							
Type		Scroll							
Crankcase heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
Evaporator									
Qty		1							
Type		Plate exchanger AISI 316							
Water flow	l/s	2,44	2,93	3,71	4,37	5,68	7,05	8,15	9,24
Water pressure drop	kPa	25,1	20,2	21,4	20,7	21,2	22,6	24,4	25,0
Connection type		Victaulic							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Evaporator pump									
Power input (SP version)	kW	1,10	1,10	1,99	1,99	2,45	2,45	3,00	3,00
Available static pressure (SP version)	kPa	127	124	154	145	157	121	180	152
Power input (HP version)	kW	2,20	2,20	3,26	3,26	3,00	3,00	4,00	4,00
Available static pressure (HP version)	kPa	244	241	246	235	241	214	248	221
Condenser									
Qty		1							
Type		Plate exchanger AISI 316							
Water flow	l/s	2,98	3,55	4,50	5,33	6,90	8,57	9,89	11,21
Water pressure drop	kPa	35,0	27,0	29,0	28,0	29,0	32,0	34,0	35,0
Connection type		Victaulic							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Condenser pump									
Power input (SP version)	kW	1,10	1,10	1,99	1,99	2,45	3,00	3,00	4,00
Available static pressure (SP version)	kPa	107	100	134	116	114	165	115	145
Power input (HP version)	kW	2,20	2,20	3,26	3,26	3,00	4,00	5,50	5,50
Available static pressure (HP version)	kPa	226	221	224	211	206	234	247	200
Desuperheater									
Qty		1							
Type		Plate exchanger AISI 316							
Heat recovery	kW	11,0	14,2	18,1	21,0	25,2	34,1	39,1	41,0
Water flow	l/s	0,53	0,68	0,86	1,00	1,20	1,63	1,87	1,96
Water pressure drop	kPa	8,3	4,5	5,1	5,7	5,0	8,7	10,3	7,5
Weight									
Shipping	kg	433	481	528	577	818	942	1.013	1.113
Operating	kg	440	491	540	591	837	966	1.041	1.145
Dimensions									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Acoustical data									
Sound power level (4)/(5)	dB(A)	70/68	70/68	72/70	73/71	78/76	81/79	81/79	81/79
Sound pressure level at 10 m (4)/(5)*	dB(A)	39/37	39/37	40/39	42/40	47/45	50/48	50/48	50/48

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) Only compressors.

(4) BLN version.

(5) ELN version.

* Pressure power values in accordance with ISO 3744.

SP version: low pressure pump.

HP version: high pressure pump.

GROSS EER: efficiency in cooling mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER: efficiency in cooling unit according to EN14511-2011.

Technical feature WQH 50-190 R410A

Model WQH		50	60	75	90	120	150	170	190
Cooling capacity (1)	kW	50,2	59,2	76,4	89,0	115,3	144,8	166,3	186,1
Cooling capacity (3)	kW	11,40	13,30	16,70	20,30	26,00	32,10	36,80	41,90
GROSS EER		4,40	4,45	4,57	4,38	4,43	4,51	4,52	4,44
GROSS ESEER		6,20	6,23	5,99	6,20	5,85	5,76	5,96	5,66
EER		4,15	4,24	4,36	4,20	4,26	4,34	4,34	4,28
ESEER		5,48	5,62	5,43	5,60	5,25	5,22	5,31	5,09
Heating capacity (1)	kW	57,5	67,8	85,8	101,6	131,1	163,7	189,5	211,6
Power input (3)	kW	13,70	16,50	20,30	24,30	31,30	38,50	44,70	50,10
COP		4,18	4,09	4,21	4,16	4,18	4,25	4,23	4,22
Number of refrigerant circuits		1	1	1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50							
Refrigerant									
Type		HFC 410A							
Charge	kg	4,7	6	7,2	8,6	11,8	14,3	16	18,6
Compressor									
Qty		2							
Type		Scroll							
Crankcase heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
Internal heat exchanger									
Qty		1							
Type		Plate exchanger AISI 316							
Water flow rate - cooling	l/s	2,40	2,83	3,65	4,25	5,51	6,92	7,95	8,89
Pressure drop - cooling	kPa	24,1	18,8	20,7	19,7	20,0	21,8	23,2	23,3
Water flow rate - heating	l/s	2,73	3,23	4,09	4,84	6,24	7,78	9,00	10,05
Pressure drop - heating	kPa	31,3	24,4	26,0	25,5	25,7	27,6	29,8	29,7
Connection type		Victaulic							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Internal heat pump									
Operation		Cooling							
Available static pressure (SP version)	kPa	129	127	156	148	162	126	187	164
Available static pressure (HP version)	kPa	245	244	247	238	245	218	254	233
Operating		Heating							
Available static pressure (SP version)	kPa	115	113	144	132	139	93	150	121
Available static pressure (HP version)	kPa	233	231	236	223	225	192	219	192
External heat exchanger									
Qty		1							
Type		Plate exchanger AISI 316							
Water flow	l/s	2,94	3,46	4,45	5,22	6,75	8,45	9,7	10,9
Water pressure drop	kPa	37,3	28,7	31,2	29,2	29,5	32,1	34,8	34,1
Connection type		Victaulic							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Internal heat pump									
Available static pressure (SP version)	kPa	108	104	135	120	120	170	123	158
Available static pressure (HP version)	kPa	227	224	226	214	210	238	255	215
Weight									
Shipping	kg	441	489	539	588	831	959	1.031	1.130
Operating	kg	448	499	551	602	850	983	1.058	1.162
Dimensions									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Acoustical data									
Sound power level (4)/(5)	dB(A)	70/68	70/68	72/70	73/71	78/76	81/79	81/79	81/79
Sound pressure level at 10 m (4)/(5)*	dB(A)	39/37	39/37	40/39	42/40	47/45	50/48	50/48	50/48

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) Data referred to evaporator water temperature 10/7°C and condenser water temperature 40/45°C.

(3) Only compressors.

(4) BLN version.

(5) ELN version.

* Pressure power values in accordance with ISO 3744.

SP version: low pressure pump.

HP version: high pressure pump.

GROSS EER-COP: efficiency in cooling-heating mode without considering the available head of the pump or the pressure drop of the heat exchanger.

EER-COP: efficiency in cooling-heating unit according to EN14511-2011.

Technical feature WQRC 50–190 R410A

Model WQRC		50	60	75	90	120	150	170	190
Cooling capacity (1)	kW	51,2	61,7	77,8	91,4	118,7	147,6	169,4	193,2
Power input (3)	kW	11,2	12,9	16,5	20,0	25,7	31,8	36,9	41,4
Number of refrigerant circuits		1	1	1	1	1	1	1	1
Part load steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50							
Refrigerant									
Type		HFC 410A							
Compressor									
Qty		2							
Type		Scroll							
Crankcase heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
Evaporator									
Qty		1							
Type		Plate exchanger AISI 316							
Water flow	l/s	2,45	2,95	3,72	4,37	5,67	7,05	8,09	9,23
Water pressure drop	kPa	25,2	20,5	21,5	20,7	21,2	22,6	24,1	24,9
Connection type		Victaulic							
Inlet/outlet diameter	inch	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Evaporator pump									
Qty		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Power Input (SP version)	kW	1,10	1,10	1,99	1,99	2,45	2,45	3,00	3,00
Available static pressure (SP version)	kPa	127	123	154	145	157	121	182	152
Power Input (HP version)	kW	2,20	2,20	3,26	3,26	3,00	3,00	4,00	4,00
Available static pressure (HP version)	kPa	244	240	245	235	241	214	250	221
Remote condenser refrigerant connections									
Connection type		To be brazed							
Inlet diameter	inch	7⁄8"	7⁄8"	1½"	1½"	1½"	1½"	1½"	1½"
Outlet diameter	inch	5⁄8"	5⁄8"	7⁄8"	7⁄8"	7⁄8"	7⁄8"	1½"	1½"
Weight									
Shipping	kg	373	399	433	459	668	750	799	858
Operating	kg	376	404	439	466	678	762	813	874
Dimensions									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Acoustical data									
Sound power level (3)/(4)	dB(A)	70/68	70/68	72/70	73/71	78/76	81/79	81/79	81/79
Sound pressure level at 10 m (3)/(4)*	dB(A)	39/37	39/37	41/39	42/40	47/45	50/48	50/48	50/48

(1) Data referred to evaporator water temperature 12/7°C and condenser temperature 40°C.

(2) Only compressors.

(3) BLN version.

(4) ELN version.

* Pressure power values in accordance with ISO 3744.

SP version: low pressure pump.

HP version: high pressure pump.

Water Cooled Chiller, Heat Pump and Condenserless

WQL/WQH/WQRC 524-1204


150-380 kW


170-420 kW


410A



Technical features

- 8 sizes.
- Cooling capacity from 150 to 380 kW.
- Heating capacity from 170 to 420 kW.
- 3 versions:
WQL (Cooling only);
WQH (Heat pump);
WQRC (Condenserless).
- 2 acoustic option:
BLN (Basic Low Noise);
ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.

Accessories and options

- Wide range of accessories and options.



Operating limit

WQL-WQH 524-1204

WQL-WQH				
Leaving water temperature (cooling)	Water	°C	from +5 to +18	
	Water + glycol	°C	-8 / +5 (with glycol and eletronic expansion valve); +5/+18 (standard)	
	Δ T	K	from 3 to 8	
Leaving water temperature (heating)	Water	°C	from +25 to +55	
	Δ T	°C	from 3 to 15	

Note: maximum % glycol (ethylenic or propilenic): 40%.

WQRC 524-1204

WQRC				
Leaving water temperature (cooling)	Water	°C	from +5 to +18	
	Water + glycol	°C	-8 / +5 (with glycol and eletronic expansion valve); +5/+18 (standard)	
	Δ T	K	from 3 to 8	

Note: maximum % glycol (ethylenic or propilenic): 40%.

Technical feature WQL/WQH 524–1204

Model WQL		524	604	704	804	904	1004	1104	1204
Cooling capacity	kW	155,2	182,8	210,2	237,6	266,3	295,0	341,0	386,6
Power input	kW	33,2	40,2	45,8	51,4	57,6	63,8	73,0	82,8
Model WQH		524	604	704	804	904	1004	1104	1204
Cooling capacity	kW	152,8	178,0	204,3	230,6	260,1	289,6	332,6	372,2
Power input	kW	33,4	40,6	46,3	52,0	58,1	64,2	73,6	83,8
Heating capacity	kW	172,0	203,6	233,4	263,2	295,3	327,4	379,0	423,2
Power input	kW	40,6	48,6	55,6	62,6	69,8	77,0	89,6	100,2
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	4	4	4	4	4	4	4	4
Compressor									
Qty		4	4	4	4	4	4	4	4
Type		Scroll							
Evaporator/Condenser									
Type		Plate exchanger AISI 316							
Dimensions									
Length	mm	2.250	2.250	2.250	2.250	2.250	2.250	2.250	2.250
Width	mm	855	855	855	855	855	855	855	855
Height	mm	1.850	1.850	1.850	1.850	1.850	1.850	1.850	1.850

Water Cooled, Chiller and Condenserless RWC/RWR 170–360


161–312 kW


407C

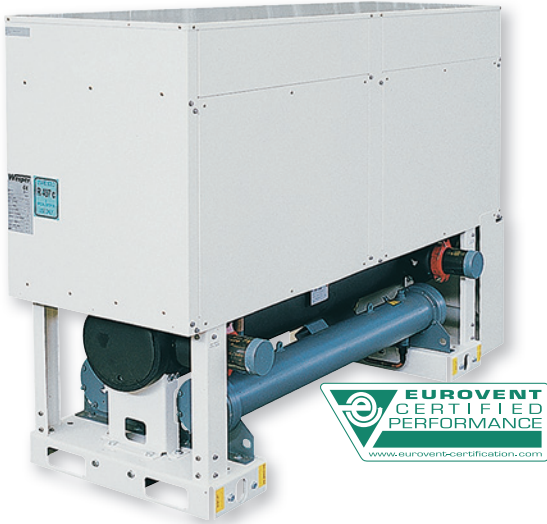

Scroll

Technical features

- 6 sizes.
- Cooling capacity from 161 to 312 kW.
- 2 versions:
RWC (Cooling only);
RWR (Condenserless).
- Two refrigerant circuits.
- Scroll compressors.
- S&T evaporator and condenser.

Accessories and options

- Sofstart.
- BMS interface.
- Flow switch.
- Power factor corrector capacitors.
- Water filter.
- Compressors jackets.
- Sequence phases control as standard.
- Mechanical gauges kit.
- Compressors acoustic box as standard.



Operating limit

RWC / RWR				170		200		240		280		320		360	
				Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Evaporator	Leaving water temperature	Water	°C	from +6 to +15											
		Water + glycol	°C	from -5 to +15											
		Δ T	K	from +3 to +7											
Condenser (2)	Leaving water temperature		°C	from +30 to +50											

(2) Only for RWC models.

Technical feature RWC 170–360

Model RWC		170	200	240	280	320	360
Cooling capacity (1)	kW	160,8	186,5	210,6	263,6	283,7	312,3
Power input (1)	kW	45,8	52,6	56,8	73,0	81,7	90,5
Heat rejection (1)		205,7	238,4	267,4	336,6	365,4	402,8
Number of refrigerant circuits		2	2	2	2	2	2
Part load steps	%	4	4	4	4	4	4
Startup type		Direct					
Compressor							
Qty		4	4	4	4	4	4
Type		Scroll					
Evaporator							
Type		Shell & Tube					
Qty		1	1	1	1	1	1
Water flow	l/s	7,7	8,9	10,1	12,6	13,6	14,9
Water pressure drop	kPa	36	48	21	33	39	47
Water volume	l	63	63	53	53	53	53
Connection type		Victaulic					
Inlet/outlet diameter	inch	4"	4"	4"	4"	4"	4"
Condenser							
Type		Shell & Tube					
Qty		2	2	2	2	2	2
Water flow	l/s	4,9	5,7	6,4	8,0	8,7	9,6
Water pressure drop	kPa	27	37	29	46	34	41
Water volume	l	7,2	7,2	9,4	9,4	11,6	11,6
Connection type		Victaulic					
Inlet/outlet diameter	inch	2"	2"	2½"	2½"	2½"	2½"
Weight							
Shipping	kg	1.217	1.262	1.398	1.514	1.540	1.554
Operating	kg	1.294	1.339	1.470	1.586	1.616	1.630
Dimensions							
Length	mm	2.200	2.200	2.200	2.200	2.200	2.200
Width	mm	800	800	800	800	800	800
Height	mm	1.820	1.820	1.820	1.820	1.820	1.820
Acoustical data (without compressors jackets)							
Sound power level	dB(A)	81	82	82	84	85	86
Sound pressure level (2)	dB(A)	63,9	64,9	64,9	66,9	67,9	68,9
Acoustical data (with compressors jackets)							
Sound power level	dB(A)	77	78	78	80	81	82
Sound pressure level (2)	dB(A)	59,9	60,9	60,9	62,9	63,9	64,9

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) The sound pressure is calculated from a distance of 1 m.

Technical feature RWR 170–360

Model RWR		170	200	240	280	320	360	
Cooling capacity (1)		kW	160,8	186,5	210,6	263,6	283,7	312,3
Power input (1)		kW	45,8	52,6	56,8	73,0	81,7	90,5
Heat rejection (1)			205,7	238,4	267,4	336,6	365,4	402,8
Number of refrigerant circuits			2	2	2	2	2	2
Part load steps		%	4	4	4	4	4	4
Startup type			Direct					
Compressor								
Qty			4	4	4	4	4	4
Type			Scroll					
Evaporator								
Type			Shell & Tube					
Qty			1	1	1	1	1	1
Water flow		l/s	7,3	8,5	9,6	12	13	14,2
Water pressure drop		kPa	32	43	19	30	35	42
Water volume		l	63	63	53	53	53	53
Connection type			Victaulic					
Inlet/outlet diameter		inch	4"	4"	4"	4"	4"	4"
Remote condenser refrigerant connections								
Connection type			To be brazed					
Inlet diameter		inch	1⅜"	1⅜"	1⅜"	1⅜"	1⅜"	1⅜"
Outlet diameter		inch	⅞"	⅞"	⅞"	⅞"	⅞"	⅞"
Weight								
Shipping		kg	1.080	1.122	1.216	1.313	1.327	1.341
Operating		kg	1.143	1.185	1.269	1.366	1.380	1.394
Dimensions								
Length		mm	2.200	2.200	2.200	2.200	2.200	2.200
Width		mm	800	800	800	800	800	800
Height		mm	1.820	1.820	1.820	1.820	1.820	1.820
Acoustical data (without compressors jackets)								
Sound power level		dB(A)	81	82	82	84	85	86
Sound pressure level (2)		dB(A)	63,9	64,9	64,9	66,9	67,9	68,9
Acoustical data (with compressors jackets)								
Sound power level		dB(A)	77	78	78	80	81	82
Sound pressure level (2)		dB(A)	59,9	60,9	60,9	62,9	63,9	64,9

(1) Data referred to evaporator water temperature 12/7°C and condensing temperature 45°C.

(2) The sound pressure is calculated from a distance of 1 m.

Water Cooled, Chiller and Condenserless SWS/SWR 1602-4802

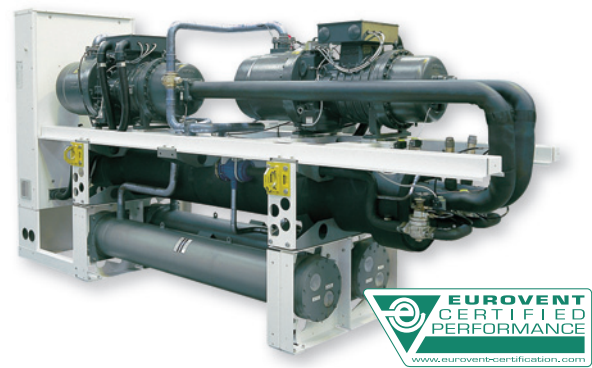
 272-1118 kW

 HFC 134a

 Screw

Technical features

- 12 sizes.
- Cooling capacity from 272 to 1.118 kW.
- 2 versions:
SWS (Cooling only);
SWR (Condenserless).
- 3 acoustic versions:
STD (Standard);
LN (Low Noise);
ELN (Extra Low Noise).
- Two refrigerant circuit.
- Screw compressors.
- Shell & Tube evaporator and condenser.



Accessories and options

- Sofstart.
- BMS interface.
- Flow switch.
- Power factor corrector capacitors.
- Water filter.
- Compressors jackets.
- Sequence phases control.
- Mechanical gauges kit.
- Compressors acoustic box (standard on LN and ELN).

Operating limit

Models				SWS	SWR
Evaporator	Leaving water temperature	Water	°C	from +5 to +15	
		Water + glycol	°C	from -3 to +4	
		Δ T	K	from +3 to +8	
Condenser	Leaving water temperature		°C	from +30 to +60 with tower water da +15 a +30 with well water	-
	Leaving water + glycol temperature		K	from +3 to +8 with tower water 15 with well water	-

Technical feature SWS 1602-2802

Model SWS		1602	1902	2202	2212	2352	2502	2652	2802
Cooling capacity (1)	kW	271,8	362,4	440,0	529,3	564,7	600,0	639,2	678,4
Power input (1)	kW	68,0	82,1	102,0	121,0	129,0	138,0	145,0	153,0
Heat rejection (1)	kW	339,8	444,5	542,0	650,3	693,7	738,0	748,2	831,4
GROSS EER		4,00	4,41	4,28	4,36	4,35	4,34	4,38	4,41
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-63-75-87-100							
Refrigerant									
Type		HFC 134a							
Charge	kg	46	60	74	52	56	60	64	66
Compressor									
Type		Screw							
Qty		2							
Startup type		P/W				Y/Δ			
Evaporator									
Type		Shell & Tube							
Qty		1							
Water flow	l/s	13,0	17,3	21,0	25,3	27,0	28,7	30,5	32,4
Water pressure drop	kPa	44,4	54,4	53,7	42,2	40,5	45,7	56,3	63,4
Connection type		Vitacluc							
Inlet/outlet diameter	inch	5"	6"	8"	6"	6"	6"	6"	6"
Condenser									
Type		Shell & Tube							
Qty		2							
Water flow	l/s	8,0	10,5	12,7	15,3	16,4	17,4	18,5	19,6
Water pressure drop	kPa	28,7	38,7	41,0	40,1	45,7	41,6	47,0	50,2
Connection type		Female gas threaded							
Inlet/outlet diameter	inch	2½"	3"	3"	3"	3"	3"	3"	3"
Weight STD version									
Shipping	kg	2.067	2.554	3.005	3.377	3.470	3.498	3.592	3.605
Operating	kg	2.144	2.688	3.212	3.601	3.717	3.750	3.882	3.895
Dimensions									
Length	mm	3.795	3.795	4.210	4.210	4.210	4.210	4.210	4.210
Width	mm	950	950	1.400	1.400	1.400	1.400	1.400	1.400
Height	mm	1.910	1.910	2.050	2.050	2.050	2.050	2.050	2.050
Acoustical data STD version									
Sound power level	dB(A)	94	94	95	95	95	95	95	95
Sound pressure level (2)	dB(A)	75	75	76	76	76	76	76	76
Weight LN version									
Shipping	kg	2.343	2.826	3.333	3.777	3.870	3.898	3.992	4.005
Operating	kg	2.454	3.000	3.611	4.001	4.117	4.150	4.282	4.295
Acoustical data LN version									
Sound power level	dB(A)	89	89	90	90	90	90	90	90
Sound pressure level (2)	dB(A)	70	70	71	71	71	71	71	71
Weight ELN version									
Shipping	kg	2.433	2.916	3.453	3.927	4.020	4.048	4.142	4.155
Operating	kg	2.544	3.090	3.731	4.151	4.267	4.300	4.432	4.445
Acoustical data ELN version									
Sound power level	dB(A)	81	81	82	82	82	82	82	82
Sound pressure level (2)	dB(A)	62	62	63	63	63	63	63	63

(1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.

(2) The sound pressure is calculated from a distance of 1 mt.

Technical feature SWS 3012-4802

Model SWS		3012	3202	3412	3602	4212	4602	4802
Cooling capacity (1)	kW	716,0	784,4	841,7	898,9	962,1	1.040,2	1.118,2
Power input (1)	kW	168,0	182,0	194,0	206,0	218,7	230,5	242,3
Heat rejection (1)	kW	884,0	966,4	1.035,7	1.104,9	1.180,8	1.270,7	1.360,5
GROSS EER		4,25	4,29	4,32	4,36	4,40	4,51	4,61
EER		3,89	4,23	4,11	4,22	4,20	4,20	4,21
ESEER		4,28	4,66	4,58	4,65	4,62	4,62	4,63
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	25-50-63-75-87-100						
Refrigerant								
Type		HFC 134a						
Charge	kg	70	78	82	88	94	102	110
Compressor								
Type		Screw						
Qty		2						
Startup type		Y/Δ						
Evaporator								
Type		Shell & Tube						
Qty		1						
Water flow	l/s	34,2	37,5	40,2	42,9	46,0	49,7	53,4
Water pressure drop	kPa	70,6	52,8	60,8	65,7	75,3	88,0	101,7
Water volume	l	222	359	359	359	359	399	399
Connection type		Victaulic						
Inlet/outlet diameter	inch	6"	8"	8"	8"	8"	8"	8"
Condenser								
Type		Shell & Tube						
Qty		2						
Water flow	l/s	20,8	22,8	24,4	26,0	28,2	30,4	32,5
Water pressure drop	kPa	50,5	60,5	29,0	33,0	38,7	41,7	47,9
Water volume	l	71	71	126	126	126	133	133
Connection type		Female gas threaded		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic
Inlet/outlet diameter	inch	3"	3"	4"	4"	4"	4"	4"
Weight STD version								
Shipping	kg	4.029	4.952	4.970	4.986	5.112	5.165	5.342
Operating	kg	4.323	5.382	5.455	5.471	5.597	5.698	5.875
Dimensions								
Length	mm	4.210	4.770	4.770	4.770	4.770	4.770	4.770
Width	mm	1.400	1.400	1.400	1.400	1.400	1.400	1.400
Height	mm	2.050	2.050	2.050	2.050	2.050	2.110	2.110
Acoustical data STD version								
Sound power level	dB(A)	95	96	96	97	98	98	98
Sound pressure level (2)	dB(A)	76	77	77	78	79	79	79
Weight LN version								
Shipping	kg	4.429	5.452	5.470	5.486	5.612	5.665	5.842
Operating	kg	4.723	5.882	5.955	5.971	6.097	6.198	6.375
Acoustical data LN version								
Sound power level	dB(A)	90	91	91	92	93	93	93
Sound pressure level (2)	dB(A)	71	72	72	73	74	74	74
Weight ELN version								
Shipping	kg	4.579	5.622	5.640	5.656	5.782	5.835	6.012
Operating	kg	4.873	6.052	6.125	6.141	6.267	6.368	6.545
Acoustical data ELN version								
Sound power level	dB(A)	82	83	83	84	85	85	85
Sound pressure level (2)	dB(A)	63	64	64	65	66	66	66

- (1) Data referred to evaporator water temperature 12/7°C and condenser water temperature 30/35°C.
 (2) The sound pressure is calculated from a distance of 10 mt.

Technical feature SWR 1602-2802

Model SWR		1602	1902	2202	2212	2352	2502	2652	2802
Cooling capacity (1)	kW	271,8	362,4	440,0	529,3	564,7	600,0	639,2	678,4
Power input (1)	kW	63,1	76,3	92,3	112,6	120,4	128,1	135,4	142,8
Heat rejection (1)	kW	334,9	438,7	532,4	641,9	685,0	728,1	774,7	821,2
GROSS EER		4,3	4,7	4,8	4,7	4,7	4,7	4,7	4,7
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-63-75-87-100							
Refrigerant									
Type		HFC 134a							
Compressor									
Type		Screw							
Qty		2							
Startup type		P/W				Y/Δ			
Evaporator									
Type		Shell & Tube							
Qty		1							
Water flow	l/s	13,0	17,3	21,0	25,3	27,0	28,7	30,5	32,4
Water pressure drop	kPa	44,4	54,4	53,7	42,2	40,5	45,7	56,3	63,4
Water volume	l	80,2	124,7	221,7	162	184	184	222	222
Connection type		Victaulic							
Inlet/outlet diameter	inch	5"	6"	8"	6"	6"	6"	6"	6"
Weight STD version									
Shipping	kg	1.765	2.065	2.453	2.895	2.985	2.995	3.085	3.095
Operating	kg	1.845	2.190	2.675	3.057	3.169	3.179	3.307	3.317
Dimensions									
Length	mm	3.795	3.795	4.210	4.210	4.210	4.210	4.210	4.210
Width	mm	950	950	1.400	1.400	1.400	1.400	1.400	1.400
Height	mm	1.910	1.910	2.050	2.050	2.050	2.050	2.050	2.050
Acoustical data STD version									
Sound power level	dB(A)	94	94	95	95	95	95	95	95
Sound pressure level (2)	dB(A)	75	75	76	76	76	76	76	76
Weight LN version									
Shipping	kg	2.075	2.375	2.853	3.295	3.385	3.395	3.485	3.495
Operating	kg	2.155	2.500	3.075	3.457	3.569	3.579	3.707	3.717
Acoustical data LN version									
Sound power level	dB(A)	89	89	90	90	90	90	90	90
Sound pressure level (2)	dB(A)	70	70	71	71	71	71	71	71
Weight ELN version									
Shipping	kg	2.165	2.465	2.973	3.445	3.535	3.545	3.635	3.645
Operating	kg	2.245	2.590	3.195	3.607	3.719	3.729	3.857	3.867
Acoustical data ELN version									
Sound power level	dB(A)	81	81	82	82	82	82	82	82
Sound pressure level (2)	dB(A)	62	62	63	63	63	63	63	63

(1) Data referred to evaporator water temperature 12/7°C and condensing temperature 38°C.

(2) The sound pressure is calculated from a distance of 1 mt.

Technical feature SWR 3012-4802

Model SWR		3012	3202	3412	3602	4212	4602	4802
Cooling capacity (1)	kW	716,0	784,4	841,7	898,9	962,1	1.040,2	1.118,2
Power input (1)	kW	156,2	169,7	180,5	191,4	218,7	230,5	242,3
Heat rejection (1)	kW	872,2	954,2	1.022,2	1.090,2	1.180,8	1.270,7	1.360,5
GROSS EER		4,6	4,6	4,7	4,7	4,4	4,5	4,6
Number of refrigerant circuits		2	2	2	2	2	2	2
Part load steps	%	25-50-63-75-87-100						
Refrigerant								
Type		HFC 134a						
Compressor								
Type		Screw						
Qty		2						
Startup type		Y/Δ						
Evaporator								
Type		Shell & Tube						
Qty		1						
Water flow	l/s	34,2	37,5	40,2	42,9	46,0	49,7	53,4
Water pressure drop	kPa	70,6	52,8	60,8	65,7	75,3	88,0	101,7
Water volume	l	222	359	359	359	359	399	399
Connection type		Victaulic						
Inlet/outlet diameter	inch	6"	8"	8"	8"	8"	8"	8"
Weight STD version								
Shipping	kg	3.505	4.421	4.431	4.441	4.561	4.581	4.753
Operating	kg	3.727	4.780	4.790	4.800	4.920	4.980	5.153
Dimensions								
Length	mm	4.210	4.770	4.770	4.770	4.770	4.770	4.770
Width	mm	1.400	1.400	1.400	1.400	1.400	1.400	1.400
Height	mm	2.050	2.050	2.050	2.050	2.050	2.110	2.110
Acoustical data STD version								
Sound power level	dB(A)	95	96	96	97	98	98	98
Sound pressure level (2)	dB(A)	76	77	77	78	79	79	79
Weight LN version								
Shipping	kg	3.905	4.921	4.931	4.941	5.061	5.081	5.253
Operating	kg	4.127	5.280	5.290	5.300	5.420	5.480	5.653
Acoustical data LN version								
Sound power level	dB(A)	90	91	91	92	93	93	93
Sound pressure level (2)	dB(A)	71	72	72	73	74	74	74
Weight ELN version								
Shipping	kg	4.055	5.091	5.101	5.111	5.231	5.251	5.423
Operating	kg	4.277	5.450	5.460	5.470	5.590	5.650	5.823
Acoustical data ELN version								
Sound power level	dB(A)	82	83	83	84	85	85	85
Sound pressure level (2)	dB(A)	63	64	64	65	66	66	66

(1) Data referred to evaporator water temperature 12/7°C and condensing temperature 38°C.

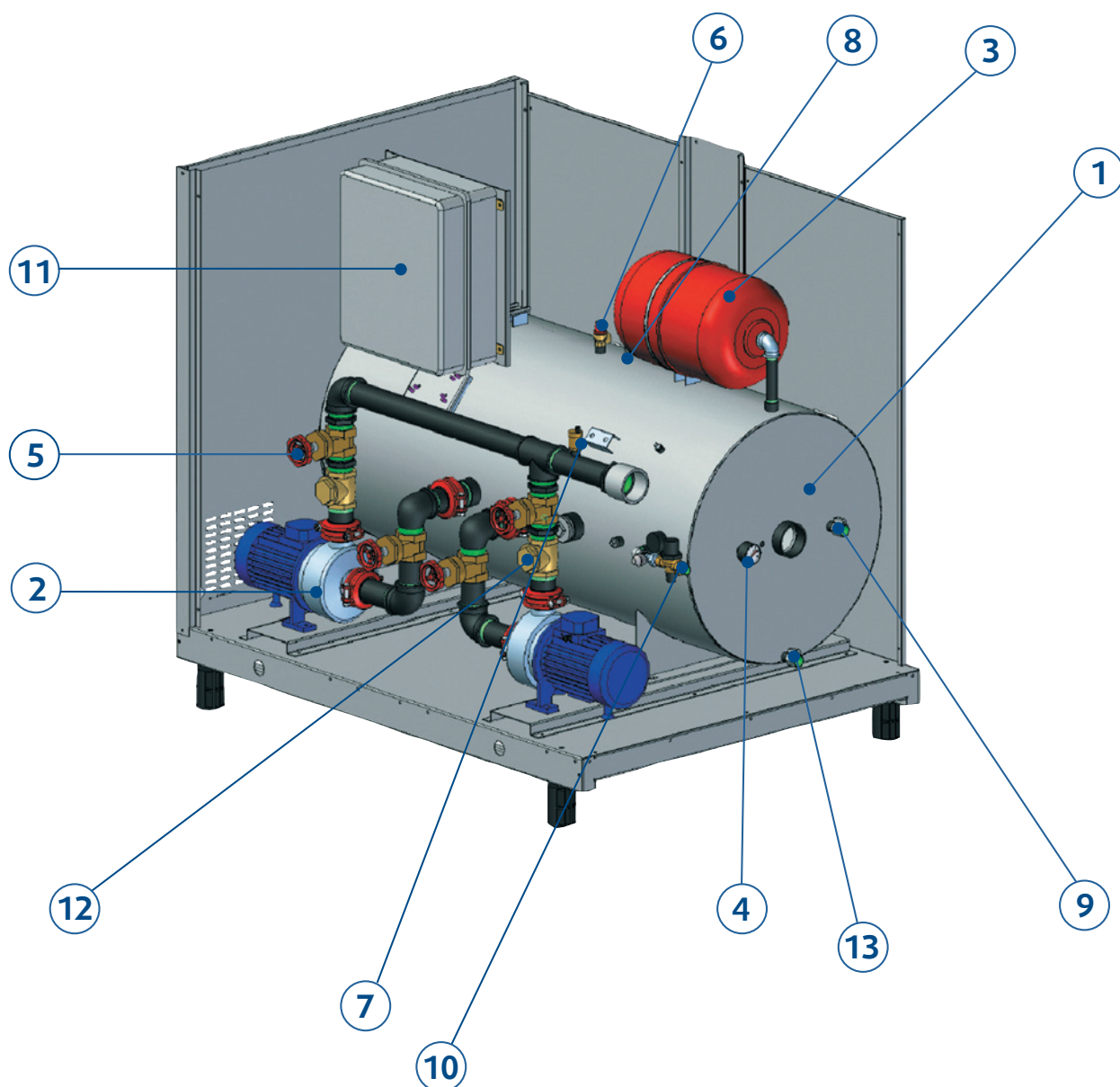
(2) The sound pressure is calculated from a distance of 1 mt.

HPT Hydrokit

Technical features

- 48 sizes.
- Structurally equipped of tank, expansion tank, pump, filter, control valves, electrical box.
- 6 volumes of the storage tank from 300 to 2.500 liters.
- 14 different pumps models.
- Two versions:
with one or two water pumps.
- Anti freezer protection.





1	Tank
2	Circulating pump
3	Expansion tank
4	Pressure gauge
5	On/Off valves
6	Safety valve
7	Automatic air vent valve
8	Air vent valve
9	Make-up valve
10	Automatic make-up unit
11	Electrical board
12	Non-return valve (only on version with 2 pumps)
13	Water storage drain

Technical feature

Pump model	Tank volume	Wsb1	Wsb2	F.L.I.	F.L.A.	F.L.A.	Q Min	H Max	Q Max	H Min	Ve
					(400/3/50)	(230/3/50)					
	lt	kg	kg	kW	A	A	m³/h	κPa	m³/h	κPa	lt
A	300	186	216	1,1	2,5	4,3	6	188	24	83	25
	500	208	238	1,1	2,5	4,3	6	188	24	83	25
B	300	188	220	1,5	3,2	5,5	6	220	24	122	25
	500	210	242	1,5	3,2	5,5	6	220	24	122	25
C	300	188	220	1,5	3,4	5,9	10	170	45	61	25
	500	210	242	1,5	3,4	5,9	10	170	45	61	25
D	300	191	225	2,2	4,8	8,3	10	230	45	112	25
	500	213	247	2,2	4,8	8,3	10	230	45	112	25
E	300	194	231	3	5,6	9,7	10	230	45	112	25
	500	215	253	3	5,6	9,7	10	248	45	137	25
F	750	341	428	3	6,2	10,8	30	191	72	103	25
	1000	364	455	3	6,2	10,8	30	191	72	103	25
	1500	513	586	3	6,2	10,8	30	191	72	103	2 x 25
	2500	565	638	3	6,2	10,8	30	191	72	103	3 x 25
G	750	370	485	5,5	11	—	30	308	84	145	25
	1000	392	512	5,5	11	—	30	308	84	145	25
	1500	565	696	5,5	11	—	30	308	84	145	2 x 25
	2500	613	732	5,5	11	—	30	308	84	145	3 x 25
H	750	373	493	5,5	11	—	48	210	108	137	25
	1000	396	520	5,5	11	—	48	210	108	137	25
	1500	569	696	5,5	11	—	48	210	108	137	2 x 25
	2500	617	740	5,5	11	—	48	210	108	137	3 x 25
I	750	377	501	7,5	14,6	—	48	260	120	180	25
	1000	400	528	7,5	14,6	—	48	260	120	180	25
	1500	569	696	7,5	14,6	—	48	260	120	180	2 x 25
	2500	617	740	7,5	14,6	—	48	260	120	180	3 x 25
L	750	377	501	11	21,2	—	48	342	120	249	25
	1000	400	528	11	21,2	—	48	342	120	249	25
	1500	569	696	11	21,2	—	48	342	120	249	2 x 25
	2500	617	740	11	21,2	—	48	342	120	249	3 x 25
M	1500	628	814	15	28,6	—	48	405	138	288	2 x 25
	2500	680	866	15	28,6	—	48	405	138	288	3 x 25
O	1500	634	826	15	28,6	—	84	330	180	220	2 x 25
	2500	686	878	15	28,6	—	84	330	180	220	3 x 25
P	1500	646	850	18,5	34,2	—	84	385	216	220	2 x 25
	2500	698	902	18,5	34,2	—	84	385	216	220	3 x 25
Q	1500	660	878	22	40,3	—	84	475	180	325	2 x 25
	2500	712	930	22	40,3	—	84	475	180	325	3 x 25

PVe	PS	T Min
bar	bar	°C
1,5	3	-10

Legend:

- F.L.I. - Full load power.
- F.L.A. - Full load current.
- Q Min - Minimum flow.
- Q Max - Maximum flow.
- H Min - Minimum pressure.
- H Max - Maximum pressure.
- Wsb1 - Shipping weight with pump.
- Wsb2 - Shipping weight with two pumps.
- Ve - Expansion tank capacity.
- PVe - Tank pressure.
- PS - Maximum operating pressure.
- T Min - Minimum water temperature.

Condensing unit



AQC 40-75

❄️ 43-85 kW

🔴 HFC 410A

🌀 Scroll



AQVC 85-140

❄️ 92-151 kW

🔴 HFC 410A

🌀 Scroll



VLC 524-1204

❄️ 154-347 kW

🔴 HFC 410A

🌀 Scroll



AQWC 1404-2406

❄️ 428-715 kW

🔴 HFC 410A

🌀 Scroll

Condensing unit

AQC 40-75

 43-85 kW

 410A

 Scroll

Technical features

- 6 sizes.
- Cooling capacity from 43 to 85 kW.
- 2 versions:
 - STD (Standard version);
 - SIF (Special Inverter Fans).
- 2 acoustic versions:
 - BLN (Basic Low Noise);
 - ELN (Extra Low Noise).
- One refrigerant circuit.
- Scroll compressors.

Accessories and options

- Fan speed control.
- Sequence phases control as standard.
- Automatic circuit breaker.
- Compressors acoustic box (standard on ELN).
- Softstart.
- Power factor corrector capacitors.
- Coils treatments.
- Coil grilles (standard).
- Compressors jackets (standard ELN).



Operating limit

AQC					
Evaporating temperature (1)			°C	from 0 to +14	
Ambient	Air temperature	BLN (2)	°C	from +5 to +44	
		ELN (2)	°C	from +3 to +40	
		SIF	°C	from -20 to +44	

(1) -12°C with air ambient temperature between -3°C +40°C with fan speed control option.
(2) -18°C with fan speed control option.

Technical feature AQC 40-75 BLN

Model AQC BLN		40	45	50	60	65	75
Cooling capacity (1)	kW	43,2	48,8	56,9	67,4	73,8	84,5
Power input (2)	kW	13,0	15,3	17,8	18,7	21,6	26,3
Number of refrigerant circuits		1					
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		2					
Type		Scroll					
Crankcase heater	W	90					
Condenser							
Qty		1					
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1					
Air flow	m³/h	14.000	14.000	13.200	21.100	21.100	21.100
Speed	rpm/min	680	680	680	900	900	900
Power input	kW	0,98	0,98	0,98	2,00	2,00	2,00
Refrigerant connection							
Type		To be brazed					
Inlet diameter	inch	5⁄8"	5⁄8"	5⁄8"	7⁄8"	7⁄8"	7⁄8"
Outlet diameter	inch	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"
Weight							
Shipping	kg	391	399	422	456	466	469
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (3)	dB(A)	80,5	81,0	81,0	85,5	85,6	85,8
Sound pressure level (4)	dB(A)	48,9	49,4	49,4	53,8	53,9	54,1

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQC 40-75 ELN

Model AQC ELN		40	45	50	60	65	75
Cooling capacity (1)	kW	41,6	46,7	54,0	64,9	70,7	80,6
Power input (2)	kW	13,7	16,3	19,1	19,7	22,8	28,1
Number of refrigerant circuits		1					
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		2					
Type		Scroll					
Crankcase heater	W	90					
Condenser							
Qty		1					
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty		1					
Air flow	m³/h	11.000	11.000	10.300	16.000	16.000	16.000
Speed	rpm/min	530	530	530	720	720	720
Power input	kW	0.57	0.57	0.57	1.27	1.27	1.27
Refrigerant connection							
Type		To be brazed					
Inlet diameter	inch	5⁄8"	5⁄8"	5⁄8"	7⁄8"	7⁄8"	7⁄8"
Outlet diameter	inch	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"
Weight							
Shipping	kg	391	399	422	456	466	469
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.580	1.580	1.580	1.580	1.580	1.580
Acoustical data							
Sound power level (3)	dB(A)	74,0	75,3	75,3	78,0	78,5	79,0
Sound pressure level (4)	dB(A)	42,4	43,7	43,7	46,3	46,8	47,3

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQC 40-75 SIF

Model AQC SIF		40	45	50	60	65	75
Cooling capacity (1)	kW	45,8	52,1	61,3	68,4	75,2	85,9
Power input (2)	kW	11,9	13,9	16,0	18,3	21,1	25,6
Number of refrigerant circuits				1			
Part load steps	%	0-50-100	0-50-100	0-50-100	0-44-56-100	0-50-100	0-50-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type				HFC 410A			
Compressor							
Qty				2			
Type		Scroll					
Crankcase heater	W	90					
Condenser							
Qty				1			
Frontal surface	mm	2.160x1.200	2.160x1.200	2.160x1.200	2.650x1.200	2.650x1.200	2.650x1.200
Number of rows		2	2	3	3	3	3
Fan							
Qty				1			
Air flow	m³/h	25.284	25.284	24.300	25.284	25.284	25.284
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110
Power input	kW	2.67	2.67	2.67	2.67	2.67	2.67
Refrigerant connection							
Type				To be brazed			
Inlet diameter	inch	5⁄8"	5⁄8"	5⁄8"	7⁄8"	7⁄8"	7⁄8"
Outlet diameter	inch	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"
Weight							
Shipping	kg	391	399	422	456	466	469
Dimensions							
Length	mm	1.750	1.750	1.750	2.200	2.200	2.200
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	1.685	1.685	1.685	1.685	1.685	1.685

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

Condensing unit

AQVC 85-140

 92-151 kW

 HFC 410A

 Scroll

Technical features

- 6 sizes.
- Cooling capacity from 43 to 85 kW.
- 2 versions:
STD (Standard);
SIF (Special Inverter Fans).
- 2 acoustic versions:
BLN (Basic Low Noise);
ELN (Extra Low Noise).
- One refrigerant circuit.
- Scroll compressors.

Accessories and options

- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control.
- Power factor corrector capacitors.
- Compressors acoustic box as standard.
- Sequence phases control.
- Coils treatments.
- Compressors jackets.



Operating limit

AQVC			85		95		105		115		125		140	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Evaporating limit			°C from +1 to +15											
Air temperature	BLN	°C	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48	from 0 to +48
	ELN	°C	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45	from -18 to +45
	HT	°C	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50	from 0 to +50

Technical feature AQVC STD/HSE/HPF 85-140 BLN

Model AQVC BLN		85	95	105	115	125	140
Cooling capacity (1)	kW	92,1	103,2	113,2	121,8	134,7	151,0
Power input (2)	kW	25,3	29,3	32,0	34,9	38,3	43,4
Number of refrigerant circuits				2			
Part load steps	%	0-25-50 75-100	0-25-50 75-100	0-24-47- 74-100	0-25-50 75-100	0-22-43- 72-100	0-25-50 75-100
Power supply	V/ph/Hz	400/3/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		2					
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Condenser							
Qty		2					
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Connection type		To be brazed					
Inlet diameter	inch	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"
Outlet diameter	inch	13/8"	13/8"	13/8"	13/8"	13/8"	13/8"
Fan							
Qty		2					
Air flow	m³/h	34.000	34.000	33.200	32.400	44.000	42.800
Speed	rpm/min	690	690	690	690	900	900
Power input	kW	2,1	2,1	2,1	2,1	3,4	3,4
Weight							
Shipping	kg	971	983	1.013	1.043	1.066	1.142
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (3)	dB(A)	85	85	85	85	89	89
Sound pressure level at 10 m (4)	dB(A)	53	53	53	53	57	57

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQVC STD/HSE 85-140 ELN

Modello AQVC ELN		85	95	105	115	125	140
Cooling capacity (1)	kW	89	99,4	108,7	116,6	131,6	147,2
Power input (2)	kW	26,8	31,3	34,3	37,5	39,8	45,2
Number of refrigerant circuits		2					
Part load steps	%	0-25-50 75-100	0-25-50 75-100	0-24-47- 74-100	0-25-50 75-100	0-22-43- 72-100	0-25-50 75-100
Power supply	V/ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		4					
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Condenser							
Qty		2					
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Connection type		To be brazed					
Inlet diameter	inch	5⁄8"	5⁄8"	5⁄8"	5⁄8"	7⁄8"	7⁄8"
Outlet diameter	inch	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"	1 3⁄8"
Fan							
Qty		2					
Air flow	m³/h	25.200	25.200	24.600	24.000	36.500	35.000
Speed	rpm/min	500	500	500	500	690	690
Power input	kW	1,8	1,8	1,8	1,8	2,1	2,1
Weight							
Shipping	kg	1.001	1.013	1.043	1.073	1.096	1.172
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (3)	dB(A)	82	82	82	82	86	86
Sound pressure level at 10 m (4)	dB(A)	50	50	50	50	54	54

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA..

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQVC HT 85-140

Model AQVC HT		85	95	105	115	125	140
Cooling capacity (1)	kW	95	106,8	117,7	127	137,2	153,8
Power input (2)	kW	23,9	27,4	29,8	32,3	37,1	42,1
Number of refrigerant circuits		2					
Part load steps	%	0-25-50 75-100	0-25-50 75-100	0-24-47- 74-100	0-25-50 75-100	0-22-43- 72-100	0-25-50 75-100
Power supply	V/ph/Hz	400/3+N/50					
Startup type		Direct					
Refrigerant							
Type		HFC 410A					
Compressor							
Qty		4					
Type		Scroll					
Crankcase heater	W	90	90	90	90	90	90
Condenser							
Qty		2					
Frontal surface	mm	2.000x1.200	2.000x1.200	2.000x1.200	2.000x1.200	2.600x1.200	2.600x1.200
Connection type		To be brazed					
Inlet diameter	inch	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"
Outlet diameter	inch	13/8"	13/8"	13/8"	13/8"	13/8"	13/8"
Fan							
Qty		2					
Air flow	m³/h	49.700	49.700	48.950	48.200	52.200	50.700
Speed	rpm/min	1.130	1.130	1.130	1.130	1.130	1.130
Power input	kW	4,6	4,6	4,6	4,6	4,6	4,6
Weight							
Shipping	kg	971	983	1.013	1.043	1.066	1.142
Dimensions							
Length	mm	2.555	2.555	2.555	2.555	3.155	3.155
Width	mm	1.095	1.095	1.095	1.095	1.095	1.095
Height	mm	2.185	2.185	2.185	2.185	2.185	2.185
Acoustical data							
Sound power level (3)	dB(A)	95	95	95	95	95	95
Sound pressure level at 10 m (4)	dB(A)	63	63	63	63	63	63

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Condensing unit

VLC 524-1204



154-347 kW



410A



Scroll

Technical features

- 8 sizes.
- Cooling capacity from 154 to 347 kW.
- 4 versions:
 - STD (Standard);
 - HSE (High Seasonal Efficiency);
 - HT (High Temperature);
 - SIF (Special Invert Fans).
- 3 acoustic versions:
 - BLN (Basic Low Noise);
 - LN (Low Noise);
 - ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.

Accessories and options

- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control.
- Compressors acoustic box (standard).
- Compressors jackets.



Operating limit**VLC 524-804**

VLC			524		604		704		804	
			Min	Max	Min	Max	Min	Max	Min	Max
Evaporating temperature		°C	from +3 to +15							
Air temperture	BLN	°C	from 0 to +46 (1)	from -5 to +47 (1)	from -5 to +47 (1)	from -5 to +47 (1)	from 0 to +46 (1)			
	LN/ELN	°C	from 0 to +44 (1)	from -5 to +45 (1)	from -5 to +45 (1)	from -5 to +45 (1)	from 0 to +44 (1)			
	HT	°C	from -18 to +48 (1)	from -18 to +49 (1)	from -18 to +49 (1)	from -18 to +49 (1)	from -18 to +48 (1)			

(1) At high pressure 40.5 bar.

VLC 904-1204

VLC			904		1004		1104		1204	
			Min	Max	Min	Max	Min	Max	Min	Max
Evaporating temperature		°C	from +3 to +15							
Air temperture	BLN	°C	from 0 to +46 (1)	from 0 to +46 (1)	from 0 to +45 (1)	from 0 to +45 (1)	from 0 to +45 (1)	from 0 to +45 (1)		
	LN/ELN	°C	from 0 to +45 (1)	from 0 to +44 (1)	from 0 to +42 (1)	from 0 to +42 (1)	from 0 to +42 (1)	from 0 to +42 (1)		
	HT	°C	from -18 to +49 (1)	from -18 to +48 (1)	from -18 to +47 (1)	from -18 to +47 (1)	from -18 to +47 (1)	from -18 to +47 (1)		

(1) At high pressure 40.5 bar.

Technical feature VLC STD/HSE/SIF 524–1204 BLN

Modello VLC STD/HSE/SIF-BLN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	154,0	174,0	199,0	224,0	258,0	283,0	315,0	347,0
Power input (2)	kW	47,5	52,5	63,0	69,0	79,0	83,0	98,0	112,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Compressor									
Type		Scroll							
Qty		4							
Condenser									
Qty		2							
Frontal surface	m³	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	900	900	900	900	900	900	900	900
Air flow	m³/h	46.300	63.000	68.300	68.300	85.000	80.000	75.500	75.500
Total air flow	kW	3,8	5,7	5,7	5,7	7,6	7,6	7,6	7,6
Total air flow*	kW	2,6	4,0	4,0	4,0	5,3	5,3	5,3	5,3
Available static pressure	Pa	from 0 to 120 Pa**							
Refrigerant connection									
Inlet diameter	inch	7⁄8"	7⁄8"	7⁄8"	7⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"
Outlet diameter	inch	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Weight									
Shipping	kg	1.080	1.300	1.490	1.615	1.700	1.825	1.910	1.920
Additional weights									
Version HSE	kg	30	30	30	30	40	40	40	40
Version SIF	kg	10	10	10	10	15	15	15	15
Acoustical data									
Sound power level (3)	dB(A)	92	93	93	93	94	94	95	95
Sound pressure level at 10 m (4)	dB(A)	60	61	61	61	62	62	63	63

* For HSE version with Special Inverter Fans.

** For SIF version with Special Inverter Fan with high static pressure.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature VLC STD/HSE 524-1204 LN

Model VLC STD/HSE-LN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	149,0	169,0	194,0	218,0	251,0	272,5	301,0	330,0
Power input (2)	kW	50,0	55,0	66,0	73,0	83,0	88,0	104,0	121,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Compressor									
Type		Scroll							
Qty		4							
Condenser									
Qty		2							
Frontal surface	m³	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm /min	700	700	700	700	700	700	700	700
Air flow	m³/h	35.400	47.300	52.200	52.200	63.700	58.800	54.900	54.900
Total air flow	kW	2,4	3,6	3,6	3,6	4,8	4,8	4,8	4,8
Total air flow*	kW	1,2	1,9	1,9	1,9	2,5	2,5	2,5	2,5
Available static pressure	Pa	0							
Refrigerant connection									
Liquid diameter	inch	7⁄8"	7⁄8"	7⁄8"	7⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"
Gas diameter	inch	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Weight									
Shipping	kg	1.080	1.300	1.490	1.615	1.700	1.825	1.910	1.920
Additional weights									
Version HSE	kg	30	30	30	30	40	40	40	40
Acoustical data									
Sound power level (3)	dB(A)	86	87	87	87	88	88	89	89
Sound pressure level at 10 m (4)	dB(A)	54	55	55	55	56	56	57	57

* For HSE version with Special Inverter Fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature VLC STD/HSE 524-1204 ELN

Model VLC STD/HSE-ELN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	144,0	164,5	188,5	211,0	244,0	264,5	292,0	319,0
Power input (2)	kW	52,5	57,0	69,0	76,5	86,5	91,5	108,0	127,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Compressor									
Type		Scroll							
Qty		4							
Condenser									
Qty		2							
Frontal surface	m³	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	550	550	550	550	550	550	550	550
Air flow	m³/h	28.300	38.500	41.800	41.800	52.000	48.900	46.200	46.200
Total power input	kW	2	3	3	3	4	4	4	4
Total power input*	kW	0,6	0,9	0,9	0,9	1,2	1,2	1,2	1,2
Available static pressure	Pa	0							
Refrigerant connection									
Liquid diameter	inch	7⁄8"	7⁄8"	7⁄8"	7⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"
Gas diameter	inch	1 1⁄8"	1 1⁄8"	1 1⁄8"	1 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"	2 1⁄8"
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Weight									
Shipping	kg	1.110	1.335	1.525	1.650	1.735	1.865	1.950	1.960
Additional weight									
Version HSE	kg	30	30	30	30	40	40	40	40
Acoustical data									
Sound power level (3)	dB(A)	83	83	83	83	84	84	85	85
Sound pressure level at 10 m (4)	dB(A)	51	51	51	51	52	52	53	53

* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature VLC HT 524-1204

Model VLC HT		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	155,5	176,0	201,0	226,5	261,0	286,5	318,0	353,0
Power input (2)	kW	47,0	51,5	62,0	68,0	77,5	81,0	95,0	109,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
Compressor									
Type		Scroll							
Qty		4							
Condenser									
Qty		2							
Frontal surface	m³	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
Fan									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110	1.110	1.110
Air flow	m³/h	51.700	71.800	76.200	76.200	95.800	91.200	87.600	87.600
Total power input*	kW	4,5	7,2	6,9	6,9	9,6	9,9	10,0	10,0
Available static pressure		Pa0							
Refrigerant connection									
Liquid diameter	inch	7⁄8"	7⁄8"	7⁄8"	7⁄8"	1½"	1½"	1½"	1½"
Gas diameter	inch	1½"	1½"	1½"	1½"	2½"	2½"	2½"	2½"
Dimensions									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Weight									
Shipping	kg	1.110	1.330	1.520	1.645	1.740	1.865	1.950	1960
Acoustical data									
Sound power level (3)	dB(A)	97	99	99	99	100	100	100	100
Sound pressure level at 10 m (4)	dB(A)	65	67	67	67	68	68	68	68

* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Condensing unit

AQWC 1404-2406

 428-715 kW

 HFC 410A

 Scroll

Technical features

- 5 sizes.
- Cooling capacity from 428 to 715 kW.
- 4 versions:
STD (Standard);
HSE (High Seasonal Efficiency);
HT (High Temperature);
HPF (High Pressure Fans).
- 3 acoustic versions:
BLN (Basic Low Noise);
LN (Low Noise);
ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.

Accessories and options

- Coils treatments.
- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control (standard).
- Compressors acoustic box as standard.
- Compressors jackets.



Operating limit

AQWC			1404		1604		1806		2106		2406	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Evaporating temperature		°C	from +3 to +15									
Air temperature	BLN	°C	from -5 to +44		from 0 to +44		from 0 to +44		from 0 to +44		from 0 to +44	
	LN	°C	from -5 to +42		from 0 to +42		from 0 to +42		from 0 to +42		from 0 to +42	
	ELN	°C	from -18 to +40		from -18 to +40		from -18 to +40		from -18 to +40		from -18 to +40	
	HT	°C	from -18 to +45		from -18 to +45		from -18 to +45		from -18 to +45		from -18 to +45	

Technical feature AQWC STD/HSE/HPF 1404-2406 BLN

Model AQWC STD/HSE/HPF BLN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	428	477	559	634	715
Power input (2)	kW	123	139	162	185	208
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Compressor						
Type		Scroll				
Qty		4	4	6	6	6
Condenser						
Qty		4				
Frontal surface	m³	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	880	880	880	880	880
Air flow	m³/h	162.000	153.000	190.000	204.000	227.000
Total power input	kW	14,4	14,4	18,0	18,0	21,6
Total power input*	kW	13,0	13,0	16,2	16,2	19,5
Available static pressure	Pa	from 0 to 120**				
Refrigerant connection						
Liquid diameter	inch	1½"	1¾"	1¾"	1½"	1½"
Gas diameter	inch	2½"	2½" (2¾")	2¾"	2½"	2½"
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Weight						
Shipping	kg	2.393	2.581	3.255	3.496	3.579
Acoustical data						
Sound power level (3)	dB(A)	97	97	98	98	98
Sound pressure level at 10 m (4)	dB(A)	65	65	66	66	67

* For HSE version with Special Inverter Fans.

** For HPF version with Special Inverter Fan with high static pressure.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQWC STD/HSE 1404–2406 LN

Model AQWC STD/HSE LN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	415	462	542	613	693
Power input (2)	kW	129	145	169	192	216
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Compressor						
Type		Scroll				
Qty		4	4	6	6	6
Condenser						
Qty		4				
Frontal surface	m³	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	700	700	700	700	700
Air flow	m³/h	124.000	116.000	142.000	156.000	172.000
Total power input	kW	9,6	9,6	12,0	12,0	14,4
Total power input*	kW	6,6	6,6	8,2	8,2	9,8
Available static pressure	Pa	0				
Refrigerant connection						
Liquid diameter	inch	1½"	1¾"	1¾"	1½"	1½"
Gas diameter	inch	2½"	2½" (2¾")	2¾"	2½"	2½"
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Weight						
Shipping	kg	2.393	2.581	3.255	3.496	3.579
Acoustical data						
Sound power level (3)	dB(A)	91	91	92	92	93
Sound pressure level at 10 m (4)	dB(A)	59	59	60	60	61

* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2 dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQWC STD/HSE 1404–2406 ELN

Model AQWC STD/HSE ELN		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	395	439	514	583	658
Power input (2)	kW	137	153	180	205	230
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Compressor						
Type		Scroll				
Qty		4	4	6	6	6
Condenser						
Qty		4				
Frontal surface	m³	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	550	550	550	550	550
Air flow	m³/h	97.000	91.000	112.000	122.000	135.000
Total power input	kW	9,6	9,6	12,0	12,0	14,4
Total power input*	kW	2,6	2,6	3,2	3,2	3,8
Available static pressure	Pa	0				
Refrigerant connection						
Liquid diameter	inch	1½"	1¾"	1¾"	1½"	1½"
Gas diameter	inch	2½"	2½" (2¾")	2¾"	2½"	2½"
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Weight						
Shipping	kg	2.393	2.581	3.255	3.496	3.579
Acoustical data						
Sound power level (3)	dB(A)	88	88	89	89	90
Sound pressure level at 10 m (4)	dB(A)	56	56	57	57	58

* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2 dBA.

(4) Pressure power values in accordance with ISO 3744.

Technical feature AQWC HT 1404–2406

Model AQWC HT		1404	1604	1806	2106	2406
Cooling capacity (1)	kW	433	471	565	640	722
Power input (2)	kW	122	137	160	183	206
Number of refrigerant circuits		2	2	2	2	2
Part load steps	%	21-50-71-100	25-50-75-100	17-33-50-67-83-100	15-29-43-62-81-100	17-33-50-67-83-100
Compressor						
Type		Scroll				
Qty		4	4	6	6	6
Condenser						
Qty		4				
Frontal surface	m³	4,4	4,4	5,6	6,7	6,7
Fan						
Qty		8	8	10	10	12
Speed	rpm/min	1.100	1.100	1.100	1.100	1.100
Air flow	m³/h	198.000	187.000	232.000	249.000	277.000
Total power input	kW	20,8	20,8	26,0	26,0	31,2
Available static pressure	Pa	0				
Refrigerant connection						
Liquid diameter	inch	1½"	1½"	1½"	1½"	1½"
Gas diameter	inch	2½"	2½" (2½")	2½"	2½"	2½"
Dimensions						
Length	mm	4.000	4.000	5.000	6.000	6.000
Width	mm	2.200	2.200	2.200	2.200	2.200
Height	mm	2.550	2.550	2.550	2.550	2.550
Weight						
Shipping	kg	2.393	2.581	3.255	3.496	3.579
Acoustical data						
Sound power level (3)	dB(A)	103	103	104	104	105
Sound pressure level at 10 m (4)	dB(A)	71	71	72	72	73

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2 dBA.

(4) Pressure power values in accordance with ISO 3744.

Close control



CW 21-202

❄️ 5-190.8 kW
Chilled water



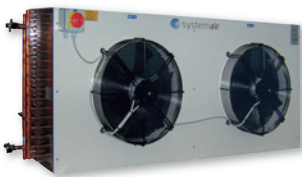
CD 031-71

❄️ 10-22.1 kW
HFC 407C
Scroll



MD 061-202

❄️ 18.3-64.1 kW
HFC 407C
Scroll



CG 010-055

❄️ 9.4-56.2 kW
HFC 407C

Chilled Water Close control CW 5–152



Chilled water

Technical features

- UNDER version down air flow.
- OVER version air up flow.
- EC fans, backward curved blade.
- Advanced microprocessor control interface user and semi-graphic LCD display.
- EU4 filters.
- Frontal access for maintenance.

Accessories and options

- Double pannels (sandwich).
- Centrifugal fans, backward curved blades.
- Humidification/dehumidification option.
- Electric post-heating coil.
- Rear return air (only for up flow version).
- EU5 or EU7 filters.
- LAN connection or remote monitoring systems..
- Air delivery plenum.
- Adjustable base frame.



Technical data CW

Model CW		5	8	10	21	31	41
Total cooling capacity	kW	5,7	7,7	9,8	15,1	25,8	35,5
Sensible cooling capacity	kW	4,7	6,2	8	13,8	22,6	30,2
Nominal air flow	m³/s	0,375	0,55	0,54	1,11	1,45	1,81
Sound pressure level * (up/down flow)	dB(A)	55.5/51.5	55.9/51.9	55.9/51.9	54.5/50.5	56/52	58.5/54.5
Dimensions							
Length	mm	650	650	650	650	840	1.238
Width	mm	450	450	450	650	650	650
Height	mm	1.970	1.970	1.970	1.970	1.970	1.970

* Sound pressure level measured at 2 m from the machine and at 1 m from the ground in free field conditions.

Model CW		51	61	82	102	112	152
Total cooling capacity	kW	49,8	57,8	83	94,8	110,8	152,8
Sensible cooling capacity	kW	42,7	51,1	67,9	78	95,8	128,9
Nominal air flow	m³/s	2,78	3,33	4,86	5,56	6,94	10
Sound pressure level * (up/down flow)	dB(A)	59/55	61.1/57.5	65/61	63/59	64/60	67/63
Dimensions							
Length	mm	1.428	1.618	1.885	1.885	2.265	2.853
Width	mm	650	650	860	860	860	860
Height	mm	1.970	1.970	1.980	1.980	1.980	1.980

* Sound pressure level measured at 2 m from the machine and at 1 m from the ground in free field conditions.

Close control with remote condenser

CD 031-071

 10-22.1 kW

 HFC 407C

 Scroll

Technical features

- UNDER version air down flow.
- OVER version air up flow.
- Centrifugal fan double inlet directly coupled.
- Scroll compressors.
- Advanced microprocessor control interface user and semi-graphic LCD display.
- EU4 filters.
- Frontal access for maintenance.

Accessories and options

- Double pannels (sandwich).
- Humidification/dehumidification option.
- Electric post-heating coil.
- Rear return air (only for up flow version).
- EU5 or EU7 filters.
- LAN connection or remote monitoring systems.
- Air delivery plenum.
- Adjustable base frame.



Technical data CD

Model CD		031	041	051	061	071
Total cooling capacity	kW	10	12,8	15,3	20,5	22,1
Sensible cooling capacity	kW	9,3	12	13,9	19,3	20,5
Nominal air flow	m ³ /s	0,75	1,11	1,11	1,67	1,67
Sound pressure level * (up/down flow)	dB(A)	52/48	55/51	55/51	55/51	56/52
Dimensions						
Length	mm	650	840	840	1.238	1.238
Width	mm	650	650	650	650	650
Height	mm	1.970	1.970	1.970	1.970	1.970

* Sound pressure level measured at 2 m from the machine and at 1 m from the ground in free field conditions.

Close control with remote condenser

MD 061-202



18.3-64.1 kW



HFC 407C



Scroll

Technical features

- UNDER version down air flow.
- OVER version air up flow.
- EC centrifugal fans, backward curved blades.
- Advanced microprocessor control interface user and semi-graphic LCD display.
- EU4 filters.
- Frontal access for maintenance.

Accessories and options

- Double pannels (sandwich).
- Humidification/dehumidification option.
- Electric post-heating coil.
- Rear return air (only for up flow version).
- EU5 or EU7 filters.
- LAN connection or remote monitoring systems.
- Air delivery plenum.
- Adjustable base frame.



Technical data MD

Model MD		061	071	091	101
Total cooling capacity	kW	18,3	24,3	28,4	32,9
Sensible cooling capacity	kW	17,4	23	26,3	30,5
Nominal air flow	m³/s	1,39	2,08	2,08	2,5
Sound pressure level* (up/down Flow)	dB(A)	55/51	61.5/57.5	61.5/57.5	60.5/56.5
Dimensions					
Length	mm	860	1.258	1.258	1.448
Width	mm	860	860	860	860
Height	mm	1.980	1.980	1.980	1.980

* Sound pressure level measured at 2 m from the machine and at 1 m from the ground in free field conditions.

Model MD		102	132	152	182	202
Total cooling capacity	kW	32,3	42,6	48	57,6	64,1
Sensible cooling capacity	kW	29,7	39,5	45	54,5	59,2
Nominal air flow	m³/s	2,5	3,61	3,89	4,44	4,44
Sound pressure level* (up/down Flow)	dB(A)	60.5/56.5	64/60	65/61	67/63	67/63
Dimensions						
Length	mm	1.448	1.885	2.265	2.265	2.265
Width	mm	860	860	860	860	860
Height	mm	1.980	1.980	1.980	1.980	1.980

* Sound pressure level measured at 2 m from the machine and at 1 m from the ground in free field conditions.

Remote condenser for Close control CG 010-065

 9.4-56.2 kW

 HFC 407C

Technical features

- 7 sizes.
- Versions:
BLN and LN.
- Air flow:
Horizontal and vertical.

Accessories and options

- Head pressure control.



Technical data CG

Model CG BLN		010	015	020	025	035	045	055	065
Capacity	kW	9,4	12,1	18,4	24,4	30,0	41,8	56,2	65,0
Air flow	kW	0,9	0,8	1,8	1,7	1,9	4,2	4,0	3,9
Lenght	mm	780	780	1.380	1.380	1.105	2.005	2.005	2.005
Width	mm	555	555	555	555	828	828	828	828
Height	mm	362	362	362	362	428	428	428	428
Weight	kg	18,0	19,4	34,0	38,8	46,6	76,0	85,3	93,2
Sound power level	dB(A)	75	75	78	79	75	78	78	78
Fans									
Qty		1	1	2	2	1	2	2	2
Diameter	mm	400	400	400	400	500	500	500	500
Fans speed	rpm	1.430	1.430	1.430	1.430	1.300	1.300	1.300	1.300
Power input	W	200	200	400	400	680	1.360	1.360	1.360

Model CG BLN		010	015	020	025	035	045	055	065
Capacity	kW	7,7	9,7	15,0	18,7	24,2	35,9	43,2	48,7
Air flow	kW	0,7	0,6	1,4	1,3	1,3	2,9	2,7	2,6
Lenght	mm	780	780	1.380	1.380	1.105	2.005	2.005	2.005
Width	mm	555	555	555	555	828	828	828	828
Height	mm	362	362	362	362	428	428	428	428
Weight	kg	18,0	19,4	34,0	38,8	46,6	76,0	85,3	93,2
Sound power level	dB(A)	65	65	68	68	67	70	70	70
Fans									
Qty		1	1	2	2	1	2	2	2
Diameter	mm	400	400	400	400	500	500	500	500
Fans speed	rpm	940	940	940	940	915	915	915	915
Power input	W	160	160	320	320	270	540	540	540

Air temperature= 32°C.
 Condensing temperature dew= 52°C.
 S.H.= 25 K.
 S.C.= 3 K.
 * Refer to UNI EN 13487.

Water Terminals

Fan coils & Cassette



**Centrifugal fan-coil
SYSCOIL**



**Ductable fan-coil
with medium ESP
SYSDUCT**



**Centrifugal fan-coil
with thin profile
SYLCOIL SLIM**



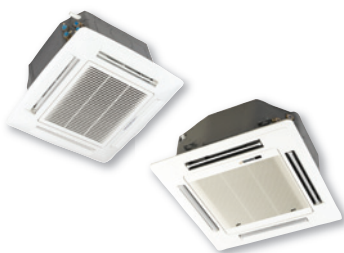
**Ductable fan-coil
with high ESP
SYSDUCT HP**



**Centrifugal fan-coil
with lower profile
SYSCOIL MINI**

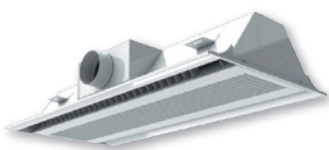


**Wall-mounted
fan-coil
SYSWALL**

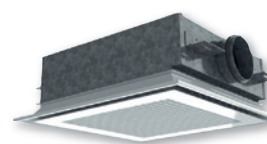


**Water Cassette
SYSCASSETTE**

Chilled Beam



**Chilled Beam
CIRRUS**



**Cassette
Chilled Beam
STRATUS**

Centrifugal fan coils

SYSCOIL

Technical features

- Cabinet of modern design that fits any internal decor, made in hot-dip galvanized steel sheet pre-coated with PVC to ensure high resistance to rust, corrosion, chemical agents, aliphatic solvents and alcohols.
- Internal structure in galvanized steel (sheet 8/10 mm thick), insulated in all parts in direct contact with the air.
- Double inlet centrifugal fans with statically and dynamically balanced aluminium impellers.
- Single phase asynchronous electric motor with overload cutout, 6 speeds available, 3 connected.
- Motor directly coupled to the fans and cushioned with flexible mountings to ensure low noise.
- CU-Al heat exchanger with easy accessible air vent and brass header.
- Adjustable air grille made in ABS.

Accessories and options

- 2way or 3way valves with on/off or modulating actuators.
- 4rows coil for larger cooling/heating output.
- Recessed or exposed feet.
- Fresh air louver kit.
- Condensate water pump.
- Electric heater kit.
- Air intake kit.
- Different size of supply and intake plenums, even with spigots.
- Inlet/outlet grilles.
- Back or lower panels.
- Steel box and decorative panels for recessed installation.
- EU2 or EU3 filters.



EB type



EF type



CH type



CB type

Dimensions and Weight

Model SYSCOIL with cabinet		1	2	3	4	5	6	7	8	9	10	11	12
Lenght	mm	660	860	1.060	1.060	1.260	1.260	1.260	1.480	1.480	1.660	1.960	1.960
Width	mm	225	225	225	225	225	225	225	225	225	225	225	225
Height	mm	480	480	480	480	480	480	480	480	480	480	480	480
Model SYSCOIL without cabinet													
Lenght	mm	420	620	820	820	1.020	1.020	1.020	1.220	1.220	1.380	1.680	1.680
Width	mm	220	220	220	220	220	220	220	220	220	220	220	220
Height	mm	460	460	460	460	460	460	460	460	460	460	460	460
Model SYSCOIL 2-pipe													
Weight	kg	14	17	22	23	27	28	30	35	36	46	55	57

Technical feature SYSCOIL

Model SYSCOIL (2 PIPE SYSTEM - 3R COIL*)				1	2	3	4	5	6	7	8	9	10	11	12
				5" 4" 2"	4" 3" 2"	5" 3" 2"	5" 3" 2"	4" 3" 1"	5" 4" 2"	5" 4" 3"	3" 2" 1"	4" 3" 1"	5" 3" 2"	5" 3" 2"	5" 4" 2"
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b. - 19 °C w.b.	Total cooling capacity	W	max	860	1.280	2.390	2.530	3.110	3.530	4.100	5.670	6.450	7.970	10.000	11.000
		W	med	790	1.170	1.930	2.030	2.790	3.130	3.510	5.140	5.960	6.830	7.690	9.380
		W	min	670	1.080	1.450	1.530	2.200	2.500	3.080	4.770	4.830	6.240	6.020	6.910
	Sensible cooling capacity	W	max	740	1.020	1.940	2.170	2.180	2.820	3.150	3.950	4.510	6.060	7.910	8.470
		W	med	650	900	1.570	1.710	1.930	2.450	2.670	3.540	4.110	5.120	5.920	7.120
		W	min	510	810	1.210	1.310	1.500	1.940	2.300	3.290	3.290	4.620	4.580	5.110
	Water flow	l/h	max	148	220	411	435	534	662	745	973	1.107	1.376	1.727	1.898
	Water pressure drop	kPa	max	0,9	2	8	8,8	16,8	25,9	37,6	12,4	15,6	26,6	21,5	26,8
HEATING Air temp.: 20 °C Water inlet temp.: 50 °C	Heating capacity	W	max	1.250	1.870	2.910	3.280	3.660	4.480	5.140	6.750	7.660	10.100	13.100	13.300
		W	med	1.100	1.650	2.330	2.640	3.270	3.940	4.370	6.040	6.980	8.540	9.930	11.200
		W	min	850	1.470	1.880	2.110	2.560	3.120	3.790	5.600	5.620	7.770	7.750	8.150
	Water flow	l/h	max	148	220	411	435	534	662	745	973	1.107	1.376	1.727	1.898
	Water pressure drop	kPa	max	0,7	1,4	5,8	7,5	13,7	22	34,7	10,1	12,7	23,3	18,8	24,2
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	max	2.160	3.230	4.900	5.530	6.140	7.510	8.560	11.320	12.850	16.860	22.020	23.750
		W	med	1.660	2.840	3.930	4.460	5.470	6.610	7.270	10.130	11.690	14.300	16.690	20.010
		W	min	1.450	2.510	3.190	3.570	4.290	5.230	6.290	9.390	9.400	13.010	13.020	14.520
	Water flow	l/h	max	186	278	430	475	539	646	736	994	1.129	1.450	1.893	2.043
	Water pressure drop	kPa	max	1	2	5,8	8,1	12,8	19	30,7	9,7	12,1	23,5	20,5	22,9
FURTHER DATA	Electric heater heating capacity	W	-	600	1.000	1.000	1.000	2.000	2.000	2.000	3.000	3.000	3.000	4.000	4.000
		A	-	2,61	4,35	4,35	4,35	8,7	8,7	8,7	13,04	13,04	13,04	17,39	17,39
	Air flow	m³/h	max	227	289	459	453	575	685	708	945	1.129	1.356	2.012	2.003
		m³/h	med	189	244	352	344	495	578	578	830	1.014	1.093	1.370	1.590
		m³/h	min	136	209	270	262	360	429	486	753	769	969	989	1.056
	Sound power level	dB(A)	max	46	45	47	47	47	52	52	56	62	63	67	66
		dB(A)	med	41	41	41	40	43	47	46	54	59	57	58	61
		dB(A)	min	33	37	34	33	37	38	42	51	51	55	50	53
	Sound pressure level	dB(A)	max	37	36	35	38	38	43	43	47	55	54	58	57
		dB(A)	med	32	32	32	31	34	38	37	45	49	48	49	52
		dB(A)	min	24	28	25	24	28	29	33	42	42	46	41	44
	Max power motor input	W	max	30	30	40	50	60	80	70	160	180	213	277	273
	Max current motor input	A	max	0,18	0,25	0,28	0,28	0,45	0,45	0,44	0,67	0,95	0,97	1,27	1,25
	Water content	L	-	0,59	0,93	1,27	1,27	1,61	1,61	2,42	2,93	2,93	3,28	4,04	4,04

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

Sound pressure level: 8,6 dB(A) lower that the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

* The values marked with min, med and max refer to the 3 standard speeds set in the factory.

Centrifugal fan coils with thin profile

SYSCOIL SLIM

Technical features

- Simple, attractive design with thin profile.
- 30 basic models with different sizes and versions.
- Floor-standing, suspended, built-in, ceiling-mounted, concealed installation. With bottom or front air intake and top or front air outlet.
- For 2 or 4-pipe systems, with 2 or 3-row heat exchangers.
- Cased units with airflow direction louvers, with bottom air intake (EB models) or front air intake (EF models).
- Concealed units with bottom air intake (CB models) or horizontal air supply (CH models).

Accessories and options

- 2way or 3way on/off valve.
- On/off and balancing valves.
- Steel box and decorative panels with different colors for recessed units.
- Condensate water pump.
- Feet for recessed or exposed units.



EB type



EF type



CH type



CB type

Dimensions and Weight

Model SYSCOIL SLIM with cabinet		0	1	2
Lenght	mm	960	1.160	1.360
Width	mm	157	157	157
Height	mm	480	480	480
Model SYSCOIL SLIM without cabinet				
Lenght	mm	792	992	1.192
Width	mm	152	152	152
Height	mm	460	460	460
Model SYSCOIL SLIM 2-rows coil				
Weight	kg	16	19	21,5

Technical feature SYSCOIL SLIM

Model SYSCOIL SLIM (2 PIPE SYSTEM - 3R COIL*)				0 5" 3" 2"	1 5" 3" 2"	2 5" 3" 2"
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b., -19 °C w.b.	Total cooling capacity	W	max	1.890	2.270	2.660
		W	med	1.510	2.020	2.190
		W	min	1.160	1.470	1.730
	Sensible cooling capacity	W	max	1.460	1.750	2.020
		W	med	1.140	1.540	1.640
		W	min	866	1.100	1.290
	Water flow	l/h	max	326	391	458
	Water pressure drop	kPa	max	13,3	7,24	11,3
HEATING Air temp.: 20 °C Water inlet temp.: 50 °C	Heating capacity	W	max	2.410	2.930	3.350
		W	med	1.900	2.570	2.720
		W	min	1.430	1.820	2.120
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	max	4.100	4.940	5.680
		W	med	3.220	4.360	4.590
		W	min	2.410	3.080	3.560
FURTHER DATA	Air flow	m³/h	max	343	407	453
		m³/h	med	254	347	353
		m³/h	min	182	232	265
	Sound power level	dB(A)	max	51,6	51,8	54,3
		dB(A)	med	43,1	45,5	48,8
		dB(A)	min	35,5	37,8	40,6
	Max current motor input	W	max	40	38	64
	Water content	A	max	0,18	0,17	0,32

Model SYSCOIL SLIM (2 PIPE SYSTEM - 2R COIL*)				0 5" 3" 2"	1 5" 3" 2"	2 5" 3" 2"
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b., -19 °C w.b.	Total cooling capacity	W	max	1.450	1.850	2.240
		W	med	1.200	1.600	1.920
		W	min	959	1.270	1.500
	Sensible cooling capacity	W	max	1.180	1.460	1.740
		W	med	956	1.250	1.470
		W	min	751	972	1.130
	Water flow	l/h	max	249	319	386
	Water pressure drop	kPa	max	5,45	10,3	17,1
HEATING Air temp.: 20 °C Water inlet temp.: 50 °C	Heating capacity	W	max	1.960	2.430	2.910
		W	med	1.610	2.090	2.450
		W	min	1.250	1.610	1.870
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	max	3.380	4.150	4.960
		W	med	2.770	3.570	4.170
		W	min	2.150	2.750	3.170
FURTHER DATA	Air flow	m³/h	max	351	415	477
		m³/h	med	264	335	382
		m³/h	min	192	241	272
	Sound power level	dB(A)	max	54,9	53,6	55,0
		dB(A)	med	48,3	47,4	49,3
		dB(A)	min	41,8	38,0	37,6
	Max current motor input	W	max	40	38	64
	Water content	A	max	0,18	0,17	0,32

* The values marked with min, med and max refer to the 3 standard speeds set in the factory.

Centrifugal fan coils with lower profile

SYSKOIL MINI

Technical features

- Lower design: only 350 mm of height for the cabinet.
- 5 sizes with cooling capacities from 0,8 kW to 4,5 kW.
- 3 installation type: exposed with front air intake (EB models), concealed with front air intake (CF models) and concealed with rear air intake (CR models).
- For 2-pipe installation only.

Accessories and options

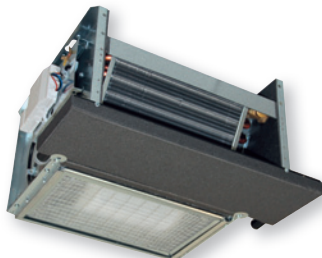
- 2way or 3way valve.
- Electric heater.
- Built-in or wall mounted remote controller.
- Painted lower grille.
- Supply plenum with spigots.
- ABS supply/intake grille.



EF type



CF type



CR type

Dimensions and Weight

Model SYSKOIL MINI with cabinet		21	22	23	24	25
Lenght	mm	560	760	960	1.160	1.360
Width	mm	220	220	220	220	220
Height	mm	350	350	350	350	350
Model SYSKOIL MINI without cabinet						
Lenght	mm	362	562	762	962	1.162
Width	mm	200	200	200	200	200
Height	mm	330	330	330	330	330
Weight						
Weight	kg	15	16	21	26	30

Technical feature SYSCOIL MINI

Model SYSCOIL MINI (2 PIPE SYSTEM*)				21	22	23	24	25
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b. - 19 °C w.b.	Total cooling capacity	W	max	746	1.602	2.450	3.419	4.545
		W	med	679	1.120	2.012	2.789	3.766
		W	min	575	829	1.615	2.114	3.166
	Sensible cooling capacity	W	max	705	1.260	1.840	2.520	3.448
		W	med	604	849	1.473	2.018	2.780
		W	min	482	606	1.159	1.049	2.251
	Water flow	l/h	max	129	276	422	589	784
	Water pressure drop	kPa	max	1,47	5,96	14,60	31,60	20,20
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	max	2.519	3.758	5.080	6.818	9.377
		W	med	2.008	2.804	4.132	5.466	7.676
		W	min	1.521	2.001	3.302	4.065	6.271
	Water flow	l/h	max	217	324	438	588	808
	Water pressure drop	kPa	max	1,73	4,87	10,60	21,90	14,70
FURTHER DATA	Electric heater capacity	W	-	-	1.000	1.000	2.000	3.000
		A	-	-	1.500	2.000	3.000	4.000
	Air flow	m³/h	max	268	337	432	577	834
		m³/h	med	192	226	327	429	632
		m³/h	min	131	147	245	294	484
	Sound power level	dB(A)	max	57	55	55	58	64
		dB(A)	med	49	46	47	51	55
		dB(A)	min	41	37	40	43	48
	Sound pressure level	dB(A)	max	48	46	46	49	55
		dB(A)	med	40	37	38	42	46
		dB(A)	min	32	28	31	34	39
	Power input	W	max	42,3	44,0	54,0	80,0	95,0
	Absorbet current	A	max	0,19	0,20	0,25	0,36	0,44
	Water content	L	-	0,327	0,575	0,822	1,070	1,310

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

Sound pressure level: 8,6 dB(A) lower that the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

* The values marked with min, med and max refer to the 3 standard speeds set in the factory.

Water Cassette

SYSCASSETTE

Technical features

- 8 sizes with cooling capacities from 2,4 to 8,6 kW.
- Available in 2 and 4 pipe versions, with or without infrared remote controller.
- Main structure made of heavy-gauge galvanized steel, complete with external brackets on the 4 corners, for easy fixing to the ceiling.
- Internal thermal-acoustic insulation is polystyrene, the external one is with closed cells.
- Easy and quick fixing of the unit to the ceiling.
- 3 speeds + 1 boots-speed to reach quickly the required room temperature.
- Condensate pump integrated and adjustable moving louvers.
- Simple and elegant air intake grille.
- Set-up for distribution of air to adjacent rooms and for fresh air intake through know-out holes.

Accessories and options

- 2way or 3way on/off valves.
- Circular spigot for fresh air intake.
- Vent plate.
- Circular spigot for air supply to adjacent room.
- Fresh air baffle plate.
- Pre-painted steel cover for under ceiling installation.



Dimensions and Weight

Model SYSCASSETTE unit/panel		21	22	23	24	31	32	33	34
Lenght	mm	580/720	580/720	580/720	580/720	835/953	835/953	835/953	835/953
Width	mm	580/720	580/720	580/720	580/720	835/953	835/953	835/953	835/953
Height	mm	280/65	280/65	280/65	280/65	240/80	305/80	305/80	305/80
Model SYSCASSETTE 2-pipe									
Weight	kg	17	18,5	18,5	19	34,5	38	38	38,5

Technical feature SYSCASSETTE

Model SYSCASSETTE (2 PIPE SYSTEM STANDARD COIL*)				21	22	23	24	31	32	33	34
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b., -19 °C w.b.	Total cooling capacity	W	S-max	2.830	3.410	4.160	4.580	5.940	7.000	7.790	8.220
		W	max	2.420	2.970	3.560	4.460	5.590	6.400	7.050	7.610
		W	med	2.090	2.540	3.020	4.170	5.230	5.890	6.550	6.960
		W	min	1.820	2.210	2.580	3.460	4.850	5.430	6.160	6.420
	Sensible cooling capacity	W	S-max	2.550	2.840	3.300	3.920	4.590	5.480	6.220	6.530
		W	max	2.180	2.430	2.770	3.560	4.290	4.950	5.530	5.980
		W	med	1.790	2.050	2.320	3.310	3.980	4.520	5.110	5.370
		W	min	1.550	1.770	1.980	2.660	3.660	4.160	4.830	4.960
	Water flow	l/h	S-max	488	597	715	773	1.020	1.206	1.338	1.416
	Water pressure drop	kPa	S-max	13,1	7,5	10,9	24,5	8,6	16,8	19,3	23,1
HEATING Air temp.: 20 °C Water inlet temp.: 50 °C	Heating capacity	W	S-max	3.980	4.590	5.370	5.940	7.740	8.070	8.790	9.020
		W	max	3.350	3.840	4.470	5.340	7.290	7.340	8.020	8.330
		W	med	2.860	3.240	3.740	4.960	6.810	6.690	7.450	7.550
		W	min	2.470	2.790	3.160	4.070	6.300	6.130	6.890	6.920
	Water flow	l/h	S-max	488	597	715	773	1.020	1.207	1.337	1.416
	Water pressure drop	kPa	S-max	12,3	6,5	9,7	19,9	7,0	15,0	17,2	20,6
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	S-max	6.900	7.850	9.130	10.110	13.150	13.480	14.660	15.010
		W	max	5.780	6.640	7.560	8.980	12.390	12.260	13.380	13.860
		W	med	4.930	5.510	6.320	8.340	11.560	11.160	12.430	12.550
		W	min	4.250	4.730	5.330	6.830	10.690	10.220	11.480	11.500
	Water flow	l/h	S-max	606	689	802	888	1.150	1.290	1.460	1.500
	Water pressure drop	kPa	S-max	15,0	8,1	11,6	22,7	8,0	13,0	16,5	18,0
FURTHER DATA	Air flow	m³/h	S-max	904	860	883	1.050	1.150	1.200	1.410	1.290
		m³/h	S-max	664	632	657	875	1.050	1.050	1.210	1.160
		m³/h	med	510	492	513	768	950	940	1.090	1.020
		m³/h	min	412	400	407	572	850	840	1.000	915
	Sound power level	dB(A)	S-max	59	59	62	64	56	58	61	61
		dB(A)	S-max	50	51	54	52	54	55	59	58
		dB(A)	med	44	41	48	46	52	53	58	54
		dB(A)	min	39	34	43	41	49	50	54	51
	Sound pressure level	dB(A)	S-max	50	51	53	55	47	49	52	52
		dB(A)	max	42	42	46	44	45	46	50	49
		dB(A)	med	35	32	40	38	43	44	49	45
		dB(A)	min	30	25	35	33	40	41	45	42
	Power input	W	max	105	104	112	135	65	120	120	135
	Absorbet current	A	max	0,51	0,49	0,51	0,63	0,48	0,60	0,60	0,70
	Water content	L	-	0,5	1	1	1	2,45	3,25	3,25	3,25

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

Sound pressure level: 8,6 dB(A) lower that the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

* The values marked with min, med and max refer to the 3 standard speeds set in the factory.

Ductable fan coil with medium ESP

SYSDUCT

Technical features

- Cooling capacities from 2,3 to 8,2 kW, available in 2 and 4 pipe versions.
- Available static pressure up to 80 Pa.
- Chassis in galvanized insulated sheet metal.
- Condensate-drain pan in galvanized, insulated sheet metal with fittings for condensate drainage.
- Knock-outs on side panels for easy factory or site fitting of accessories. Slots on rear of pane to facilitate wall-mounting.
- Heat exchangers of Aluminium fins mechanically expanded onto copper tubes in a continuous block.
- Electric fans single-phase asynchronous motor with 6 speed settings (3 connected in the factory) with overload cut-out.
- Anti-vibration mountings for low-noise operation.
- Three-dimensional double-inlet centrifugal fans with aluminium impellers, statically and dynamically balanced.
- Suitable for vertical and horizontal installation.

Accessories and options

- 2way or 3way valves with on/off or modulating actuators.
- 4rows coil for larger cooling/heating output.
- Manual fresh air louver kit.
- Condensate water pump.
- Electric heater kit.
- Different size of supply and intake plenums, even with spigots.
- Antivibrating joints.
- Inlet/outlet grilles.
- Adjustable supply grille.
- EU2 or EU3 filters.



Dimensions and Weight

Model SYSDUCT		1	2	3	4	5
Lenght	mm	820	1.220	1.220	1.380	1.680
Width	mm	220	220	220	220	220
Height	mm	460	460	460	460	460
Model SYSDUCT 2-pipe						
Weight	kg	22	35	36	46	55

Technical feature SYSDUCT

Model SYSDUCT (2 PIPE SYSTEM - 3R COIL*)				1 2" 3" 5"	2 1" 2" 3"	3 1" 3" 4"	4 2" 3" 5"	5 2" 3" 5"
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12°C Inlet air temp.: 27°C db.-19°C w.b.	Total cooling capacity	W	max	2.290	3.930	4.860	6.380	8.260
		W	med	1.730	3.290	4.190	4.740	5.770
		W	min	780	2.590	2.810	3.920	3.730
	Sensible cooling capacity	W	max	1.850	2.740	3.350	4.750	6.390
		W	med	1.390	2.270	2.850	3.440	4.340
		W	min	620	1.780	1.890	2.820	2.760
	Water flow	l/h	max	393	674	834	1.095	1.417
		l/h	med	297	565	719	814	990
		l/h	min	134	444	482	673	639
	Water pressure loss	kPa	max	6,9	14,3	9,5	17,9	15,3
		kPa	med	4,3	10,3	7,9	10,6	8,1
		kPa	min	1,1	9,3	3,6	7,5	3,7
HEATING Air temp.: 20°C Water inlet temp.: 50°C	Heating capacity	W	max	2.770	4.680	5.680	7.990	10.710
		W	med	2.090	3.900	4.820	5.840	7.410
		W	min	1.010	3.130	3.270	4.810	4.840
	Water flow	l/h	max	393	674	834	1.095	1.417
		l/h	med	297	565	719	814	990
		l/h	min	134	444	482	673	639
	Water pressure loss	kPa	max	5,4	12	9,5	15,6	13,3
		kPa	med	3,3	8,7	7,9	9,2	7
		kPa	min	0,8	5,4	3,6	6,5	3,2
HEATING Air temp.: 20°C Water inlet temp.: 70/60°C	Heating capacity	W	max	4.670	7.800	9.520	13.090	17.290
		W	med	3.520	6.540	8.070	9.820	12.460
		W	min	1.720	5.270	5.470	8.080	8.210
	Water flow	l/h	max	410	685	836	1.150	1.519
		l/h	med	309	574	708	862	1.094
		l/h	min	151	463	480	709	721
	Water pressure loss	kPa	max	5,2	12,1	7,1	15,9	14
		kPa	med	3,2	8,6	6,5	9,5	7,8
		kPa	min	0,9	5,6	2,7	6,7	3,7
FURTHER DATA	Air flow	m³/h	max	431	659	775	999	1.524
		m³/h	med	306	530	641	651	933
		m³/h	min	128	407	403	540	553
	Sound power level	dB(A)	max	58	58	62	63	67
		dB(A)	med	52	56	59	57	58
		dB(A)	min	45	51	51	55	50
	Sound pressure level	dB(A)	max	49	49	53	54	58
		dB(A)	med	44	47	50	48	49
		dB(A)	min	36	42	42	46	41
	Max power motor input	W	max	95	188	188	211	273
	Max current motor input	A	max	0.43	0.87	0.87	0.94	1.31

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

Sound pressure level: 8,6 dB(A) lower that the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

* The values marked with min, med and max refer to the 3 standard speeds set in the factory.

Ductable fan coil with high ESP

SYSDUCT HP

Technical features

- 7 different sizes with cooling capacity from 3,2 to 50,6 kW for horizontal installation.
- Available static pressure up to 260 Pa.
- Frame made of heavy gauge galvanized steel and the coils are in copper pipe expanded into aluminium fins. The copper headers have male fittings (GAS threads) and the air vents are easily accessible.
- Blower section composed by one or two centrifugal fans with statically and dynamically balanced horizontally-oriented aluminium impellers.
- Electric motor with three speeds directly coupled to the fans and cushioned with flexible mountings to ensure low noise.
- For horizontal installation only.

Accessories and options

- 2way or 3way valves with on/off or modulating actuators.
- 90° air intake and supply plenum.
- Section with fresh air louver.
- Air filter, EU3 class.
- Connecting flange.
- Antivibrating joint.
- Heating section with electric heater.
- Straight air intake and supply plenum.
- Intake and supply section with spigots.
- 4 and 6 rows heat exchanger for cooling capacity up to 61 kW.



Dimensions and Weight

Model SYSDUCT HP		1	2	3	4	5	6	7
Lenght	mm	650	1.000	1.100	1.340	1.340	1.340	2.028
Width	mm	591	591	591	591	591	910	910
Height	mm	300	300	325	325	375	675	675
Model SYSDUCT HP 2-pipe								
Weight	kg	28	36	41	46	57	117	192

Technical feature SYSDUCT HP

Model SYSDUCT HP (2 PIPE SYSTEM - STANDARD COIL)				1	2	3	4	5	6	7
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12 °C Inlet air temp.: 27 °C d.b., -19 °C w.b.	Total cooling capacity	W	max	3.640	7.050	9.200	10.600	13.100	27.800	50.600
		W	med	3.470	6.350	8.660	9.810	11.300	24.680	45.480
		W	min	3.160	5.160	7.210	7.790	8.910	21.280	39.540
	Sensible cooling capacity	W	max	2.870	5.640	7.360	8.630	11.000	21.100	39.500
		W	med	2.740	5.020	6.930	7.880	9.440	18.480	35.040
		W	min	2.460	4.020	5.630	6.110	7.230	15.720	30.070
	Water flow	l/h	max	626	1.213	1.582	1.823	2.253	4.782	8.703
	Water pressure loss	kPa	max	24,0	35,9	33,8	31,9	35,9	34,0	40,0
HEATING Air temp.: 20 °C Water inlet temp.: 50 °C	Heating capacity	W	max	4.980	8.510	11.200	12.800	16.900	32.400	60.100
		W	med	4.750	7.620	10.500	11.800	14.500	28.470	53.550
		W	min	4.300	6.130	8.660	9.230	11.200	24.260	46.020
	Water flow	l/h	max	626	1.213	1.582	1.823	2.253	4.782	8.703
	Water pressure loss	kPa	max	22,2	31,7	28,9	27,9	33,2	24,0	30,0
HEATING Air temp.: 20 °C Water inlet temp.: 70/60 °C	Heating capacity	W	max	8.400	14.300	18.850	21.520	28.490	54.240	100.810
		W	med	8.000	12.800	17.670	19.770	24.420	47.600	89.740
		W	min	7.240	10.270	14.540	15.480	18.900	40.510	77.010
	Water flow	l/h	max	722	1.230	1.621	1.850	2.450	4.664	8.670
	Water pressure loss	kPa	max	18,3	29,6	27,5	26,1	35,6	20,7	27,0
FURTHER DATA	Electric heater heating capacity	W	-	3.000	6.000	6.000	9.000	9.000	12.000	18.000
		A	-	4.500	9.000	9.000	12.000	12.000	18.000	24.000
	Air flow	m³/h	max	837	1.423	1.951	2.131	3.002	4.678	9.250
		m³/h	med	780	1.214	1.775	1.889	2.394	3.945	7.890
		m³/h	min	678	898	1.346	1.350	1.675	3.215	6.450
	Sound power level	dB(A)	max	68	66	70	69	75	78	81
		dB(A)	med	67	62	68	65	69	73	76
		dB(A)	min	63	55	61	58	62	69	71
	Sound pressure level	dB(A)	max	59,4	57,4	61,4	60,4	66,4	69,4	72,4
		dB(A)	med	58,4	53,4	59,4	56,4	60,4	64,4	67,4
		dB(A)	min	54,4	46,4	52,4	49,4	53,4	60,4	62,4
	Max power motor input	W	max	160	240	320	340	580	1.320	2.600
	Max current motor input	A	max	0,72	0,97	1,43	1,51	2,58	5,86	11,54
	Water content	L	-	1,36	2,18	2,63	3,25	3,79	9,38	14,44

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

Sound pressure level: 8,6 dB(A) lower than the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

Wall-mounted fan coil

SYSWALL

Technical features

- 4 sizes with cooling capacity from 1,96 to 4,0 kW.
- Modern and elegant design can fit any residential and small commercial space.
- Models available for infrared remote controller or wired controller.
- Tangential fan, the best solution in matter of low noise level and wall mounted installations.
- With the integrated frontal display the user can monitor the room temperature, fan speed and operating mode.
- The airflow deflector opens and closes automatically when the unit is turned on or switched off.
- The supply airflow can be manually adjusted to the left or to the right.
- The vertical high/low adjustment of the airflow is made by a particular function of the infrared remote control.
- The infrared remote controller is equipped with 24h on/off timer.
- The unit can be provided with 3way valve internally mounted for precise temperature control and improved energy saving.



Dimensions and Weight

Model SYSWALL		21	22	23	24
Lenght	mm	880	990	1.172	1.172
Width	mm	205	210	220	220
Height	mm	298	305	360	360
Weight					
Weight	kg	11,5	12,4	19	20,5

Technical feature SYSWALL

Model SYSWALL (2 PIPE SYSTEM - 3R COIL)				21		22		23		24		
COOLING Water inlet temp.: 7 °C Water outlet temp.: 12°C Inlet air temp.: 27°C d.b., 19°C w.b.	Total cooling capacity	W	max	1.960		2.380		3.340		4.000		
		W	med	1.730		2.100		2.960		3.640		
		W	min	1.550		1.830		2.420		2.920		
	Sensible cooling capacity	W	max	1.610		1.900		2.680		3.130		
		W	med	1.410		1.640		2.320		2.850		
		W	min	1.240		1.410		1.890		2.260		
	Water flow	l/h	max	336		409		573		686		
		l/h	med	297		359		508		625		
		l/h	min	266		314		415		501		
	Water pressure loss	kPa	max	15,9		22,9		14,8		21,6		
kPa		med	12,5		18,3		11,3		17,8			
kPa		min	10		14,3		9,7		11,8			
HEATING Air temp.: 20°C Water inlet temp.: 50°C	Heating capacity	W	max	2.570		2.970		4.390		4.920		
		W	med	2.240		2.610		3.800		4.450		
		W	min	2.000		2.280		3.000		3.860		
	Water flow	l/h	max	336		409		573		686		
		l/h	med	297		359		508		625		
		l/h	min	266		314		415		501		
	Water pressure loss	kPa	max	15		20,5		17,3		19,8		
		kPa	med	11,6		16,4		13,8		15,9		
		kPa	min	9,3		13		8,3		10,6		
HEATING Air temp.: 20°C Water inlet temp.: 70/60°C	Heating capacity	W	max	4.390		5.030		7.480		8.280		
		W	med	3.810		4.400		6.450		7.500		
		W	min	3.390		3.850		5.070		6.540		
	Water flow	l/h	max	386		442		657		727		
		l/h	med	334		386		566		659		
		l/h	min	298		338		445		574		
	Water pressure loss	kPa	max	18,4		22,4		21,1		21,2		
		kPa	med	13,8		17,7		16		16,9		
		kPa	min	10,9		14,1		8,8		13,1		
FURTHER DATA	Air flow	m³/h	max	344		417		553		620		
		m³/h	med	282		333		476		544		
		m³/h	min	234		273		375		426		
	Sound power level	dB(A)	max	53		54		54		56		
		dB(A)	med	50		50		50		52		
		dB(A)	min	47		45		43		45		
	Sound pressure level	dB(A)	max	45		45		45		48		
		dB(A)	med	41		41		41		44		
		dB(A)	min	38		37		34		37		
	Power supply	V/ph/Hz		230V 50Hz								
	Power input	W	max	29		29		48		51		
		W	med	26		27		42		45		
		W	min	25		25		35		35		
	Current input	A	max	0,13		0,13		0,26		0,30		
		A	med	0,12		0,12		0,22		0,24		
A		min	0,11		0,11		0,17		0,18			
Water content	L	-	0.81		0.85		1.24		1.85			

Standard unit with free outlet: external static pressure= 0 Pa.

Sound power level: ISO 23741.

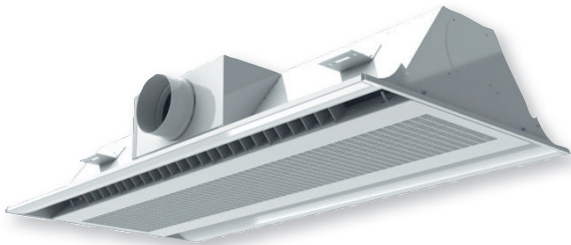
Sound pressure level: 8,6 dB(A) lower than the sound power level for a room of 90 m³ with a reverberation time of 0,5 sec.

Chilled Beam

CIRRUS

Technical features

- Cirrus chilled beam for flushmounting in false ceilings.
- Cirrus integrates ventilation, cooling and heating.
- Casing made of galvanised steel sheet.
- Frontplate is powder painted in white.
- Coil made of copper tubes and aluminium fins.
- Wide range of supply air for the best room comfort.
- Adapted for standard 600x600 mm false ceilings module.
- Available with spigots on the front side or spigots on the top entry.
- Available with following functions: heating, comfort, control, NCS (Nozze Control System), RCS (Room Comfort Support).
- For 2-pipe and 4-pipe configuration.
- Available in length of 120, 180, 240 and 300 cm.



Accessories and options

- ARGUS, control system for Systemair’s Chilled Beams. This system includes room control unit, valve and actuator in different versions. For more information, look at separate product sheet for ARGUS. Cirrus, can be attached with standard M6 suspension rods.

Dimensions

Model CIRRUS spigots on the front		120	180	240	300
Lenght	mm	1.192	1.792	2.692	2.992
Width	mm	595	595	595	595
Height	mm	200	200	200	200
Model CIRRUS spigots on the top					
Lenght	mm	1.192	1.792	2.692	2.992
Width	mm	595	595	595	595
Height	mm	250	250	250	250

Cooling effects

Unit size	Nozzle setting	Primary airflow l/s	Sound level dB(A)	Nozzle pressure Pa	Cooling capacity Primary air (W) at ΔT_{mean}			Cooling capacity Water (W) at ΔT_{mean}			ΔP_w Water Pressure Drop (kPa) and water flow at 0,05 l/s
					6	8	10	6	8	10	
120	S	10	<20	81	72	96	120	304	406	511	3,1
	M	21	24	101	151	202	252	385	511	640	3,1
	L	28	29	80	202	269	336	401	533	667	3,1
180	S	14	<20	61	101	134	168	434	583	734	4,7
	M	31	24	98	223	298	372	583	781	976	4,7
	L	44	33	79	317	422	528	620	829	1.036	4,7
240	S	20	29	61	144	192	240	620	823	1.028	6,3
	M	48	30	137	346	461	576	867	1.149	1.437	6,3
	L	65	34	80	468	624	780	888	1.178	1.472	6,3
300	S	27	25	85	194	259	324	828	1.099	1.371	7,8
	M	54	27	111	389	518	648	1.006	1.338	1.672	7,8
	L	81	33	79	583	778	972	1.107	1.474	1.843	7,8

Heating effects

Unit size	Nozzle setting	Primary airflow l/s	Sound level dB(A)	Nozzle pressure Pa	Heating capacity Water (W) at ΔT_{mean}						ΔP_w Water Pressure Drop (kPa) and water flow at 0,02 l/s
					5	10	15	20	25	30	
120	S	10	<20	81	127	255	390	534	668	800	1
	M	21	24	101	160	323	492	676	840	1.012	1
	L	28	29	80	162	326	496	682	847	1.021	1
180	S	14	<20	61	181	361	542	736	920	1.109	1,5
	M	31	24	98	236	474	715	969	1.209	1.470	1,5
	L	44	33	79	241	486	734	992	1.239	1.508	1,5
240	S	20	29	61	257	514	772	1.028	1.288	1.542	1,9
	M	48	30	137	333	683	1.031	1.371	1.721	2.065	1,9
	L	65	34	80	332	680	1.027	1.365	1.714	2.057	1,9
300	S	27	25	85	319	645	969	1.291	1.622	1.943	2,4
	M	54	27	111	371	749	1.128	1.505	1.893	2.269	2,4
	L	81	33	79	387	778	1.174	1.565	1.970	2.361	2,4

S= small
M= medium
L= large

NOTE! Supply air and room air are at the same temperature.

Chilled Beam

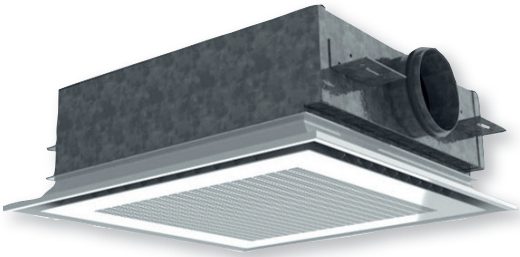
STRATUS

Technical features

- Cassette chilled beam for integrating in suspended ceiling.
- Stratus untegrates ventilation, cooling and heating.
- Casing made of galvanised steel sheet.
- Frontplate is powred painted in white.
- Coil made of copper tubes and aluminium fins.
- With RCS (Room Comfort Support) Stratus provides good indoor condition by directing the air thus reducing air velocities in the occupied zone.
- With nozzle technology NCS (Nozzle Control System) assures the highest induction rate and flexible air pattern.
- Suited for standard 600 mm ceiling module.
- For 2-pipe and 4-pipe configuration.
- Available in two sizes, 600x600 mm and 1.200x600 mm.

Accessories and options

- ARGUS, control system for Systemair’s Chilled Beams.
This system includes room control unit, valve and actuator in different versions. For more information, look at separate product sheet for ARGUS.



Dimensions

Model STRATUS spigots on the front		66	126
Lenght	mm	595	1.195
Width	mm	595	595
Height	mm	200	200

Cooling effects

Unit size	Nozzle setting	Primary airflow Q (l/s)	Sound level in dB(A)	Nozzle pressure P _{Pr} Pa	Cooling capacity Primary air (W) at ΔT_{Pr}			Cooling capacity Water (W) at ΔT_{mean}			ΔP_w Water Pressure Drop (kPa) and water flow at 0,05 l/s
					6	8	10	6	8	10	
66	S	7	21	63	50	67	84	187	253	322	4,0
		11	31	156	79	106	132	272	364	460	4,0
	M	12	22	51	86	115	144	215	290	368	4,0
		18	33	114	130	173	216	301	401	505	4,0
	L	18	30	56	130	173	216	257	345	436	4,0
		22	35	83	158	211	264	303	404	510	4,0
126	S	11	<20	49	79	106	132	328	430	536	7,5
		18	29	131	130	173	216	484	641	799	7,5
	M	20	26	46	144	192	240	393	518	645	7,5
		28	34	90	202	269	336	512	679	846	7,5
	L	30	32	53	216	288	360	466	617	768	7,5
		34	35	68	245	326	408	514	681	850	7,5

Heating effects

Unit size	Nozzle setting	Primary airflow l/s	Sound level in dB(A)	Nozzle pressure Pa	Heating capacity Water Air (W) at ΔT_{mean}						ΔP_w Water Pressure Drop (kPa) and water flow at 0,015 l/s
					5	10	15	20	25	30	
66	S	7	21	63	80	159	243	326	418	503	0,1
		11	31	156	102	203	312	424	535	640	0,1
	M	12	22	51	89	177	271	366	465	557	0,1
		18	33	114	111	223	342	467	585	701	0,1
	L	18	30	56	98	196	300	407	515	616	0,1
		22	35	83	110	220	337	460	577	691	0,1
126	S	11	<20	49	153	267	390	504	654	775	0,1
		18	29	131	186	350	519	689	870	1.034	0,1
	M	20	26	46	168	306	451	594	757	899	0,1
		28	34	90	195	373	554	738	929	1.105	0,1
	L	30	32	53	182	340	503	668	845	1.004	0,1
		34	35	68	192	366	544	724	912	1.085	0,1

S= small
M= medium
L= large

NOTE! Supply air and room air are at the same temperature.



Systemair AC srl
Via XXV Aprile, 29
20825 Barlassina (MB)
Italy

Tel. +39 0362 680 1
Fax +39 0362 680 693

infoAC@systemair.it
www.systemair.com