

*Sustainable Comfort*

AQS

# Air-cooled Chiller & Heat Pump With Scroll Compressors



**CLIMAVENETA**

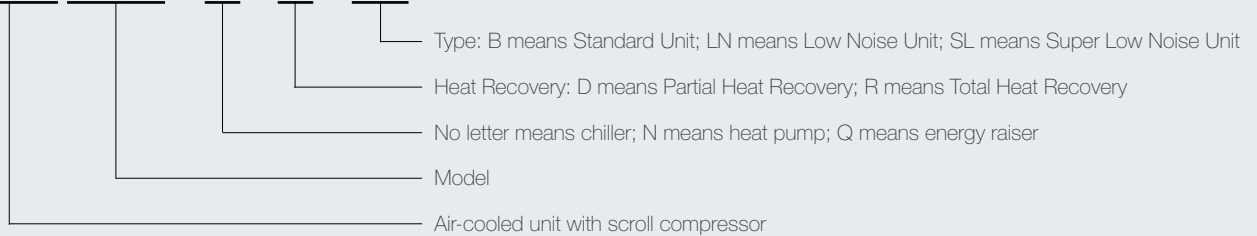
# Air-cooled Chiller & Heat Pump With Scroll Compressors

## Air-cooled chillers and heat pumps with scroll compressors

The new AQS series is a range of units for outdoor installation which are ideal for low-to-medium scale air-conditioning systems and particularly suitable for installations with limited water content, and suitable for the production of chilled water and also hot water for both space heating and sanitary purposes. Thanks to the innovative control system, the AQS system has been designed to work on plants with a low water content where, unlike traditional controls, it minimizes the variations in inlet water temperature even in extremely variable load conditions. The range is equipped with hermetic rotary Scroll compressors, ozone-friendly refrigerant R410A, axial-flow fans, copper coil and aluminum fins, as well as thermal expansion valve.

### Nomenclature

**AQS 0512 - N - D - LN**



### AQS 0512-D-SL

is the air-cooled chiller with Model 0512 and scroll compressor, part heat recovery as well as super low noise function.

#### Available Mode

AQS-N	1. Cooling (chilled water from EVAP);	
	2. Heating (hot water from EVAP);	
AQS-N-D	1. Cooling (chilled water from EVAP);	3. Cooling + heat recovery (hot water from heat recovery exchanger);
	2. Heating (hot water from EVAP);	4. Heating + heat recovery (hot water from heat recovery exchanger);
AQS-N-R	1. Cooling;	4. Heating + heat recovery (partial or part time);
	2. Heating;	5. Only heat recovery;
	3. Cooling + heating;	
AQS-Q	1. Cooling (chilled water from EVAP);	4. Cooling + heat recovery (prior cooling);
	2. Heating (hot water from EVAP);	5. Heat recovery + cooling (prior heating);
	3. Automatically balance cooling load and heating load;	

#### Suggest To Use For

B	Standard Unit	Fit for traditional application
LN	Low Noise Unit	Fit for those application has restriction with noise
SL	Super Low Noise Unit	Fit for those application has very strict request with noise

#### Optional Function

AQS:	-B and -SN function is optional. Noise of SL is 6~8 dB(A) lower than B (standard) unit.
AQS-N:	-B and -LN function is available for model 0152~1204. Noise of LN is 4~6 dB(A) lower than B (standard) unit.
AQS-N:	-B and -SL function is available for model 1355~1806. Noise of SL is 6~8 dB(A) lower than B (standard) unit.

## Flexible Scroll Compressor



- High efficiency scroll compressor with low operation noise
- Complete with an oil sump heater, electronic overheating protection with centralized manual reset and a twopole electric motor.
- High part-load efficiency, low start-up electrical current.
- The scroll compressor has been expressly redesigned for use with the new gas and is now even more compact and silent than before.

## Maximum Reliability



Unit with multi-circuit refrigerant system (two to four, depending on the size) designed to ensure maximum efficiency both at full load and part loads, assuring uninterrupted service in the event one of the two circuits fails.

The number of compressors also ensures a precise multi-step management of the cooling and heating capacity provided by each unit.

## Ecological Refrigerant HFC410A



- Ecological gas HFC410A, no damage to the ozone layer (ODP = 0)
- Thanks to its outstanding heat conductivity, R410A contributes towards achieving elevated system efficiency.
- Reduces electricity consumption and consequently CO<sub>2</sub> emissions.
- Less refrigerant is charged, reducing the greenhouse effect.

## Energy Efficient



- High efficiency parts including compressor, heat exchanger, and refrigerant.
- AQS units stand out for their particularly high energy efficiency. This result was achieved by focusing on the design of both the finned condenser coils and the evaporators.
- These construction choices have both increased efficiency and provided extremely high levels of reliability while significantly increasing compressor working life.
- Excellent part load efficiency ESEER

## Complete Versatility



- AQS/N: cooling only chiller or heat pump
- AQS/N-D/R: complete with partial (D) or total (R) recovery configurations.
- Noise version: B (standard), LN (low noise), SL (super low noise) versions.

## Silent Version



- LN: low noise performances, achieved by means of compressor soundproofing enclosure, reduced fan speed and enhanced exchanger surface on the coil's side.
- SL: super low noise performance obtained with compressor enclosure, further reduction of the fan speed plus increase of the coil's exchanger surface.

## Innovative Fan Management System



Climaveneta has designed a new system to manage the condensing fans with a complete new structure of the ventilation section (patent pending). This ensures outstanding performance in terms of efficiency in all the operating conditions, thanks to:

- Elimination of impact on adjacent circuits.
- Elimination of the reciprocal dependency on adjacent circuits
- Ability to manage independent defrost cycles at different times in different circuits
- A more accurate fan speed management and, consequently, a lower power consumption.

## Integrated Hydronic Module (optional)



The hydronic kit has been carefully designed according to the various possible application through out the wide capacity range of AQS units.

On all versions we can select single or twin pumps suitable for low and high pressure according to the installation needs.

Automatic pump rotation system is available in the condition of a breakdown without interrupting operation (only in units with a twin pump).

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## Control and Operation Management

Advanced W3000 intelligent microcomputer control system is built-in dedicated CLIMAVENETA control algorithm which with outstanding energy saving and reliable performance; FIFO compressor running time balance function can extend the compressor working life obviously; Automatic output load adjustment is designed for excellent energy saving purpose. In order to adapt different environment, the operating parameters can be adjusted. The analog measurement is used for temperature and pressure protection that can predict possible fault to insure the unit reliability.

W3000 is a special controller which can monitor the main operating parameters of the system, predict the unit behavior and anticipate the unit setting in order to constantly optimize its performance.

## Network Communication and Building Management Control

The chiller supports BMS connection and can connect to Climaveneta, De'Longhi system or common BMS systems such as METASYS, MODBUS, LONWORKS, BACNET, SIEMENS, TREND and so on.

## Fault Protection, Alarm and Analysis Capabilities

The microcomputer intelligent controller contains perfect functions of fault protection, alarm, recording and analysis. It has protection functions of high/low pressure switch, lack of phase, reverse phase, overload, over current, overheat, exhaust temperature, water flow, frost and so on. The controller also achieves fault recording and alarm display. The unique "Black Box" fault recording and analyzing system can record 400 failures and more than 200 field data before each failure. It can diagnose and remove faults rapidly to improve the technical support effect. By connecting to the Climaveneta remote service program, it can find potential failures before they occur and take proper preventive treatments.

## High Stability

The chiller is designed, manufactured and tested according to AHRI, EN, UNI, JIS and GB/T18430.1 standards.

The electrical panel is manufactured according to IEC60204-1-/GB5226.1 standards. And its microcomputer controller is designed with several protection functions as well as the water flow switch control and external heater on the evaporator surface.

The electrical panel protection complies with the relevant GB4208-2008 standards.

All products are tested strictly to guarantee the unit reliability and to meet the requirements of the customers.

## Remote Group Controller

### Sequencer



- LCD Visual display
- Group control and management
- Centralized control unit ON/OFF
- Pump control
- Protocols as ModBus, LonWork, Bance are optional

### Manager 3000



- Touch-screen
- Group control and management
- Centralized control unit ON/OFF
- Pump control
- Protocols as ModBus, LonWork, Bance are optional

## Plug and Play

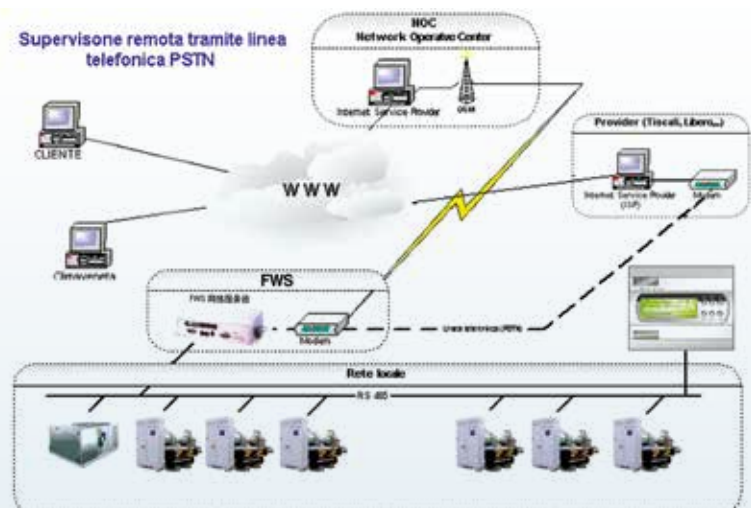
The unit is oil and refrigerant well charged, and fully tested and commissioned in the factory before delivery. After connecting the water pipe and power cable at site, the unit can start running which can provide chilled water and hot water to end user.

## Easy Maintenance

AQS series unit arms to easy maintenance by fully automatic controlled, clearly menu displayed and self-diagnose, routine operation, load adjustment as well as safety protection functions. So the daily operation of the unit is only power ON/OFF.

## FWS Network Server

Microcomputer intelligent controller can be equipped with FMS network server to monitor, set and adjust parameters as well as control the unit operation through LAN or Internet.



Parameter	0152	0182	0202	0252	0302	0352	0412	0452	0512	0552	0612	0704	0804	0904	1004	1104	1204	1355	1506	1656	1806		
Cooling Capacity	kW	41.1	49.2	54.5	62.7	82.1	93.8	104.7	121.3	136.8	156.5	171.3	190.6	215.9	241.2	275.6	316.7	357.2	384.1	405.6	468.7	528.0	
Power Input	kW	13.4	15.3	18.1	21.6	26.3	30.4	34.3	37.7	41.2	48.1	56.1	59.3	66.5	76.0	81.6	94.6	108.6	118.8	128.9	141.4	166.4	
Evap. Water Flow	m <sup>3</sup> /h	7.1	8.5	9.4	10.8	14.1	16.1	18.0	20.9	23.5	26.9	29.5	32.8	37.2	41.5	47.4	54.5	61.5	66.1	69.8	80.7	90.9	
Evap. Water Pressure Drop	kPa	67.4	62.4	54.1	49.6	66.6	67.9	70.6	70.2	75.9	89.9	94.7	82.0	89.9	96.7	96.5	76.4	80.9	48.5	54.1	56.0	71.1	
Cooling Capacity	kW	42.7	51.1	56.6	65.1	85.2	97.3	108.6	125.9	141.9	162.4	177.7	197.8	224.0	250.3	285.9	328.6	370.6	398.5	420.8	486.3	547.8	
Power Input	kW	12.9	14.8	17.4	20.8	25.4	29.3	33.1	36.4	39.8	46.5	54.2	57.2	64.2	73.3	78.7	91.3	104.8	114.7	124.4	136.5	160.6	
Evap. Water Flow	m <sup>3</sup> /h	7.3	8.8	9.7	11.2	14.6	16.7	18.7	21.6	24.4	27.9	30.6	34.0	38.5	43.0	49.2	56.5	63.7	68.5	72.4	83.6	94.2	
AQS-D Evap. Water Pressure Drop	kPa	72.5	67.0	58.1	53.3	71.6	72.9	75.9	75.4	81.5	96.6	96.5	88.2	96.6	97.5	98.5	82.1	87.0	52.1	58.1	60.2	76.3	
Partial Heat Recovery Capacity	kW	11.9	13.7	16.1	19.3	23.5	27.1	31.1	33.6	36.8	43.0	50.1	53.0	59.4	67.8	72.8	84.5	97.0	106.1	115.1	126.3	148.5	
Partial Heat Recovery Water Flow	m <sup>3</sup> /h	2.1	2.4	2.8	3.3	4.1	4.7	5.4	5.8	6.4	7.5	8.7	9.2	10.3	11.8	12.7	14.7	16.8	18.2	19.8	21.9	25.8	
Partial Heat Recovery Water Pressure Drop	kPa	7.6	10.0	13.9	19.8	14.5	19.4	25.4	20.9	25.1	23.0	31.2	26.7	33.6	34.7	39.2	42.2	55.6	17.2	20.8	22.1	26.6	
Cooling Capacity	kW												195.3	220.1	249.3	278.9	318.0	365.7					
Power Input	kW												56.9	64.5	72.1	79.8	93.7	104.6					
Evap. Water Flow	m <sup>3</sup> /h												32.8	37.2	41.5	47.4	54.5	61.5					
AQS-R Evap. Water Pressure Drop	kPa												82.0	89.9	96.7	95.1	76.4	80.9					
Total Heat Recovery Capacity	kW												248.7	280.7	317.1	353.9	406.1	464.0					
Total Heat Recovery Water Flow	m <sup>3</sup> /h												43.2	48.8	55.1	61.5	70.6	80.6					
Total Heat Recovery Water Pressure Drop	kPa												98.1	98.5	98.4	98.4	96.5	96.5					
Microprocessor		W3000																					
Compressor		W3000																					
No. of Compressors		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
No. of Circuit		1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	
Capacity Regulating Step		2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	
Fan		W3000																					
Fan No.		4	4	4	4	6	6	8	8	10	10	10	10	10	10	10	10	10	10	10	10	10	
Air Flow	m <sup>3</sup> /h	5.28	5.07	5.07	4.90	7.63	7.35	7.85	9.88	13.09	12.77	12.77	21.25	20.10	23.30	31.87	30.15	28.50	28.50	28.50	38.00	38.00	
Fan Power	kW	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	
Refrigerant		W3000																					
AQS R410A Charge	kg	4.7	6.8	7.2	7.7	10.9	11.4	14.9	15.5	21.0	21.5	22.3	32.0	41.0	47.0	49.0	63.0	78.0	60.0	65.0	75.0	80.0	
Dimension		W3000																					
Length	mm	1695	1695	1695	1695	2195	2195	2745	2745	3245	3245	3245	3110	3110	3110	4110	4110	4110	4110	3610	3610	4615	4615
Width	mm	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	2220	2220	2220	2220	2220	2220	2220	2220	2220	2220	2220
Height	mm	1420	1420	1420	1420	1420	1420	1420	1420	1620	1620	1620	1620	2150	2150	2150	2150	2150	2430	2430	2430	2430	2430
Operation Weight		W3000																					
AQS	kg	380	410	420	430	630	660	740	800	930	970	980	1780	1890	2070	2220	2420	2570	3030	3180	3530	3600	

Note: (1) Chiller water temp. (in/out) 12/7 C ; Ambient temp. 35 C ; (2) For partial heat recovery unit, hot water temp. (in/out) 40/45 C ;

(3) For total heat recovery unit, hot water temp. (in/out) 40/45 C ; Chilled water temp. (in/out) 12/7 C ;

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Parameter	0152	0182	0202	0252	0302	0352	0412	0452	0512	0552	0612	0704	0804	0904	1004	1104	1204	1355	1506	1656	1806	
AGS-N	39.6	44.9	51.7	62.7	77.8	89.1	101.4	115.2	130.1	150.0	165.6	182.4	207.7	232.1	264.0	304.8	341.9	370.8	392.9	454.2	517.7	
Cooling Capacity	kW																					
Power Input	kW	12.6	14.7	18.2	19.1	26.5	30.5	34.0	37.8	41.5	48.3	60.5	67.4	76.8	83.0	95.8	107.9	113.4	122.7	137.8	161.7	
Heating Capacity	kW	45.3	50.5	58.5	71.0	87.5	100.9	113.9	130.3	147.0	170.6	189.8	203.6	230.3	257.6	293.1	337.0	378.3	410.1	434.2	501.7	
AGS-N	13.2	14.6	17.1	19.9	24.6	28.3	31.9	35.9	39.8	46.3	51.9	56.4	63.7	71.4	79.4	92.4	103.7	112.8	119.2	137.6	155.7	
Power Input	kW																					
Evap. Water Flow	m <sup>3</sup> /h	7.8	8.8	10.2	12.3	15.2	17.5	19.8	22.6	25.5	29.6	35.4	40.0	44.8	50.9	58.6	65.7	71.3	75.4	87.2	99.7	
Evap. Water Pressure Drop	kPa	82.3	66.8	63.5	64.8	77.2	80.1	85.2	89.3	90.0	90.1	95.4	90.1	90.2	90.3	88.1	92.5	56.4	63.2	65.4	85.5	
AGS-N	41.1	46.6	53.6	65.0	80.7	92.4	105.2	119.5	135.0	155.6	171.8	189.3	215.5	240.9	273.9	316.2	354.7	394.7	407.6	471.2	537.1	
Cooling Capacity	kW																					
Power Input	kW	12.1	14.1	17.5	18.4	25.6	29.4	32.8	36.5	40.0	46.7	54.4	58.4	65.0	74.1	80.1	92.4	104.1	109.4	118.4	133.0	
Evap. Water Flow	m <sup>3</sup> /h	7.1	8.0	9.2	11.2	13.9	15.9	18.1	20.6	23.2	26.8	29.6	32.6	37.1	41.4	47.1	54.4	61.0	66.2	70.1	81.0	
Evap. Water Pressure Drop	kPa	67.1	55.9	52.3	53.2	64.3	65.8	71.2	68.0	73.8	88.8	95.1	80.8	89.4	96.3	90.1	76.0	79.6	48.6	54.6	56.5	
AGS-N-D	11.2	13.1	16.2	17.0	23.7	27.2	30.3	33.8	37.0	43.2	50.3	54.0	60.1	68.6	74.1	85.5	96.3	101.2	109.5	123.0	144.3	
Partial Heat Recovery Capacity	kW																					
Partial Heat Recovery Water Flow	m <sup>3</sup> /h	2.0	2.3	2.8	3.0	4.1	4.7	5.3	5.9	6.4	7.5	8.7	9.4	10.5	11.9	12.9	14.9	16.7	17.6	19.0	21.4	
Partial Heat Recovery Water Pressure Drop	kPa	6.7	9.1	14.0	15.5	14.8	19.5	24.2	21.1	25.4	23.2	31.5	27.8	34.4	35.5	41.5	44.1	56.0	16.0	19.3	21.0	
AGS-N	39.1	45.8	54.7	62.4	82.4	105.6	133.7	176.2	189.9	213.5	241.8	270.6	308.5	348.3								
Cooling Capacity	kW																					
Power Input	kW	12.8	14.2	16.6	19.1	24.5	31.9	39.6	51.3	57.1	64.5	72.1	79.8	93.7	104.6							
Evap. Water Flow	m <sup>3</sup> /h	6.6	7.8	9.0	10.5	13.6	17.6	22.4	28.5	31.5	35.8	40.0	45.5	52.5	58.9							
AGS-N-R	45.9	64.2	49.2	66.4	52.5	51.6	54.7	57.7	52.0	52.9	51.8	53.7	57.3	57.1								
AGS-Q	51.1	59.1	70.3	80.3	105.4	135.5	171.0	224.5	243.6	274.1	309.6	345.6	396.6	446.6								
Total Heat Recovery Capacity	kW																					
Total Heat Recovery Water Flow	m <sup>3</sup> /h	8.9	10.3	12.2	14.0	18.3	23.6	29.7	39.0	42.3	47.6	53.8	60.1	68.9	77.6							
Total Heat Recovery Water Pressure Drop	kPa	82.8	90.8	90.2	90.5	94.9	92.1	96.3	90.9	90.0	90.1	90.1	90.5	90.0	90.5							
Microprocessor																						
Compressor																						
No. of Compressors		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
No. of Circuit		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Capacity Regulating Step		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Fan																						
Fan No.		4	4	4	6	6	6	8	8	10	10	10	10	10	10	10	10	10	10	10	10	
Air Flow	m <sup>3</sup> /h	5.15	5.15	5.15	7.73	7.73	7.51	10.39	10.05	13.25	12.98	20.72	19.48	22.92	31.08	29.22	27.64	38.96	38.96	48.70	48.70	
Fan Power	kW	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
Refrigerant																						
AGS-N R410A Charge	kg	8.7	9	9.4	12.9	13.3	18.2	19	19.5	28.5	35.8	36.5	38	51	56	57	72	98	90	95	105	
Dimension																						
Length	mm	1695	1695	1695	2195	2195	2195	2745	2745	3245	3245	3110	3110	3110	4110	4110	4110	4110	4615	4615	5615	
Width	mm	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	2220	2220	2220	2220	2220	2220	2220	
Height	mm	1420	1420	1420	1420	1420	1420	1420	1420	1620	1620	1620	1620	1620	2150	2150	2150	2150	2150	2430	2430	
Operation Weight																						
AGS-N	kg	410	420	430	510	640	700	790	860	970	1030	1040	1900	2080	2270	2410	2570	2730	3420	3580	4060	4140

Note: (1) Chiller water temp. (in/out) 12/7 C ; Ambient temp. 35 C ; (2) Condenser water temp. (in/out) 40/45 C ; Ambient temp. 7 C , RH 87% ; (3) For partial heat recovery unit, hot water temp. (in/out) 40/45 C ; (4) For total heat recovery unit, hot water temp. (in/out) 40/45 C ; Chilled water temp. (in/out) 12/7 C ; Remark: The system structure and unit dimension of -R/-Q unit with double compressors are different from standard unit, please consult CLIMAVENETA Office for detail.

## AQS Electric Data

Power Supply					380V-3Ph-50Hz				
Voltage Tolerance					10%				
Voltage Unbalance					3%				
Maximum Values									
Model	n	Compressor (each)			Fans		Total Unit		
		FLI	FLA	LRA	FLI	FLA	FLI	FLA	SA
		(kW)	(A)	(A)	(kW)	(A)	(kW)	(A)	(A)
0152	2	9.1	15.3	98	1.4	6.2	19.6	36.8	119.5
0182	2	10.7	18.6	142	1.4	6.2	22.8	43.4	166.8
0202	2	11.9	20.1	142	1.4	6.2	25.2	46.4	168.3
0252	2	13.7	23.1	147	2.1	9.3	29.5	55.5	179.4
0302	2	17.4	29.3	197	2.1	9.3	36.9	67.9	235.6
0352	2	17.3/23.8	30.5/39.7	180/215	2.1	9.3	43.2	79.5	254.8
0412	2	23.8	39.7	215	2.8	12.4	50.4	91.8	267.1
0452	2	23.8/30	39.7/51.2	215/260	2.8	12.4	56.6	103.3	312.1
0512	2	30	51.2	260	3.5	15.5	63.5	117.9	326.7
0552	2	30/35.4	51.2/57.9	260/320	3.5	15.5	68.9	124.6	386.7
0612	2	35.4	57.9	320	3.5	15.5	74.3	131.3	393.1
0704	4	17.3/23.8	30.5/39.7	180/215	8.4	16.4	90.6	156.8	315.7
0804	4	23.8	39.7	215	8.4	16.4	103.6	175.2	350.5
0904	4	23.8/30	39.7/51.2	215/260	8.4	16.4	116	198.2	390.6
1004	4	30	51.2	260	12.6	24.6	132.6	229.4	438.2
1104	4	30/35.4	51.2/57.9	260/320	12.6	24.6	143.4	242.8	480.3
1204	4	35.4	57.9	320	12.6	24.6	154.2	256.2	518.3
1355	5	30/35.4	51.2/57.9	260/320	12.6	24.6	173.4	294	556.1
1506	6	30	51.2	260	12.6	24.6	192.6	331.8	540.6
1656	6	30/35.4	51.2/57.9	260/320	16.8	32.8	213	360.1	622.2
1806	6	35.4	57.9	320	16.8	32.8	229.2	380.2	642.3

Remark: All the electric data is the theoretical maximal values, only for the reference of power distribution. For detail electric system design, please refer to electric standard.

F.L.I. Full load power input at Max admissible condition

F.L.A. Full load current Ampere at Max admissible condition

L.R.A. Locked rotor current for each compressor

The electric data of AQS-D and AQS-R is same with AQS.

S.A. Max starting current

Power Supply 380/3/50 ±10%

Voltage Unbalance ≤3%

# Air-cooled Chiller & Heat Pump With Scroll Compressors

## AQS-N Electric Data

Power Supply					380V-3Ph-50Hz				
Voltage Tolerance					10%				
Voltage Unbalance					3%				
Maximum Values									
Model	n	Compressor (each)			Fans		Total Unit		
		FLI	FLA	LRA	FLI	FLA	FLI	FLA	SA
		(kW)	(A)	(A)	(kW)	(A)	(kW)	(A)	(A)
0152	2	9.1	15.3	98	1.4	6.2	19.6	36.8	119.5
0182	2	10.7	18.6	142	1.4	6.2	22.8	43.4	166.8
0202	2	11.9	20.1	142	1.4	6.2	25.2	46.4	168.3
0252	2	13.7	23.1	147	2.1	9.3	29.5	55.5	179.4
0302	2	17.3	30.5	180	2.1	9.3	36.7	70.3	219.8
0352	2	17.3/23.8	30.5/39.7	180/215	2.1	9.3	43.2	79.5	254.8
0412	2	23.8	39.7	215	2.8	12.4	50.4	91.8	267.1
0452	2	23.8/30	39.7/51.2	215/260	2.8	12.4	56.6	103.3	312.1
0512	2	30	51.2	260	3.5	15.5	63.5	117.9	326.7
0552	2	30/35.4	51.2/57.9	260/320	3.5	15.5	69.4	124.6	386.7
0612	2	35.4	57.9	320	3.5	15.5	74.3	131.3	393.4
0704	4	17.3/23.8	30.5/39.7	180/215	8.4	16.4	90.6	156.8	315.7
0804	4	23.8	39.7	215	8.4	16.4	103.6	175.2	350.5
0904	4	23.8/30	39.7/51.2	215/260	8.4	16.4	116	198.2	390
1004	4	30	51.2	260	12.6	24.6	132.6	229.4	438.2
1104	4	30/35.4	51.2/57.9	260/320	12.6	24.6	143.4	242.8	480.3
1204	4	35.4	57.9	320	12.6	24.6	154.2	256.2	518.3
1355	5	30/35.4	51.2/57.9	260/320	16.8	32.8	177.6	302.2	564.3
1506	6	30	51.2	260	16.8	32.8	196.8	340	548.8
1656	6	30/35.4	51.2/57.9	260/320	21	41	217.2	368.3	630.4
1806	6	35.4	57.9	320	21	41	233.4	388.4	650.5

Remark: All the electric data is the theoretical maximal values, only for the reference of power distribution. For detail electric system design, please refer to electric standard.

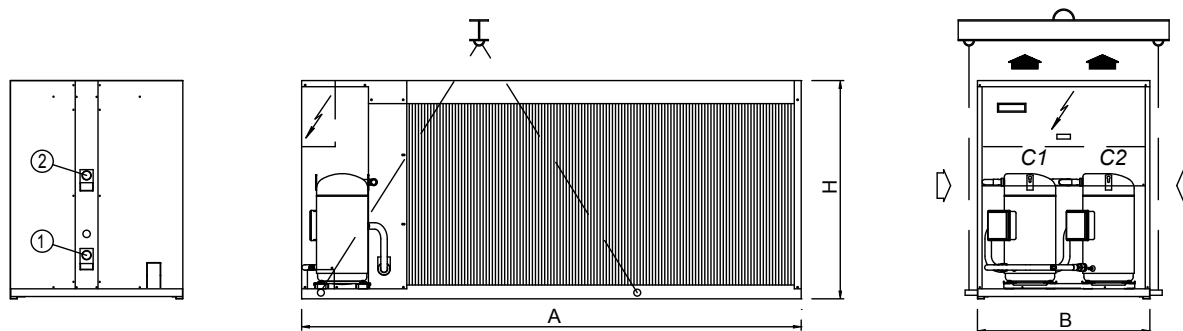
F.L.I. Full load power input at Max admissible condition      S.A. Max starting current  
 F.L.A. Full load current Ampere at Max admissible condition      Power Supply 380/3/50 ±10%  
 L.R.A. Locked rotor current for each compressor      Voltage Unbalance ≤3%

The electric data of AQS-N-D, AQS-N-R and AQS-Q is same with AQS-N.



## Dimension Drawing

AQS/AQS-N 0152-0612



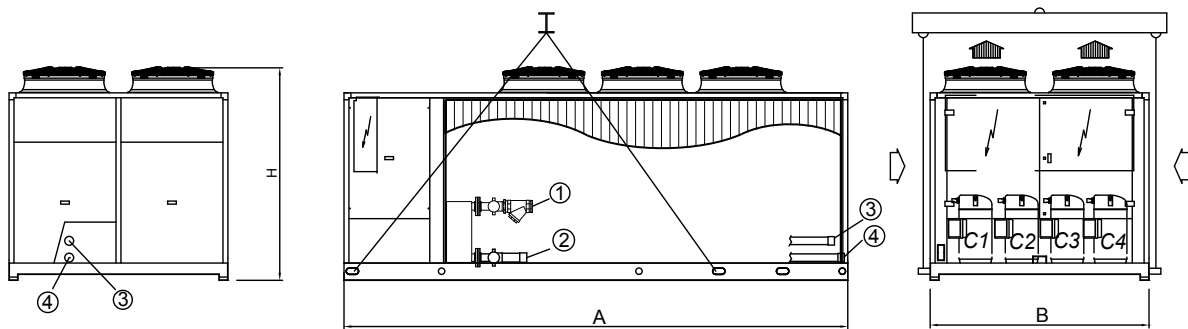
Model		0152	0182	0202	0252	0302	0352	0412	0452	0512	0552	0612
AQS-B	A(mm)	1695	1695	1695	1695	2195	2195	2745	2745	3245	3245	3245
	B(mm)	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
	H(mm)	1420	1420	1420	1420	1420	1420	1420	1420	1620	1620	1620
AQS-N-B	A(mm)	1695	1695	1695	2195	2195	2195	2745	2745	3245	3245	3245
	B(mm)	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
	H(mm)	1420	1420	1420	1420	1420	1420	1420	1420	1620	1620	1620
AQS-N-R-B AQS-Q-B	A(mm)	2040	2040	2040	2540	2540		3088		3588		3588
	B(mm)	1305	1305	1305	1305	1305		1305		1305		1305
	H(mm)	1650	1650	1650	1650	1650		1650		1650		1650
Operation Weight(kg)		585	615	635	700	770		1110		1270		1390
1-2GAS		2"	2"	2"	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"

Remark: This drawing is only for reference, please consult CLIMAVENETA Office for detail drawing.

# Air-cooled Chiller & Heat Pump With Scroll Compressors

## Dimension Drawing

AQS/AQS-N 0704-1204

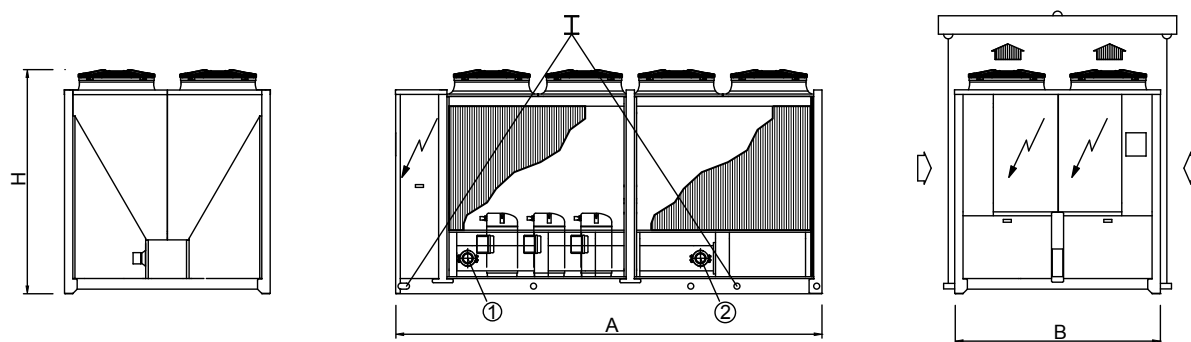


Model		0704	0804	0904	1004	1104	1204
AQS-B/ AQS-N-B	A(mm)	3110	3110	4110	4110	4110	4110
	B(mm)	2220	2220	2220	2220	2220	2220
	H(mm)	2150	2150	2150	2150	2150	2150
AQS-N-R-B AQS-Q-B	A(mm)	3110	3110	4110	4110	4110	4110
	B(mm)	2220	2220	2220	2220	2220	2220
	H(mm)	2150	2150	2150	2150	2150	2150
Operation Weight(kg)		1900	2120	2320	2480	2680	2860

Remark: This drawing is only for reference, please consult CLIMAVENETA Office for detail drawing.

## Dimension Drawing

AQS/AQS-N 1355-1806



Model		1355	1506	1656	1806
AQS-B	A(mm)	3610	3610	4615	4615
	B(mm)	2220	2220	2220	2220
	H(mm)	2430	2430	2430	2430
AQS-N-B	A(mm)	4615	4615	5615	5615
	B(mm)	2220	2220	2220	2220
	H(mm)	2430	2430	2430	2430
1-2GAS		6"	6"	6"	6"

Remark: This drawing is only for reference, please consult CLIMAVENETA Office for detail drawing.



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