

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 totaly 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	mm ²	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	m ³ /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	mm ²	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	mm ²	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	m ³ /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	mm ²	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	m ³ /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.