ATLANTIA

air-to-water CHILLERS



194-678 kW

Multi-Scroll

DHW

Made in Spain

ErP 2021 | R410A | R452B | R454B

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Adaptation and Versatility

- Versions with hydraulic unit and built-in buffer tank to reduce compressor short cycling
- Available with plate heat exchangers (KWA) or shell and tube heat exchangers (KWM)
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance thanks to removable panels
- Water free-cooling system for free-cooling

Energy efficiency

- High energy efficiency in partial and full load, reducing operating costs
- Complies with ErP 2021
- Tandem multiscroll to improve seasonal energy efficiency
- Electronic fans and electronic expansion valve for minimal energy consumption
- Equipment with a hydraulic unit can include high-performance electronic pumps
- Hot gas partial and full heat recovery system for DHW

Codification:

KWA Stainless steel plate heat exchanger version

KWM Shell and tube heat exchanger version

KWA / KWM | | | **NS3W**

Series | Size | Power

R - Cooling only

Series version
N - Standard compressor (scroll)

S -Standard equipment / **P** - Hydraulic unit / **H** - Hydraulic unit with buffer tank

Power supply
3 - 400V/III/50Hz without neutral

Refrigerant
W - R410A / **B** - R452B / **C**- R454B

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KWA model			2225	2240	2270	2300	2340	2380	3420	3490	3570	4600	4680	4760
KWM model			2225	2240	2270	2300	2340	2380	3420	3490	3570	4600	4680	4760
COOLING ONLY VERSION (R)														
Cooling capacity	Cooling power (1)	kW	193,8	222,5	246,9	271,2	305,1	338,9	382,5	440,7	508,4	542,5	610,1	677,8
		TR	55,5	63,5	70,5	77,5	87,0	96,5	109,0	125,5	145,0	154,5	173,5	193,0
		kBTU/h	666	762	846	930	1044	1158	1308	1506	1740	1854	2082	2316
	Absorbed power (2)	kW	61,7	71,6	82,9	94,2	102,4	114,8	130,0	149,5	174,0	188,4	206,5	229,6
	EER (3)	W/W	3,1	3,1	3,0	2,9	3,0	3,0	2,9	2,9	2,9	2,9	3,0	3,0
		BTU/h/W	10,8	10,6	10,2	9,9	10,2	10,1	10,1	10,1	10,0	9,8	10,1	10,1
	SEER (4)	kWh/kWh	4,9	4,8	4,7	4,6	4,6	4,6	4,7	4,7	4,6	4,6	4,6	4,6
	ηs,c (5)	%	191%	190%	187%	181%	180%	179%	186%	184%	180%	182%	179%	179%
	SEPR (-7°C) (6)	kWh/kWh	5,9	5,8	5,6	5,4	5,6	5,8	5,5	5,5	5,8	5,5	5,6	5,8
	SEPR (+8°C) (6)	kWh/kWh	3,5	3,4	3,3	3,2	3,4	3,5	3,3	3,3	3,5	3,2	3,4	3,5
	IPLV (7)	kW/TR	0,51	0,52	0,53	0,55	0,52	0,50	0,53	0,53	0,50	0,54	0,52	0,50
		kBtu/kWh	22,79	22,51	22,17	21,47	22,30	23,19	22,09	22,21	23,19	21,64	22,47	23,19
TECHNICAL FEATURES														
Power supply			400V / III / 50HZ without neutral											
Cooling circuit	Refrigerant fluid / GWP	kg CO_2	R410A / 2088											
	No. circuits / compressors		2/4	2/4	2/4	2/4	2/4	2/4	3/6	3/6	3/6	4/8	4/8	4/8
	No. power stages		4	4	4	4	4	4	6	6	6	8	8	8
Hydraulic circuit	Water flow	m³/h	33,4	38,3	42,5	46,7	52,5	58,4	65,9	75,9	87,6	93,4	105,1	116,8
	Type of heat exchanger (KWA)		stainless steel plate heat exchanger											
	Type of heat exchanger (KWM)		shell and tube heat exchanger											
	Ø hydraulic connections		DN 80	DN 80	DN 80	DN 80	DN 100	DN 100	DN 100	DN 100	DN 125	DN 125	DN 125	DN 150
	Buffer tank capacity (H)	litres	725	725	725	725	725	725	725	725	725	725	725	725
Outdoor fan	Outdoor airflow	m³/h	81000	81000	81000	81000	81000	81000	121500	121500	121500	162000	162000	162000
	No. fans		4	4	4	4	4	4	6	6	6	8	8	8
	Ø and type of fan	mm	800-6 AC											
	Fan speed	rpm	900/700											
Equipment sound pressure (Lp10) (9)		dB(A)	62,5	62,5	61,3	61,7	62,5	62,8	63,5	64,4	65,3	65,3	66,8	67,2
Weights	Empty weight (S version)	kg	2400	2450	2485	2510	2605	2640	3490	3620	3770	4425	4670	4840
	In-service weight (S version)	kg	2431	2482	2529	2558	2656	2691	3559	3704	3862	4529	4774	4954

(1) Nominal cooling power for a water inlet/outlet temp. of 12/7°C and outdoor air temp. of 35°C. Capacities calculated with a fouling factor in the plate heat exchanger of 0.43·10E-4 ($m^2 \cdot K / W$).
(2) Nominal power input by compressors and outdoor fans
(3) EER and COP calculated based on standard EN: 14511-2018
(4) Seasonal Efficiency calculated based on standard EN 14825:2018. For heating, the seasonal coefficient of performance (SCOP) and seasonal energy efficiency for heating (ηs, h) are calculated for low temperature and average climate applications
(5) ηs, c values in accordance with Ecodesign Regulation EU 2016/2281 for comfort applications. ηs, h values in accordance with the ecodesign, by virtue of Regulation EU 813/2013 for heat pump applications
(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281
(7) Seasonal Energy Efficiency Ratio in line with AHRI Standards 550/590
(8) Nominal heating capacity for a water inlet/outlet temp. of 40/45°C and outdoor air temp. of 7°C DB/6°C WB. Capacities calculated with a fouling factor in the plate heat exchanger of 0.43·10E-4 (m^2K/W)
(9) Sound pressure level in dB(A) measured in a free field at 10 m from the source and with directivity 1

Electronic control:

Keyter ATLANTIA series production equipment includes the AQUAMANAGER programmable electronic control, specifically developed for the management of air-to-water and water-to-water equipment with the pGD1 user and maintenance terminal.

AQUAMANAGER



pGD1 terminal



The unit's number of Vs depends on the series; the ones shown in this image are from series 3

Dimensions of version (S) and the version with hydraulic unit (P) (mm)			
	Series 2	Series 3	Series 4
L	2980	4305	5630
W	2100	2100	2100
H	2280	2280	2280
Dimensions of version with hydraulic unit and buffer tank (H) (mm)			
	Series 2	Series 3	Series 4
L	4305	5630	6955
W	2100	2100	2100
H	2280	2280	2280

- Some optional features require the unit's dimensions to be changed. Please contact us to find out the dimensions of each series with the different optional features that are available.

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ATLANTIA KWA



ATLANTIA KWM



Hydraulic versions:

KWA/KWM - Standard version (S)

Equipment with no hydraulic unit.

WA units with a plate heat exchanger and KWM units with a shell and tube heat exchanger and condensing pressure regulation via a variable frequency drive.

The KWA/KWM units have triple protection for the heat exchanger, as the series production version includes a flow switch, antifreeze protection for water and antifreeze protection for freon.

KWA/KWM - Version with hydraulic unit (P)

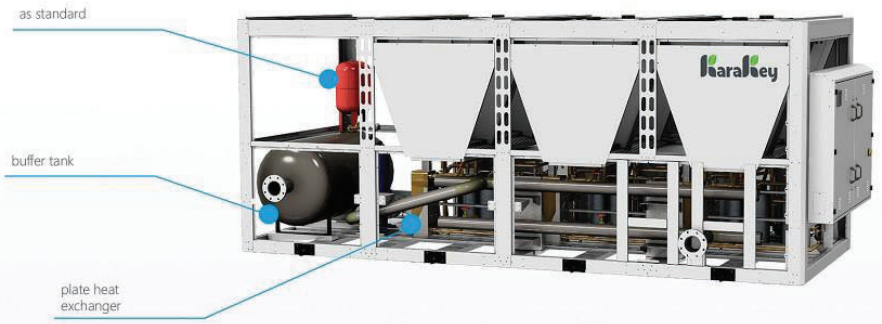
Integrated hydraulic unit composed of a circulation pump suitable for water or glycol water to 0°C, bleed and stop valves, pressure gauges and a flow switch.

For temperatures lower than 0°C, the low temperature kit is required, which includes electrical heaters in the hydraulic elements, insulation on the heat exchanger, water piping and expansion vessel and a replacement pump for small models. This kit allows it to work with water down to -10°C.

KWA/KWM - Version with hydraulic unit and buffer tank (H)

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KWA/KWM - version with hydraulic unit and buffer tank (H)



Hydraulic unit built into the equipment, composed of a circulation pump suitable for water or glycol water to 0°C, a 725-litre buffer tank with an antifreeze electrical heater to redu
ce compressor short cycling, a 50-litre expansion vessel, bleed and stop valves, pressure gauges and a flow switch. Optionally, a module that is separate to the unit can be supplied with a buffer tank with a capacity of 200, 375 or 725 litres and electrical heaters (see module on page 74)

Optional Super Low Noise



KWA/KWM units with Super Low Noise option, includes the following noise reduction options:
- Insulated compressors with acoustic jacket
- Compressors mounted in a fully closed, phonically insulated compartment
- Electronic axial fans, that adapt rotating speed based on the demand of the equipment and therefore reduce the noise level
- AxiTop in axial fans: Acoustic reduction elements and airflow diffusers in the outdoor fans, which, along with the electronic fan, provide an outdoor fan solution that is very advantageous in terms of efficiency and noise level