

# ATLANTIA

## CHILLERS AND HEAT PUMPS air-to-water

- 101 - 678 kW  
164 - 755 kW
- Multi-Scroll
- ACS 4T
- R410A R452B



### Adaptation and Versatility

- Versions with hydraulic unit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Available with plate heat exchangers (KWA) or with Multi-tube heat exchangers (KWM)
- Series production condensation pressure control for year-round operation
- Adaptability to the facility offering a wide range of models.
- Maximum accessibility and easy maintenance via removable panels
- Water free-cooling system for free-cooling

### Low noise level

- Available: triple acoustic insulation in series production with compressors insulated via an acoustic jacket and mounted in a closed structure with phonic insulation
- Low revolution axial condensate pans and oversized outdoor coils
- Optionally available: EC axial fans with AxiTop diffusers resulting in improved efficiency and a low noise level

### Easy control

- Electronic regulation and CAREL supervision for simple use and high performance
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

### Energy efficiency

- High energy efficiency in partial and full load, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- Tandem multiscroll to improve the seasonal energy efficiency
- Electronic fans and electronic expansion valve for minimum power consumption
- Equipment with a hydraulic unit can include high-performance electronic pumps
- NEW hot gas partial and full heat recovery system for sanitary hot water
- Available: MULTIPURPOSE equipment for simultaneous delivery of cold and heat

### Environment

- Optimised design for reduced load of refrigerant R-410A (ODP 0, GWP 2088)
- NEW availability of equipment with R-452B refrigerant (ODP 0, GWP 676)

### Applications

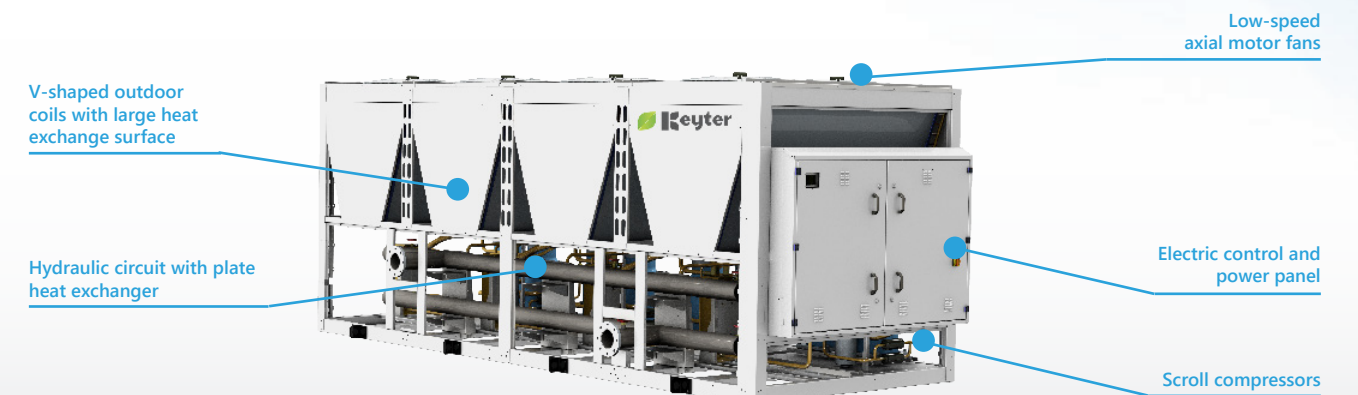


and other applications, please consult us

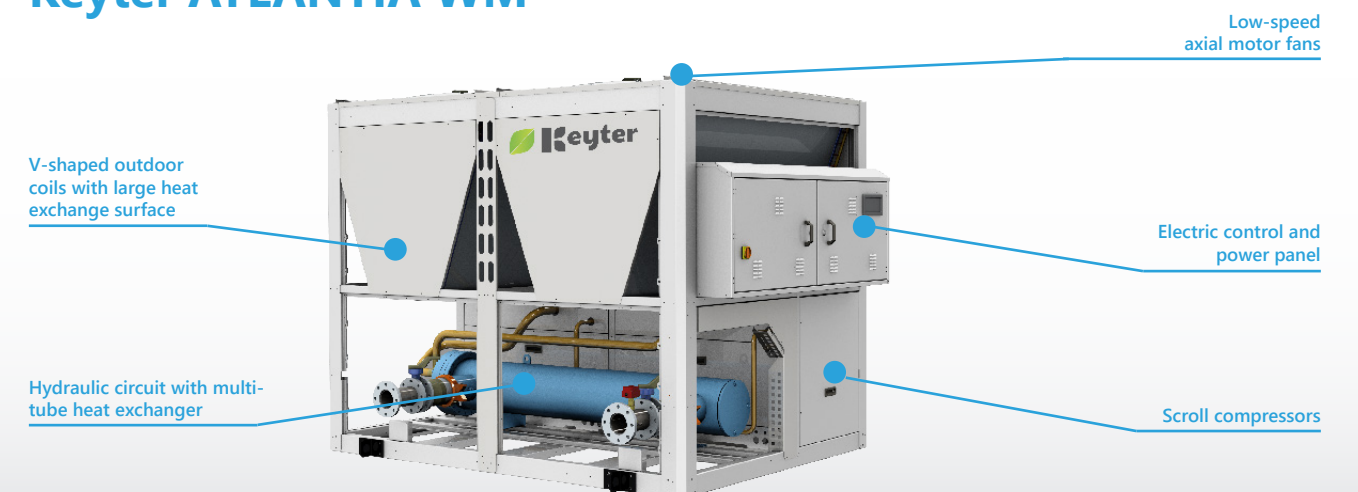
# ATLANTIA versions



## Keyter ATLANTIA WA



## Keyter ATLANTIA WM



### Hydraulic versions

#### Keyter WA/WM - Standard version (S)

Equipment with no hydraulic unit.

WA equipment with plate heat exchanger and WM equipment with a multi-tube heat exchanger and condensation pressure regulation via a variable speed drive.

The WA/WM 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.

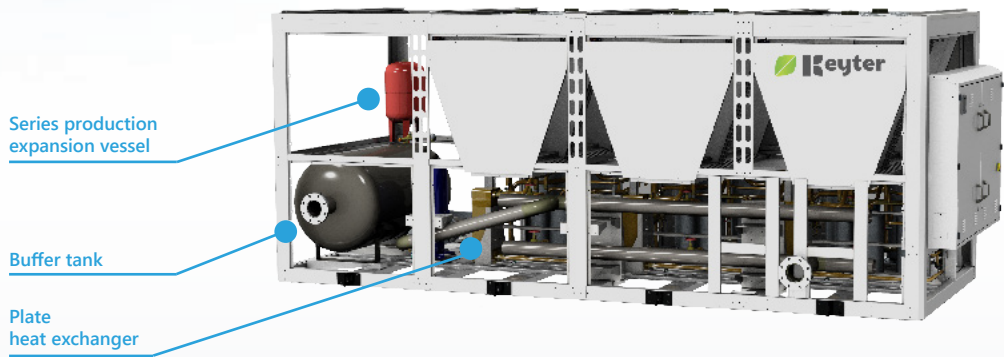
#### Keyter WA/WM - Version with hydraulic unit (P)

Hydraulic unit composed of a circulating pump suitable for water or glycol water up 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 requires a replacement of the pump and adds electrical resistors to the hydraulic elements for work with water at temperatures as low as -10°C.

#### Keyter WA/WM - version with hydraulic unit and buffer tank (H)

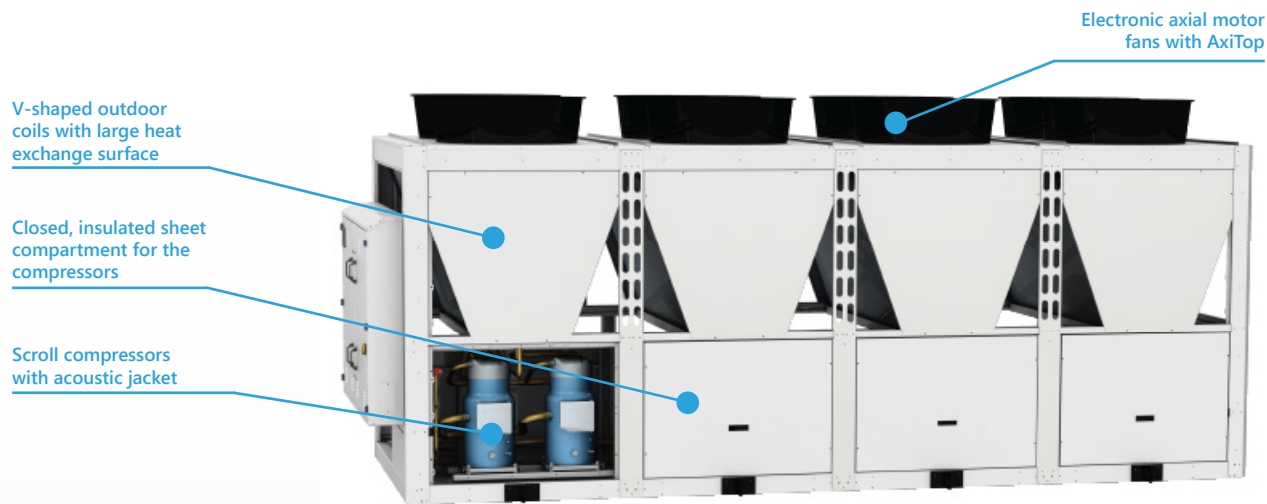
Version H - hydraulic unit and buffer tank



Hydraulic unit built into the equipment composed of a circulating pump suitable for water or glycol water to 0°C, buffer tank with antifreeze electrical resistor to reduce the frequency of compressor starts and stops, 50-litre expansion vessel, bleed and stop valves, pressure gauges and flow switch.






Optionally, a module that is independent to the unit may be delivered, with a 725 litre capacity buffer tank and electrical resistors (see module on page 105).

Super Low Noise option



WA/WM equipment 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
- Oversized outdoor coils in some models, which reduce the sound level even further, thanks to the reduction in the airflow required for the heat exchange in the coil.

		KWA	KWM
 Hydraulic	Pumps	Normal available pressure single pump (7-12 mH2O)	•
		High available pressure single pump (15-20 mH2O)	•
		Very high available pressure single pump (25-30 mH2O)	•
		Pump with variable speed drive	•
		Back-up pump (standard, high and very high pressure)	•
	Heat exchanger	Stainless steel plate heat exchanger	✓
		Multi-tube heat exchanger	–
	Hydraulic elements	Low temperature kit in the hydraulic unit	•
		Hydraulic intake and outlet flexible connections	•
 Energy		Water filter	•
		Electronic expansion valve	•
		Partial/full condensation heat recovery	•
		Free-cooling	•
 Anti-corrosion	Coils	BLUECOAST: Copper tubes/Aluminium fins pre-lacquered with polyurethane (hydrophilic)	•
		ALUCOAST: Copper tubes/Aluminium fins, high strength (hydrophilic)	•
		GREYCOAST: Copper tubes/Aluminium fins pre-lacquered with polymer (hydrophobic)	•
		BLYGOLD: Copper tubes/Aluminium fins with Blygold coating	•
		COPPERFIN: Copper tubes/Copper fins	•
			•
 Fans		Axial AC fans	✓
		Axial AC fans with variable speed drive	•
		Condensation pressure control	✓
		Axial EC fans	•
		AxiTop diffusers	•
 Installation		Anti-vibration mounts	•
		Outdoor condensate pan	✓
		Electric panel ventilation	✓
		Voltage of 220 V/III ph/60 Hz; 380 V/III ph/60 Hz; 400 V/III ph/60 Hz; 460 V / III ph / 60 Hz	•
		Acoustic insulation jacket of the compressors	•
		Manufacturer's high-performance acoustic insulation jacket for compressors	•
		Compressors in open sheet compartment	•
		Compressors in fully closed and insulated sheet compartment	•
		Insulation of all piping cold lines	•
		Electrical antifreeze resistors for low temperatures	•
		Coil protection grille	•
		Protection grille for access to the equipment perimeter	•
 Control		AQUAMANAGER platform	✓
		pGD controller	✓
		RS485 card for ModBus communication	•
		Master-slave management	•
		Plant Visor/Watch PRO supervision	•
		tERA supervision	•
		Bacnet/Lonworks communication	•
		Energy meter	•
			•
			•

Codification:

KWA

Series

Size

Power

NS3W

N - Scroll compressor

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

3 - 400 V/III/50 Hz without neutral

W - R-410A

✓ Included as standard

• Option

– Not applicable



# ATLANTIA

## Technical data



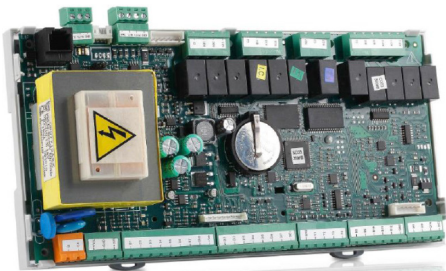
101 - 339 kW

KWA/KWM models			1100	1120	1150	1190	2210	2225	2240	2270	2300	2340	2380
Cooling only version (R)													
Cooling	Cooling power (1)	kW	101.2	111.2	135.6	169.5	165.0	193.8	222.5	246.9	271.2	305.1	338.9
		TR	29	32	39	48.5	47	55.5	63.5	70.5	77.5	87	96.5
		kBTU/hr	345.3	379.4	462.7	578.4	563.1	661.1	759.1	842.3	925.5	1040.9	1156.4
	Total absorbed power (2)	kW	31.9	35.8	47.1	55.3	51.8	61.7	71.6	82.9	94.2	102.4	110.6
		W/W	3.1	3.1	2.9	3.1	3.2	3.1	3.1	3.0	2.9	3.0	3.1
	EER (3)	BTU/(hrxW)	10.8	10.6	9.8	10.5	10.9	10.7	10.6	10.2	9.8	10.2	10.5
	ESEER (3)		4.8	4.8	4.8	4.6	4.8	4.8	4.8	4.6	4.5	4.6	4.8
	SEER (4)		4.9	4.9	4.9	4.7	4.9	4.9	4.9	4.7	4.6	4.8	4.9
	ηs,c (5)		192%	192%	193%	186%	192%	192%	193%	186%	181%	188%	195%
	SEPR (-7°C) (6)		6.2	6.0	5.9	5.7	6.2	6.0	5.9	5.7	5.5	5.7	5.9
	SEPR (+8°C) (6)		3.6	3.6	3.5	3.4	3.6	3.6	3.5	3.4	3.3	3.5	3.6
Heat pump version (I)													
Cooling mode	Cooling power (1)	kW	-	-	-	-	163.9	192.3	220.8	245.0	269.2	302.8	336.4
	Total absorbed power (2)	kW	-	-	-	-	52.7	62.8	73.0	84.5	96.0	104.3	112.7
	EER (3)	W/W	-	-	-	-	3.1	3.1	3.0	2.9	2.8	2.9	3.0
	ESEER (3)		-	-	-	-	4.7	4.7	4.7	4.5	4.4	4.5	4.7
	SEER (4)		-	-	-	-	5.0	4.9	4.7	4.5	4.3	4.4	4.5
	ηs,c (5)		-	-	-	-	198%	191%	186%	176%	168%	173%	177%
Heating mode	Heating power (7)	kW	-	-	-	-	191.1	226.6	262.0	283.6	305.3	342.7	377.6
	Total absorbed power (2)	kW	-	-	-	-	46.5	55.2	63.9	73.9	83.9	92.7	98.1
	COP (3)	W/W	-	-	-	-	4.1	4.1	4.1	3.8	3.6	3.7	3.8
	SCOP (4)		-	-	-	-	4.2	4.2	4.2	4.0	3.7	3.8	4.0
	ηs,h (5)		-	-	-	-	159%	160%	161%	150%	142%	145%	152%
Technical characteristics													
Electrical supply			400 V/III/50 HZ without neutral										
Cooling circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	R410A/2088										
	Type of compressor		Hermetic scroll										
	No. circuits/compressors		1/2	1/2	1/2	1/2	2/4	2/4	2/4	2/4	2/4	2/4	2/4
	No. power stages		2	2	2	2	4	4	4	4	4	4	4
Hydraulic circuit	Water flow	m <sup>3</sup> /h	16.7	19.2	23.4	29.2	28.4	33.4	38.3	42.5	46.7	52.6	58.4
	KWA series type heat exchanger		Stainless steel welded plate heat exchanger										
	KWM series type heat exchanger		-	-	-	-	Multi-tube heat exchanger						
	Hydraulic connections		VICTAULIC 3"			VICTAULIC 4"		DN80	DN80	DN80	DN80	DN100	DN100
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	40000	40000	40000	40000	81000	81000	81000	81000	81000	81000	81000
	No. x Type of fan		2 x 800 AC				4 x 800						
Sound pressure (Lp10) (8)		dB(A)	57	57	57	58	58	59	59	58	58	59	60
Weight		kg	1260	1280	1320	1380	2325	2400	2450	2485	2510	2605	2640

- (1) Nominal cooling power for a water intake/outlet temp. of 12/7°C and outdoor air temp. of 35°C.  
(2) Nominal power absorbed by compressors and outdoor fans.  
(3) EER, COP and ESEER calculated based on standard EN 14511-2013.  
(4) Seasonal Energy Efficiency Ratio (SEER) for cooling factor and seasonal coefficient of performance for heating (SCOP), calculated based on standard EN 14825:2013.  
(5) Seasonal Energy Efficiency Ratio for cooling (ηs,c) and heating (ηs,h) of spaces, in line with Ecodesign Regulation EU 2016/2281.  
(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281.  
(7) Nominal heating power for a water intake/outlet temp. of 40/45°C and outdoor air temp. of 7°C DB/6°C WB.  
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

### 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

# ATLANTIA

## Technical data



331 - 678 kW

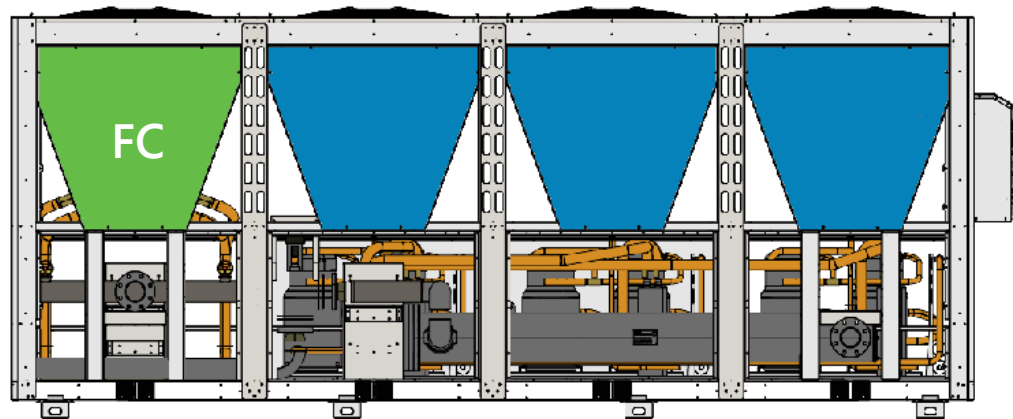
KWA/KWM models			3360	3390	3420	3450	3490	3530	3570	4480	4540	4600	4640	4680	4720	4760
Cooling only version (R)																
Cooling	Cooling power (1)	kW	333.7	358.1	382.5	406.8	440.7	474.5	508.3	444.9	493.7	542.5	576.3	610.1	644.0	677.8
		TR	95	102	109	116	125.5	135	144.5	126.5	140.5	154.5	164	173.5	183.5	193
		kBTU/hr	1138.7	1221.8	1305.0	1388.2	1503.7	1619.1	1734.6	1518.2	1684.6	1850.9	1966.4	2081.8	2197.3	2312.7
	Total absorbed power (2)	kW	107.5	118.7	130.0	141.3	149.5	157.7	165.8	143.3	165.8	188.4	196.6	204.7	212.9	221.1
		W/W	3.1	3.0	2.9	2.9	2.9	3.0	3.1	3.1	3.0	2.9	2.9	3.0	3.0	3.1
	EER (3)	BTU/(hrxW)	10.6	10.3	10.0	9.8	10.1	10.3	10.5	10.6	10.2	9.8	10.0	10.2	10.3	10.5
	ESEER (3)		4.8	4.7	4.6	4.5	4.6	4.7	4.8	4.8	4.6	4.5	4.6	4.6	4.7	4.8
	SEER (4)		4.9	4.8	4.7	4.6	4.7	4.8	4.9	4.9	4.7	4.6	4.7	4.8	4.9	4.9
	ηs,c (5)		193%	188%	184%	181%	186%	190%	195%	193%	186%	181%	185%	188%	191%	195%
	SEPR (-7°C) (6)		5.9	5.8	5.6	5.5	5.6	5.8	5.9	5.9	5.7	5.5	5.6	5.7	5.8	5.9
	SEPR (+8°C) (6)		3.5	3.4	3.4	3.3	3.4	3.5	3.6	3.5	3.4	3.3	3.4	3.5	3.5	3.6
Heat pump version (I)																
Cooling mode	Cooling power (1)	kW	331.2	355.4	379.6	403.9	437.4	471.0	504.6	441.6	490.0	538.5	572.1	605.6	639.2	672.8
	Total absorbed power (2)	kW	109.5	121.0	132.4	143.9	152.3	160.7	169.0	145.9	168.9	191.9	200.3	208.7	217.0	225.4
	EER (3)	W/W	3.0	2.9	2.9	2.8	2.9	2.9	3.0	3.0	2.9	2.8	2.9	2.9	2.9	3.0
	ESEER (3)		4.7	4.6	4.5	4.4	4.5	4.6	4.7	4.7	4.5	4.4	4.5	4.5	4.6	4.7
	SEER (4)		4.7	4.6	4.4	4.3	4.4	4.4	4.5	4.7	4.5	4.3	4.3	4.4	4.5	4.5
	ηs,c (5)		186%	179%	173%	168%	172%	175%	177%	186%	176%	168%	171%	173%	175%	177%
Heating mode	Heating power (7)	kW	392.9	414.6	436.3	458.0	494.1	530.3	566.4	523.9	567.3	610.7	646.8	682.9	719.1	755.2
	Total absorbed power (2)	kW	95.8	105.8	115.8	125.9	133.0	140.1	147.2	127.7	147.8	167.8	174.9	182.0	189.1	196.2
	COP (3)	W/W	4.1	3.9	3.8	3.6	3.7	3.8	3.8	4.1	3.8	3.6	3.7	3.8	3.8	3.8
	SCOP (4)		4.2	4.0	3.9	3.7	3.8	3.9	4.0	4.2	4.0	3.7	3.8	3.9	3.9	4.0
	ηs,h (5)		161%	153%	147%	142%	146%	149%	152%	161%	150%	142%	145%	147%	150%	152%
Technical characteristics																
Electrical supply			400 V/III/50 HZ without neutral													
Cooling circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	R410A/2088													
	Type of compressor		Hermetic scroll													
	No. circuits/compressors		3/6	3/6	3/6	3/6	3/6	3/6	3/6	3/6	4/8	4/8	4/8	4/8	4/8	4/8
	No. power stages		6	6	6	6	6	6	6	6	8	8	8	8	8	8
Hydraulic circuit	Water flow	m <sup>3</sup> /h	57.5	61.7	65.9	70.1	75.9	81.8	87.6	76.7	85.1	93.5	99.3	105.1	111.0	116.8
	KWA series type heat exchanger		Stainless steel welded plate heat exchanger													
	KWM series type heat exchanger		Multi-tube heat exchanger													
	Hydraulic connections		DN100	DN100	DN100	DN100	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	121500	121500	121500	121500	121500	121500	121500	162000	162000	162000	162000	162000	162000	162000
	No. x Type of fan		6 x Axial 800 AC							8 x Axial 800 AC						
Sound pressure (Lp10) (8)		dB(A)	60	60	60	61	61	62	62	62	63	62	63	63	64	64
Weight		kg	3410	3430	3490	3500	3610	3690	3770	4335	4395	4425	4495	4670	4750	4840

### Free-cooling option

High efficiency option via an additional free-cooling module built into the equipment.

This module makes it possible to benefit from the outdoor air energy when outdoor conditions are favourable, to exchange energy with the facility's water.

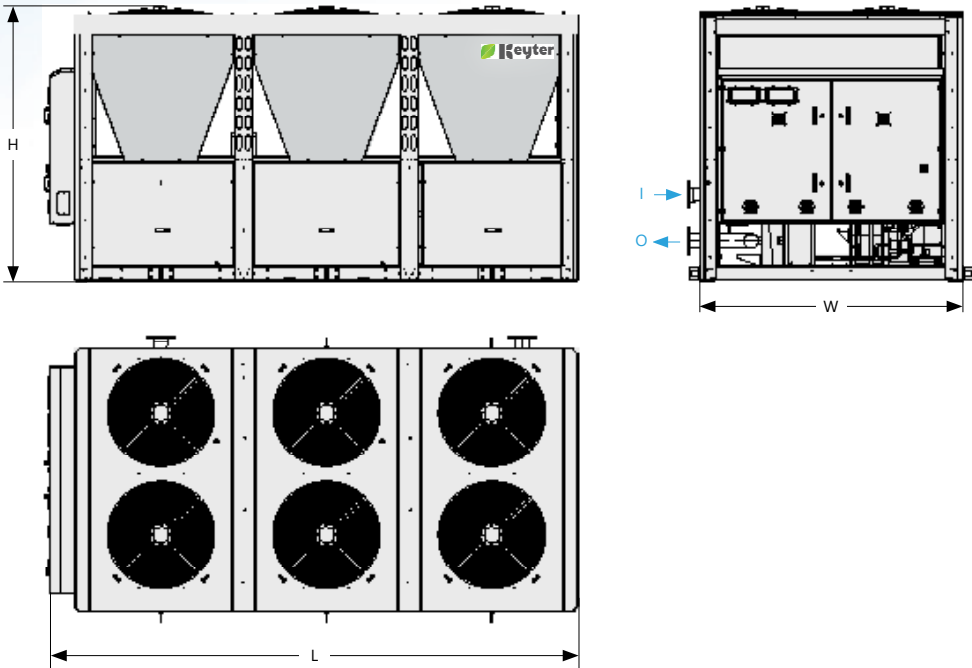
The module includes a three-way valve that sends water from the facility to the heat exchanger of the equipment's cooling system, or to the outdoor free-cooling coil if the outdoor conditions are favourable, therefore resulting in a significant reduction in the equipment's total electricity consumption.



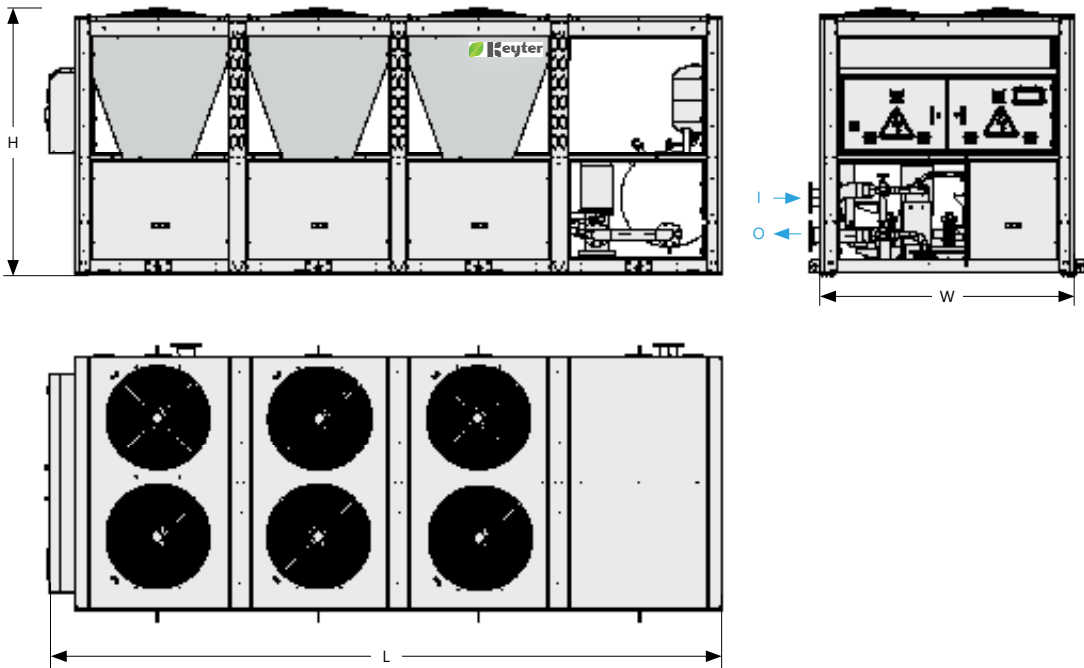
# ATLANTIA

## Dimensions

Dimensions:  
Standard version (S) and version with hydraulic unit (P):



Version with hydraulic unit and buffer tank (H):



Dimensions of the standard version (S) and the version with hydraulic unit (P)				
	Series 1	Series 2	Series 3	Series 4
L	2412	2950	4200	5596
W	1100	2100	2100	2100
H	2300	2250	2250	2250
Dimensions of version with hydraulic unit and buffer tank (H)				
	Series 1	Series 2	Series 3	Series 4
L	-	4200	5596	6925
W	-	2100	2100	2100
H	-	2250	2250	2250

Series 1 equipment with hydraulic unit option and buffer tank, tank mounted in a separate module.



# ATLANTIA

## POWER

CHILLERS  
air-to-water

- 208 - 831 kW
- Multi-Scroll
- 50 Hz  
60 Hz
- ACS
- R410A
- R452B

### Adaptation and Versatility

- Versions with hydraulic unit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Available with plate heat exchangers (KWP) or Multi-tube heat exchanger (KWB)
- Series production condensation pressure control for year-round operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels

### Low noise level

- Available: triple acoustic insulation in series production with compressors insulated via an acoustic jacket and mounted in a closed structure with phonic insulation
- Equipped with EC axial fans with AxiTop diffusers in series production, resulting in improved efficiency and a low noise level

### Easy control

- Electronic regulation and CAREL supervision for simple use and high performance
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

### Energy efficiency

- High energy efficiency in partial and full load, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- Tandem multiscroll to improve the seasonal energy efficiency
- Series production electronic fans with AxiTop and electronic expansion valve for minimum power consumption
- Equipment with a hydraulic unit can include high-performance electronic pumps
- Hot gas partial and full heat recovery system for sanitary hot water
- Water free-cooling system for free-cooling

### Environment

- Optimised design for reduced load of refrigerant R-410A (ODP 0, GWP 2088)
- NEW availability of equipment with R-452B refrigerant (ODP 0, GWP 676)

### Applications

