Keyter

industrial HVAC & R

HVAC&R is green

product catalogue 2018-2019

Keyter Technologies is a **Spanish group** of industrial companies dedicated to the design, **engineering**, **manufacturing,** marketing and service of systems and solutions based on **refrigeration** and **air conditioning technologies (HVAC & R).**

Keyter is recognized for its work in **R&D**, and is committed to the development of projects related to **technological innovation** and **environmental protection.**

With an increasing footprint and commercial growth, **Keyter** has a Sales and Technical Service network with **13 offices in Spain** and international offices throughout **Europe**, **America**, **Africa, Middle East** and **Asia-Pacific.**

The **Keyter** team has over **30 years experience** in the developing and manufacturing of **high-tech solutions**, based on the principles of **sustainability**, **reliability** and **energy efficiency.**

product & service 360º

Our Engineering, Manufacturing and Technical Service departments, always at your service

committed to environment

R&D&I projects for **Sustainable Solutions**

focused on energy efficiency

Optimised designs for a better environmental impact and low GWP refrigerants

Spanish Technology

European Directive

Eurovent Certification

ISO 9001:2008
ISO 14001:2004

Environmental Award

EcoDesign

Heat pump programme

Low GWP refrigerants

RoHS directive

Innovative SME award

contents

sales network

Keyter Technologies: local manufacturing with a global vision

Keyter has a network of sales offices that covers the whole of Spain and a growing international network of offices throughout Europe, America, Africa, the Middle East and Asia.

Headquarters and production
PI Los Santos, C/ José Estrada Orellana, 2 - 14900 Lucena (Córdoba) Spain

+34 957 51 07 52

International Sales
commercial@keyter.es

International Service
international.service@keyter.es

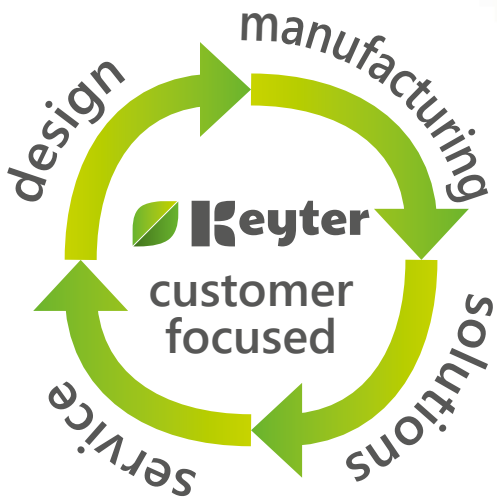
- Headquarters and production plants
  Lucena, Córdoba (Spain)
- International sales subsidiaries
  Keyter Intarcon Nederland (Netherlands)
  Keyter Intarcon Newtech (Turkey)
- International sales offices
  Europe: Belgium, Czech Republic, Denmark, France, Germany, Italy, Portugal, Romania, Spain, Switzerland and United Kingdom
  Africa: Algeria, Angola, Cape Verde, Equatorial Africa, Morocco, Mozambique, Sub-Saharan Africa and Tunisia
  Asia-Pacific: Bangladesh, India, Middle East and Pakistan
  America: Argentina, Bolivia, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Peru, Uruguay and Venezuela

service 360º

Keyter's philosophy is simple: service comes first!

Technical Assistance Service

Keyter Technologies employs highly-qualified staff with vast experience to support customers with the installation, commissioning, supervision and operational optimisation of equipment, etc.



Keep calm and Spare parts

Keyter sees the spare parts service not as a business area, but as an added value that we provide for our customers, making management easier and more agile, with customised care.

Spanish development and manufacturing at the cutting edge of technology

Keyter Technologies develops and manufactures efficient solutions for HVAC & R. Constantly working with leading global companies enables us to have and integrate the latest energy-efficient technologies, which, combined with flexibility, enables us to offer market solutions that enable the most efficient operation of their facilities.

#welovecranes

environment

FUTURE SOLUTIONS FOR TODAY AND TOMORROW

EUROPEAN ERP DIRECTIVE

Keyter recognises the great importance of complying with the Ecodesign regulation, the European ErP directive, which regulates the conditions and criteria related to the ecodesign of products with an impact on energy consumption during their life cycle.

F-GAS REGULATION

Includes measures that aim to control and reduce emissions of fluorinated greenhouse gases in the European Union.

COMMITTED TO THE ENVIRONMENT

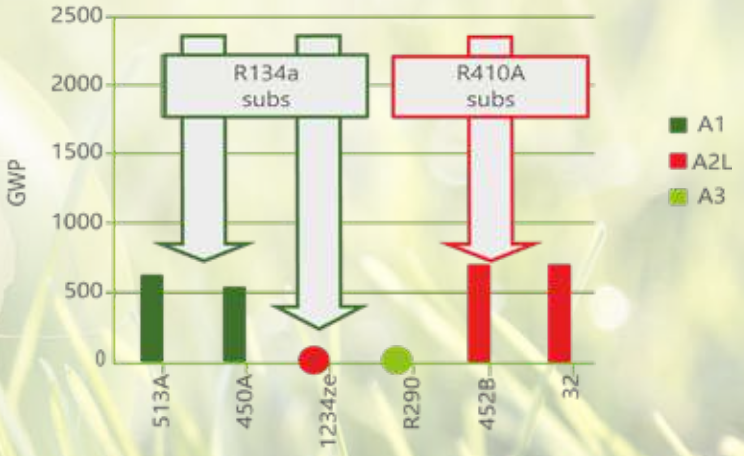
Keyter is committed to looking for sustainable, efficient and innovative solutions to limit energy consumption and reduce greenhouse gas emissions.

Compliance with environmental regulations requires the implementation of suitable solutions.

At Keyter we focus our developments on sustainable solutions with:

- Minimal refrigerant charge
- Use of environmentally-friendly refrigerants with low GWP and natural refrigerants
- High seasonal energy efficiency
- Recyclable materials

Applications	Present	Short-term, until 2022	Long-term, until 2022-2030
Semi-hermetic screw	R134a R513A R450A R1234ze	R134a R513A R450A R1234ze	R513A R450A R1234ze
Scroll	R410A R452B R134a R513A	R410A R452B R32 R290 R134a R513A	R452B R32 R290 R513A
Roof-Top	R410A R134a	R410A R452B R32 R134a R513A	R452B R32 R513A R1234ze



quality and innovation

THE BEST WAY TO PREDICT THE FUTURE IS TO INVENT IT

- Alan Kay

Keyter considers that our Quality and Respect for the Environment Policy constitutes the basic strategic parameters for our organisation.

Keyter Technologies is a member of the EUROVENT certification programme.

Through this programme and the testing of equipment in different manufacturing processes and specific PPI Validation Plans, Keyter keeps its commitment to integrity and transparency in the solutions offered to customers.

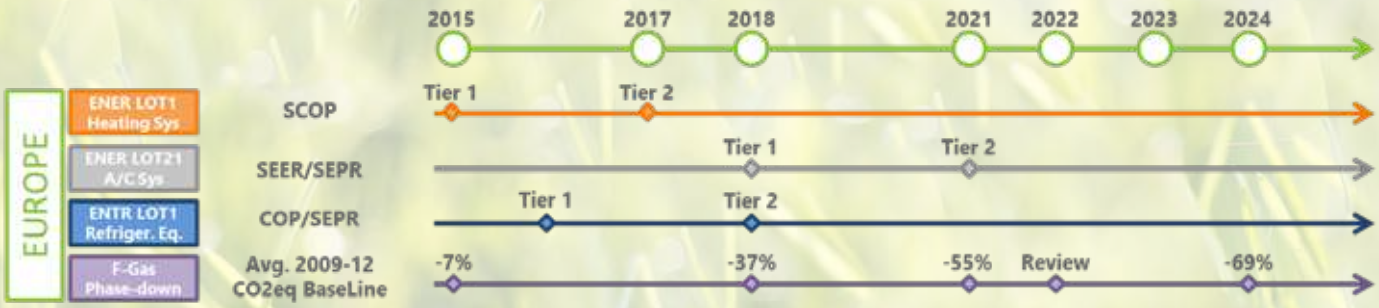
Keyter is in the process of certifying various product ranges.

The certified products are listed in the Directory of Certified Products available at

www.eurovent-certification.com

Keyter will work with TÜV Rheinland as an independent, internationally-recognised certification organisation, to issue certificates that confirm that our equipment is designed, manufactured and tested as per all the European technical quality standards.

Keyter will develop the implementation and follow-up of our quality and environmental policies using innovation as a key factor in satisfying our customers.



SHOPPING CENTRES

RIVE GAUCHE | Charleroi, Belgium
Autonomous units **KGH**

EROSKI | Melilla, Spain
Rooftop units **KCR**

ALEGRO SHOPPING CENTER | Setúbal, Portugal
Rooftop units **KCR**

INDUSTRY

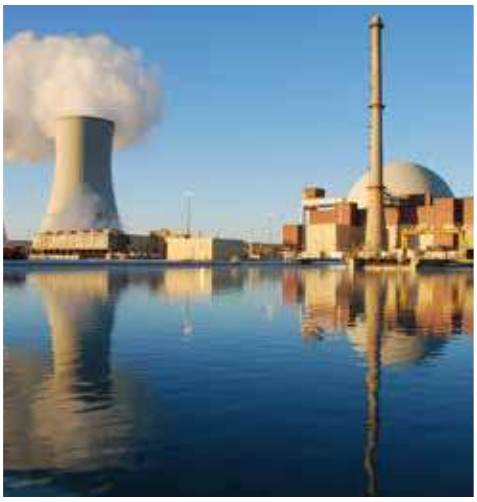
POPULAR PHARMA | Gazipur, Bangladesh
Chillers **KWE** and AHUs **KTS**

SMURFIT KAPPA | Madrid, Spain
Rooftop units **KCR**

MICHELIN EXPERIENCE CENTRE | Almería, Spain.
Rooftop units **KCR**

POWER ELECTRONICS | Valencia, Spain Rooftop units **KCR**

IBERIA CAE FLIGHT TRAINING CENTRE| Madrid, Spain. Heat pump **KWE**



NUCLEAR POWER STATIONS | Trillo and Almaraz, Spain. Autonomous units **KRH**

ENTERTAINMENT

MARINA D'OR spa I Castellón, Spain Dehumidifier **DTS**

KINEPOLIS HERON DIVERSIA | Madrid, Spain
Rooftop units **KCR**

VARYAP MERIDIAN | Istanbul, Turkey
Chiller **KWB**

ETH Polytechnic school | Zurich, Switzerland
Heat pumps **KZV**

READING UNIVERSITY. England
Chillers **KWE**

HOTEL GUADALMINA I Marbella, Spain
Chillers **KWA** with full heat reclaim

HOTEL MELIA SOL BARBADOS | Mallorca, Spain
Rooftop units **KCR,** Chillers **KWE** & Fan coil units

BEST TENERIFE HOTEL I Tenerife, Spain
Chillers **KWE**

ZARA - INDITEX GROUP | Various international locations
Rooftop units **KCR** and autonomous units **KGH**

BURGER KING | Various locations, Spain
Rooftop units **KCR** & Chiller **KWF**

QUIRÓN CLINICS | Various locations, Spain
Heat pumps **KWE**

REINA SOFIA HOSPITAL | Córdoba, Spain
Dry coolers **KTW**

EXTREME ENVIRONMENTS

Air-to-air packaged and rooftop units

Packaged air conditioning units for electrical component and telecommunications containers including a safety system for redundancy in the equipment.

Galvanised steel structure with special paint treatment to obtain classification up to C5M Hard and enable the equipment to operate under conditions of extreme environmental humidity and salinity

MOBILE AIR CONDITIONING - Malaysia

AIR QUALITY

100% fresh air-to-air packaged units

Ventilation units with active thermodynamic heat reclaim, using extraction air as a heat source/drain, with high energy efficiency, ideal for applications where there is a significant presence of people, as is the case for gyms

The active heat reclaim is combined with the possibility of modulating the flow of outdoor air based on the indoor air quality and the variable capacity of the compressor

ANYTIME FITNESS - Various locations, Spain

INDUSTRIAL PRECISION

Industrial dehumidification

Dehumidifying units to control the temperature and humidity for industrial applications using units with three refrigerant circuits, with the possibility of outdoor air dissipation

This equipment is supplemented with air-to-water heat pumps and air handling units for support at the hottest times of the year

FERTIBERIA - Sagunto, SPAIN

High-temperature heat pump

Water-to-water heat pump with special compressors with high compression ratios and R-134a refrigerant. This type of compressor can generate sanitary hot water up to 80°C thanks to the work with high evaporation temperatures

This type of units can replace boilers and thus centralise all production using electrical power

HEAT PUMP | SANITARY HOT WATER

SAN JUAN DE DIOS HOSPITAL - Zaragoza, Spain

Full or partial heat reclaim

Air-to-water heat pumps with total or partial heat reclaim. Energy reclaim, in addition to the outdoor EC axial condensation fans, controls heat reclaim so as to be able to generate sanitary hot water from low temperatures, using full heat reclaim, and up to temperatures of more than 60°C, using partial heat reclaim

HEAT RECOVERY

HOTELS - Best Hotels | Garden Hotels | Melia

Low-noise chillers

'This is Holland' is the name of the new tourist attraction in the city of Amsterdam in the Netherlands.

To achieve suitable thermal comfort in the building and the 3D viewing room, a hydronic air conditioning system was chosen based on its high energy efficiency and the low noise level of the chillers

COMFORT I LOW NOISE LEVEL

THIS IS HOLLAND - Amsterdam, Netherlands

product 360º

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

0 kW | 50 kW | 100 kW | 200 kW | 300 kW | 500 kW

ROOF-TOP & WALL-TOP UNITS

PERSEA air-to-air roof-top units *new* Inverter

R410A R513A

18 kW — 407 kW
19 kW — 438 kW

new **SEILA** slim air-to-air roof-top units

R410A

23 kW — 37 kW
25 kW — 40 kW

new **TROPIK** air-to-air roof-top packaged units

R410A

18 kW — 106 kW

ATENEA water-to-air roof-top units

R410A

44 kW — 255 kW
49 kW — 276 kW

WALL-TOP wall-mounted air-to-air monoblock units

R410A

12 kW — 46 kW
13 kW — 47 kW

DEHUMIDIFIERS

OCEAN dehumidifiers

R410A

11 kg/hr | 2700 m³/hr — 166 kg/hr | 48000 m³/hr
13 kW — 156 kW
8 kW — 130 kW

AUTONOMOUS UNITS

EIRENE air-to-air vertical packaged units *new* Inverter

R410A

23 kW — 108 kW
25 kW — 109 kW

ASTRIA air-to-air horizontal packaged units *new* Inverter

R410A

19 kW — 32 kW
18 kW — 32 kW

VERSIA all-outdoor-air air-to-air packaged units *new* Inverter

R410A

9 kW — 54 kW
9 kW — 52 kW

ARAL split system | condensing units + indoor units

R410A

33 kW — 102 kW
32 kW — 102 kW

new Inverter

THALIA water-to-air horizontal packaged units

R410A

6 kW — 50 kW
7 kW — 58 kW

BOTHNIA water-to-air vertical packaged units

R410A

23 kW — 79 kW

LIFE MOBILE SOLUTIONS

new **LIFE IT&Power** monoblock units for containers

R410A R134a

7 kW — 40 kW

LIFE AIRPORTS ASLAN *new*
airport solutions
PCA unit

new **LIFE SHELTER** portable units

R134a

12 kW — 17 kW

LIFE OFFSHORE *new*
maritime applications

ErP 2018 | ErP 2021 | LOW GWP REFRIGERANTS

Keyter

0 kW | 50 kW | 100 kW | 500 kW | 1000 kW | 2000 kW

CHILLERS AND HEAT PUMPS

new Inverter

air-to-water heat pumps and micro-chillers **NESEA**

R410A R452B

6 kW — 24 kW
8 kW — 31 kW

new Inverter

air-to-water heat pumps and chillers **PACIFICA**

R410A R452B

29 kW — 329 kW
33 kW — 387 kW

air-to-water heat pumps and chillers **ARGIA** *new*

R134a R513A

28 kW — 244 kW
30 kW — 247 kW

air-to-water heat pumps and chillers **ATLANTIA**

R410A R452B

101 kW — 678 kW
164 kW — 755 kW

air-to-water chillers **ATLANTIA POWER**

R410A R452B

208 kW — 831 kW

modular air-to-water chillers **NEMESIS** *new*

R410A R452B

101 kW — 1040 kW (5 x 208 kW)

Inverter

air-to-water screw chillers **PANGEA** *new*

R134a R513A R450A R1234ze

214 kW — 1642 kW

panelled water-to-water heat pumps and chillers **MEDEA**

R410A R134a

27 kW — 308 kW
32 kW — 349 kW

water-to-water heat pumps and chillers **LANGIA**

R410A R134a R1234ze

213 kW — 755 kW
234 kW — 829 kW

water-to-water heat pumps and chillers with shell and tube heat exchanger **ACTEA**

R410A R134a R1234ze

46 kW — 755 kW
54 kW — 829 kW

Inverter

water-to-water screw chillers **ONEIDA** *new*

R134a R513A R450A R1234ze

170 kW — 1813 kW
150 kW — 1610 kW

TERMINAL UNITS

FAN COIL UNITS

2 kW — 42 kW
1 kW — 50 kW

air handling units **TITAN**

2000 m³/hr — 44000 m³/hr
2000 m³/hr — 54000 m³/hr

indoor air handling units **DAIRA**

3000 m³/hr — 17000 m³/hr
16 kW — 102 kW
22 kW — 126 kW

dry coolers **BELAIR**

51 kW — 847 kW

NOVOPRINT S.A. | SPAIN - AKI BRICOLAJE | SPAIN - BAKERY DONUTS IBERIA | SPAIN - ALUMINIUM BEVERAGE CANS | PAKISTAN

BCN CARTON | SPAIN - TOYOTA DEALER | SPAIN - ENDEKA CERAMICS | SPAIN - CAPRABO SUPERMARKETS | VARIOUS

SAN TELMO FOUNDATION | SPAIN - VILLA JOIOSA MUSEUM | SPAIN - SEVILLE BARRACKS | SPAIN - GUTIERREZ DE ALBA THEATRE | SPAIN

roof-top & wall-top units

CONSUM | VARIOUS LOCATIONS - J.CARRION LOGÍSTICA | SPAIN - POLYTECHNIC UNIVERSITY | SPAIN - SPA BAHÍA ALCUDIA | SPAIN

CARREFOUR MARKET | SPAIN - VALENTÍN PARK CLUB | SPAIN - GARDEN HOTELS | VARIOUS - CAPSA | SPAIN - MILITARY BASE | SPAIN

HEALTH CENTRES I VARIOUS LOCATIONS - AEAT | SPAIN - HOTEL ROC MARBELLA PARK | SPAIN - HYPERMARKET E. LECLERQ | SPAIN

chillers and heat pumps
air - water

NESEA

MICRO-CHILLERS

air-to-water heat pump

8 - 24 kW
9 - 31 kW

Inverter | Multi-Scroll | EC | 50 Hz 60 Hz

ACS | T

R410A | R452B | R134a

Adaptation and Versatility

- Versions with hydraulic kit and built-in buffer tank to reduce compressors short cycling
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels
- NEW NESEA MAXIMA versions with R-134a refrigerant to deliver water at high temperatures up to +65°C

Energy efficiency

- High partial and full load efficiency, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- NEW Full INVERTER technology to improve seasonal energy efficiency
- Electronic fans as standard and electronic expansion valves available for minimal energy consumption
- Equipments with hydraulic kit can include high-performance electronic pumps
- NEW hot gas partial heat reclaim system for sanitary hot water

Low noise level

- Dual acoustic insulation of the compressors with an acoustic jacket in a closed, insulated compartment
- Variable speed electronic fans as standard

Environment

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

Easy control

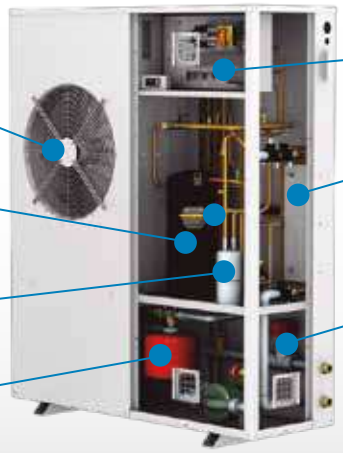
- CAREL supervision and electronic control with high performance and easy operation
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

Applications

Industry | Retail & Shopping centres | Education & Culture | Hospitals

NESEA versions

Keyter NESEA



Keyter NESEA INVERTER

Radial fan with EC technology

Circulation pump with EC technology

Scroll compressor, Inverter technology

Hydraulic versions:

KWF - Standard version (S)

Equipment with no hydraulic kit. This unit includes as standard triple protection of plate heat exchanger, with flow switch in the water piping, refrigerant anti-freeze and water anti-freeze protection.

KWF - Version with hydraulic kit (P)

The hydraulic kit includes a flow pump, expansion vessel, safety valve and flow switch.

The hidraulic kits of models from series 1,2 and 3 include include high performance electronic pump as standard.

The hydraulic kits of models from series 4 may be equipped with the following options:

- Single pump without speed control.
- High energy performance electronic pump.

KWF - version with hydraulic kit and buffer tank (H)

Equipment designed with a hydraulic kit and also a buffer tank to reduce compressors short cycling. Buffer tank capacity of 35 litres in series 3 and 100 litres in series 4.

NESEA
technical data

8 - 24 kW

KWF models			3009	3014	3020	4026	4030
Cooling only version (R)							
Cooling	Cooling capacity (1)	kW	7.8	12.1	17.2	22.3	24.3
		TR	2.5	3.5	5	6.5	7
		kBTU/hr	26.6	41.3	58.7	76.1	82.9
	Power input (2)	kW	2.8	4.5	6.4	8.0	9.1
	EER (3)	W/W	2.8	2.7	2.7	2.8	2.7
		BTU/(hrxW)	9.5	9.2	9.2	9.5	9.1
Heat pump version (I)							
Cooling mode	Cooling capacity (1)	kW	7.8	12.1	17.2	22.3	24.3
	Power input (2)	kW	2.8	4.5	6.4	8.0	9.1
	EER (3)	W/W	2.8	2.7	2.7	2.8	2.7
Heating mode	Heating capacity (4)	kW	9.4	15.3	21.5	28.2	31.4
	Power input (2)	kW	2.9	4.7	6.1	8.3	9.4
	COP (3)	W/W	3.2	3.3	3.5	3.4	3.3
Technical characteristics							
Power supply			400 V/III/50 HZ with neutral				
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088				
	Type of compressor		Hermetic scroll, single version				
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/1
	No. power stages		1	1	1	1	1
Hydraulic circuit	Water flow	m^3/h	1.3	2.1	3.0	3.8	4.2
	Type of heat exchanger		Stainless steel brazed plates heat exchanger				
	Hydraulic connections		1"	1"	1"	1 1/4"	1 1/4"
Outdoor fan	Outdoor airflow	m^3/h	3700	3700	7000	7000	7000
	No. x Type of fan		1 x Axial 450 EC		2 x Axial 450 EC		
Equipment sound pressure of Lp10 (5)		dB(A)	32	32	35	35	35
Empty weight		kg	136	144	155	247	250

Inverter

13 - 27 kW

KWF INVERTER models			3014	4022	4030
Cooling only version (R)					
Cooling	Cooling capacity (1)	kW	12.8	20.8	26.7
		TR	4.0	6.0	8.0
		kBTU/hr	43.7	71.0	91.2
	Power input (2)	kW	4.7	7.2	8.6
	EER (3)	W/W	2.7	2.9	3.1
		BTU/(hrxW)	9.2	9.9	10.6
Heat pump version (I)					
Cooling mode	Cooling capacity (1)	kW	12.8	20.8	26.7
	Power input (2)	kW	4.7	7.2	8.6
	EER (3)	W/W	2.7	2.9	3.1
Heating mode	Heating capacity (4)	kW	16.2	25.7	32.3
	Power input (2)	kW	4.7	7.1	8.6
	COP (3)	W/W	3.4	3.6	3.8
Technical characteristics					
Power supply			400 V/III/50 HZ with neutral		
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088		
	Type of compressor		Inverter compressor		
	No. circuits/compressors		1/1	1/1	1/1
	Power stage control		Modulating control 25 - 100%		
Hydraulic circuit	Water flow	m^3/h	2.2	3.6	4.6
	Type of heat exchanger		Stainless steel brazed plates heat exchanger		
	Hydraulic connections		1"	1 1/4"	1 1/4"
Outdoor fan	Outdoor airflow	m^3/h	3700	7000	7000
	No. x Type of fan		1 x Axial 450 EC	2 x Axial 450 EC	2 x Axial 450 EC
Equipment sound pressure of Lp10 (5)		dB(A)	32	35	35
Empty weight		kg	134	226	255

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.
(2) Nominal power input by compressors and outdoor fans.
(3) EER and COP calculated based on standard EN 14511-2013.
(4) Nominal heating capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7°C DB/6°C WB.
(5) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Options:

- Inverter version with compressor, expansion valve and outdoor electronic fan
- Outdoor EC radial fan
- Anti-corrosion coated outdoor coil
- Hydraulic circuit with variable speed electronic pump (standard with chassis 1, 2 and 3; optional with chassis 4)
- Remote controller
- External communication with MODBUS protocol via RS485 card

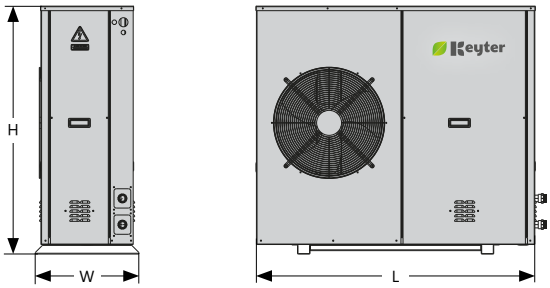
NESEA dimensions

Dimensions:

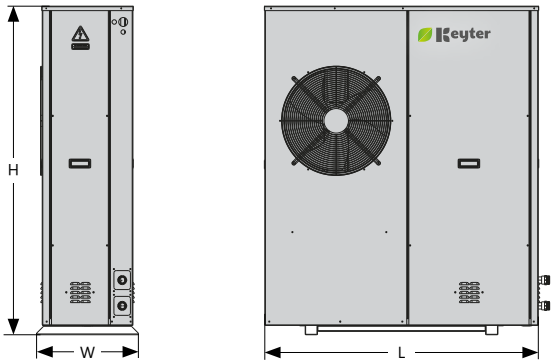
series 3

models 3009/3014

version S

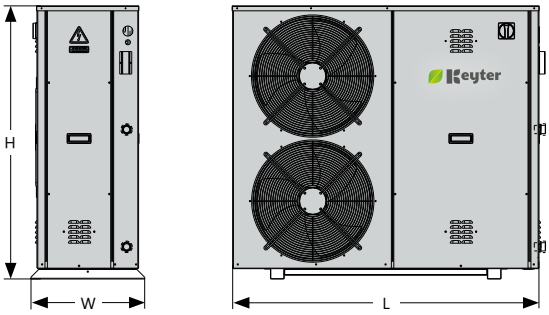


versions P and H

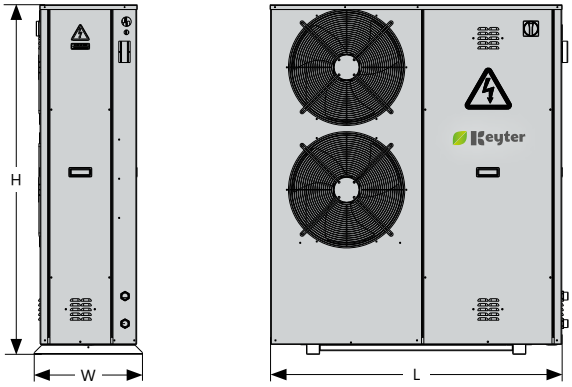


model 3020

version S

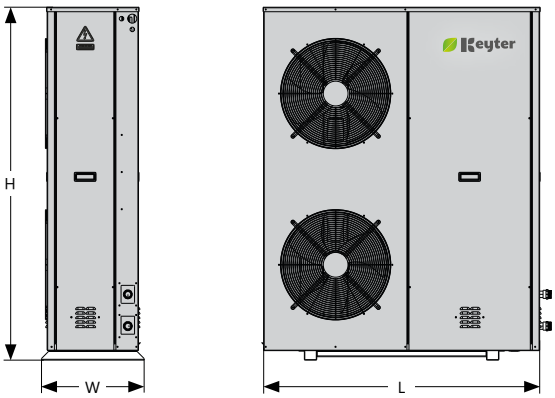


versions P and H

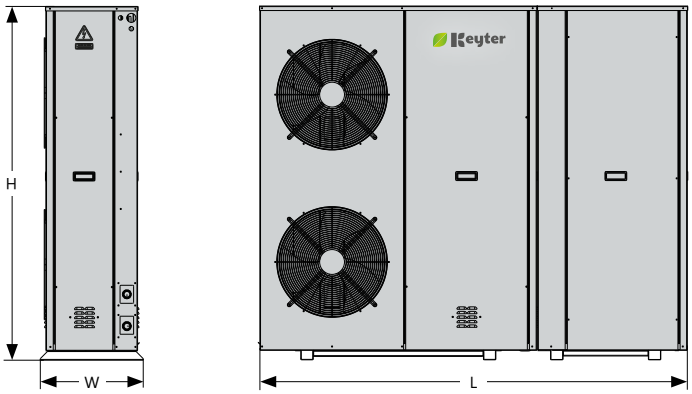


series 4

versions S and P



version H



In series 4, version H, the buffer tank is delivered as a separate module assembled with the unit. Optionally, this module may be delivered independently of the equipment.

	Dimensions			
	Series 3 - S	Series 3 - P/H	Series 4 - S/P	Series 4 - H
L	1230	1230	1230	1897
W	456	456	456	456
H	1095	1473	1567	1567

PACIFICA

CHILLERS AND HEAT PUMPS
air-to-water

29 - 329 kW
33 - 387 kW

Multi-Scroll

50 Hz
60 Hz

ACS

4T

R410A

R452B

R134a

Adaptation and Versatility

- Versions with hydraulic kit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels
- PACIFICA MAXIMA versions with R-134a refrigerant to deliver water at high temperatures up to +65ºC

Low noise level

- Compressors in a closed compartment, isolated from the airflow (except series 2 to 5) available with an acoustic jacket
- Low speed condensation axial fans and oversized outdoor coils resulting in improved efficiency and a very low noise level
- EC axial fans with AxiTop diffusers for a very low noise level

Easy control

- CAREL supervision and electronic control with high performance and easy operation
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

Energy efficiency

- High partial and full load efficiency, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- NEW inverter compressors in the PACIFICA INVERTER range for maximum energy efficiency
- Electronic fans and electronic expansion valves for minimal energy consumption
- NEW hot gas partial and full heat reclaim system for sanitary hot water
- MULTIPIPE units available for simultaneous delivery of cooling and heating
- Water Free-cooling system for free-cooling

Environment

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

Applications

Industry Logistics

Retail & Shopping centres

Culture

Hotels

versions

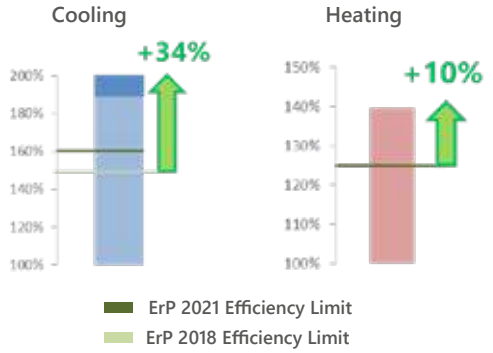
PACIFICA

20-189 kW/20-184 kW

Chillers equipped with multiscroll technology.

- Seasonal energy efficiency ratio for cooling (SEER) ηs,c 2018 >= 149%
- Seasonal energy efficiency ratio for cooling (SEER) ηs,c 2021 >= 161%

Seasonal energy efficiency

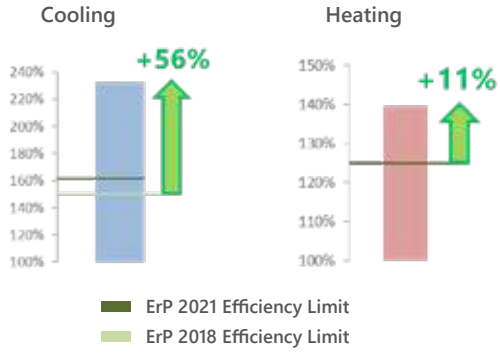


PACIFICA INVERTER

39-170 kW/42-180 kW

Chillers equipped with INVERTER technology, an electronic expansion valve and variable-speed electronic fans to comply with the ErP 2021 regulation and guarantee maximum energy savings.

Seasonal energy efficiency



Hydraulic versions:

Keyter WE - Standard version (S)

Equipment with no hydraulic kit.

The WE units include as standard triple protection of plates heat exchanger, with flow switch, water anti-freeze protection and refrigerant anti-freeze protection.

Keyter WE - Version with hydraulic kit (P)

Hydraulic kit composed of a circulation pump suitable for water or glycol water to 0°C, expansion vessel, purge and closing valves, pressure gauges and a flow switch.

Low temperature kit is required for water temperatures below 0°C, the, which requires replacement of the pump and adds electrical heater on hydraulic elements to operate with water temperature up to -10°C.

Keyter WE - version with hydraulic kit and buffer tank (H)

Equipment designed with a hydraulic kit in addition to a buffer tank with an anti-freeze electrical heater to reduce compressors short cycling.

The hydraulic kit is built into the chassis of the unit for all models except the series 6, where the hydraulic kit is in a separate module but is delivered with the unit.

Optionally, a module independent to the unit may be delivered, with a 375 or 725 litre capacity buffer tank and anti-freeze electrical heater.

For water temperatures below 0°C, it is necessary to request the low-temperature kit for the hydraulic kit.

PACIFICA
range specification

			PACIFICA	PACIFICA INVERTER
General characteristics				
Refrigerant	R410A		✓	✓
	Full charge of refrigerant		✓	✓
	Leak detection		●	●
Casing	Self-supporting chassis of galvanized steel with oven cured polyester paint treatment		✓	✓
	Self-supporting chassis of stainless steel with oven cured polyester paint treatment		●	●
	Customisable colour to meet the needs of the facility		●	●
	Lower compartment closed with a sheet for compressors and cooling components	KWE - 5 to 9	✓	✓
	Insulation in the lower cooling compartment		●	●
	Anti-vibration supports		●	●
Compressors	Tandem multiscroll technology		✓	–
	Scroll Compressors, Single version	KWE-2030 to 2045	●	–
	Inverter technology		●	✓
	Compressor anti-vibration mounts		✓	✓
	Soft starter		●	●
	Acoustic jacket		●	●
	Original manufacturer high-performance acoustic jacket		●	●
	Suction accumulator and liquid receiver	version I	✓	✓
		version R	●	●
Expansion valves	Thermostatic expansion valves		✓	–
	Electronic expansion valves		●	✓
Fans				
Outdoor fans	Axial fans with AC technology		✓	–
	Axial fans with EC technology		●	✓
	AxiTop diffusers for axial fans		●	●
	Fan nozzles painted inside		●	●
	Fans with epoxy paint		●	●
	Enhanced fans		●	●
	Radial EC plug fans		●	●
	Centrifugal fans		●	–
Heat exchangers				
Coils	Coils with copper tubes and aluminium fins, with L or U geometry		✓	✓
	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		●	●
Heat exchangers	Freon-to-water heat exchanger, AISI 316L stainless steel plates, welded with copper and heat insulated.		✓	✓
	Stainless steel exchanger of SS AISI 304/SS AISI 316 SMO254 or Titanium		●	●
	Shell and tube heat exchanger	KWE - 3, 4 and 6	●	●
	Antifreeze electrical heater in the plate heat exchanger for protection at low outdoor temp.		●	●
Energy				
Energy reclaim	Partial or full condensation energy reclaim for sanitary hot water		●	●
	Pump in the condensation heat reclaim circuit		●	●
	Antifreeze electrical heater in reclaim plate heat exchanger for sanitary hot water		●	●
Free-cooling	Built-in free-cooling via an additional outdoor coil, outdoor sensor and three-way valve		●	●

Codification:

KWE [ ] [ ] [ ] [ ] **NS4W**

Series **Size** **Power**

I - Reversible heat pump
R - Cooling only

N - Standard scroll compressor / **E** - High efficiency DSH compressor
S - Standard / **P** - Hydraulic kit / **H** - Hydraulic kit with buffer tank
4 - 400 V/III/50 Hz
W - Refrigerant R410A / **B** - R452B / **Y** - R134a

			PACIFICA	PACIFICA INVERTER
Hydraulic				
Pumps (WE-version P/H)	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 available)		●	●
	Electronic pump		●	●
	Dual pump		●	●
	Electronic back-up pump		●	●
Hydraulic elements	Low-temperature kit for operation with water at temp. < 5ºC		●	●
	Flexible connections for hydraulic inlet and outlet		●	●
	Water filter		●	●
Installation				
Condensate pan	Condensate drain pan in outdoor unit		✓	✓
	Electrical heater in the outdoor condensate drain pan for low outdoor temperatures		●	●
Outdoor coil	Coil protection grille		●	●
Insulation	Thermal insulation in all cold metal lines (refrigerant or water)		●	●
Power supply	400 V/III ph/50 Hz (with/without neutral, depending on model)		✓	✓
	220 V/III ph/60 Hz; 380 V/III ph/60 Hz; 400 V/III ph/60 Hz; 460 V / III ph / 60 Hz		●	●
	Other electrical voltages (consult)		●	●
Packaging	Packaging for maritime transportation		●	●
Control				
Electronic control and communication	Aquamicro configurable electronic control	KWE-2 to 4	✓	–
	MicroAD user terminal for Aquamicro control		●	–
	Programmable electronic Aquamanager control	KWE-2 to 4	●	✓
		KWE -5 to 9	✓	✓
	pLDPRO user terminal for Aquamanager control (max. standard distance terminal-board: 50 m)	KWE-2 to 4	●	✓
		KWE-5 and 6	✓	✓
	pGD1 user and maintenance terminal for Aquamanager control (max. standard distance terminal-board: 50 m)	KWE-2 to 6	●	●
		KWE-7 to 9	✓	✓
	TCONN cards (for distances between terminal and board longer than 50 m) (see technical manual)		●	●
	Condensation and evaporation pressure control with transducers		✓	✓
	Management up to two pumps in the evaporator		✓	✓
	Master-slave management		●	●
	Electronic expansion valve management		●	●
	RS485 card for Modbus communication		●	●
	Plant Visor/Plant Watch PRO/tERA supervision		●	●
	BACNET/LONWORKS communication		●	●
Defrosting	Defrosting via cycle inversion via a 4-way valve		✓	✓
Additional control and safety elements	General switch on electrical cabinet		✓	✓
	Thermal-magnetic protection for compressors, fans and pumps		✓	✓
	Triple protection of the plate heat exchanger with water flow switch and water anti-freeze protection and freon		✓	✓
	PREMIUM phase control relay, with phase failure detection and rotation direction protection		✓	✓
	EXCELLENT phase control relay, adds phase imbalance, overvoltage and undervoltage detection		●	●
	Differential switches		●	●
	Energy meter		●	●
Electrical cabinet	Fully-wired electrical cabinet, with IP54 protection		✓	✓
	Forced ventilation of the electrical cabinet	KWE-1 to 6	●	●
		KWE-7 to 9	✓	✓
	Design of electrical switchgear for high temperatures		✓	✓
	Tropicalised electrical cabinet		●	●
	Antifreeze electrical heater in electrical cabinet for low outdoor temperatures		●	●

✓ Included as standard ● Option – Not applicable

Codification:

KWE [ ] [ ][ ][ ] **VS4W**

Series **Size** **Power**

I - Reversible heat pump
R - Cooling only

V - Inverter compressor
S - Standard / **P** - Hydraulic kit / **H** - Hydraulic kit with buffer tank
4 - 400 V/III/50 Hz
W - Refrigerant R410A / **Y** - R134a

PACIFICA
technical data

28 - 43 kW

KWE models			2030	2035	2039	2045	2030	2035	2039	2045
Cooling only version (R)										
Cooling	Cooling capacity (1)	kW	28.7	32.7	37.7	42.9	28.7	32.7	37.7	42.9
		TR	8.5	9.5	11	12.5	8.5	9.5	11	12.5
		kBTU/hr	97.9	111.6	128.6	146.4	97.9	111.6	128.6	146.4
	Power input (2)	kW	9.1	10.8	12.1	13.3	9.1	10.8	12.1	13.3
	EER (3)	W/W	3.1	3.0	3.1	3.2	3.1	3.0	3.1	3.2
		BTU/(Wxhr)	10.7	10.3	10.6	11.0	10.7	10.3	10.6	11.0
	ESEER (3)		4.2	4.1	4.1	4.2	4.2	4.1	4.1	4.2
	SEER (4)		4.0	4.0	4.0	4.1	4.6	4.7	4.3	4.5
	ηs,c (5)		154%	153%	152%	158%	175%	179%	163%	172%
	SEPR (7ºC) (6)		5.0	5.0	5.0	5.2	5.5	5.6	5.3	5.5
	SEPR (-8ºC) (6)		3.1	3.1	3.1	3.2	3.6	3.7	3.3	3.6
	IPLV (7)	kW/TR	0.72	0.72	0.74	0.72	0.66	0.65	0.73	0.68
		BTU/(Wxhr)	16.5	16.5	16.0	16.5	17.7	18.0	16.4	17.3
Heat pump version (I)										
Cooling mode	Cooling capacity (1)	kW	27.8	31.7	36.5	41.6	27.8	31.7	36.5	41.6
	Power input (2)	kW	9.3	11.0	12.3	13.5	9.3	11.0	12.3	13.5
	EER (3)	W/W	3.0	2.9	3.0	3.1	3.0	2.9	3.0	3.1
	ESEER (3)		4.2	4.1	4.1	4.1	4.2	4.1	4.1	4.1
	SEER (4)		3.9	3.8	3.9	4.0	4.4	4.5	4.1	4.3
	ηs,c (5)		147%	146%	146%	151%	168%	172%	157%	166%
	SEPR (7ºC) (6)		4.9	4.8	4.9	5.0	5.4	5.4	5.1	5.3
	SEPR (-8ºC) (6)		2.9	2.9	2.9	3.1	3.4	3.5	3.2	3.4
	IPLV (7)	kW/TR	0.75	0.76	0.78	0.76	0.69	0.67	0.75	0.71
		BTU/(Wxhr)	15.8	15.7	15.4	15.8	17.0	17.2	15.8	16.6
Heating mode	Heating capacity (8)	kW	33.2	38.3	42.1	47.8	33.2	38.3	42.1	47.8
	Power input (2)	kW	9.0	10.7	12.0	13.1	9.0	10.7	12.0	13.1
	COP (3)	W/W	3.7	3.6	3.5	3.6	3.7	3.6	3.5	3.6
	SCOP warmer climate (4)		3.9	3.8	3.7	3.8	4.4	4.3	4.1	3.9
	ηs,h warmer climate (5)		148%	145%	140%	145%	166%	165%	157%	149%
	ηs,h average climate with EC fan (5)		123%	120%	124%	128%	136%	133%	136%	131%
Technical characteristics										
Power supply			400 V/III/50 HZ with neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088							
	Type of compressor		Hermetic scroll, single version (option)				Hermetic tandem scroll (standard)			
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/2	1/2	1/2	1/2
	No. power stages		1	1	1	1	2	2	2	2
Hydraulic circuit	Water flow	m^3/h	4.9	5.6	6.5	7.4	4.9	5.6	6.5	7.4
	Type of heat exchanger		Stainless steel brazed plates							
	Hydraulic connections		1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
	Buffer tank capacity -vers. H	litres	150							
Outdoor fan	Outdoor airflow	m^3/h	14000	14000	19500	19500	14000	14000	19500	19500
	No. x Type of fan		1 x Axial 800 AC							
	Fan speed	rpm	660/480	660/480	900/700	900/700	660/480	660/480	900/700	900/700
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	44.4	45.7	46.9	48.4	44.4	45.7	46.9	48.4
Weights	Empty weight	kg	343	345	360	415	343	345	360	415
	In-service weight	kg	356	358.5	374	431	356	358.5	374	431

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Nominal power input 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.

Series 2 - S/P

Series 2-H

PACIFICA
technical data

50 - 81 kW

KWE models			2052	2060	2070	3052	3060	3070	4078	4090
Cooling only version (R)										
Cooling	Cooling capacity (1)	kW	50.4	55.7	64.6	51.5	57.1	64.3	74.9	81.1
		TR	14.5	16	18.5	15	16.5	18.5	21.5	23.5
		kBTU/hr	172.1	190.2	220.5	175.7	194.8	219.3	255.5	276.7
	Power input (2)	kW	14.6	17.7	21.6	14.5	17.5	21.1	23.1	27.4
	EER (3)	W/W	3.4	3.2	3.0	3.6	3.3	3.0	3.2	3.0
		BTU/(Wxhr)	11.8	10.8	10.2	12.1	11.1	10.4	11.1	10.1
	ESEER (3)		4.7	4.3	4.3	4.8	4.8	4.8	4.9	4.5
	SEER (4)		4.8	4.5	4.4	4.9	5.0	4.9	5.1	4.8
	ηs,c (5)		185%	172%	169%	190%	192%	189%	196%	182%
	SEPR (7ºC) (6)		5.8	5.5	5.5	5.9	6.0	5.9	6.1	5.8
	SEPR (-8ºC) (6)		3.9	3.6	3.5	4.0	4.1	4.0	4.2	3.9
	IPLV (7)	kW/TR	0.64	0.69	0.69	0.62	0.63	0.63	0.62	0.66
		BTU/(Wxhr)	18.6	17.2	17.1	19.0	18.6	18.2	18.7	17.4
Heat pump version (I)										
Cooling mode	Cooling capacity (1)	kW	48.9	54.0	62.5	49.9	55.4	62.2	72.5	78.6
	Power input (2)	kW	14.9	18.0	22.0	14.8	17.8	21.6	23.5	27.9
	EER (3)	W/W	3.3	3.0	2.8	3.4	3.1	2.9	3.1	2.8
	ESEER (3)		4.6	4.3	4.3	4.7	4.8	4.7	4.9	4.5
	SEER (4)		4.6	4.3	4.2	4.7	4.8	4.7	4.9	4.6
	ηs,c (5)		177%	165%	162%	182%	185%	181%	188%	174%
	SEPR (7ºC) (6)		5.6	5.3	5.3	5.7	5.8	5.8	5.9	5.6
	SEPR (-8ºC) (6)		3.7	3.4	3.4	3.8	3.9	3.8	4.0	3.7
	IPLV (7)	kW/TR	0.66	0.71	0.72	0.65	0.65	0.66	0.65	0.69
		BTU/(Wxhr)	17.8	16.5	16.3	18.3	17.8	17.5	18.0	16.7
Heating mode	Heating capacity (8)	kW	55.6	65.5	73.1	55.7	66.4	74.3	83.7	92.0
	Power input (2)	kW	15.6	17.2	21.0	15.6	17.2	20.8	22.8	27.0
	COP (3)	W/W	3.6	3.8	3.5	3.6	3.9	3.6	3.7	3.4
	SCOP warmer climate (4)		4.7	4.9	4.6	4.7	5.0	4.7	4.8	4.4
	ηs,h warmer climate (5)		180%	189%	177%	180%	190%	181%	183%	168%
	ηs,h average climate with EC fan (5)		145%	155%	141%	146%	157%	145%	149%	136%
Technical characteristics										
Power supply			400 V/III/50 HZ with neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088							
	Type of compressor		Hermetic tandem scroll							
	No. circuits/compressors		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	No. power stages		2	2	2	2	2	2	2	2
Hydraulic circuit	Water flow	m^3/h	8.7	9.6	11.1	8.9	9.8	11.1	12.9	14.0
	Type of heat exchanger		Stainless steel brazed plates			Stainless steel brazed plates (standard)/Shell and tube (optional)				
	Hydraulic connections		2"	2"	2"	2"	2"	2"	2"	2"
	Buffer tank capacity -vers. H	litres	150			225			225	
Outdoor fan	Outdoor airflow	m^3/h	19500	19500	19500	19500	19500	19500	19500	19500
	No. x Type of fan		1 x Axial 800 AC							
	Fan speed	rpm	900/700	900/700	900/700	900/700	900/700	900/700	900/700	900/700
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	47.8	52.6	52.6	47.8	52.6	52.3	53.8	55.6
Weights	Empty weight	kg	435	455	455	515	530	545	615	620
	In-service weight	kg	452	473	473	532	548	565	637	643

(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Nominal heating capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7ºC DB/6ºC WB.
(9) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Series 3 and 4 - S/P

Series 3 and 4 - H

PACIFICA
technical data

95 - 157 kW

KWE models			5100	5120	6130	6140	6150	6160	6170	6180
Cooling only version (R)										
Cooling	Cooling capacity (1)	kW	95.0	107.3	116.9	124.9	133.8	142.0	149.6	156.7
		TR	27	30.5	33.5	35.5	38	40.5	42.5	44.5
		kBTU/hr	324.1	366.1	398.7	426.3	456.4	484.4	510.5	534.6
	Power input (2)	kW	30.0	35.0	39.5	44.1	45.1	46.2	50.5	54.7
	EER (3)	W/W	3.2	3.1	3.0	2.8	3.0	3.1	3.0	2.9
		BTU/(Wxhr)	10.8	10.5	10.1	9.7	10.1	10.5	10.1	9.8
	ESEER (3)		5.3	5.0	4.7	4.8	4.9	5.0	4.8	4.7
	SEER (4)		5.2	5.2	4.6	4.5	4.7	4.8	4.7	4.5
	ηs,c (5)		201%	201%	175%	173%	178%	183%	178%	173%
	SEPR (7ºC) (6)		6.2	6.2	5.6	5.6	5.7	5.8	5.7	5.6
	SEPR (-8ºC) (6)		4.3	4.3	3.7	3.7	3.8	3.9	3.8	3.7
	IPLV (7)	kW/TR	0.59	0.66	0.66	0.66	0.65	0.64	0.65	0.67
		BTU/(Wxhr)	20.3	19.8	18.1	17.9	18.3	18.6	18.2	17.7
Heat pump version (I)										
Cooling mode	Cooling capacity (1)	kW	93.6	105.8	115.2	123.1	131.8	139.9	-	-
	Power input (2)	kW	31.0	36.0	40.7	45.5	46.5	47.5	-	-
	EER (3)	W/W	3.0	2.9	2.8	2.7	2.8	2.9	-	-
	ESEER (3)		4.9	4.3	4.3	4.2	4.4	4.5	-	-
	SEER (4)		5.1	5.1	4.4	4.4	4.5	4.6	-	-
	ηs,c (5)		194%	195%	169%	167%	173%	177%	-	-
	SEPR (7ºC) (6)		6.1	6.1	5.5	5.4	5.6	5.7	-	-
	SEPR (-8ºC) (6)		4.1	4.1	3.6	3.5	3.7	3.8	-	-
	IPLV (7)	kW/TR	0.61	0.61	0.68	0.69	0.67	0.66	-	-
		BTU/(Wxhr)	19.6	19.2	17.5	17.3	17.7	18.1	-	-
Heating mode	Heating capacity (8)	kW	96.2	124.2	132.7	143.4	152.2	161.1	-	-
	Power input (2)	kW	31.2	35.8	39.2	43.8	44.7	45.5	-	-
	COP (3)	W/W	3.1	3.5	3.4	3.3	3.4	3.5	-	-
	SCOP warmer climate (4)		4.0	4.4	4.1	4.0	4.2	4.3	-	-
	ηs,h warmer climate (5)		153%	168%	156%	153%	159%	164%	-	-
	ηs,h average climate with EC fan (5)		138%	156%	136%	131%	137%	142%	-	-
Technical characteristics										
Power supply			400 V/III/50 HZ with neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088							
	Type of compressor		Hermetic tandem scroll							
	No. circuits/compressors		2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
	No. power stages		4	4	4	4	4	4	4	4
Hydraulic circuit	Water flow	m^3/h	16.4	18.5	20.1	21.5	23.0	24.5	25.8	27.0
	Type of heat exchanger		Stainless steel brazed plates (standard)/Shell and tube (optional)							
	Hydraulic connections		2 1/2"	2 1/2"	DN 80	DN 80	DN 80	DN 80	DN 80	DN 80
	Buffer tank capacity -vers. H	litres	in separate module		375					
Outdoor fan	Outdoor airflow	m^3/h	28000	39000	39000	39000	39000	39000	39000	39000
	No. x Type of fan		2 x Axial 800 AC							
	Fan speed	rpm	660/480	900/700	900/700	900/700	900/700	900/700	900/700	900/700
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	49.9	54.6	54.6	55.5	55.5	56.2	56.2	56.2
Weights	Empty weight	kg	840	846	1048	1069	1096	1343	1354	1365
	In-service weight	kg	865	871	1074	1096	1123	1371	1383	1395

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Nominal power input 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.

Series 5 - S/P

Series 61 - S/P

PACIFICA
technical data

ErP 2018 ErP 2021 160 - 318 kW

KWE models			6200	6210	6240	6270	6300	6340	6380
Cooling only version (R)									
Cooling	Cooling capacity (1)	kW	162.6	187.8	213.2	235.7	262.4	289.2	317.9
		TR	46.5	53.5	61	67	75	82.5	90.5
		kBTU/hr	555.0	641.0	727.6	804.1	895.4	986.9	1084.7
	Power input (2)	kW	54.4	58.9	67.0	75.3	85.2	98.1	111.1
	EER (3)	(W/W)	3.0	3.2	3.2	3.1	3.1	2.9	2.9
		BTU/(Wxhr)	10.2	10.9	10.9	10.7	10.5	10.1	9.8
	ESEER (3)		5.1	5.4	5.4	5.3	5.4	5.2	5.0
	SEER (4)		4.7	5.0	5.1	5.1	5.1	5.0	5.0
	ηs,c (5)		178%	193%	195%	194%	198%	193%	191%
	SEPR (7ºC) (6)		5.7	6.1	6.1	6.1	6.2	6.1	6.1
	SEPR (-8ºC) (6)		3.8	4.2	4.2	4.2	4.3	4.2	4.1
	IPLV (7)	kW/TR	0.64	0.60	0.60	0.60	0.61	0.62	0.63
		BTU/(Wxhr)	18.4	19.7	19.7	19.6	19.3	19.0	18.8
Heat pump version (I)									
Cooling mode	Cooling capacity (1)	kW	160.5	185.3	210.3	232.4	258.8	285.1	313.2
	Power input (2)	kW	55.8	60.5	68.9	77.4	87.6	100.4	113.8
	EER (3)	W/W	2.9	3.1	3.1	3.0	3.0	2.8	2.8
	ESEER (3)		4.3	4.7	4.8	4.7	4.8	4.9	4.8
	SEER (4)		4.5	4.9	4.9	4.9	5.0	5.0	5.0
	ηs,c (5)		172%	187%	189%	188%	191%	193%	190%
	SEPR (7ºC) (6)		5.6	5.9	6.0	6.0	6.1	6.1	6.0
	SEPR (-8ºC) (6)		3.6	4.0	4.1	4.1	4.1	4.2	4.1
	IPLV (7)	kW/TR	0.66	0.62	0.62	0.62	0.63	0.62	0.63
		BTU/(Wxhr)	17.7	19.1	19.2	19.0	18.8	19.0	18.7
Heating mode	Heating capacity (8)	kW	179.2	207.9	234.8	265.5	296.3	341.8	387.2
	Power input (2)	kW	51.1	59.1	66.0	74.2	84.0	96.3	109.1
	COP (3)	W/W	3.5	3.5	3.6	3.6	3.5	3.6	3.5
	SCOP warmer climate (4)		4.4	4.4	4.5	4.6	4.5	4.6	4.6
	ηs,h warmer climate (5)		166%	170%	173%	174%	171%	178%	178%
	ηs,h average climate with EC fan (5)		140%	141%	143%	144%	142%	142%	142%
Technical characteristics									
Power supply			400 V/III/50 HZ with neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088						
	Type of compressor		Hermetic tandem scroll						
	No. circuits/compressors		2/4	2/4	2/4	2/4	2/4	2/4	2/4
	No. power stages		4	4	4	4	4	4	4
Hydraulic circuit	Water flow	m^3/h	28.0	32.4	36.7	40.6	45.2	49.8	54.8
	Type of heat exchanger		Stainless steel brazed plates (standard)/Shell and tube (optional)						
	Hydraulic connections		DN 80	DN 80	DN 80	DN 80	DN 100	DN 100	DN 100
	Buffer tank capacity -vers. H	litres	375						
Outdoor fan	Outdoor airflow	m^3/h	58500	58500	58500	58500	78000	83600	83600
	No. x Type of fan		3 x Axial 800 AC				4 x Axial 800 AC	(2 AC + 2 EC) x Axial 800	
	Fan speed	rpm	900/700	900/700	900/700	900/700	900/700	900/700	900/700
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	57.5	57.7	58	58.3	59.2	59.2	59.2
Weights	Empty weight	kg	1650	1750	1805	1865	2154	2205	2265
	In-service weight	kg	1686	1786	1842	1903	2196	2249	2310

(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Nominal heating capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7ºC DB/6ºC WB.
(9) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

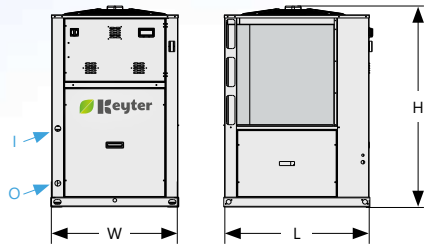
Series 62 - S/P

Series 63 - S/P

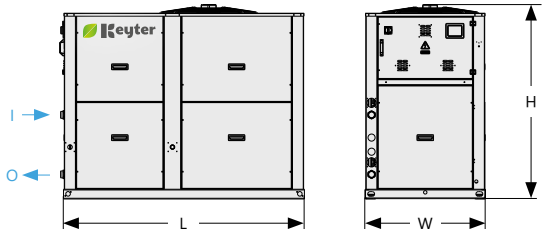
PACIFICA
dimensions

Dimensions of the standard version (S) and the version with hydraulic kit (P):

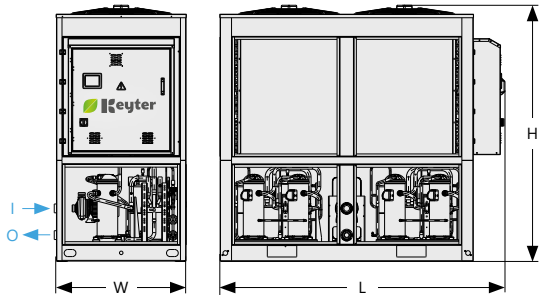
series 2



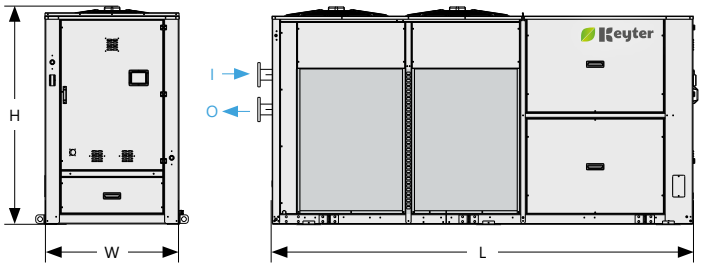
series 3-4



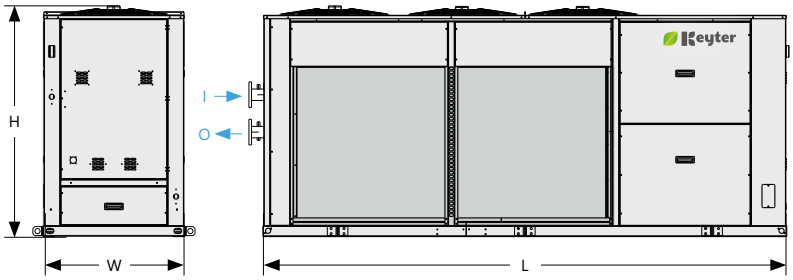
series 5



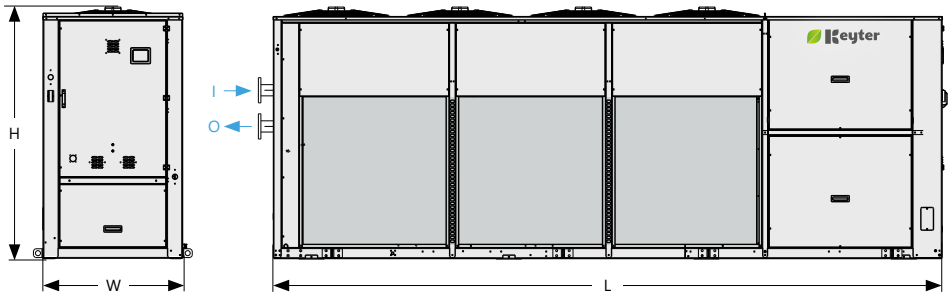
series 6 (models 6130 to 6180)



series 6 (models 6200 to 6270)



series 6 (models 6300 to 6380)

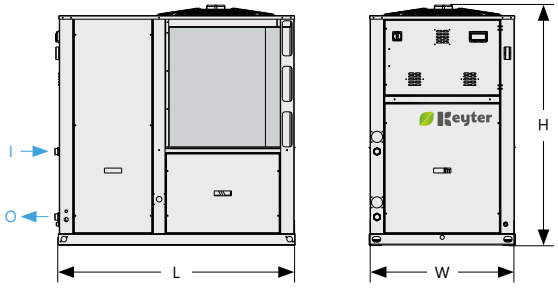


Dimensions of the standard version (S) and the version with hydraulic kit (P)							
	Series 2	Series 3	Series 4	Series 5 (version S)	Series 6 (models 61xx)	Series 6 (models 62xx)	Series 6 (models 63xx)
L	1200	2100	2100	2412	3470	4370	5300
W	1050	1050	1050	1100	1100	1100	1100
H	1725	1395	1695	2176	1795	1795	1995

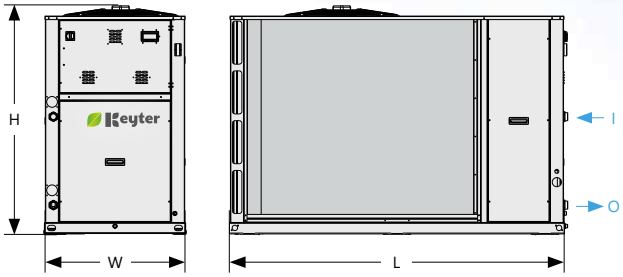
PACIFICA dimensions

Dimensions of version with hydraulic kit and buffer tank (H):

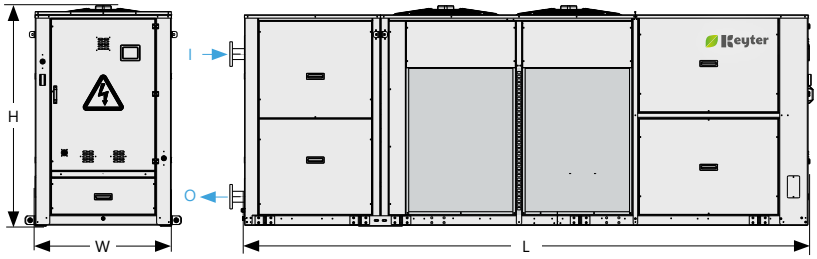
series 2



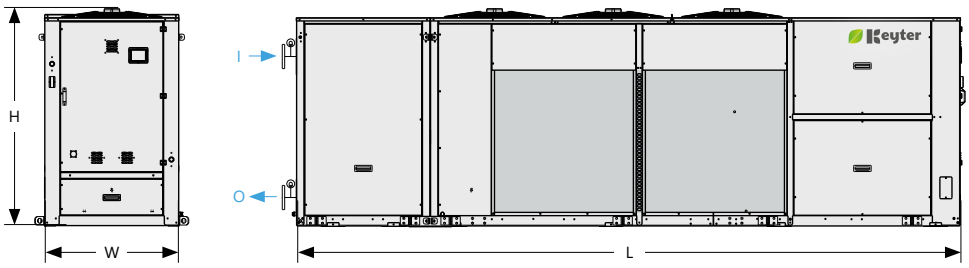
series 3-4



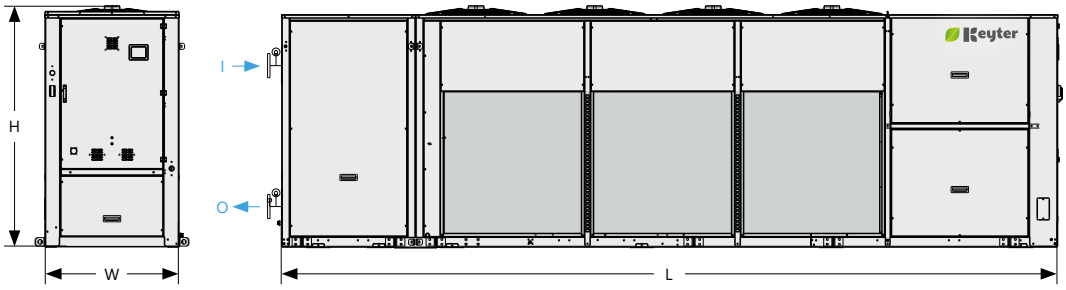
series 6 (models 6130 to 6180)



series 6 (models 6200 to 6270)



series 6 (models 6300 to 6380)



Dimensions of version with hydraulic unit and buffer tank (H)						
	Series 2	Series 3	Series 4	Series 6 (models 61xx)	Series 6 (models 62xx)	Series 6 (models 63xx)
L	1700	2490	2490	4580	5480	6410
W	1050	1050	1050	1100	1100	1100
H	1725	1395	1695	1795	1795	1995

In series 5, the buffer tank is always assembled as an optional independent module.

For the option of an independent module with 375 L capacity buffer tank, see prod. dimensions.
For an independent module with 725 L capacity buffer tank, see module dimensions on page 105.

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 kit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Available with Plate heat exchangers (KWA) or with 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 via removable panels
- Water free-cooling system for free-cooling

Low noise level

- Triple acoustic insulation as option, with compressors insulated by acoustic jacket and mounted in closed structure with sound insulation
- Low speed condensation axial fans and oversized outdoor coils
- Electronic outdoor axial fans with AxiTop diffusers as option resulting in improved efficiency and a very low noise level

Easy control

- CAREL supervision and electronic control with high performance and easy operation
- 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 minimal energy consumption
- Equipment with a hydraulic kit can include high-performance electronic pumps
- NEW hot gas partial and full heat reclaim system for sanitary hot water
- MULTIPIPE units available for simultaneus delivery of cooling and heating

Environment

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

Applications

Industry

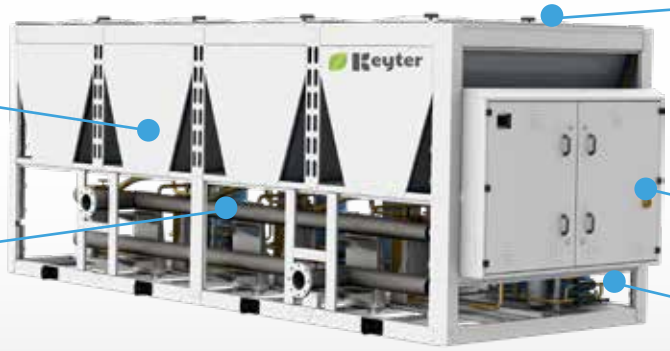
Retail & Shopping centres

Hotels

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 kit.

WA units with plate heat exchanger and WM units with shell and tube heat exchanger and condensing pressure control by frequency drive.

The WA/WM units have triple protection for the heat exchanger, that includes as standard flow switch, water anti-freeze protection and refrigerant anti-freeze protection.

Keyter WA/WM - Version with hydraulic kit (P)

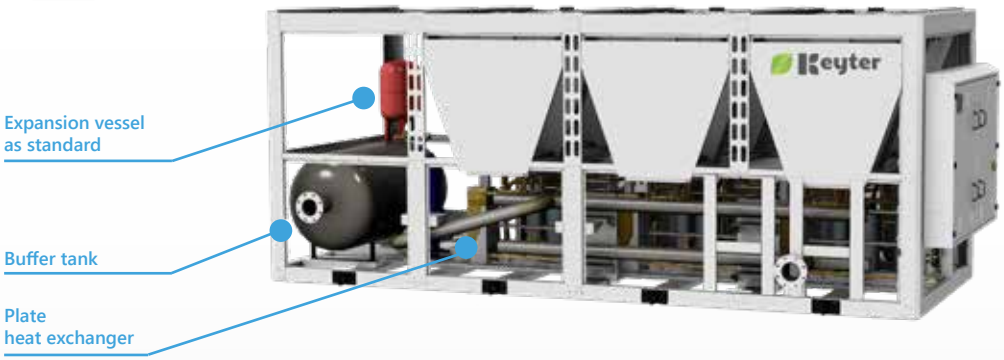
Integrated hydraulic kit composed of a circulation pump suitable for water or glycol water up to 0°C, purge and closing valves, pressure gauges and flow switch.

Low temperature kit is required for water temperatures below 0°C, which requires replacement of the pump and adds electrical heaters on hydraulic elements to operate with water temperature up to -10°C.

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

ATLANTIA
versions

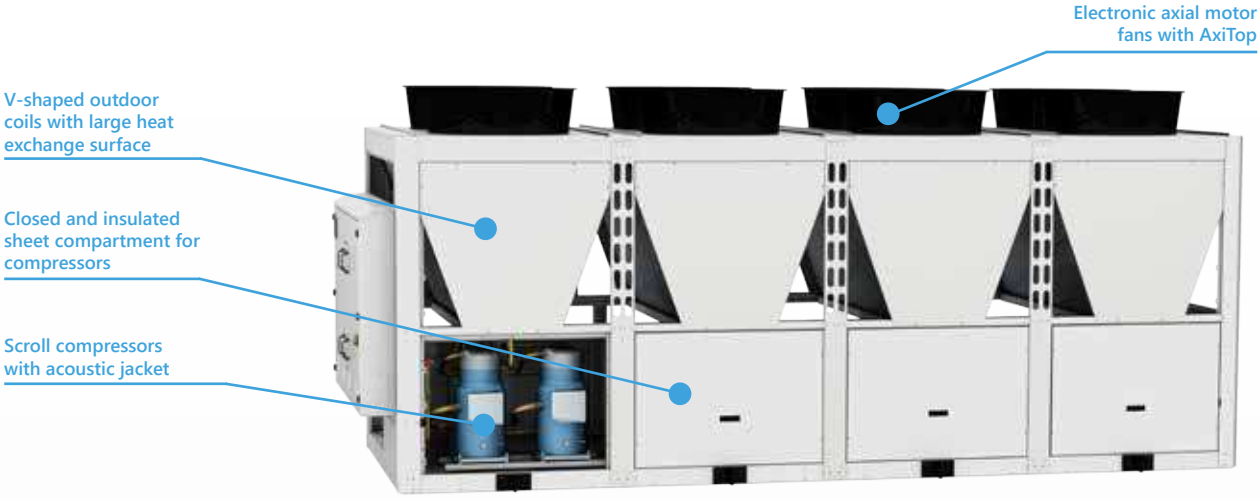
Version H - Hydraulic kit and buffer tank



Hydraulic kit built into the unit composed of a circulation pump suitable for water or glycol water up to 0°C, buffer tank with anti-freeze electrical heaters to reduce compressors short cycling, 50-litre expansion vessel, purge and closing 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 heaters (see module on page 105).

Super Low Noise option



WA/WM 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 unit 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.

ATLANTIA options

		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)	●	●
	EC pump	●	●
	Back-up pump (standard, high and very high pressure)	●	●
Heat exchanger	Stainless steel plate heat exchanger	✓	–
	Shell and tube heat exchanger	–	✓
Hydraulic elements	Low temperature kit in the hydraulic kit	●	●
	Hydraulic inlet and outlet flexible connections	●	●
	Water filter	●	●
Energy			
	Electronic expansion valve	●	●
	Partial/full condensation heat reclaim	●	●
	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			
	AC axial fans	✓	–
	AC axial fans with variable speed drive	●	✓
	Condensing pressure control	✓	✓
	EC axial fans	●	●
	AxiTop diffusers	●	●
Installation			
	Anti-vibration mounts	●	●
	Outdoor condensate drain pan	✓	✓
	Electrical cabinet 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 jacket for compressors	●	●
	Manufacturer's high-performance acoustic jacket for compressors	●	●
	Compressors in open sheet compartment	●	●
	Compressors in fully closed and insulated sheet compartment	●	●
	Insulation of all piping cold lines	●	●
	Anti-freeze electrical heater for low temperatures	●	●
	Coil protection grille	●	●
	Protection grille for access to the unit 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	●	●

✓ Included as standard ● Option – Not applicable

Codification:

KWA [ ] [ ] [ ] [ ] **NS3W**

Series Size Power

I - Reversible heat pump
R - Cooling only

N - Scroll compressor
S - Standard / **P** - Hydraulic kit / **H** - Hydraulic kit with buffer tank
3 - 400 V/III/50 Hz without neutral
W - Refrigerant R410A / **B** - R452B

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 capacity (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 power input (2)	kW	31.9	35.8	47.1	55.3	51.8	61.7	71.6	82.9	94.2	102.4	110.6
	EER (3)	W/W	3.2	3.1	2.9	3.1	3.2	3.1	3.1	3.0	2.9	3.0	3.1
		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	4.7	4.8	4.7	4.8	4.8	4.8	4.6	4.5	4.6	4.8
	SEER (4)		4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.7	4.6	4.8	4.9
	ηs,c (5)		190%	189%	193%	192%	192%	192%	193%	186%	181%	188%	195%
	SEPR (-7ºC) (6)		6.0	5.9	5.6	5.9	6.2	6.0	5.9	5.7	5.5	5.7	5.9
	SEPR (+8ºC) (6)		3.6	3.5	3.4	3.6	3.6	3.6	3.5	3.4	3.3	3.5	3.6
Heat pump version (I)													
Cooling mode	Cooling capacity (1)	kW	100.2	110.4	134.6	168.2	163.9	192.3	220.8	245.0	269.2	302.8	336.4
	Total power input (2)	kW	31.4	36.5	48.0	56.3	52.7	62.8	73.0	84.5	96.0	104.3	112.7
	EER (3)	W/W	3.2	3.0	2.8	3.0	3.1	3.1	3.0	2.9	2.8	2.9	3.0
	ESEER (3)		4.4	4.3	4.2	4.4	4.7	4.7	4.7	4.5	4.4	4.5	4.7
	SEER (4)		5.0	4.7	4.5	4.5	5.0	4.9	4.7	4.5	4.3	4.4	4.5
	ηs,c (5)		198%	186%	176%	177%	198%	191%	186%	176%	168%	173%	177%
Heating mode	Heating capacity (7)	kW	113.3	131.0	162.1	188.8	191.1	226.6	262.0	283.6	305.3	342.7	377.6
	Total power input (2)	kW	27.6	31.9	42.0	49.1	46.5	55.2	63.9	73.9	83.9	92.7	98.1
	COP (3)	W/W	4.1	4.1	3.9	3.8	4.1	4.1	4.1	3.8	3.6	3.7	3.8
	SCOP average climate (4)		4.0	4.0	3.8	3.9	4.2	4.2	4.2	4.0	3.7	3.8	4.0
	ηs,h average climate (5)		151%	153%	146%	147%	159%	160%	161%	150%	142%	145%	152%
Technical characteristics													
Power supply			400 V/III/50 HZ without neutral										
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	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^3/h	17.4	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 brazed plates heat exchanger										
	KWM series type heat exchanger		-	-	-	-	Shell and tube heat exchanger						
	Hydraulic connections		VICTAULIC 3"			VICTAULIC 4"	DN80	DN80	DN80	DN80	DN80	DN100	DN100
Outdoor fan	Outdoor airflow	m^3/h	40500	40500	40500	40500	81000	81000	81000	81000	81000	81000	81000
	No. x Type of fan		2 x Axial 800 AC				4 x Axial 800 AC						
Sound pressure (Lp10) (8)		dB(A)	48	49	49	48	58	59	59	58	58	59	60
Weight KWA series		kg	1260	1280	1320	1380	2325	2400	2450	2485	2510	2605	2640

(1) Nominal cooling capacity for water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Nominal power input 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 capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7ºC DB/6ºC WB.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Electronic control:

Keyter ATLANTIA units include as standard AQUAMANAGER programmable electronic control, specifically developed for the management of air-to-water and water-to-water units with pGD1 user and maintenance terminal.

AQUAMANAGER

pGD1 terminal

ATLANTIA
technical data

ErP 2021

331 - 678 kW

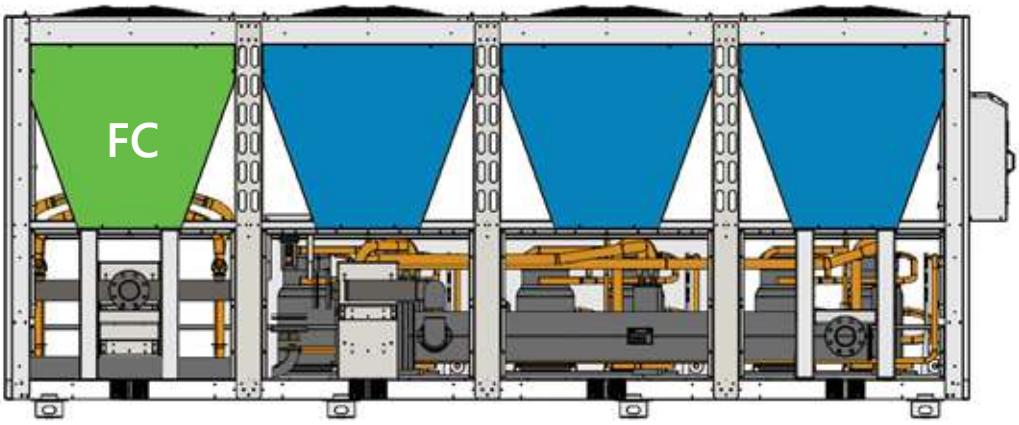
KWA/KWM models			3360	3390	3420	3450	3490	3530	3570	4480	4540	4600	4640	4680	4720	4760
Cooling only version (R)																
Cooling	Cooling capacity (1)	kW	333.7	358.1	382.5	406.8	440.7	474.5	508.3	444.9	493.7	542.5	576.3	610.1	644.0	677.8
		TR	95	102	109	116	125.5	135	144.5	126.5	140.5	154.5	164	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 power input (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
	EER (3)	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
		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 (-7ºC) (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 (+8ºC) (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 capacity (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 power input (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 capacity (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 power input (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 average climate (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 average climate (5)		161%	153%	147%	142%	146%	149%	152%	161%	150%	142%	145%	147%	150%	152%
Technical characteristics																
Power supply			400 V/III/50 HZ without neutral													
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088													
	Type of compressor		Hermetic scroll													
	No. circuits/compressors		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	4/8
	No. power stages		6	6	6	6	6	6	6	8	8	8	8	8	8	8
Hydraulic circuit	Water flow	m^3/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 brazed plates heat exchanger													
	KWM series type heat exchanger		Shell and tube heat exchanger													
	Hydraulic connections		DN100	DN100	DN100	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Outdoor fan	Outdoor airflow	m^3/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 KWA series		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 unit.

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.

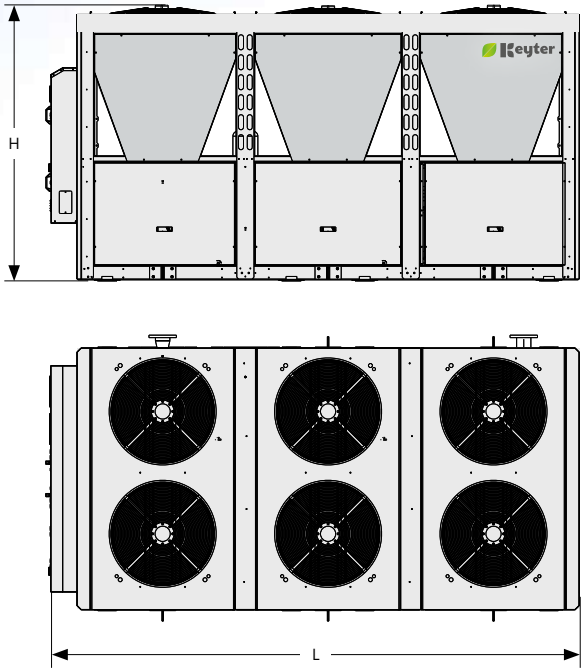
The module includes a three-way valve that sends water from the facility to the unit refrigerant circuit heat exchanger, or to the free-cooling outdoor coil if outdoor conditions are suitable, therefore resulting in a significant reduction in the unit total electricity consumption.

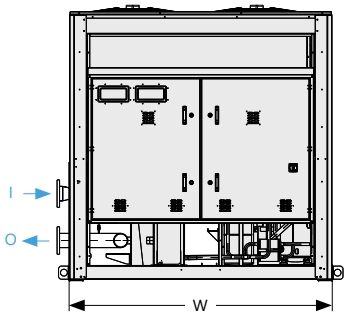


ATLANTIA
dimensions

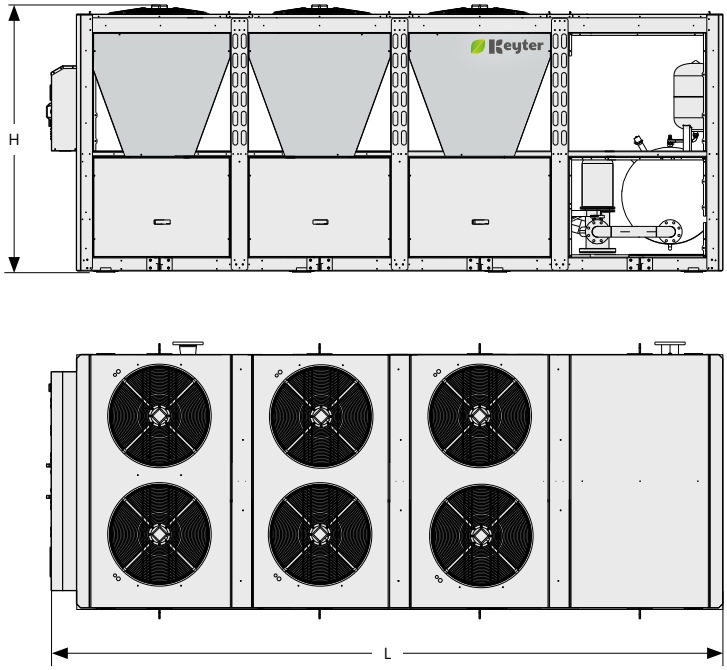
Dimensions:

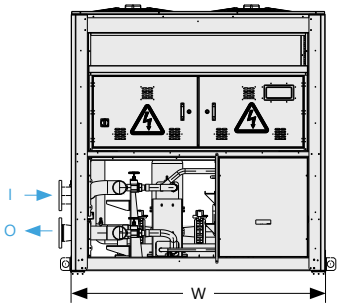
Standard version (S) and version with hydraulic kit (P):





Version with hydraulic kit and buffer tank (H):





Dimensions of the standard version (S) and version with hydraulic kit (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 kit 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 units with hydraulic kit 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 kit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Available with Plate heat exchangers (KWP) or Shell and tube heat exchanger (KWB)
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels

Low noise level

- Triple acoustic insulation as option, with compressors insulated by acoustic jacket and mounted in closed structure with sound insulation
- EC axial fans with AxiTop diffusers as standard, resulting in improved efficiency and a very low noise level

Easy control

- CAREL supervision and electronic control with high performance and easy operation
- 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 with AxiTop and electronic expansion valve as standard for minimal energy consumption
- Equipment with a hydraulic kit can include high-performance electronic pumps
- Hot gas partial and full heat reclaim system for sanitary hot water
- Water free-cooling system for free-cooling

Environment

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

Applications

Industry

Retail & Shopping centres

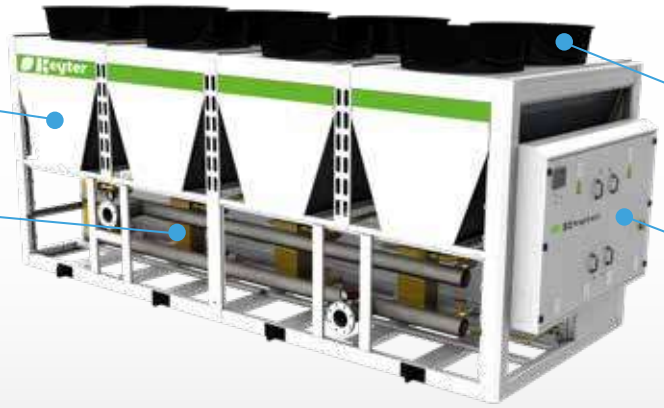
Culture

Hotels

ATLANTIA POWER versions

Keyter ATLANTIA POWER WB

Keyter ATLANTIA POWER WP



Hydraulic versions:

Keyter WB/WP - Standard version (S)

Equipment with no hydraulic kit.

The WB units have triple protection of shell and tube heat exchanger, that includes as standard flow switch, water anti-freeze protection and refrigerant anti-freeze protection.

Keyter WB/WP - Version with hydraulic kit (P)

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

Low temperature kit is required for water temperatures below 0°C, which requires replacement of the pump and adds electrical heater on hydraulic elements to operate with water temperature up to -10°C.

Keyter WB/WP - Version with hydraulic kit and buffer tank (H)

Built-in hydraulic kit, composed of a circulation pump suitable for water or glycol water up to 0°C, buffer tank with anti-freeze electrical heater to reduce compressors short cycling, 50-litre expansion vessel, purge and closing valves, pressure gauges and flow switch.

ATLANTIA POWER
technical data

208 - 831 kW

KWB/KWP models			1240	2400	2420	2480	3620	3670	3720	4810	4860	4910	4960
Cooling only version (R)													
Cooling	Cooling capacity (1)	kW	207.6	351.6	374.2	415.3	540.8	581.9	622.9	707.4	748.4	789.5	830.6
		TR	59	100	106.5	118.5	154	165.5	177.5	201.5	213	224.5	236.5
		kBTU/hr	708.4	1199.7	1276.9	1417.0	1845.2	1985.4	2125.5	2413.6	2553.8	2693.9	2834.1
	Power input (2)	kW	74.3	113.8	131.1	148.7	187.8	205.4	223.0	244.5	262.1	279.7	297.4
	EER (3)	(W/W)	2.8	3.1	2.9	2.8	2.9	2.8	2.8	2.9	2.9	2.8	2.8
		BTU/(Wxhr)	9.5	10.5	9.7	9.5	9.8	9.7	9.5	9.9	9.7	9.6	9.5
	ESEER (3)			4.5	4.3	4.2	4.3	4.2	4.2	4.3	4.3	4.2	4.2
	SEER (4)			5.2	5.2	5.1	5.2	5.1	4.8	5.2	5.1	5.1	4.9
	ηs,c (5)			203%	205%	199%	205%	199%	189%	206%	202%	199%	195%
	Maximum outdoor operating temp.	ºC	+ 45										
Technical characteristics													
Power supply			400 V/III/50 HZ without neutral										
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R410A/2088										
	Type of compressor		Hermetic tandem scroll										
	No. circuits/compressors		2/4	2/4	2/4	2/4	3/6	3/6	3/6	4/8	4/8	4/8	4/8
	No. power stages		4	4	4	4	6	6	6	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	35.8	60.6	64.5	71.5	93.2	100.2	107.3	121.8	128.9	136.0	143.1
	KWB series type heat exchanger		-	Shell and tube									
	KWP series type heat exchanger		Stainless steel brazed plates										
	Hydraulic connections		VICTAULIC 4"	DN100	DN100	DN100	DN125	DN125	DN125	DN150	DN150	DN200	DN200
Outdoor fan	Outdoor airflow	m^3/h	48000	98000	98000	98000	147000	147000	147000	196000	196000	196000	196000
	Type of fan		Axial EC with AxiTop										
	No. x Fan diameter		2 x 800	4 x 800			6 x 800			8 x 800 AC			
Equipment sound pressure of Lp10 (6)		dB(A)	60	53	54	53	57	56	56	56	59	58	59
Weights	Empty weight	kg	1520	2905	2945	3055	4060	4095	4120	5210	5240	5280	5335

(1) Nominal cooling capacity with a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Nominal power input by compressors and outdoor fans.
(3) EER and ESEER calculated based on standard EN 14511-2013.
(4) Seasonal Energy Efficiency Ratio for cooling factor calculated based on standard EN 14825:2013.
(5) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(6) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Electronic control:

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

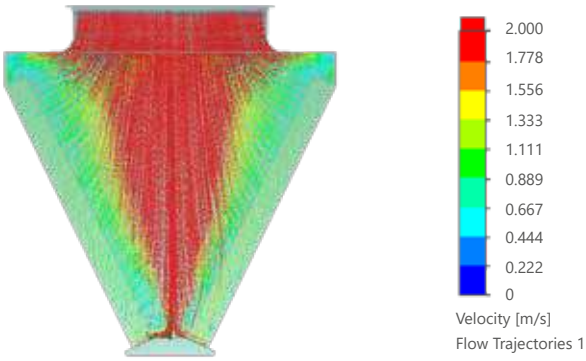
AQUAMANAGER

pGD1 terminal

Innovation and latest technology

Keyter Technologies is developing its products and researching and integrating trends and new developments to improve products and their energy efficiency.

To do so, and within an R&D&I effort that is constantly being developed in collaboration with technology centres and universities, studies have been conducted with dynamic simulation tools to perform a detailed in-depth analysis during the equipment design phase, resulting in an optimised design in terms of performance and energy efficiency.



Air velocity analysis in the coil of the unit

ATLANTIA POWER
options

		KWB	KWP
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	–	✓
	Shell and tube heat exchanger	✓	–
Hydraulic elements	Low temperature kit in the hydraulic circuit	●	●
	Hydraulic inlet and outlet flexible connections	●	●
	Water filter	●	●
Energy			
	Electronic expansion valve	✓	✓
	Partial/full condensation heat reclaim	●	●
	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			
	Condensing pressure control	✓	✓
	EC axial fans	✓	✓
	AxiTop diffusers	✓	✓
Installation			
	Anti-vibration mounts	●	●
	Outdoor condensate drain pan	✓	✓
	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	●	●
	Electrical cabinet ventilation	✓	✓
	Acoustic jacket for compressors	●	●
	Manufacturer's high-performance acoustic jacket for compressors	●	●
	Compressors in open sheet compartment	●	●
	Compressors in fully closed and insulated sheet compartment	●	●
	Insulation of all piping cold lines	●	●
	Anti-freeze electrical heater for low temperatures	●	●
	Coil protection grille	●	●
	Protection grille for access to the unit 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	●	●

✓ Included as standard ● Option – Not applicable

Codification:

KWB [ ] [ ][ ][ ] **NS3W**

Series **Size** **Power**

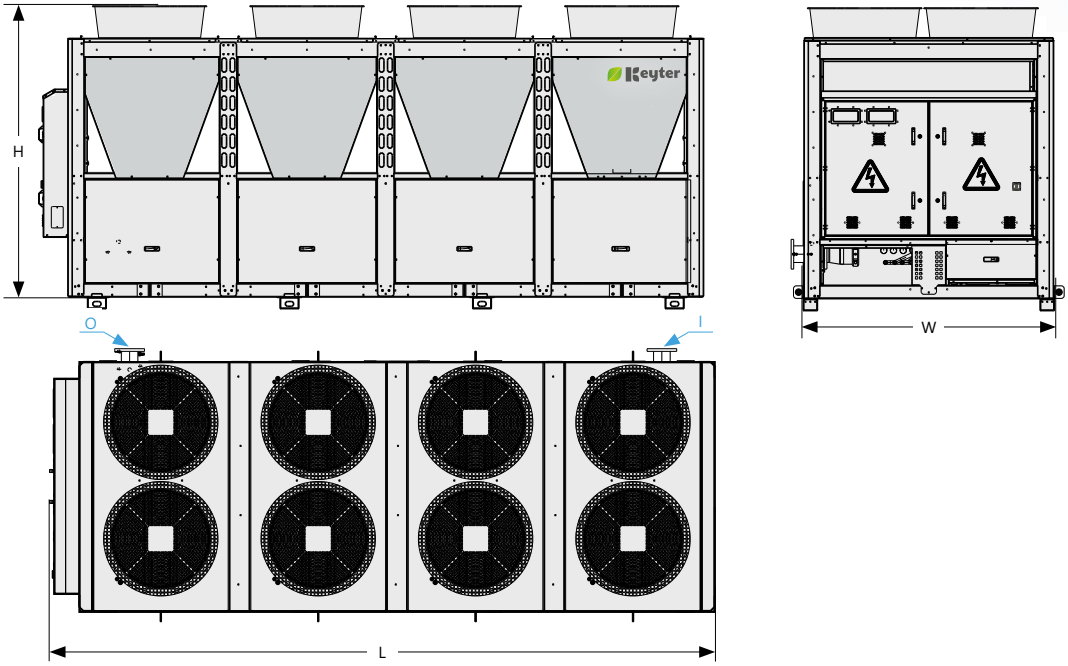
I - Reversible heat pump
R - Cooling only

N - Scroll compressor
S - Standard / **P** - Hydraulic kit / **H** - Hydraulic kit with buffer tank
3 - 400 V/III/50 Hz without neutral
W - Refrigerant R410A / **B** - R452B

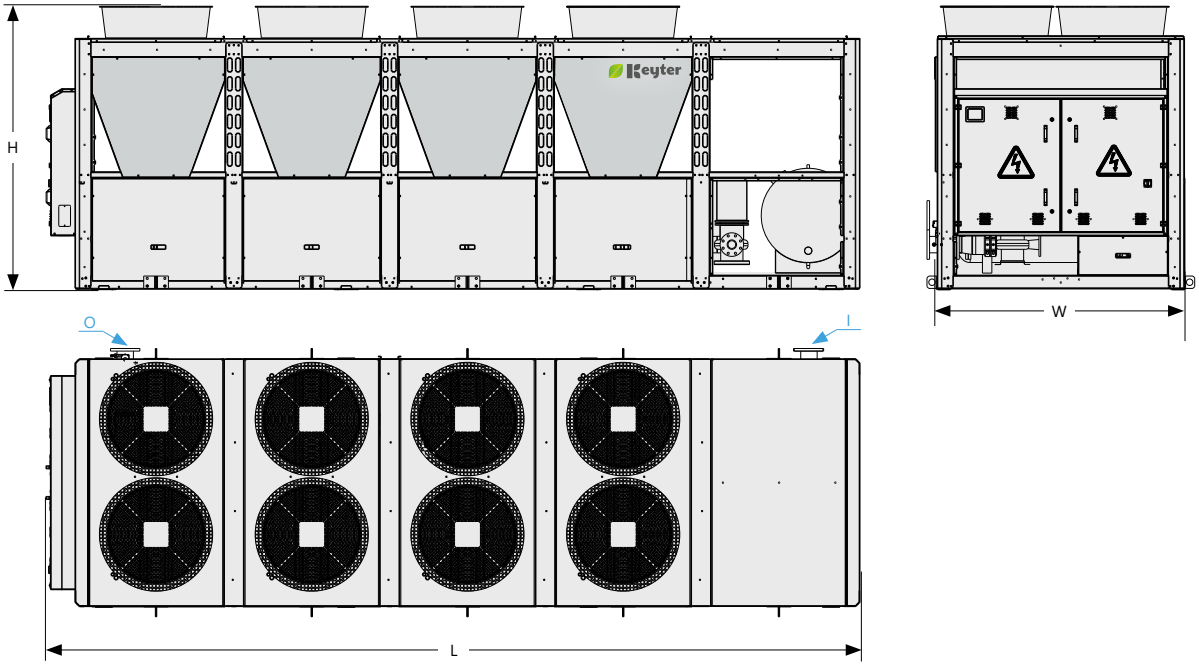
ATLANTIA POWER dimensions

Dimensions:

Standard version (S) and version with hydraulic kit (P):



Version with hydraulic kit and buffer tank (H):



Dimensions of the standard version (S) and version with hydraulic kit (P) (mm)				
	Series 1	Series 2	Series 3	Series 4
L	1100	2950	4272	5615
W	2100	2100	2100	2100
H	2500	2450	2450	2450
Dimensions of version with hydraulic kit and buffer tank (H) (mm)				
	Series 1	Series 2	Series 3	Series 4
L	-	4273	5596	6925
W	-	2100	2100	2100
H*	-	2450	2450	2450

*AxiTop is a removable component. The height of the unit without AxiTop is 2250 mm.

The buffer tank of models series 1 with hydraulic kit + buffer tank option, is mounted in a separate module.

PANGEA

CHILLERS
air-to-water, screw

214 - 1642 kW

Screw | EC | Inverter | 50 Hz 60 Hz

ACS

R134a | R513A | R450A | R1234ze

Adaptation and Versatility

- NEW available in 5 different VERSIONS to suit the project requirements
- Equipped with a direct action screw compressor and low speed and with the latest generation shell and tube heat exchangers
- Wide operating range of units available up to an outdoor temperature of 55°C
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels

Low noise level

- Low speed condensation axial fans and oversized outdoor coils
- EC axial fans with AxiTop diffusers as option, resulting in improved efficiency and a very low noise level
- NEW available in version with "X" AxiBlade system for a very low noise level, reducing up to 8 dB(A)

Easy control

- Electronic regulation and SIEMENS 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
- NEW inverter screw compressor available as an option for maximum energy efficiency
- Electronic fans and electronic expansion valve for minimal energy consumption
- Hot gas partial heat reclaim system with plate heat exchanger for sanitary hot water

Environment

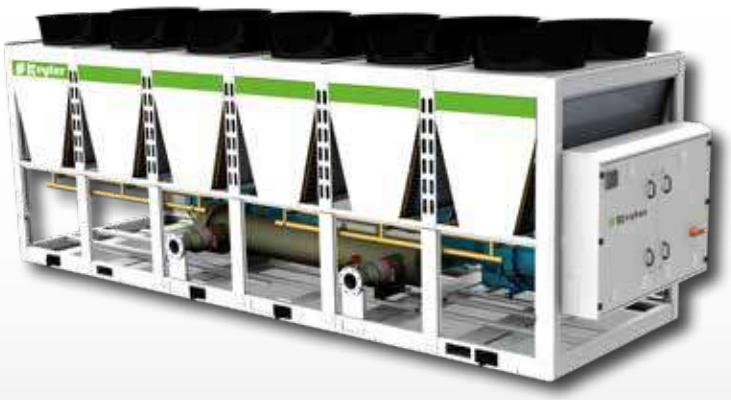
- Optimised design for reduced refrigerant charge R-134a and low GWP refrigerants
- NEW availability of unit with low GWP refrigerants R-513A (ODP 0, GWP 573) and R-450A (ODP 0, GWP 574)
- NEW PANGEA ECO availability of unit with low GWP refrigerant R-1234ze (ODP 0, GWP <1)

Applications

Industry | Retail & Shopping centres | Culture | Hotels

PANGEA versions

Keyter PANGEA WT, versions H and V



version H

High Efficiency

Compact units

Axial fan, 800 EC + AxiTop

Version V

Very High Efficiency

Oversized condensing coils

Axial fan, 800 EC + AxiTop

Keyter PANGEA WT, version X

Version X

EXtra High Efficiency

Very low sound level

Oversized condensing coils

Axial fan 860, AxiBlade

Keyter PANGEA WT, versions S and L

Version S

Standard Efficiency

Compact units

Axial fan, 800 AC

Version L

Smart Efficiency

Oversized condensing coils

Axial fan, 800 AC

PANGEA
options

		VERSION S	VERSION H	VERSION L	VERSION V	VERSION X
Hydraulic						
Pumps	Single pump (standard, high and very high pressure available)	●	●	●	●	●
	Pump with variable speed drive	●	●	●	●	●
	Back-up pump (standard, high and very high pressure)	●	●	●	●	●
Heat exchanger	Shell and tube heat exchanger	✓	✓	✓	✓	✓
	Low temperature kit in the hydraulic kit	●	●	●	●	●
Hydraulic elements	Victaulic adaptor - Flange	●	●	●	●	●
	Water filter	●	●	●	●	●
Energy						
	Electronic expansion valve	✓	✓	✓	✓	✓
	Screw compressors with inverter technology	●	●	●	●	●
	Partial/full condensation heat reclaim	●	●	●	●	●
	Built-in free-cooling via an outdoor coil, external sensor and three-way valve	●	●	●	●	●
Anti-corrosion						
Coils	BLUECOAST: Copper tubes/Alumin. fins pre-lacquered with polyurethane (hydrophilic)	●	●	●	●	●
	ALUCOAST: Copper tubes/Aluminium fins, high strength (hydrophilic)	●	●	●	●	●
	GREYCOAST: Copper tubes/Alumin. fins pre-lacquered with polymer (hydrophobic)	●	●	●	●	●
	BLYGOLD: Copper tubes/Aluminium fins with Blygold coating	●	●	●	●	●
	COPPERFIN: Copper tubes/Copper fins	●	●	●	●	●
Fans						
Outdoor fans	Condensing pressure control	✓	✓	✓	✓	✓
	AC axial fans	✓	–	✓	–	–
	EC axial fans with AxiTop	–	✓	–	✓	–
	EC AxiBlade axial fans	–	–	–	–	✓
Installation						
Anti-vibration	Anti-vibration mounts	●	●	●	●	●
Condensate pan	Outdoor condensate drain pan	✓	✓	✓	✓	✓
Electrical cabinet	Electrical cabinet ventilation	✓	✓	✓	✓	✓
Electric power supply	220 V / III ph / 60Hz; 380 V / III ph / 60Hz; 400 V / III ph / 60Hz; 460 V / III ph / 60Hz	●	●	●	●	●
	Other electrical voltages (consult)	●	●	●	●	●
Insulation	Compressors in fully closed sheet compartment	●	●	●	●	●
	Acoustic insulation of the compressor chamber	●	●	●	●	●
	Thermal insulation	✓	✓	✓	✓	✓
	Insulation of all piping cold lines	●	●	●	●	●
	Acoustic jacket for compressors	●	●	●	●	●
	Manufacturer's high-performance acoustic jacket for compressors	●	●	●	●	●
Low temperature	Anti-freeze electrical heater for low temperatures	●	●	●	●	●
Protection grilles	Coil protection grille	●	●	●	●	●
	Protection grille for access to the unit perimeter	●	●	●	●	●
Control						
	Programmable AQUAMATIX control (Siemens Climatix control)	✓	✓	✓	✓	✓
	Climatix HMI user terminal for AQUAMATIX control	✓	✓	✓	✓	✓
	RS485 communication interface for ModBus communication	✓	✓	✓	✓	✓
	Bacnet/Lonworks communication	●	●	●	●	●
	Energy meter	●	●	●	●	●

✓ Included as standard ● Option – Not applicable

Codification:

KWT [ ] [ ] [ ] [ ] [ ] **NS3Y**

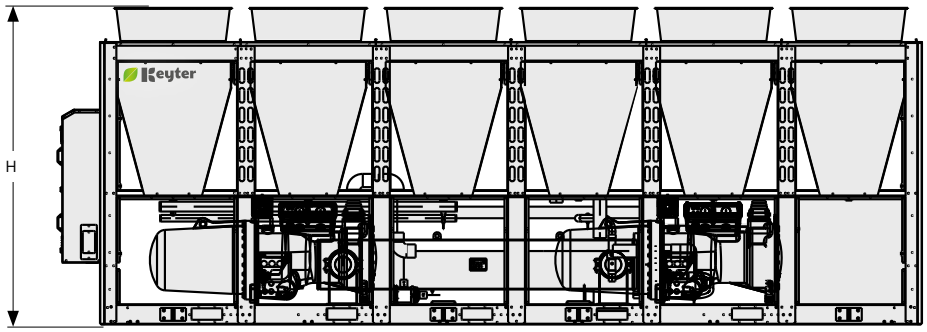
Series **Size** **Power**

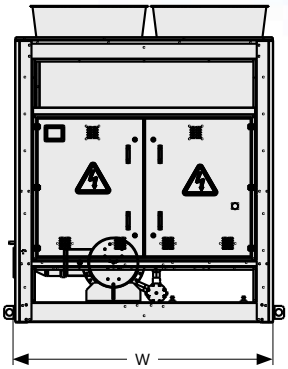
Version (S/H/L/V/X)

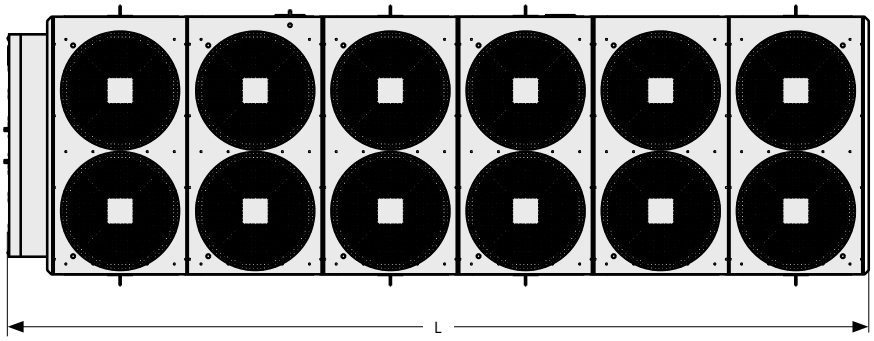
N - Standard screw compressor / **V** - Inverter screw compressor
S - Hydraulic version
S - standard / **P** - Hydraulic kit
3 - 400 V/III/50 Hz without neutral
Y - R134a / **E** - R1234ze / **T** - R513A

PANGEA dimensions

Dimensions (standard units without hydraulic kit):







Dimensions (versions S and H) in mm									
	Series 2	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series X
L	2550	3650	4750	5850	6950	8050	9150	10250	11350
W					2100				
H - version S (without AxiTop)					2375				
H - version H					2575				

Dimensions of Versions L, V and X (mm)									
	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series X0	Series X2
L	3650	4750	5850	6950	8050	9150	10250	11350	13550
W					2100				
H - version L (without AxiTop)					2375				
H - version V					2575				
H - version X					2635				

AxiTop, standard for versions H and V, is a removable component and can be mounted during works.
In version S and L units with the AxiTop option, it is necessary to consider a height increase of 200 mm.
The hydraulic kit option with pump is delivered as an independent module (please see technical documentation).

Electronic control:

Keyter PANGEA units include as standard AQUAMATIX programmable electronic control (Siemens Climatix control), specifically developed for the management of air-to-water and water-to-water units, with Climatix HMI user terminal.

AQUAMATIX

Climatix HMI terminal

PANGEA version S technical data

282 - 1581 kW

KWT models - VERSION S			2075	3100	3125	4150	4160	5175	6210	6240	6260
Cooling only version (R)											
Cooling capacity		kW (1)	282.1	374.4	464.9	527.1	564.2	657.4	748.7	839.3	929.9
		TR (2)	75	100	125	150	160	175	210	240	260
		kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120
Power input (3)		kW	113.4	155.2	186.7	221.0	226.6	268.5	310.9	342.2	373.9
EER (4)		W/W	2.5	2.4	2.5	2.4	2.5	2.4	2.4	2.5	2.5
		BTU/(Wxhr)	7.9	7.7	8.0	8.1	8.5	7.8	8.1	8.4	8.3
SEER (5)			4.1	4.0	4.1	4.0	4.1	4.4	4.3	4.4	4.4
ηs,c (6)			155%	152%	155%	151%	155%	166%	165%	167%	168%
IPLV (7)		BTU/(Wxhr)	17.0	16.3	17.0	16.0	17.0	16.7	16.3	16.7	17.0
Maximum outdoor temperature		ºC	41	44	43	43	41	41	43	43	43
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8	8
Hydraulic circuit	Water flow	m³/h	48.6	64.5	80.1	90.8	97.2	113.2	129.0	144.6	160.2
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m³/h	80000	120000	120000	160000	160000	200000	240000	240000	240000
	Type - fan diameter		Axial, 800 AC								
	Number of fans		4	6	6	8	8	10	12	12	12
Sound pressure (Lp10) (8)		dB(A)	60	61	60	64	63	63	66	65	66
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950	6950
	Width	mm	2100								
	Height	mm	2375								
Weight		kg	2650	3660	3680	4670	4700	5725	6765	6785	6800

KWT models - VERSION S			7280	8300	9320	9350	9375	9400	X040	X045
Cooling only version (R)										
Cooling capacity		kW (1)	992.1	1054.4	1122.7	1212.6	1304.0	1394.4	1457.0	1581.4
		TR (2)	280	300	320	350	375	400	400	450
		kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400
Power input (3)		kW	408.0	441.6	466.0	497.8	528.7	560.2	594.6	655.8
EER (4)		W/W	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4
		BTU/(Wxhr)	16.7	16.0	16.3	16.7	17.0	17.0	16.7	16.3
SEER (5)			4.3	4.3	4.6	4.6	4.7	4.7	4.7	4.6
ηs,c (6)			166%	164%	176%	177%	179%	180%	178%	176%
IPLV (7)		BTU/(Wxhr)	0.49	0.47	0.48	0.49	0.50	0.50	0.49	0.48
Maximum outdoor temperature		(ºC)	43	43	43	43	43	43	43	43
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1345							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	No. power stages		8	8	12	12	12	12	12	12
Hydraulic circuit	Water flow	m³/h	170.9	181.6	193.4	208.9	224.6	240.2	251.0	272.4
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m³/h	280000	320000	360000	360000	360000	360000	400000	400000
	Type - fan diameter	mm	Axial, 800 AC							
	Number of fans		14	16	18	18	18	18	20	20
Sound pressure (Lp10) (8)		dB(A)	69	60	61	60	64	63	63	66
Dimensions	Length	mm	8050	9150	10250	10250	10250	10250	11350	11350
	Width	mm	2100							
	Height	mm	2375							
Weight		kg	7820	8845	9925	9940	9965	9985	10900	11050

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Cooling capacity under AHRI conditions.
(3) Nominal power input by compressors and outdoor fans.
(4) EER calculated based on EN 14511.
(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.
(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

PANGEA version H technical data

294 - 1642 kW

KWT models - VERSION H			2075	3100	3125	4150	4160	5175	6210	6240	6260
Cooling only version (R)											
Cooling capacity		kW (1)	294.0	388.3	483.4	547.3	587.8	683.2	776.6	871.7	967.1
		TR (2)	75	100.0	125.0	150	160	175	210	240	260
		kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120
Power input (3)		kW	106.9	145.2	176.8	208.5	213.5	252.0	290.9	322.4	354.1
EER (4)		W/W	2.8	2.7	2.7	2.6	2.8	2.7	2.7	2.7	2.7
		BTU/(Wxhr)	8.4	8.3	8.5	8.6	9.0	8.3	8.7	8.9	8.8
SEER (5)			4.3	4.3	4.3	4.2	4.3	4.6	4.6	4.6	4.6
ηs,c (6)			166%	163%	165%	161%	166%	177%	175%	177%	178%
IPLV (7)		BTU/(Wxhr)	19.7	19.0	19.4	18.4	19.7	19.4	18.7	19.0	19.4
Maximum outdoor temperature		(ºC)	46	48	48	48	46	46	48	48	48
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8	8
Hydraulic circuit	Water flow	m³/h	50.6	66.9	83.3	94.3	101.2	117.7	133.8	150.2	166.6
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
	Outdoor airflow	m³/h	96000	144000	144000	192000	192000	240000	288000	288000	288000
Outdoor fan	Type - fan diameter	mm	Axial 800 EC + AxiTop								
	Number of fans		4	6	6	8	8	10	12	12	12
Sound pressure (Lp10) (8)		dB(A)	57	58	57	61	60	60	63	62	63
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950	6950
	Width	mm	2100								
	Height	mm	2575								
Weight		kg	2650	3660	3680	4670	4700	5725	6765	6785	6800

KWT models - VERSION H			7280	8300	9320	9350	9375	9400	X040	X045
Cooling only version (R)										
Cooling capacity		kW (1)	1031.0	1094.9	1164.4	1259.0	1355.0	1450.1	1514.5	1642.3
		TR (2)	280	300	320	350	375	400	400	450
		kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400
Power input (3)		kW	385.7	416.8	436.0	467.9	499.0	530.6	562.4	619.3
EER (4)		W/W	2.7	2.6	2.7	2.7	2.7	2.7	2.7	2.7
		BTU/(Wxhr)	8.7	8.6	8.8	9.0	9.0	9.0	8.5	8.7
SEER (5)			4.6	4.5	4.9	4.9	4.9	4.9	4.9	4.9
ηs,c (6)			175%	174%	187%	188%	189%	189%	188%	186%
IPLV (7)		BTU/(Wxhr)	19.0	18.4	18.7	19.0	19.4	19.4	19.0	18.7
Maximum outdoor temperature		(ºC)	48	48	48	48	48	47	47	47
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1345							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	No. power stages		8	8	12	12	12	12	12	12
Hydraulic circuit	Water flow	m³/h	177.6	188.6	200.6	216.9	233.4	249.8	260.9	282.9
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
	Outdoor airflow	m³/h	336000	384000	432000	432000	432000	432000	480000	480000
Outdoor fan	Type - fan diameter	mm	Axial 800 EC + AxiTop							
	Number of fans		14	16	18	18	18	18	20	20
Sound pressure (Lp10) (8)		dB(A)	66	57	58	57	61	60	60	63
Dimensions	Length	mm	8050	9150	10250	10250	10250	10250	11350	11350
	Width	mm	2100							
	Height	mm	2575							
Weight		kg	7820	8845	9925	9940	9965	9985	10900	11050

PANGEA version L technical data

334 - 1565 kW

KWT models - VERSION L			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	333.6	411.2	521.2	594.3	669.7	743.7	822.4	937.0
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	103.5	143.2	175.8	202.6	204.3	248.5	286.5	320.8
EER (4)		W/W	3.2	2.9	3.0	2.9	3.3	3.0	2.9	2.9
		BTU/(Wxhr)	10.4	10.1	10.6	10.1	10.6	9.7	9.4	9.4
SEER (5)			4.8	4.5	4.6	4.8	5.2	4.9	4.8	4.8
ηs,c (6)			185%	170%	174%	186%	200%	188%	183%	185%
IPLV (7)		BTU/(Wxhr)	24.1	20.7	21.8	21.4	24.8	22.1	20.7	21.4
Maximum outdoor temperature		(ºC)	47	47	47	47	47	47	47	47
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	57.5	70.8	89.8	102.4	115.3	128.1	141.7	161.4
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	120000	160000	160000	200000	240000	280000	320000	320000
	Type - fan diameter	mm	Axial, 800 AC							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	59	60	59	63	62	62	65	64
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2375							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION L			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1043.5	1119.7	1184.7	1238.7	1349.9	1452.1	1565.2
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	352.9	379.0	408.5	429.8	467.3	498.0	529.3
EER (4)		W/W	3.0	3.0	2.9	2.9	2.9	2.9	3.0
		BTU/(Wxhr)	9.7	9.5	9.7	9.8	9.5	9.6	9.7
SEER (5)			4.9	5.2	5.1	5.1	5.1	5.1	5.2
ηs,c (6)			187%	198%	196%	195%	196%	197%	198%
IPLV (7)		BTU/(Wxhr)	21.76	21.76	21.08	20.74	21.08	21.08	21.76
Maximum outdoor temperature		(ºC)	47	47	46	46	46	46	46
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	179.7	192.9	204.1	213.4	232.5	250.1	269.6
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	320000	360000	400000	480000	480000	480000	480000
	Type - fan diameter	mm	Axial, 800 AC						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	65	68	59	60	59	63	65
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2375						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Cooling capacity under AHRI conditions.
(3) Nominal power input by compressors and outdoor fans.
(4) EER calculated based on EN 14511.
(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.
(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

PANGEA version V technical data

344 - 1617 kW

KWT models - VERSION V			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	344.1	424.1	538.4	613.1	690.2	767.6	848.3	967.4
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	97.7	133.8	166.5	191.4	192.9	233.1	267.5	301.9
EER (4)		W/W	3.5	3.2	3.2	3.2	3.6	3.3	3.2	3.2
		BTU/(Wxhr)	11.1	10.8	11.2	10.7	11.2	10.3	10.1	9.9
SEER (5)			5.1	4.8	4.8	5.1	5.5	5.2	5.1	5.1
ηs,c (6)			197%	182%	185%	197%	212%	200%	195%	197%
IPLV (7)		BTU/(Wxhr)	27.2	23.8	24.5	24.1	27.5	24.8	23.8	24.1
Maximum outdoor temperature		(ºC)	49	49	49	49	49	49	49	49
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	59.3	73.1	92.7	105.6	118.9	132.2	146.1	166.6
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	144000	192000	192000	240000	288000	336000	384000	384000
	Type - fan diameter	mm	Axial 800 EC + AxiTop							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	53	54	53	57	56	56	59	58
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2575							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION V			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1078.1	1155.7	1222.5	1277.6	1393.7	1499.8	1617.2
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	334.3	358.5	385.9	401.4	438.8	469.8	501.4
EER (4)		W/W	3.2	3.2	3.2	3.2	3.2	3.2	3.2
		BTU/(Wxhr)	10.2	10.0	10.3	10.5	10.1	10.2	10.3
SEER (5)			5.1	5.4	5.4	5.4	5.4	5.4	5.4
ηs,c (6)			197%	209%	207%	207%	207%	208%	209%
IPLV (7)		BTU/(Wxhr)	24.14	24.14	23.80	23.80	23.80	23.80	24.14
Maximum outdoor temperature		(ºC)	49	49	49	49	49	49	48
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	185.7	199.1	210.6	220.1	240.1	258.3	278.6
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	384000	432000	480000	576000	576000	576000	576000
	Type - fan diameter	mm	Axial 800 EC + AxiTop						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	59	62	53	54	53	57	59
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2575						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

PANGEA version X technical data

R134a ErP 2021

345 - 1620 kW

KWT models - VERSION X			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	344.6	424.8	539.5	614.1	691.1	768.9	849.6	969.1
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	96.9	132.4	165.0	189.6	191.3	230.8	264.7	299.0
EER (4)		W/W	3.6	3.2	3.3	3.2	3.6	3.3	3.2	3.2
		BTU/(Wxhr)	11.1	10.9	11.3	10.8	11.3	10.4	10.2	10.0
SEER (5)			5.1	4.8	4.9	5.1	5.5	5.2	5.1	5.2
ηs,c (6)			198%	184%	186%	198%	213%	202%	197%	198%
IPLV (7)		BTU/(Wxhr)	27.5	24.1	24.8	24.5	27.9	25.2	24.1	24.5
Maximum outdoor temperature		(ºC)	52	52	52	52	52	52	52	52
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	59.4	73.2	92.9	105.8	119.0	132.4	146.3	166.9
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	162000	216000	216000	270000	324000	378000	432000	432000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	55	56	55	59	58	58	61	60
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2635							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION X			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1080.2	1157.7	1224.6	1279.6	1396.2	1502.7	1620.3
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	331.2	355.1	382.3	397.2	434.4	465.3	496.8
EER (4)		W/W	3.3	3.3	3.2	3.2	3.2	3.2	3.3
		BTU/(Wxhr)	10.3	10.1	10.4	10.6	10.2	10.3	10.4
SEER (5)			5.2	5.5	5.4	5.4	5.4	5.4	5.5
ηs,c (6)			199%	210%	208%	209%	209%	209%	210%
IPLV (7)		BTU/(Wxhr)	24.48	24.48	24.14	24.14	24.14	24.14	24.48
Maximum outdoor temperature		(ºC)	52	52	52	52	52	52	52
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	186.1	199.4	210.9	220.4	240.5	258.8	279.1
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	432000	486000	540000	648000	648000	648000	648000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	61	64	55	56	55	59	61
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2375						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Cooling capacity under AHRI conditions.
(3) Nominal power input by compressors and outdoor fans.
(4) EER calculated based on EN 14511.
(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.
(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

PANGEA version S technical data

282 - 1578 kW

KWT models - VERSION S			2075	3100	3125	4150	4160	5175	6210	6240	6260
Cooling only version (R)											
Cooling capacity		kW (1)	281.6	373.6	463.9	526.0	563.0	656.1	747.2	837.6	928.1
		TR (2)	75	100	125	150	160	175	210	240	260
		kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120
Power input (3)		kW	117.9	161.4	194.2	229.8	235.7	279.2	323.2	356.0	388.9
EER (4)		W/W	2.4	2.3	2.4	2.3	2.4	2.3	2.3	2.4	2.4
		BTU/(Wxhr)	7.6	7.4	7.7	7.8	8.1	7.5	7.8	8.1	8.0
SEER (5)			4.0	3.9	4.0	3.9	4.0	4.3	4.2	4.3	4.3
ηs,c (6)			151%	148%	151%	147%	151%	162%	161%	163%	164%
IPLV (7)		BTU/(Wxhr)	16.0	15.6	16.0	15.3	16.0	15.6	15.3	15.6	16.0
Maximum outdoor temperature		ºC	41	44	43	43	41	41	43	43	43
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	48.5	64.4	79.9	90.6	97.0	113.0	128.7	144.3	159.9
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	80000	120000	120000	160000	160000	200000	240000	240000	240000
	Type - fan diameter		Axial, 800 AC								
	Number of fans		4	6	6	8	8	10	12	12	12
Sound pressure (Lp10) (8)		dB(A)	60	61	60	64	63	63	66	65	66
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950	6950
	Width	mm	2100								
	Height	mm	2375								
Weight		kg	2650	3660	3680	4670	4700	5725	6765	6785	6800

KWT models - VERSION S			7280	8300	9320	9350	9375	9400	X040	X045
Cooling only version (R)										
Cooling capacity		kW (1)	990.1	1052.3	1120.4	1210.2	1301.3	1391.6	1454.1	1578.3
		TR (2)	280	300	320	350	375	400	400	450
		kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400
Power input (3)		kW	424.4	459.3	484.6	517.7	550.0	582.8	618.6	682.4
EER (4)		W/W	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3
		BTU/(Wxhr)	7.9	7.8	7.9	8.1	8.2	8.2	7.8	7.9
SEER (5)			4.2	4.2	4.5	4.5	4.6	4.6	4.6	4.5
ηs,c (6)			162%	160%	172%	174%	175%	176%	174%	173%
IPLV (7)		BTU/(Wxhr)	15.6	15.6	15.3	15.6	16.0	16.0	15.6	15.3
Maximum outdoor temperature		(ºC)	43	43	43	43	43	43	43	43
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	No. power stages		8	8	12	12	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	170.5	181.3	193.0	208.5	224.2	239.7	250.5	271.9
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	280000	320000	360000	360000	360000	360000	400000	400000
	Type - fan diameter	mm	Axial, 800 AC							
	Number of fans		14	16	18	18	18	18	20	20
Sound pressure (Lp10) (8)		dB(A)	69	60	61	60	64	63	63	66
Dimensions	Length	mm	8050	9150	10250	10250	10250	10250	11350	11350
	Width	mm	2100							
	Height	mm	2375							
Weight		kg	7820	8845	9925	9940	9965	9985	10900	11050

PANGEA version H technical data

293 - 1639 kW

KWT models - VERSION H			2075	3100	3125	4150	4160	5175	6210	6240	6260
Cooling only version (R)											
Cooling capacity		kW (1)	293.4	387.5	482.5	546.3	586.6	681.8	775.0	870.0	965.2
		TR (2)	75	100	125	150	160	175	210	240	260
		kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120
Power input (3)		kW	111.2	151.0	184.0	216.9	222.1	262.1	302.5	335.4	368.4
EER (4)		W/W	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6
		BTU/(Wxhr)	8.1	7.9	8.2	8.3	8.6	8.0	8.3	8.6	8.5
SEER (5)			4.2	4.2	4.2	4.1	4.2	4.5	4.5	4.5	4.5
ηs,c (6)			161%	158%	161%	156%	161%	172%	171%	172%	173%
IPLV (7)		BTU/(Wxhr)	18.7	18.0	18.4	17.3	18.7	18.0	17.7	18.0	18.4
Maximum outdoor temperature		(ºC)	46	48	48	48	46	46	48	48	48
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8	8
Hydraulic circuit	Water flow	m³/h	50.5	66.7	83.1	94.1	101.0	117.4	133.5	149.9	166.3
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m³/h	96000	144000	144000	192000	192000	240000	288000	288000	288000
	Type - fan diameter	mm	Axial 800 EC + AxiTop								
	Number of fans		4	6	6	8	8	10	12	12	12
Sound pressure (Lp10) (8)		dB(A)	57	58	57	61	60	60	63	62	63
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950	6950
	Width	mm	2100								
	Height	mm	2575								
Weight		kg	2650	3660	3680	4670	4700	5725	6765	6785	6800

KWT models - VERSION H			7280	8300	9320	9350	9375	9400	X040	X045
Cooling only version (R)										
Cooling capacity		kW (1)	1028.9	1092.8	1162.1	1256.4	1352.2	1447.2	1511.4	1639.0
		TR (2)	280	300	320	350	375	400	400	450
		kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400
Power input (3)		kW	401.2	433.5	453.5	486.7	519.2	552.1	585.1	644.4
EER (4)		W/W	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.5
		BTU/(Wxhr)	8.4	8.3	8.5	8.6	8.7	8.7	8.2	8.4
SEER (5)			4.5	4.4	4.8	4.8	4.8	4.8	4.8	4.7
ηs,c (6)			171%	169%	183%	183%	184%	185%	183%	182%
IPLV (7)		BTU/(Wxhr)	17.7	18.0	17.7	18.0	18.4	18.4	18.0	17.7
Maximum outdoor temperature		(ºC)	48	48	48	48	48	47	47	47
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	No. power stages		8	8	12	12	12	12	12	12
Hydraulic circuit	Water flow	m³/h	177.2	188.2	200.2	216.4	232.9	249.3	260.3	282.3
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m³/h	336000	384000	432000	432000	432000	432000	480000	480000
	Type - fan diameter	mm	Axial 800 EC + AxiTop							
	Number of fans		14	16	18	18	18	18	20	20
Sound pressure (Lp10) (8)		dB(A)	66	57	58	57	61	60	60	63
Dimensions	Length	mm	8050	9150	10250	10250	10250	10250	11350	11350
	Width	mm	2100							
	Height	mm	2575							
Weight		kg	7820	8845	9925	9940	9965	9985	10900	11050

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Cooling capacity under AHRI conditions.
(3) Nominal power input by compressors and outdoor fans.
(4) EER calculated based on EN 14511.
(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.
(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

PANGEA version L technical data

R513A ErP 2018 ErP 2021

333 - 1562 kW

KWT models - VERSION L			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	332.9	410.4	520.2	593.2	668.3	742.2	820.8	935.1
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	107.5	148.8	182.7	210.5	212.1	258.1	297.5	333.3
EER (4)		W/W	3.1	2.8	2.8	2.8	3.2	2.9	2.8	2.8
		BTU/(Wxhr)	10.0	9.7	10.2	9.7	10.2	9.3	9.1	9.0
SEER (5)			4.7	4.4	4.4	4.7	5.1	4.8	4.7	4.7
ηs,c (6)			180%	166%	170%	181%	194%	183%	179%	181%
IPLV (7)		BTU/(Wxhr)	23.1	19.7	20.4	20.4	23.5	20.7	19.7	20.1
Maximum outdoor temperature		(ºC)	47	47	47	47	47	47	47	47
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	57.3	70.7	89.6	102.2	115.1	127.8	141.4	161.1
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	120000	160000	160000	200000	240000	280000	320000	320000
	Type - fan diameter	mm	Axial, 800 AC							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	59	60	59	63	62	62	65	64
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2375							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION L			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1041.4	1117.5	1182.3	1236.2	1347.2	1449.2	1562.1
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	366.8	393.8	424.5	446.4	485.4	517.5	550.2
EER (4)		W/W	2.8	2.8	2.8	2.8	2.8	2.8	2.8
		BTU/(Wxhr)	9.3	9.1	9.3	9.4	9.1	9.3	9.4
SEER (5)			4.8	5.0	5.0	5.0	5.0	5.0	5.0
ηs,c (6)			182%	194%	191%	191%	191%	192%	194%
IPLV (7)		BTU/(Wxhr)	20.4	20.4	20.1	19.7	19.7	20.1	20.4
Maximum outdoor temperature		(ºC)	47	47	46	46	46	46	46
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	179.4	192.5	203.7	212.9	232.1	249.6	269.1
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	320000	360000	400000	480000	480000	480000	480000
	Type - fan diameter	mm	Axial, 800 AC						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	65	68	59	60	59	63	65
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2375						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

PANGEA version V technical data

R513A ErP 2018 ErP 2021

343 - 1614 kW

KWT models - VERSION V			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	343.4	423.3	537.4	611.8	688.8	766.1	846.6	965.5
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	101.5	139.0	173.1	198.9	200.4	242.1	277.9	313.8
EER (4)		W/W	3.4	3.0	3.1	3.1	3.4	3.2	3.0	3.1
		BTU/(Wxhr)	10.6	10.4	10.7	10.3	10.8	9.9	9.7	9.6
SEER (5)			5.0	4.6	4.7	5.0	5.3	5.1	5.0	5.0
ηs,c (6)			191%	178%	180%	191%	206%	195%	190%	191%
IPLV (7)		BTU/(Wxhr)	25.8	22.4	23.1	22.8	26.2	23.8	22.4	22.8
Maximum outdoor temperature		(ºC)	49	49	49	49	49	49	49	49
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	59.2	72.9	92.6	105.4	118.7	132.0	145.8	166.3
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	144000	192000	192000	240000	288000	336000	384000	384000
	Type - fan diameter	mm	Axial 800 EC + AxiTop							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	53	54	53	57	56	56	59	58
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2575							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION V			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1076.0	1153.4	1220.0	1275.0	1390.9	1496.8	1614.0
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	347.5	372.6	401.0	417.0	455.9	488.3	521.3
EER (4)		W/W	3.1	3.1	3.0	3.1	3.1	3.1	3.1
		BTU/(Wxhr)	9.8	9.7	9.9	10.1	9.7	9.8	9.9
SEER (5)			5.0	5.3	5.2	5.3	5.3	5.3	5.3
ηs,c (6)			192%	204%	202%	202%	202%	203%	204%
IPLV (7)		BTU/(Wxhr)	23.1	23.1	22.4	22.8	22.4	22.8	23.1
Maximum outdoor temperature		(ºC)	49	49	49	49	49	49	48
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	185.3	198.7	210.1	219.6	239.6	257.8	278.0
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	384000	432000	480000	576000	576000	576000	576000
	Type - fan diameter	mm	Axial 800 EC + AxiTop						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	59	62	53	54	53	57	59
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2575						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35ºC.
(2) Cooling capacity under AHRI conditions.
(3) Nominal power input by compressors and outdoor fans.
(4) EER calculated based on EN 14511.
(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.
(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.
(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

PANGEA version X technical data

R513A ErP 2021

344 - 1617 kW

KWT models - VERSION X			3090	4120	4155	5170	6180	7200	8225	8250
Cooling only version (R)										
Cooling capacity		kW (1)	343.9	424.0	538.4	612.8	689.8	767.4	847.9	967.2
		TR (2)	90	120	155	170	180	200	225	250
		kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)		kW	100.6	137.5	171.5	197.0	198.6	239.7	274.9	310.7
EER (4)		W/W	3.4	3.1	3.1	3.1	3.5	3.2	3.1	3.1
		BTU/(Wxhr)	10.7	10.5	10.8	10.4	10.9	10.0	9.8	9.7
SEER (5)			5.0	4.7	4.7	5.0	5.4	5.1	5.0	5.0
ηs,c (6)			192%	179%	181%	193%	207%	196%	192%	193%
IPLV (7)		BTU/(Wxhr)	26.2	22.8	23.5	23.1	26.5	24.1	22.8	23.1
Maximum outdoor temperature		(ºC)	52	52	52	52	52	52	52	52
Technical characteristics										
Power supply			400 V/III/50 HZ without neutral							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573							
	Type of compressor		Semi-Hermetic Compact Screw							
	No. circuits/compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
	No. power stages		4	4	4	4	8	8	8	8
Hydraulic circuit	Water flow	m^3/h	59.2	73.0	92.7	105.6	118.8	132.2	146.1	166.6
	Type of heat exchanger		Shell and tube							
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m^3/h	162000	216000	216000	270000	324000	378000	432000	432000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE							
	Number of fans		6	8	8	10	12	14	16	16
Sound pressure (Lp10) (8)		dB(A)	55	56	55	59	58	58	61	60
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm	2100							
	Height	mm	2635							
Weight		kg	3510	4450	4625	5425	6455	7520	8540	8750

KWT models - VERSION X			8285	9300	X033	X235	X237	X240	X243
Cooling only version (R)									
Cooling capacity		kW (1)	1078.1	1155.4	1222.1	1277.1	1393.4	1499.6	1617.1
		TR (2)	285	300	330	350	370	400	430
		kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)		kW	344.3	369.1	397.2	412.5	451.3	483.6	516.4
EER (4)		W/W	3.1	3.1	3.1	3.1	3.1	3.1	3.1
		BTU/(Wxhr)	9.9	9.8	10.0	10.2	9.8	9.9	10.0
SEER (5)			5.0	5.3	5.3	5.3	5.3	5.3	5.3
ηs,c (6)			194%	205%	203%	204%	204%	204%	205%
IPLV (7)		BTU/(Wxhr)	23.5	23.5	22.8	23.1	22.8	23.1	23.5
Maximum outdoor temperature		(ºC)	52	52	52	52	52	52	52
Technical characteristics									
Power supply			400 V/III/50 HZ without neutral						
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573						
	Type of compressor		Semi-Hermetic Compact Screw						
	No. circuits/compressors		2/2	2/2	2/2	3/3	3/3	3/3	3/3
	No. power stages		8	8	8	12	12	12	12
Hydraulic circuit	Water flow	m^3/h	185.7	199.0	210.5	220.0	240.0	258.3	278.5
	Type of heat exchanger		Shell and tube						
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m^3/h	432000	486000	540000	648000	648000	648000	648000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE						
	Number of fans		16	18	20	24	24	24	24
Sound pressure (Lp10) (8)		dB(A)	61	64	55	56	55	59	61
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm	2100						
	Height	mm	2635						
Weight		kg	8860	9725	10525	13015	13255	13550	13750

ONEIDA

CHILLERS

water-to-water screw chillers

170 - 1813 kW
150 - 1610 kW

Screw
Inverter
50 Hz
60 Hz

ACS

R134a
R513A
R450A
R1234ze

Adaptation and Versatility

- High-performance chillers equipped with action screw compressors and low speed and the latest generation shell and tube heat exchangers
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance

Energy efficiency

- High energy efficiency in partial and full load, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- NEW equipment available with inverter screw compressor as an option for maximum energy efficiency
- Electronic expansion valve for minimal energy consumption
- Hot gas partial heat reclaim system with plate heat exchanger for sanitary hot water

Low noise level

- Available panelled and closed unit with acoustic insulation
- Compressors available with acoustic jacket

Environment

- Optimised design for reduced refrigerant charge R-134a and low GWP refrigerants
- NEW availability of unit with low GWP refrigerants R-513A (ODP 0, GWP 513) and R-450A (ODP 0, GWP 547)
- NEW ONEIDA ECO availability of unit with low GWP refrigerant R-1234ze (ODP 0, GWP <1)

Easy control

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

Applications

Industry
Retail & Shopping centres
Culture
Hotels

ONEIDA
range specification

Standard equipments of the range

- Semi-hermetic compact screw compressors
- Shell and tube heat exchangers in evaporator and condensers
- Electronic expansion valve
- Triple protection for the heat exchanger with a water flow switch, refrigerant anti-freeze protection and water anti-freeze protection
- Compressor anti-vibration mounts
- Star-Delta start-up for compressors
- Glycol sweeping of the hydraulic circuit for negative temperatures
- General switch
- Programmable AQUAMATIX control (Siemens Climatix control)
- Climatix HMI user terminal for AQUAMATIX control
- RS485 communication interface for ModBus communication
- PREMIUM phase control relay, with phase failure detection and rotation direction protection
- Transformer for control system
- Clamps for transportation

Options

- Inverter version with one inverter compressor and the rest standard compressors
- Full Inverter version, with all the inverter compressors
- Ballast for network filtration and RFI filter, for optional inverter version
- High energy efficiency compressors (Bitzer CSW series)
- Original manufacturer high-performance acoustic jacket
- Sheet compartment for compressor protection
- Sheet compartment for compressors with acoustic insulation in panels
- Compressor suction shut-off valves
- Compressor port fitting for an economiser with a muffle (silencer) to absorb vibrations in the piping
- Oil level switch
- Partial heat reclaim of hot gases to produce sanitary hot water
- Total heat reclaim of hot gases
- Total heat reclaim of hot gases via a double shell and tube condenser
- Hydraulic connections with flanges
- Hydraulic kit with water circulation pump as an independent module
- Other electrical voltages (230 V/III ph/50-60 Hz, 380 V/III ph/60 Hz, 400 V/III ph/60 Hz, 460 V/III ph/60 Hz)
- Numbering of cables in electrical cabinet
- Bacnet/Lonworks communication
- EXCELLENT phase control relay, adds phase imbalance, overvoltage and undervoltage detection
- Refrigerant leak detector (recommended for units with R1234ze refrigerant)
- Energy meter
- Skids for container transportation

ONEIDA
technical data

R134a

224 - 774 kW

KZT models			1240	1320	1370	1420	1460	1530	1600	1700	2800
Cooling only version (R) or water reversible heat pump (C)											
Powers (condensing water 30-35°C)	Cooling capacity (1)	kW	224.4	302.9	365.7	425.0	436.5	505.2	606.4	654.8	774.1
		TR	64	86.5	104	121	124.5	144	172.5	186.5	220.5
		kBTU/hr	765.8	1033.6	1247.8	1450.2	1489.2	1723.9	2069.3	2234.2	2641.2
	Power in the condenser	kW	270.4	366.3	435.2	504.1	522.3	604.9	720.8	782.8	920.0
	Power input (2)	kW	45.9	63.4	69.5	79.1	85.9	99.7	114.3	128.0	146.0
	EER (3)	W/W	4.9	4.8	5.3	5.4	5.1	5.1	5.3	5.1	5.3
		BTU/(Wxhr)	16.7	16.3	17.9	18.3	17.3	17.3	18.1	17.5	18.1
Powers (condensing water 40-45°C)	Cooling capacity (1)	kW	199.3	269.0	324.8	377.4	387.6	448.6	538.5	581.5	687.4
		TR	57	76.5	92.5	107.5	110.5	128	153.5	165.5	195.5
		kBTU/hr	680.1	917.9	1108.1	1287.9	1322.5	1530.8	1837.6	1984.0	2345.5
	Power in the condenser	kW	255.6	346.7	410.0	474.4	492.8	570.8	678.6	738.4	866.3
	Power input (2)	kW	56.3	77.7	85.2	97.0	105.2	122.2	140.1	156.9	178.9
	EER (3)	W/W	3.5	3.5	3.8	3.9	3.7	3.7	3.8	3.7	3.8
		BTU/(Wxhr)	12.1	11.8	13.0	13.3	12.6	12.5	13.1	12.6	13.1
ESEER (3)			6.0	5.8	6.4	6.6	6.2	6.2	6.5	6.3	6.5
SEER (4)			5.5	5.4	6.0	6.1	5.8	5.8	6.0	5.8	6.0
ηs,c (5)			214%	209%	231%	236%	223%	222%	233%	224%	233%
IPLV (6)		kW/TR	0.43	0.44	0.40	0.39	0.42	0.42	0.40	0.41	0.40
		BTU/(Wxhr)	27.4	26.8	29.5	30.1	28.5	28.5	29.8	28.7	29.8
SCOP (4)			5.4	5.3	5.8	5.9	5.6	5.6	5.8	5.6	5.8
ηs,h (5)			209%	205%	223%	227%	216%	216%	224%	217%	224%
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2
	No. power stages		4	4	4	4	4	4	4	4	8
Hydraulic circuit evaporator side	Water flow (30-35°C)	m^3/h	38.7	52.2	63.0	73.2	75.2	87.0	104.5	112.8	133.3
	Water flow (40-45°C)	m^3/h	34.3	46.3	55.9	65.0	66.8	77.3	92.8	100.2	118.4
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		VICTAULIC DN125		VICTAULIC DN150				VICTAULIC DN200		
Hydraulic circuit Condenser side	Water flow (30-35°C)	m^3/h	46.6	63.1	75.0	86.8	90.0	104.2	124.1	134.8	158.5
	Water flow (40-45°C)	m^3/h	44.0	59.7	70.6	81.7	84.9	98.3	116.9	127.2	149.2
	Type of heat exchanger		Shell and tube								
	Hydraulic connections	condenser 1	3"			VICTAULIC DN100			VICTAULIC DN125		3"
		condenser 2	-	-	-	-	-	-	-	-	VICTAULIC DN100
Sound pressure (Lp10) (7)		dB(A)	65.3	66.1	65.7	68.1	68.1	67.5	64.9	72.1	72.4
Weight		kg	1211	1714	1771	2621	2628	2674	2908	3040	4297

Codification:

KZT — Series

Size — Capacity

NS4Y

R - Cooling only
C - Reversible in water circuit, not reversible in the refrigerant circuit

N - Standard screw compressor / **V** - Inverter screw compressor
S - Standard version
4 - 400 V/III/50 Hz
Y - Refrigerant
Y - R134a / **T** - R513A / **J** - R450A / **E** - R1234ze

ONEIDA
technical data

R134a

800 - 1815 kW

KZT models			2850	2950	2M00	2M10	2M11	2M12	2M13	3M14	3M15	3M18
Cooling only version (R) or water reversible heat pump (C)												
Powers (condensing water 30-35ºC)	Cooling capacity (1)	kW	799.6	866.8	939.9	1012.8	1078.7	1154.0	1227.2	1300.4	1397.1	1813.0
		TR	227.5	246.5	267.5	288	307	328.5	349	370	397.5	515.5
		kBTU/hr	2728.2	2957.6	3207.1	3455.8	3680.7	3937.7	4187.4	4437.1	4767.1	6186.2
	Power in the condenser	kW	957.1	1037.9	1124.7	1211.3	1291.8	1381.7	1468.6	1555.4	1670.0	2154.1
	Power input (2)	kW	157.6	171.1	184.8	198.6	213.1	227.7	241.4	255.0	272.9	341.1
	EER (3)	W/W	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.3
		BTU/(Wxhr)	17.3	17.3	17.4	17.4	17.3	17.3	17.3	17.4	17.5	18.1
Powers (condensing water 40-45ºC)	Cooling capacity (1)	kW	710.0	769.7	834.7	899.4	957.9	1024.8	1089.8	1154.8	1240.7	1610.0
		TR	202	219	237.5	256	272.5	291.5	310	328.5	353	458
		kBTU/hr	2422.7	2626.5	2848.0	3068.8	3268.5	3496.8	3718.6	3940.3	4233.3	5493.5
	Power in the condenser	kW	903.2	979.4	1061.1	1142.7	1219.1	1303.9	1385.6	1467.3	1575.1	2028.0
	Power input (2)	kW	193.1	209.6	226.5	243.3	261.2	279.1	295.8	312.5	334.4	418.0
	EER (3)	W/W	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.9
		BTU/(Wxhr)	12.5	12.5	12.6	12.6	12.5	12.5	12.6	12.6	12.7	13.1
ESEER (3)			6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.5
SEER (4)			5.8	5.8	5.8	5.8	5.7	5.8	5.8	5.8	5.8	6.0
ηs,c (5)			222%	222%	223%	224%	222%	222%	223%	224%	224%	233%
IPLV (6)		kW/TR	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.41	0.40
		BTU/(Wxhr)	28.5	28.5	28.6	28.6	28.4	28.5	28.5	28.6	28.7	29.8
SCOP (4)			5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.8
ηs,h (5)			216%	216%	216%	217%	215%	216%	216%	217%	218%	225%
Technical characteristics												
Power supply			400 V/III/50 HZ without neutral									
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R134a/1300									
	Type of compressor		Semi-Hermetic Compact Screw									
	No. circuits/compressors		2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3
	No. power stages		8	8	8	8	8	8	8	8	12	12
Hydraulic circuit evaporator side	Water flow (30-35°C)	m^3/h	137.7	149.3	161.9	174.5	185.8	198.8	211.4	224.0	240.6	312.3
	Water flow (40-45°C)	m^3/h	122.3	132.6	143.8	154.9	165.0	176.5	187.7	198.9	213.7	277.3
	Type of heat exchanger		Shell and tube									
	Hydraulic connections		VICTAULIC DN200									VICTAULIC DN250
Hydraulic circuit Condenser side	Water flow (30-35°C)	m^3/h	164.9	178.8	193.7	208.7	222.5	238.0	253.0	267.9	287.7	371.0
	Water flow (40-45°C)	m^3/h	155.6	168.7	182.8	196.8	210.0	224.6	238.7	252.7	271.3	349.3
	Type of heat exchanger		Shell and tube									
	Hydraulic connections	condenser 1	3"				VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 2	VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 3	-	-	-	-	-	-	-	-	VICTAULIC DN100	VICTAULIC DN125
Sound pressure (Lp10) (7)		dB(A)	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	74.8	74.8
Weight		kg	4285	4399	4575	4705	5574	5609	5659	5862	8046	8795

(1) Nominal cooling capacity for a water inlet/outlet temp. in the evaporator of 12/7ºC.
(2) Nominal power input by compressors.
(3) EER and ESEER calculated based on EN 14511.
(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 factor in line with AHRI Standards 550/590.
(7) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

ONEIDA
technical data

R513A

224 - 773 kW

KZT models			1240	1320	1370	1420	1460	1530	1600	1700	2800
Cooling only version (R) or water reversible heat pump (C)											
Powers (condensing water 30-35°C)	Cooling capacity (1)	kW	224.0	302.3	365.0	424.2	435.6	504.2	605.2	653.5	772.5
		TR	64	86	104	121	124	143.5	172.5	186	220
		kBTU/hr	764.3	1031.5	1245.3	1447.3	1486.3	1720.4	2065.1	2229.7	2635.9
	Power in the condenser	kW	271.9	368.4	437.5	506.7	525.1	608.1	724.4	787.0	924.7
	Power input (2)	kW	47.9	66.1	72.5	82.5	89.5	103.9	119.2	133.5	152.2
	EER (3)	W/W	4.7	4.6	5.0	5.1	4.9	4.9	5.1	4.9	5.1
		BTU/(Wxhr)	16.0	15.6	17.2	17.5	16.6	16.6	17.3	16.7	17.3
Powers (condensing water 40-45°C)	Cooling capacity (1)	kW	198.9	268.5	324.1	376.7	386.8	447.7	537.5	580.3	686.0
		TR	57	76.5	92.5	107.5	110	127.5	153	165	195.5
		kBTU/hr	678.7	916.0	1105.9	1285.3	1319.8	1527.8	1833.9	1980.1	2340.8
	Power in the condenser	kW	257.6	349.4	412.9	477.8	496.5	575.1	683.5	743.9	872.5
	Power input (2)	kW	58.7	81.0	88.8	101.1	109.7	127.4	146.1	163.6	186.5
	EER (3)	W/W	3.4	3.3	3.6	3.7	3.5	3.5	3.7	3.5	3.7
		BTU/(Wxhr)	11.6	11.3	12.4	12.7	12.0	12.0	12.6	12.1	12.5
ESEER (3)			5.7	5.6	6.2	6.3	6.0	5.9	6.2	6.0	6.2
SEER (4)			5.3	5.2	5.7	5.8	5.5	5.5	5.8	5.6	5.8
ηs,c (5)			204%	200%	221%	225%	213%	212%	223%	214%	222%
IPLV (6)		kW/TR	0.45	0.46	0.42	0.41	0.44	0.44	0.42	0.43	0.42
		BTU/(Wxhr)	26.2	25.7	28.3	28.9	27.3	27.2	28.5	27.5	28.5
SCOP (4)			5.2	5.1	5.6	5.7	5.4	5.4	5.6	5.4	5.6
ηs,h (5)			201%	197%	214%	218%	208%	207%	216%	209%	216%
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2
	No. power stages		4	4	4	4	4	4	4	4	8
Hydraulic circuit evaporator side	Water flow (30-35°C)	m^3/h	38.6	52.1	62.9	73.1	75.0	86.8	104.2	112.6	133.1
	Water flow (40-45°C)	m^3/h	34.3	46.2	55.8	64.9	66.6	77.1	92.6	100.0	118.2
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		VICTAULIC DN125		VICTAULIC DN150				VICTAULIC DN200		
Hydraulic circuit Condenser side	Water flow (30-35°C)	m^3/h	46.8	63.5	75.4	87.3	90.5	104.8	124.8	135.6	159.3
	Water flow (40-45°C)	m^3/h	44.4	60.2	71.1	82.3	85.5	99.1	117.7	128.1	150.3
	Type of heat exchanger		Shell and tube								
	Hydraulic connections	condenser 1	3"			VICTAULIC DN100			VICTAULIC DN125		3"
		condenser 2	-	-	-	-	-	-	-	-	VICTAULIC DN100
Sound pressure (Lp10) (7)		dB(A)	65.3	66.1	65.7	68.1	68.1	67.5	64.9	72.1	72.4
Weight		kg	1211	1714	1771	2621	2628	2674	2908	3040	4297

Electronic control:

Keyter ONEIDA units include as standard AQUAMATIX programmable electronic control (Siemens Climatix control), specifically developed for the management of air-to-water and water-to-water equipment, with Climatix HMI user terminal.

AQUAMATIX

Climatix HMI terminal

ONEIDA
technical data

R513A

800 - 1810 kW

KZT models			2850	2950	2M00	2M10	2M11	2M12	2M13	3M14	3M15	3M18
Cooling only version (R) or water reversible heat pump (C)												
Powers (condensing water 30-35°C)	Cooling capacity (1)	kW	798.0	865.1	938.0	1010.8	1076.5	1151.7	1224.8	1297.8	1394.3	1809.4
		TR	227	246	267	287.5	306.5	327.5	348.5	369	396.5	514.5
		kBTU/hr	2722.7	2951.7	3200.7	3448.8	3673.3	3929.9	4179.0	4428.2	4757.6	6173.8
	Power in the condenser	kW	962.3	1043.4	1130.7	1217.8	1298.8	1389.2	1476.4	1563.7	1678.9	2165.0
	Power input (2)	kW	164.3	178.4	192.7	207.0	222.2	237.4	251.7	265.9	284.6	355.7
	EER (3)	W/W	4.9	4.8	4.9	4.9	4.8	4.9	4.9	4.9	4.9	5.1
		BTU/(Wxhr)	16.6	16.5	16.6	16.7	16.5	16.6	16.6	16.7	16.7	17.4
Powers (condensing water 40-45°C)	Cooling capacity (1)	kW	708.6	768.2	833.0	897.6	956.0	1022.8	1087.6	1152.5	1238.2	1606.8
		TR	201.5	218.5	237	255.5	272	291	309.5	328	352.5	457
		kBTU/hr	2417.9	2621.2	2842.3	3062.7	3262.0	3489.8	3711.1	3932.4	4224.9	5482.5
	Power in the condenser	kW	910.0	986.8	1069.2	1151.3	1228.4	1313.8	1396.1	1478.4	1586.9	2042.6
	Power input (2)	kW	201.4	218.6	236.2	253.7	272.4	291.0	308.4	325.9	348.7	435.9
	EER (3)	W/W	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.7
		BTU/(Wxhr)	12.0	12.0	12.0	12.1	12.0	12.0	12.0	12.1	12.1	12.6
ESEER (3)			5.9	5.9	6.0	6.0	5.9	5.9	6.0	6.0	6.0	6.2
SEER (4)			5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.8
ηs,c (5)			213%	212%	213%	214%	212%	212%	213%	214%	214%	223%
IPLV (6)		kW/TR	0.44	0.44	0.44	0.43	0.44	0.44	0.44	0.43	0.43	0.42
		BTU/(Wxhr)	27.3	27.2	27.3	27.4	27.2	27.2	27.3	27.4	27.5	28.6
SCOP (4)			5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.6
ηs,h (5)			208%	207%	208%	209%	207%	207%	208%	209%	209%	216%
Technical characteristics												
Power supply			400 V/III/50 HZ without neutral									
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R513A/573									
	Type of compressor		Semi-Hermetic Compact Screw									
	No. circuits/compressors		2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3
	No. power stages		8	8	8	8	8	8	8	8	12	12
Hydraulic circuit evaporator side	Water flow (30-35°C)	m^3/h	137.4	149.0	161.6	174.1	185.4	198.4	211.0	223.5	240.2	311.7
	Water flow (40-45°C)	m^3/h	122.1	132.3	143.5	154.6	164.7	176.2	187.3	198.5	213.3	276.8
	Type of heat exchanger		Shell and tube									
	Hydraulic connections		VICTAULIC DN200									VICTAULIC DN250
Hydraulic circuit Condenser side	Water flow (30-35°C)	m^3/h	165.8	179.7	194.8	209.8	223.7	239.3	254.3	269.3	289.2	372.9
	Water flow (40-45°C)	m^3/h	156.7	170.0	184.2	198.3	211.6	226.3	240.5	254.6	273.3	351.8
	Type of heat exchanger		Shell and tube									
	Hydraulic connections	condenser 1	3"				VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 2	VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 3	-	-	-	-	-	-	-	-	VICTAULIC DN100	VICTAULIC DN125
Sound pressure (Lp10) (7)		dB(A)	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	74.8	74.8
Weight		kg	4285	4399	4575	4705	5574	5609	5659	5862	8046	8795

(1) Nominal cooling capacity for a water inlet/outlet temp. in the evaporator of 12/7ºC.
(2) Nominal power input by compressors.
(3) EER and ESEER calculated based on EN 14511.
(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 factor in line with AHRI Standards 550/590.
(7) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

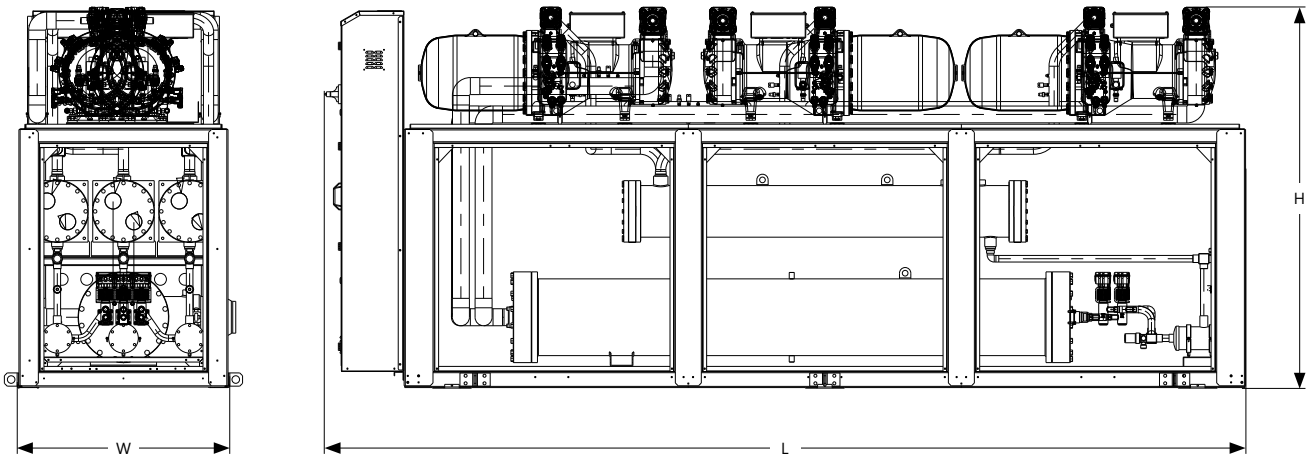
ONEIDA
technical data

R1234ze

170 - 590 kW

KZT models			1240	1320	1370	1420	1460	1530	1600	1700	2800
Cooling only version (R) or water reversible heat pump (C)											
Powers (condensing water 30-35°C)	Cooling capacity (1)	kW	170.3	229.9	277.6	322.6	331.3	383.5	460.3	497.0	587.5
		TR	48.5	65.5	79	92	94.5	109	131	141.5	167.5
		kBTU/hr	581.2	784.5	947.1	1100.7	1130.3	1308.4	1570.6	1695.7	2004.7
	Power in the condenser	kW	203.4	275.5	327.6	379.6	393.1	455.2	542.6	589.1	692.6
	Power input (2)	kW	33.1	45.6	50.1	57.0	61.8	71.8	82.3	92.2	105.1
	EER (3)	W/W	5.1	5.0	5.5	5.7	5.4	5.3	5.6	5.4	5.6
		BTU/(Wxhr)	17.6	17.2	18.9	19.3	18.3	18.2	19.1	18.4	19.1
Powers (condensing water 40-45°C)	Cooling capacity (1)	kW	151.3	204.2	246.5	286.5	294.2	340.5	408.8	441.3	521.7
		TR	43	58.5	70.5	81.5	84	97	116.5	125.5	148.5
		kBTU/hr	516.2	696.7	841.0	977.5	1003.8	1161.9	1394.7	1505.9	1780.2
	Power in the condenser	kW	191.8	260.1	307.8	356.3	369.9	428.5	509.6	554.3	650.5
	Power input (2)	kW	40.5	55.9	61.3	69.8	75.8	88.0	100.9	113.0	128.8
	EER (3)	W/W	3.7	3.7	4.0	4.1	3.9	3.9	4.1	3.9	4.1
		BTU/(Wxhr)	12.7	12.5	13.7	14.0	13.2	13.2	13.8	13.3	13.8
ESEER (3)			6.3	5.9	6.4	6.5	6.2	6.2	6.4	6.4	6.6
SEER (4)			5.8	5.7	6.3	6.4	6.1	6.1	6.3	6.1	6.3
ηs,c (5)			226%	221%	244%	249%	235%	235%	246%	237%	246%
IPLV (6)		kW/TR	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
		BTU/(Wxhr)	28.9	28.3	31.1	31.8	30.1	30.0	31.4	30.3	31.4
SCOP (4)			5.7	5.6	6.0	6.1	5.9	5.8	6.1	5.9	6.1
ηs,h (5)			219%	215%	234%	238%	226%	226%	235%	228%	235%
Technical characteristics											
Power supply			400 V/III/50 HZ without neutral								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R1234ze/< 1								
	Type of compressor		Semi-Hermetic Compact Screw								
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2
	No. power stages		4	4	4	4	4	4	4	4	8
Hydraulic circuit evaporator side	Water flow (30-35°C)	m³/h	29.3	39.6	47.8	55.6	57.1	66.0	79.3	85.6	101.2
	Water flow (40-45°C)	m³/h	26.1	35.2	42.5	49.3	50.7	58.7	70.4	76.0	89.9
	Type of heat exchanger		Shell and tube								
	Hydraulic connections		VICTAULIC DN125		VICTAULIC DN150				VICTAULIC DN200		
Hydraulic circuit Condenser side	Water flow (30-35°C)	m³/h	35.0	47.5	56.4	65.4	67.7	78.4	93.5	101.5	119.3
	Water flow (40-45°C)	m³/h	33.0	44.8	53.0	61.4	63.7	73.8	87.8	95.5	112.1
	Type of heat exchanger		Shell and tube								
	Hydraulic connections	condenser 1	3"			VICTAULIC DN100			VICTAULIC DN125		3"
		condenser 2	-	-	-	-	-	-	-	-	VICTAULIC DN100
Sound pressure (Lp10) (7)		dB(A)	65.3	66.1	65.7	68.1	68.1	67.5	64.9	72.1	72.4
Weight		kg	1211	1714	1771	2621	2628	2674	2908	3040	4297

Dimensions (standard units without hydraulic kit):



Dimensions (standard units without hydraulic kit)			
	Series 1	Series 2	Series 3
L	4835	4835	5835
W	900	1100	1600
H	2350	2350	2450

In units with an optional hydraulic kit, this is provided in an independent module (see dimensions in the technical documentation).

ONEIDA
technical data

R1234ze

607 - 1376 kW

KZT models			2850	2950	2M00	2M10	2M11	2M12	2M13	3M14	3M15	3M18
Cooling only version (R) or water reversible heat pump (C)												
Powers (condensing water 30-35°C)	Cooling capacity (1)	kW	606.9	657.9	713.4	768.7	818.7	875.9	931.5	987.0	1060.4	1376.1
		TR	173	187.5	203	219	233	249.5	265	281	301.5	391.5
		kBTU/hr	2070.7	2244.8	2434.2	2622.9	2793.6	2988.7	3178.2	3367.8	3618.2	4695.3
	Power in the condenser	kW	720.3	781.1	846.4	911.7	972.2	1039.9	1105.2	1170.6	1256.9	1621.6
	Power input (2)	kW	113.5	123.2	133.1	143.0	153.5	163.9	173.8	183.6	196.5	245.6
	EER (3)	W/W	5.3	5.3	5.4	5.4	5.3	5.3	5.4	5.4	5.4	5.6
		BTU/(Wxhr)	18.3	18.2	18.3	18.3	18.2	18.2	18.3	18.3	18.4	19.1
Powers (condensing water 40-45°C)	Cooling capacity (1)	kW	538.9	584.2	633.5	682.6	727.1	777.8	827.2	876.5	941.7	1222.0
		TR	153.5	166.5	180.5	194.5	207	221.5	235.5	249.5	268	347.5
		kBTU/hr	1838.8	1993.5	2161.6	2329.2	2480.8	2654.1	2822.4	2990.7	3213.1	4169.6
	Power in the condenser	kW	678.0	735.2	796.6	857.8	915.1	978.8	1040.1	1101.5	1182.5	1522.9
	Power input (2)	kW	139.1	150.9	163.1	175.2	188.1	200.9	213.0	225.0	240.8	301.0
	EER (3)	W/W	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.1
		BTU/(Wxhr)	13.2	13.2	13.3	13.3	13.2	13.2	13.3	13.3	13.3	13.9
ESEER (3)			6.3	6.3	6.3	6.5	6.5	6.5	6.5	6.5	6.5	6.6
SEER (4)			6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4
ηs,c (5)			235%	235%	235%	236%	234%	235%	235%	236%	237%	246%
IPLV (6)		kW/TR	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
		BTU/(Wxhr)	30.0	30.0	30.1	30.2	30.0	30.0	30.1	30.2	30.3	31.5
SCOP (4)			5.9	5.8	5.9	5.9	5.8	5.8	5.9	5.9	5.9	6.1
ηs,h (5)			226%	226%	227%	227%	226%	226%	227%	227%	228%	236%
Technical characteristics												
Power supply			400 V/III/50 HZ without neutral									
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO_2	R1234ze/< 1									
	Type of compressor		Semi-Hermetic Compact Screw									
	No. circuits/compressors		2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3
	No. power stages		8	8	8	8	8	8	8	8	12	12
Hydraulic circuit evaporator side	Water flow (30-35°C)	m^3/h	104.5	113.3	122.9	132.4	141.0	150.9	160.4	170.0	182.7	237.0
	Water flow (40-45°C)	m^3/h	92.8	100.6	109.1	117.6	125.2	134.0	142.5	151.0	162.2	210.5
	Type of heat exchanger		Shell and tube									
	Hydraulic connections		VICTAULIC DN200									VICTAULIC DN250
Hydraulic circuit Condenser side	Water flow (30-35°C)	m^3/h	124.1	134.5	145.8	157.0	167.5	179.1	190.4	201.6	216.5	279.3
	Water flow (40-45°C)	m^3/h	116.8	126.6	137.2	147.8	157.6	168.6	179.2	189.7	203.7	262.3
	Type of heat exchanger		Shell and tube									
	Hydraulic connections	condenser 1	3"				VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 2	VICTAULIC DN100		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN125		VICTAULIC DN100	VICTAULIC DN125
		condenser 3	-	-	-	-	-	-	-	-	VICTAULIC DN100	VICTAULIC DN125
Sound pressure (Lp10) (7)		dB(A)	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	74.8	74.8
Weight		kg	4285	4399	4575	4705	5574	5609	5659	5862	8046	8795

(1) Nominal cooling capacity for a water inlet/outlet temp. in the evaporator of 12/7°C.
(2) Nominal power input by compressors.
(3) EER and ESEER calculated based on EN 14511.
(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 factor in line with AHRI Standards 550/590.
(7) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

GENERAL HOSPITAL | SPAIN - CLINICAL HOSPITAL | SPAIN - HOSPITAL FOR CHILDREN AND WOMEN | ECUADOR - STELLA MARIS SCHOOL | SPAIN

HOTEL CALA ROMANI | SPAIN - HOTEL 7PINES | SPAIN - SITGES BOOKSHOP | SPAIN - FELIX SOLIS WINE STORES | SPAIN - GAMESA | SPAIN

www.keyter.es

terminal units

Fancoil units
technical data

230 V-I-50 Hz. Free discharge

Series			FM/FMO				FOH/FIH					
Model			02	03	04	06	025	035	050	070 FIH	070 FOH	090
Cooling capacity												
High/medium sp. total cooling capacity (1)		kW	2.5/2.0	3.8/3.0	5.3/4.2	7.4/5.8	2.9/2.8	3.8/3.6	6.6/6.1	7.6/7.1	8.6/8.4	10.3/9.6
High/medium sp. sensible cooling capacity (1)		kW	1.7/1.4	2.5/2.0	3.4/2.7	4.8/3.8	2.0/1.9	2.5/2.4	4.2/3.9	4.9/4.6	5.6/5.4	6.6/6.1
Heating capacity, 2 pipes version												
High/medium sp. heating capacity (2)		kW	3.1/2.5	4.4/3.5	6.1/4.7	8.6/6.7	3.7/3.5	4.4/4.2	7.6/7.1	8.7/8.2	10.1/9.7	11.8/11.0
Medium speed water flow		l/h	344	521	718	1000	478	612	1044	1219	1442	1647
Heating capacity, 4 pipes version												
High/medium sp. heating capacity			2.7/2.3	4.1/3.4	5.5/4.5	7.8/6.4	3.0/3.0	4.1/4.0	6.4/6.1	8.3/7.9	9.2/9.0	10.8/10.3
Medium speed water flow			204	302	399	565	262	343	533	695	788	901
Technical characteristics												
Medium/high speed air flow		m^3/h	370/280	505/390	690/515	995/740	450/425	505/470	900/820	985/910	1160/1115	1360/1245
Sound pressure level (3)		dB(A)	34	39	35	41	35	35	38	34	39	39
Weight		kg	25.9	30.1	35.5	41.4	17.5	20.9	25.1	34.5	34.5	46.5
Dimens. L x W x H (4)	FMO/FOH horiz. vers.	mm	840 x 585 x 230	1040 x 585 x 230	1240 x 585 x 230	1440 x 585 x 230	700 x 495 x 230	900 x 495 x 230	1100 x 495 x 230	-	1500 x 495 x 230	1700 x 495 x 230
	FM/FIH vertical version	mm	840 x 220 x 485	1040 x 220 x 485	1240 x 220 x 485	1440 x 220 x 485	740 x 220 x 495	940 x 220 x 495	1140 x 220 x 495	1540 x 220 x 495	-	1740 x 220 x 495

FMO fancoil
Horizontal cased fancoil unit with direct supply and return from the bottom.

FM fancoil
Vertical cased fancoil unit with linear supply for wall installation.

FOH fancoil
Horizontal uncased fancoil unit with available pressure up to 50 Pa.

FIH fancoil
Vertical uncased fancoil unit with available pressure up to 50 Pa.

230 V-I-50 Hz. Available pressure: 40 Pa (CK) and 50 Pa (TO)

Series			CK						TO			
Model			09	11	17	20	23	32	30	35	50	60
Cooling capacity												
High/medium sp. total cooling capacity (1)		kW	4.3/4.1	6.1/5.7	9.3/8.9	10.5/10.0	13.8/13.3	16.8/15.8	24.1/22.8	25.9/25.1	35.4/34.0	42.2/39.9
High/medium sp. sensible cooling capacity (1)		kW	2.9/2.8	3.9/3.7	6.0/5.8	6.8/6.5	8.9/8.6	10.9/10.2	15.5/14.7	16.7/16.2	22.7/21.8	27.2/25.7
Heating capacity, 2 pipes version												
High/medium sp. heating capacity (2)		kW	5.5/5.3	7.2/6.6	11.4/10.9	12.8/12.1	17.0/16.3	20.1/18.8	28.0/26.3	29.9/28.9	41.4/39.5	49.9/46.9
Medium speed water flow		l/h	702	972	1528	1720	2278	2716	3905	4298	5829	6838
Heating capacity, 4 pipes version												
High/medium sp. heating capacity			4.5/4.4	6.0/5.6	9.0/8.7	10.5/10.0	12.9/12.4	16.2/15.5	22.6/21.6	25.0/24.3	32.4/31.5	38.7/36.9
Medium speed water flow			386	495	763	878	1090	1363	1893	2131	2763	3228
Technical characteristics												
Medium/high speed air flow		m^3/h	745/705	870/790	1515/1425	1650/1540	2250/2125	2500/2300	3250/3020	3420/3280	4900/4640	6020/5580
Sound pressure level (3)		dB(A)	44	45	46	47	49	49	48	53	52	53
Weight		kg	26	29.5	36	42	55	65.5	96	106	135	176
Dimensions L x W x H (4)		mm	700 x 620 x 275	900 x 620 x 275	1100 x 620 x 275	1300 x 620 x 275	1500 x 620 x 275	1900 x 620 x 275	1400 x 840 x 420	1600 x 840 x 420	1800 x 840 x 420	2000 x 840 x 420

230 V-I-50 Hz. Available pressure: 50 Pa (TB)

TB model		10	11	22	23	31	32
Cooling capacity							
High/medium sp. total cooling capacity (1)	kW	10.3/10.0	11.1/10.7	20.4/19.8	22.0/20.8	29.0/28.1	31.5/30.4
High/medium sp. sensible cooling capacity (1)	kW	6.7/6.5	7.2/6.9	13.2/12.8	14.2/13.4	18.7/18.2	20.3/19.6
Heating capacity, 2 pipes version							
High/medium sp. heating capacity (2)	kW	12.1/11.7	13.1/12.5	23.7/22.9	25.7/24.2	33.7/32.8	37.0/35.7
Medium speed water flow	l/h	1708	1831	3389	3576	4826	5222
Heating capacity, 4 pipes version							
High/medium sp. heating capacity		9.1/8.9	9.7/9.4	17.9/17.4	19.0/18.2	25.1/24.5	26.7/26.0
Medium speed water flow		782	821	1527	1599	2151	2283
Technical characteristics							
Medium/high speed air flow	m^3/h	1403/1345	1550/1470	2731/2627	3021/2806	3946/3812	4416/4217
Sound pressure level (3)	dB(A)	50	50	53	53	55	54
Weight	kg	42	47	72	78	96	103
Dimensions L x W x H (4)	mm	980 x 650 x 394	980 x 650 x 394	1580 x 650 x 394	1580 x 650 x 394	1980 x 650 x 394	1980 x 650 x 394

CK fancoil
Horizontal uncased fancoil unit with available pressure up to 150 Pa.

TO fancoil
Horizontal uncased fancoil unit with available pressure up to 120 Pa.

TB fancoil
Horizontal uncased fancoil unit with available pressure up to 180 Pa.

Fancoil units technical data

230 V-I-50 Hz. Free discharge

Series			CD/CT							HW		
Model			CT 031	CT 049	CT 065	CT 075	CD 090	CD 102	CD 122	070	090	180
Cooling capacity												
High/medium sp. total cooling capacity (1)		kW	3.1/2.8	4.9/4.1	6.6/5.5	7.6/6.1	9.0/6.8	10.2/8.4	12.2/9.2	2.2/2.0	3.3/2.7	4.9/4.3
High/medium sp. sensible cooling capacity (1)		kW	2.0/1.8	3.2/2.7	4.2/3.6	4.8/3.9	5.9/4.4	6.7/5.4	7.9/6.0	1.4/1.3	2.2/1.8	3.3/2.9
Heating capacity, 2 pipes version												
High/medium sp. heating capacity (2)		kW	3.8/3.4	6.0/4.9	7.3/6.1	8.5/6.8	10.2/7.4	11.5/9.2	13.7/10.2	2.8/2.5	4.1/3.3	6.3/5.5
Medium speed water flow		l/h	483	696	945	1045	1172	1436	1575	345	458	741
Heating capacity, 4 pipes version												
High/medium sp. cooling capacity (1)			3.1/2.8	4.9/4.1	5.3/4.6	6.1/5.0	6.9/5.3	7.6/6.3	8.7/6.8	-	-	-
High/medium sp. heating capacity			5.3/4.8	6.2/5.3	6.5/5.7	7.3/6.2	8.6/6.9	9.4/8.0	10.4/8.6	-	-	-
Medium speed water flow			422	463	504	541	605	704	751	-	-	-
Technical characteristics												
Medium/high speed air flow		m^3/h	580/500	750/580	800/650	950/730	1100/780	1250/980	1510/1080	360/320	560/420	850/710
Sound pressure level (3)		dB(A)	36	39	41	46	32	40	44	34	35	46
Weight		kg	18		19.2			38		9.0		17.0
Dimensions L x W x H (4)	Unit	mm	555 x 555 x 250		555 x 555 x 250		1170 x 555 x 250			795 x 195 x 283		1250 x 195 x 320
	Panel	mm	620 x 620 x 30		620 x 620 x 30		1220 x 620 x 30			-		-

CT/CD fancoil

Cassette fancoil for installation in false ceilings, with 2 or 4 pipes system for heating and cooling operation. The dimensions of the chassis and the external panel are compatible with most European false ceiling standards.

HW fan

Wall-type fan coil for installation on the wall and heating and cooling operation

230 V-I-50 Hz. Free discharge

Series			CC fan			
Model			031	049	065	075
Cooling capacity						
High/medium sp. total cooling capacity (1)		kW	3.0/2.7	4.8/3.9	6.3/5.3	7.2/5.8
High/medium sp. sensible cooling capacity (1)		kW	1.9/1.7	3.1/2.6	4.0/3.4	4.6/3.7
Heating capacity, 2 pipes version						
High/medium sp. heating capacity (2)		kW	3.6/3.3	5.8/4.7	7.0/5.8	8.1/6.4
Medium speed water flow		l/h	469	663	908	998
Heating capacity, 4 pipes version						
High/medium sp. cooling capacity (1)			3.0/2.7	4.8/3.9	5.2/4.4	5.8/4.8
High/medium sp. heating capacity			5.1/4.6	6.0/5.1	6.3/5.5	7.0/5.9
Medium speed water flow			406	451	481	519
Technical characteristics						
Medium/high speed air flow		m^3/h	550/475	715/550	760/620	900/690
Sound pressure level (3)		dB(A)	39	47	49	52
Weight		kg	19		20.2	
Dimens. L x W x H (4)	Unit	mm	570 x 570 x 270			
	Panel	mm	620 x 620 x 40			

Coanda fan

Cassette fancoil with coanda effect for installation in false ceiling with 2-tube system.

(1) Cooling potential for high/medium fan velocity, with indoor air 27ºC, 50% RH and water inlet/outlet temp. 7/12ºC.
(2) Heating capacity with 2 tubes for indoor air 20ºC and water inlet/outlet temp. 50/45ºC; with 4 tubes calculated for air 20ºC and water inlet/outlet temp. 70/60ºC.
(3) Noise pressure levels at medium fan velocity based on local attenuation of 9 dB(A) FM fan/FMO fan/CK fan/CD/CT fan, 18 dB(A) FOH fan/FIH fan, 20dB(A) CK fan and 18 dB(A) TO/TB fan.
(4) Unit dimensions (Length x Width x Height).

TITAN

AIR HANDLING UNITS
air handling units

- 2000 m3/h - 46000 m3/h
- EC
- AER+ ACS
- SPECIAL DEVELOPMENTS

Indoor air quality

- High filtration efficiency compliant with IDAs: IDA1 and IDA2, high-efficiency active polarisation as an alternative to F filters

Adaptation

- Adaptability to the facility offering a wide range of model possibilities
- Units with water coils or direct expansion

Easy control

- CAREL supervision and electronic control with high performance and easy operation
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

Energy efficiency

- High efficiency ventilation section with plug&fan type electronic fans with high available pressure and minimum energy consumption

Environment

- Extraction air energy reclaim via cooling system, rotary heat exchanger and a cross-flow plate heat exchanger

Structure

- Equipment with high strength equipped with a 50 mm thick sandwich panel for installation outdoors or indoors
- Maximum accessibility and easy maintenance via removable panels with hinges

Applications

Industry | Retail & Shopping centres | Education | Hospitals & Laboratories

and other applications, please consult us

TITAN versions

Keyter TITAN TS - Heat Reclaim with crossflow plate heat exchanger

Keyter TITAN TS - Heat Reclaim with rotary heat exchanger

DAIRA

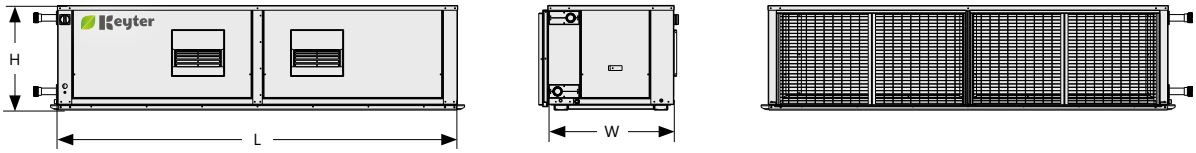
AIR HANDLING UNITS

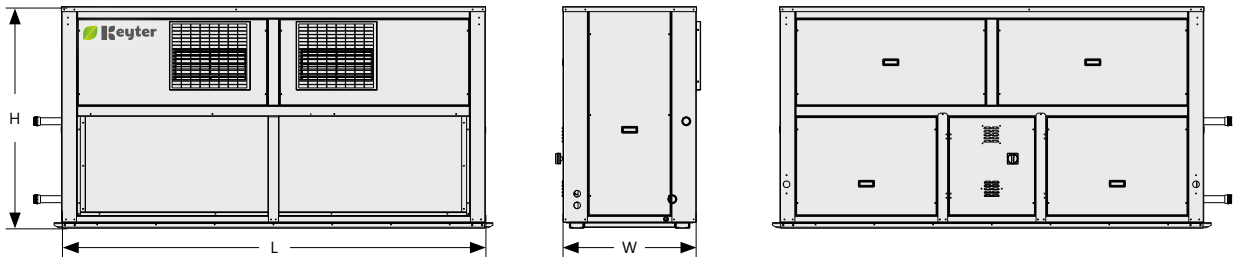
3000 m3/h - 17000 m3/h
16 - 102 kW | 22 - 126 kW

50 Hz
60 Hz

SPECIAL DEVELOPMENTS

Dimensions:





Horizontal unit dimensions (Keyter TH)							
	Series 0	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
L	906	1136	1339	2106	2556	2556	2556
W	806	806	806	806	806	856	856
H	660	660	660	660	660	660	960
Vertical unit dimensions (Keyter TV)							
	Series 0	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
L	906	1136	1339	2106	2556	2556	2556
W	806	806	806	806	806	856	856
H	1100	1331	1331	1334	1334	1629	1629

DAIRA
technical data

Codification:

KTH [ ] UO [ ] [ ] [ ]

Series — Size — Capacity

U - Non-autonomous model
O - With no compressor

S - Standard version
F - Version with free-cooling

H - Water

4 - 400 V/III/50 Hz with neutral

(1) Nominal cooling capacity for indoor air temp. 27ºC/50% RH and water of 7/12ºC.

(2) Nominal power input by the fans on the indoor unit.

(3) Nominal heating capacity for indoor air temp. 20ºC and water temp. 40/45ºC.

(4) Sound pressure level in dB(A) measured in a free field at 10 m from the source, directivity 2 and 1.5 m from the floor.

Series/Model		TH 0015	TH 1022	TH 2026	TH 2039	TH 3041	TH 3045	TH 4060	TH 5080	TH 6080	TH 6090
COOLING MODE											
Cooling capacity (1)	kW	16.2	25.2	28.7	35.4	44.5	48.7	54.4	77.3	85.3	97.6
Power input (2)	kW	0.6	0.75	0.75	1.1	1.5	1.5	1.5	3	4	5.5
HEATING MODE											
Heating capacity (3)	kW	22.4	33.4	37.8	46.2	59.5	66.75	73.2	101.3	112.2	118.1
Power input (2)	kW	0.6	0.75	0.75	1.1	1.5	1.5	1.5	3.0	4.0	5.5
Indoor airflow	m^3/h	3000	4500	5000	6200	7000	9000	10500	12000	14000	17000
Indoor nominal available pressure	Pa	60	80	80	80	100	100	100	100	100	100
Weight	Kg	120	132	168	225	283	294	338	384	454	465
Sound pressure (4)	dB(A)	47	45	46	48	49	49	51	51	51	52

Series/Model		TV 0015	TV 1022	TV 2026	TV 2039	TV 3041	TV 3045	TV 4060	TV 5080	TV 6080	TV 6090
COOLING MODE											
Cooling capacity (1)	kW	15.9	23.6	30.4	36.8	45.2	52.1	63.1	81.6	89.6	102.3
Power input (2)	kW	0.6	0.75	0.75	1.1	1.5	1.5	1.5	3	4	5.5
HEATING MODE											
Heating capacity (3)	kW	22.2	32.9	39.1	47.6	61	69.4	88.5	104.6	117.5	126.1
Power input (2)	kW	0.6	0.75	0.75	1.1	1.5	1.5	1.5	3.0	4.0	5.5
Indoor airflow	m^3/h	3000	4500	5000	6200	7000	9000	10500	12000	14000	17000
Indoor nominal available pressure	Pa	60	80	80	80	100	100	100	100	100	100
Weight	Kg	192	236	248	260	415	436	589	638	638	671
Sound pressure (4)	dB(A)	47	45	46	48	49	49	51	51	51	52

Options:

- Supply fans with EC technology
- Different possible assemblies for supply and return
- Free-cooling section
- F filtration section
- Auxiliary electrical heaters
- Auxliary hot water coil in-duct with three-way valve
- Clogged filter detector
- Differential pressure switch for airflow control
- Anti-corrosion coating for the indoor coil
- Three-way valve in separate kit
- Other electrical voltages (230 V/III ph/50-60 Hz, 380 V/III ph/60 Hz, 400 V/III ph/60 Hz, 460 V/III ph/60 Hz)

KTH horizontal unit

KTV vertical unit

BELAIR

DRY COOLERS for fluid cooling

51 - 847 kW

Keyter BELAIR is a new range of compact dry cooler units with a structure designed to aid transportation and lifting

Optimised design for dry operation or adiabatic cooling via an adiabatic panel with high efficiency and low pressure drop

Bespoke configuration

- Possibility of researching and designing bespoke equipment based on specifications thanks to the selection programme
- Different types of construction to adapt to the project specifications:

- Horizontal design
- Vertical design
- V-shaped equipment with dry cooling
- V-shaped equipment with adiabatic cooling

Adaptation

- Dry cooler unit with casing protected with weather-resistant polyester paint and high protection against UV rays
- Efficient operation based on variations in ambient temperature at the coil entrance

Easy control

- CAREL supervision and electronic control with high performance and easy operation
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

Energy efficiency

- Units produced with high-performance heat exchangers
- Possibility of including a high-performance adiabatic cooling system with low loss of load to increase efficiency

Energy savings and control

- High efficiency ventilation units via dual speed AC axial fans or EC axial fans
- Adiabatic panel with low loss and high efficiency
- Control of adiabatic system that favours the use of the unit in dry mode and uses adiabatic mode in peak high outdoor temperatures for minimal consumption of water

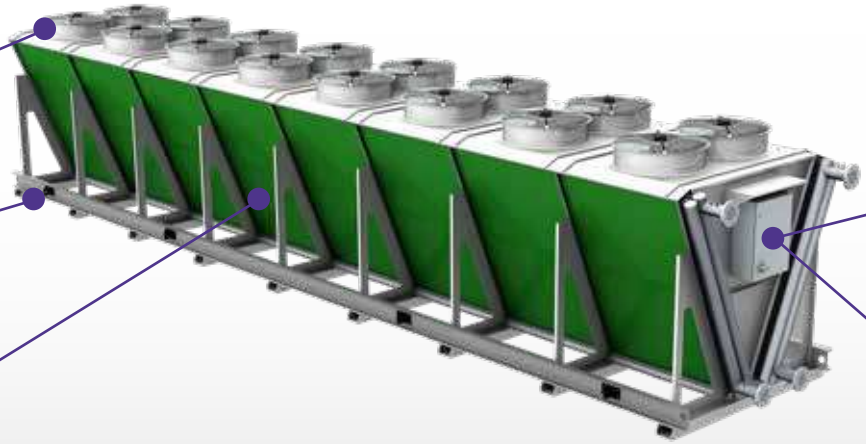
Applications

Industry | Retail & Shopping centres | Hospitals | Supermarkets

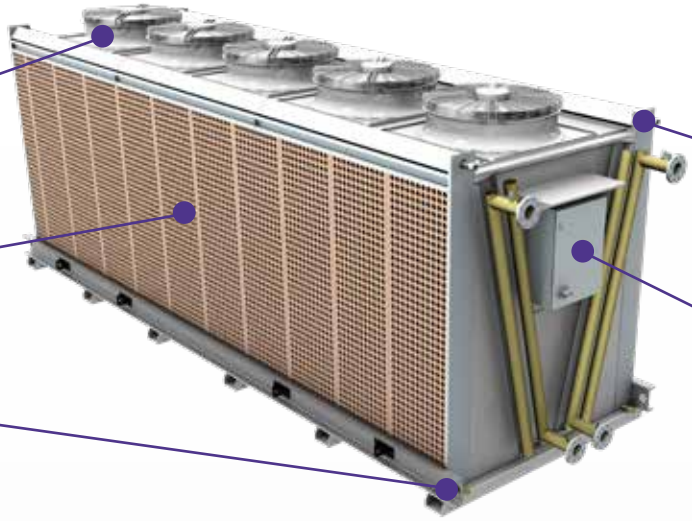
and other applications, please consult us

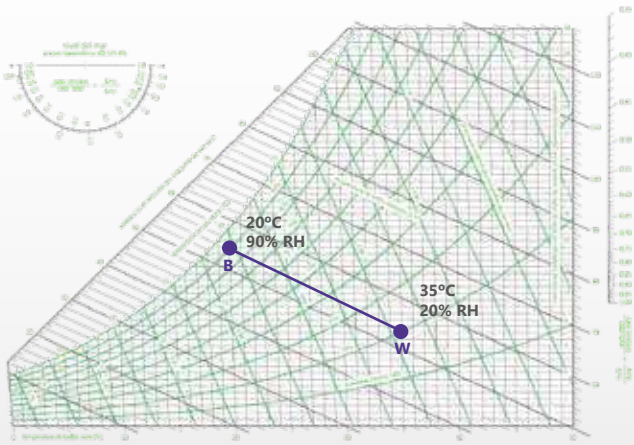
BELAIR versions

Keyter BELAIR dry cooling



Keyter BELAIR adiabatic cooling





Adiabatic cooling

Cooling via an adiabatic panel is a direct air cooling system without the possibility of spraying nor stagnation of water, thus there is no risk of legionella.

Via the use of high-performance panels and low pressure drop, efficiencies of over 90% are achieved. With this, there is a reduction in the air temperature up to 15ºC in hot and dry climates.

The control logic favours the use of the unit in dry mode and uses adiabatic mode in peak high outdoor temperatures.

GENERAL ELECTRIC | MALAYSIA - MOBILE MILITARY HOSPITALS | MOROCCO & SAUDI ARABIA

MALAGA AIRPORT | SPAIN - RAMPION OFFSHORE WIND FARM | EON

FUERTEVENTURA AIRPORT | SPAIN - ASTILLEROS ECUADOR | ECUADOR

life mobile solutions

LIFE Offshore

Cooling and air conditioning solutions developed for the Marine and Offshore sectors for different applications, such as maritime vessels sent to shipyards or ship builders, as well as offshore applications such as the wind power and oil & gas industry

AIR-TO-AIR SOLUTIONS

- Air conditioning units with a special body produced in aluminium alloy with Cr-Mg, with high resistance to corrosion: ALUCOAST
- Units designed for work under extreme outdoor conditions thanks to their construction with special certified electrical cabinets with high IP protection and panels with highly waterproof seals
- Special outdoor fans for work in marine environments

WATER-TO-AIR SOLUTIONS

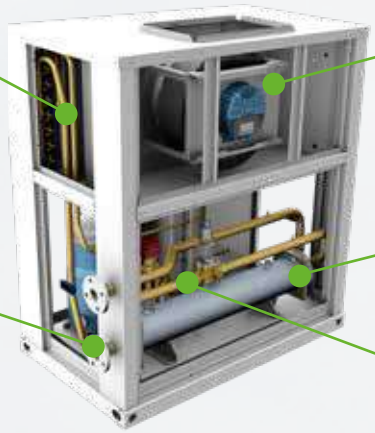
- Cooling and air conditioning unit for maritime applications with direct condensation via sea water
- Equipment designed to work in aggressive conditions with exchange coil with high protection and a cupronickel shell and tube heat exchanger for direct condensation using sea water
- Has condensation pressure regulation via a 3-way valve and EC radial fans resulting in a very high performance

WATER-TO-WATER CHILLERS

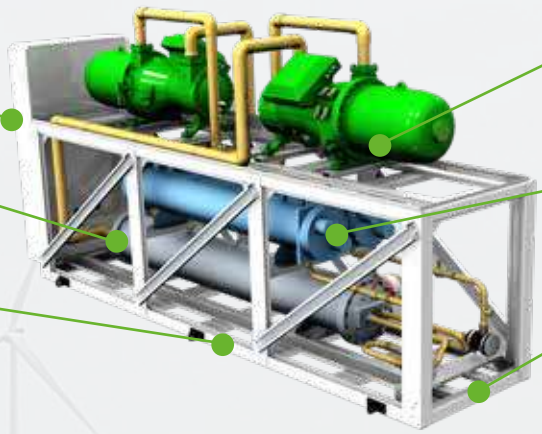
- Chillers that use water cooling with condensation via special cupronickel shell and tube heat exchangers with direct condensation using sea water
- Industrial design produced with screw compressors with the possibility of working with different refrigerants optimised for a compact design and with a robust structure that facilitates installation in narrow areas, as well as aiding transportation and lifting

Air-to-air solution for offshore applications

Water-to-air solution condensed by sea water



Seawater-cooled water-to-water solution



LIFE Airports

Packaged units with air-to-air PCA DX technology (Preconditioned Air Direct eXpansion) for aircraft air conditioning and low height rooftop units for boarding bridges air conditioning

ASLAN

Keyter ASLAN units form a full range of autonomous PCA floor and suspended units for air conditioning in aircraft on the ground

This unit is composed of packaged autonomous units, either PC Air or Pre-Conditioned Air type, direct expansion, air-cooled to operate with all outdoor air, especially designed to provide air conditioning in aircraft and hangars with high pressure air supply and with the possibility of heating with a reversible heat pump with multiscroll technology in ON/OFF version or INVERTER version and a VAV (Variable Air Volume) system via a frequency shifter (Inverter)

The brand new unit design integrates different technology from the worlds of refrigeration, air conditioning and energy saving, making this unit the most versatile and advanced on the market for providing ventilation, cooling, dehumidification, heating and air filtration for the aircraft.
Includes unit from 80 kg/min. to 210 kg/min. in Narrow Body, Wide Body and Jumbo versions

SEILA

Keyter SEILA CRP is a new range of latest generation low height air-to-air rooftop unit, with a height of 700 mm, especially designed for facilities where there is a need for reduced unit height, such as boarding bridges in airports or transportation containers

*More information on pages 38 and 39

regulation and control

AQUAMICRO control platform

The configurable **AQUAMICRO** controller is intended for air-to-air, water-to-air, air-to-water and water-to-water air conditioning unit with a management capacity up to 2 circuits and 4 compressors, managing 2 outdoor fans (with the possibility of on/off or proportional), indoor fan and water pumps in the indoor and outdoor unit.

AQUAMICRO has a wide range of interfaces that make interaction with this system easy and effective. Available for installation in a panel with a Molex connector.

This platform offers compatibility with the supervision systems in the Carel or Modbus protocol for BMS systems.

Included in the ranges:

- Micro-Chillers **KWF**
- Chillers **KWE** (up to series 4)
- Air-to-air packaged units **KCT COMFORTER / KCV COMFORTER series 1 and 2**

The **microAD** user terminal is intended for the AQUAMICRO platform for air-to-air or water-to-air unit.

The microAD terminal is an LCD terminal with icons for remote mounting on the wall that has temperature or temperature and humidity sensors and management of operating times.

Intended for residential use or in small commercial applications.

Connection with aquamicro via RS485.

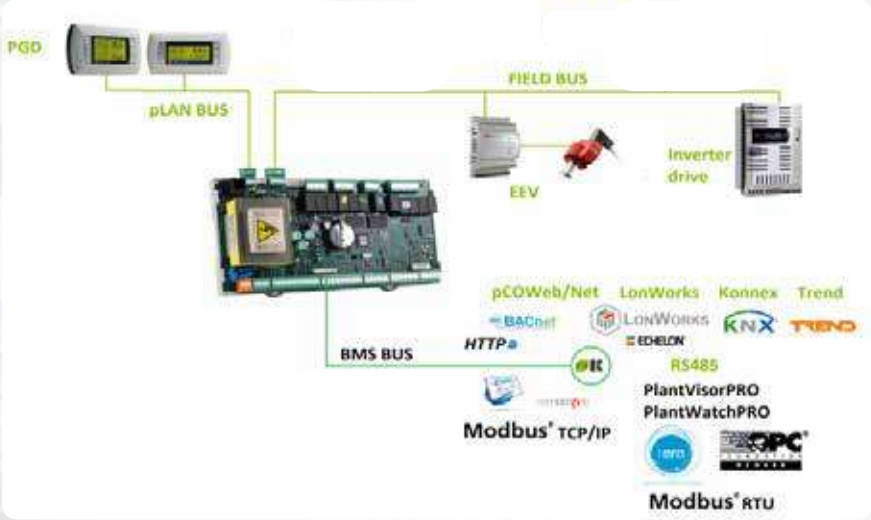
AQUAMANAGER control platform

The AQUAMANAGER programmable controller is available with open software developed by KEYTER for air-to-water and water-to-water air conditioning unit, capable of managing from one to 8 compressors in 4 circuits.

Provides control of outdoor fans (on/off or proportional) and up to 2 water pumps in the indoor and/or outdoor unit (air-to-water or water-to-water unit).

Included in the ranges:

Water-to-air HP/chillers KWE/KWA-KWM-KWB
Water-to-water HP/chillers KZV-KZB-KZM



The pGD1 user and maintenance terminal is intended for the AQUAMANAGER platform for air-to-water or water-to-water unit.

This terminal is designed to offer high versatility and the possibility of customisation.
Possibility of mounting on a panel or the wall.

Directly supplied from the electronic panel, or via an external power supply, may be installed 200 m from the machine thanks to the TCONN card. Possibility of connection in the pLan network up to 15 units viewed from the same maintenance terminal.

For energy saving, it has a free-cooling mode and other options such as an electronic expansion valve and a power meter.

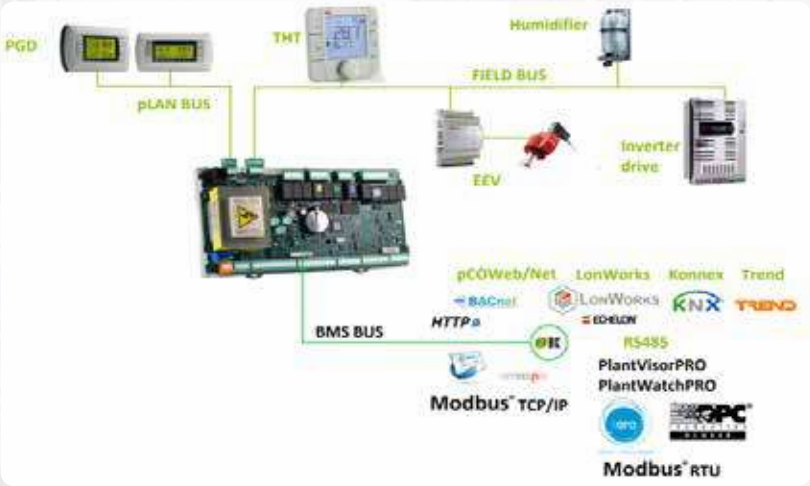
regulation and control

CLIMANAGER control platform

The CLIMANAGER programmable control is available for software openly designed by KEYTER for air-to-air air conditioning unit, able to manage up to 2 circuits with 4 compressors in addition to a heat reclaim circuit with an additional compressor (digital scroll and inverter).

It can control indoor and outdoor fans (on/off or proportional) and auxiliary heater amanagement.

Included in the ranges:
- Rooftop units **KCR, KGR**
- Wall-Top units **KCH**
- Split units **KDE**
- Packaged units **KCV, KCT** (depending on series)
- Water-to-air packaged units **KGH/KGV**



Has two terminals:

- pGD1 maintenance terminal
- The TH-Tune user terminal is a room terminal that enables the user to control the temperature and humidity.

Connected via a fieldbus in RS485, manages simple operating commands from the unit and operating time programming. Also contains warnings via alarms in the unit.

For energy saving, it can be configured with three types of free-cooling or free-heating: thermal, enthalpic or thermo-enthalpic.

Air quality control may be performed via CO_2 and VOC sensors.

May include other options such as energy meters, smoke alarms, electronic expansion valves and humidifiers.

Supervision systems by

pCO Web: The inclusion of this card in the AQUAMANAGER or CLIMANAGER platforms enables supervision of a single piece of unit via Ethernet-based protocols, such as BACnet IP, Modbus TCP/IP and SNMP. Includes a Web Server system that contains HTML pages related to the application.

PlantWatchPRO: A complete, reliable solution for the management, monitoring and optimisation of small and medium air conditioning facilities. For installation, an RS485 supervision card is required in each unit to be monitored.

PlantVisorPRO: A complete and reliable solution for the management, monitoring and optimisation of large air conditioning facilities. Enables the customisation of the display of the unit via a layout of the levels as per user needs.

tERA: A complete, remote display solution for the supervision and maintenance of small and medium facilities. Thanks to its connectivity to the internet network via Ethernet or GSM, it enables access to the system remotely from any location with an internet connection, and it has a web and mobile interface.

certifications

EC DECLARATION OF CONFORMITY

CE DECLARATION OF CONFORMITY
DECLARACION DE CONFORMIDAD CE
DÉCLARATION DE CONFORMITÉ CE
DICHIARAZIONE DI CONFORMITÀ CE
EC-CONFORMITEITSVERKLARING
EC-KONFORMITÄTSERKLÄRUNG

The manufacturer / El fabricante / Le fabricant / Il fabricante / De Fabrikant / Der Hersteller:

KEYTER TECHNOLOGIES S.L.
Pol. Ind. Los Santos s/n
14900 Lucena (Córdoba)
SPAIN / ESPAÑA / ESPAGNE / SPAGNA / SPANJE / SPANIEN

Declara bajo su responsabilidad, que el producto detallado / *Declares under its responsibility, that the following product / Déclare sous sa responsabilité, que le produit ci-dessous détaillé / Dichiara sotto la propria responsabilità che il prodotto qui seguito citato / verklaart op eigen verantwoordelijkheid dat de hieronder genoemde producten / erklärt unter eigener Verantwortung, dass die unten aufgeführten Produkte:*

Model / *modelo / modèle* / modello / model / Modell:

Year of manufacturing / *año de construcción / année de fabrication / Anno*

Serial number / *Número de serie* / N*uméro de série / Numero di serie / Serienummer / Serienummer:*

Is in conformity with the provisions of the following Directives / *Es conforme a las disposiciones de las directivas / Est conforme aux dispositions des directives suivantes / È conforme alle disposizioni delle Direttive / Voldoet aan de volgende Europese Richtlijnen / Konform ist mit den Bestimmungen der Richtlinie:*

Machine directive / *Directiva de máquinas* / *Directive Machines / Direttiva Macchine / Machinerichtlijn / Maschinenrichtlinie:*	**2006/42/CE**
Electromagnetic compatibility / *Compatibilidad electromagnética* / sur la Compatibilité electromagnétique / *Compatibilità electtromagnetica / Elektromagnetische compatibiliteit / Elektromagnetische Verträglichkeit:*	**2014/30/UE**
Low tension / *Baja tensión / Basse tensión / Bassa Tensione / Laagspanningsrichtlijn / Maschinenrichtlinie:*	**2014/35/UE**
Ecodesign requeriments / *Requisitos diseño ecológicos / Exigences en matière d´ecoconception / Specifiche per la progettazione ecocompatible / Festlegung von Anforderungen an die umweltgerechte gestaltung / Eisen intake ecologisch ontwerp:*	**2009/125/CE** **EU/2016/2281**
Pressure Equipment / *Equipos a presión / Equipment sous pression / Apparecchi a pressione / Richtlijn Drukapparatuur / Richtlinie über Druckgeräte :*	**2014/68/EU**
RoHS Restriction of certain Hazardous Substances in electric and electronic equipment / *Directiva RoHS / Directive RoHS / Direttiva RoHS / RoHS Richtlijn / RoHS Richtlinie:*	**2011/65/CE**
Substances that deplete the ozone layer / Sustancias que agotan la capa de ozono / S*ubstances qui appauvrissent la couche d'ozone / Sostanze che riducono lo strato di ozono / Stoffe die zum Abbau der Ozonschicht führen / Ozonlaag afbrekende stoffen:*	**1005/2009/CE**
Fluorinated greenhouse gases / *Gases fluorados de efecto invernadero / Gaz à effet de serre fluorés / Gas fluorurati a effetto serra / Fluorierte Treibhausgase / Gefluoreerde broeikasgassen*:	**517/2014/UE**
Certified on the / *Certificado el día / Certifié le jour / Certificado il / Certificaat op / Zertifikat auf:*	**11/07/2018 0:00:00**

Antonio Blanco Luque
Director General / *Chief Executive Officer*

2014/30/EU ELECTROMAGNETIC COMPATIBILITY

Informe de ensayo nº:
Test report No:

NIE: 49368REM.002

Test Report

EN 61000-6-2 (2005) / AC (2005): Electromagnetic compatibility (EMC) – Part 6-2: Generic standards - Immunity for industrial environments
&
EN 61000-6-4 (2007) / A1 (2011): Electromagnetic compatibility (EMC) – Part 6-4: Generic standards - Emission standard for industrial environments.

Identificación del objeto ensayado / Identification of item tested	CLIMATE CONTROL EQUIPMENT
Marca / Trade	KEYTER PERSEA
Modelo y/o referencia tipo / Model and /or type reference	KCR-7100
Otra identificación del producto / Other identification of the product	S/N: 160118A004
Versión final del HW / Final HW version	Rev 1.111
Versión final del SW / Final SW version	2.0
Características / Features	Not provided data
Fabricante / Manufacturer	KEYTER TECHNOLOGIES, S.L. C/ José Estrada Orellana, S/N. Polig. Ind. Los Santos - Aptdo. de correos 650 14900. Lucena. Córdoba. Spain.
Método de ensayo solicitado, norma / Test method requested, standard	EN 61000-6-2 (2005) / AC (2005) & EN 61000-6-4 (2007) / A1 (2011)
Resultado / Summary	IN COMPLIANCE
Aprobado por (nombre / cargo y firma) / Approved by (name / position & signature)	Rafael López Martín LAB EMC Manager
Fecha de realización / Date of issue	2016-05-17
Formato de informe No. / Report template No	FDT08_18

PRESSURE EQUIPMENT 97/23/EC

PRESURE EQUIPMENT 97/23 CE DIRECTIVE

TÜVRheinland

CERTIFICADO

Vigilancia de la verificación final
Monitoring of Final Assessment
Directiva 97/23/CE

Certificado Nº.: DEP-A1-000537
Certificate No.

Nombre y domicilio social del fabricante:
Name and address of the manufacturer
KEYTER TECHNOLOGIES, S.L.
P.I. LOS SANTOS S/N
14900 - LUCENA

De acuerdo con el resultado de las pruebas, el fabricante es autorizado a marcar los equipos a presión fabricados en el rango de este módulo con el marcado:
According to the test results, the manufacturer is entitled to mark the pressure equipment produced within the range of this module with the mark:

CE ,1027

Examinado según Directiva 97/23/CE:
Tested acc. to Directive 97/23/EC
Control interno de la fabricación con vigilancia de la verificación final (Módulo A1)
Internal manufacturing checks with monitoring of the final assessment (Module A1)

Informe Nº.:
Test report No.: 3328988

Descripción del tipo:
Description of pressure equipment: ENFRIADORAS Y BOMBAS DE CALOR GAMAS KWF,KWE,KCR,KCH,KDR y RT

Validez del certificado hasta:
Validity of the Certificate until: 30/10/2014

Nombre y dirección taller
Manufacturing plant: KEYTER TECHNOLOGIES, S.L.
P.I. LOS SANTOS S/N
14900 - LUCENA

Madrid, 14 de Junio de 2014

MACHINERY SAFETY 2006/42/EC ELECTRICAL SAFETY - LOW VOLTAGE 2014/35/EU

AT4 wireless, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España
www.at4wireless.com · C.I.F. A29 507 456

Informe de ensayo nº:
Test report No:

NIE: 49368RSE.001

Test report
Safety of machinery. Electrical equipment of machines. Part 1: General requirements
Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs
Acoustics. Determination of sound power levels and sound energy levels of noise sources using sound pressure. Survey method using an enveloping measurement surface over a reflecting plane

Identificación del objeto ensayado: Identification of item tested	REFRIGERATION / AIR CONDITINING UNIT
Marca: Trade	KEYTER
Modelo y/o referencia tipo: Model and /or type reference	PERSEA KCR-7300
Otra identificación del producto: Other identification of the product	REFRIGERATION / AIR CONDITINING UNIT. Equipment with metallic enclosure and protection against electric shock class I. Hardware version: Rey 1.111, Software version:2.0, Serial number: 160118A004.
Características: Features	400V 3~ , 50Hz, 117.1 kW, 256.1 A
Fabricante: Manufacturer	KEYTER TECHNOLOGIES, S.L. C/ José Estrada Orellana, S/N. Polig. Ind. Los Santos - Aptdo. de correos 650. 14900. Lucena. Córdoba. Spain.
Método de ensayo solicitado, norma: Test method requested, standard	IEC 60204-1: 2005 + A1 : 2008 / EN 60204-1: 2006 + A1: 2009 + Corr:2010 / UNE EN 60204-1: 2007 + A1: 2009 + Corr:2010 (Except clauses 4.4.6 and 11.3) ISO 13857:2008 / EN ISO 13857: 2008 / UNE EN ISO : 2008 ISO 3746 :2010 / EN ISO 3746 :2010 / UNE-EN ISO 3746 :2011
Resultado: Summary	IN COMPLIANCE
Aprobado por (nombre / cargo y firma): Approved by (name / position & signature)	Rafael González SE Lab. Manager
Fecha de realización: Date of issue	2016-05-25
Formato de informe No.: Report template No	FSE259_02 + FSE34_02 + FSE433_0

RoHS Restriction of certain Hazardous Substances in electrical and electronic unit

AT4 wireless, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España
www.at4wireless.com · C.I.F. A29 507 456

Informe de ensayo nº:
Test report No:

NIE: 49368RSE.002

Test report
Restriction of the use of certain hazardous substances in electrical and electronic equipment.

Identificación del objeto ensayado: Identification of item tested	CLIMATE CONTROL EQUIPMENT
Marca: Trademark	KEYTER PERSEA
Modelo y/o referencia tipo: Model and /or type reference	KCR-7300
Other identification of the product:	CLIMATE CONTROL EQUIPMENT. Equipment with metallic enclosure and protection against electric shock class I.
Características: Features	400V 3~ , 50Hz, 117.1 kW, 256.1 A
Fabicante: Manufacturer	KEYTER TECHNOLOGIES S.L. POLIG. IND. LOS SANTOS 14900 LUCENA (CÓRDOBA) ESPAÑA
Método de ensayo solicitado, norma: Test method requested, standard	Annex II of the European Union Directive 2011/65/UE POSE000 (General procedure of Safety Lab)
Resultado: Summary	SEE RESULTS IN APPENDIX A.
Aprobado por (nombre / cargo y firma): Approved by (name / position & signature)	Rafael González SE Lab. Manager
Fecha de realización: Date of issue	2016-05-23
Formato de informe No.: Report template No	FSE485_03

Sales and warranty

GENERAL SALES CONDITIONS:

Unless specific and prior agreement between Keyter Technologies, SL (hereinafter Keyter) and buyer, the following sales conditions shall be applied.
The present terms cancel and replace any former published or printed version of any Keyter documentation.

BRANDING:
The products sold by Keyter are marketed under Keyter brand.
The buyer is not entitled to amend marks and/or logos on the equipment, on its packaging and/or in any other documentation, nor add any mark, nor use any mark, logo and/or brand property of Keyter, unless expressly authorized by Keyter.

SPECIFICATIONS:
The data and characteristics contained in this catalogue are provided as an indication, as a consequence of the quick technology changes, safety, regulations and product improvement, and so the specifications are subject to change without prior notice and to be confirmed in case of order.

ORDERS:
Orders are to be placed in writing and shall be confirmed by the seller via an order of acknowledgement indicating lead time, under reserve of the right to withdraw. Once manufacturing commences, the order may not be cancelled.

DELIVERY:
Products are to be delivered in FCA Keyter (14900 Lucena, Spain) position, according to Incoterms 2010.

MODIFICATIONS, RETURN AND CANCEL OF ORDERS:
No changes, cancel or return of products shall be accepted once the production of them has started, except in case of written specific and prior consent from the seller. When accepted, if applicable, transport costs are to be covered by the buyer, being understood that the products are returned in the same conditions as originally delivered, including packaging. Keyter reserves its right to charge a fee as depreciation, handling, inspection, repairing and other incurred costs by Keyter.
Once accepted, orders shall not be amended nor cancelled without Keyter specific and prior consent.

PACKAGING:
The price of the products include standard packaging for road transport, not appropriated for sea transport.

PAYMENT:
Unless specific and prior agreement, the invoices are to be paid at the order placement by bank transfer to the communicated bank account. The seller reserves the right to withhold the delivery of pending orders in case circumstances of payment risk are identified by the seller.

COMMISSIONING:
The commissioning of the products is excluded. Notwithstanding the aforementioned and related to some products, the seller can require the assistance to the commissioning by an official technical service of the manufacturer in order to validate the guarantee certificate.

INSTALLATION:
The buyer recognizes and accepts that Keyter products are capital goods to be integrated into an installation. Therefore, the buyer undertakes to comply with the applicable legislation and to guarantee the quality of installation, which shall be carried out by an authorized party according to local and global applicable regulation.

RESOLUTION OF CONFLICTS:
The trade of Keyter products is submitted to the Spanish law. Any conflict or disagreement will be subject to legal arbitration of the Chamber of Commerce of Córdoba, Spain. In case of legal claims the parties expressly accept to submit to the jurisdiction of the Courts and Tribunals of Lucena (Córdoba), Spain.

GENERAL WARRANTY CONDITIONS:

Keyter warranties the products under Keyter brand, unequivocally identified with serial and model number in the Warranty Certificate expedited by Keyter and to be supplied together with the products, according to the following terms and conditions.

WARRANTY PERIOD:
The products have a warranty period of 12 months from invoicing date. In case the commissioning is carried out by a Keyter's Official Technical Service the warranty will be extended to 12 months from commissioning date, with a maximum limit of 15 months from invoice date. The warranty period for repairs and spare parts is 6 months from reparation or shipping date of the spare parts, unless the remaining warranty period is longer.

WARRANTY COVERAGE:
Keyter's warranty covers every manufacturing defect during the warranty period as long the products are installed and maintained according to in-vigor regulations and operated under normal conditions according to the limits of specifications in Technical Catalogues and Manuals.

EXCLUSION OF WARRANTY COVERAGE:
Workforce, labor, traveling and other expenses or costs.
Refrigerant gas supply is excluded.
The consumable and/or replacement materials used for preventive maintenance are excluded.
Operation faults, faulty components or parts and other defects that are not attributable to Keyter.
Cost originated in difficult access to the equipment or installation and any auxiliary item needed for handling, operating and/or moving the equipment or parts.
Parts and components not supplied from Keyter or following written instructions from Keyter.
Damage, faults and/or defaults resulting from lack or improper maintenance, improper use, alteration or addition.
Corrosion or deterioration of heat exchangers due to the aggressive nature of the fluids through them.
Corrosion of the unit due to exposure to aggressive environment.
Damages due to ice, fire or any extraordinary cause.
Damages caused by unit operating with a faulty voltage or a poor connection to the electrical network or connected to any kind of generator.

WARRANTY PROCEDURES:
RIn order to place an on-site warranty assistance it is mandatory to meet the following requirements:
Supply from the installer and/or maintenance company detailed written information on the causes and failures of the equipment, installation, facilities and safety measures in the installation.
In case the commissioning is to be carried out by a Keyter's Official Technical Service, the Pre-Commissioning Document shall be filled and returned to Keyter, as well as ensuring the proper operation conditions in the installation. In case the commissioning is not included in the sale, it shall be accepted previously.
In case any part of the equipment is replaced during the technical assistance or any spare part is delivered under warranty, those faulty parts stay as a property of Keyter and shall be returned.
The installer or maintainer of the installation are called to be present at the site in order to provide access to the installation, to have the usual tools and to operate on the installation when requested by Keyter's Official Technical Service.
The works performed by Keyter's Official Technical Service are in compliance with in-vigor with every risk prevention regulation. The equipment, installations, hard access and/or any other circumstance not depending on Keyter that make impossible to comply with in-vigor regulations will result in stopping the tasks, being the customer responsible to cover the expenses and delays.

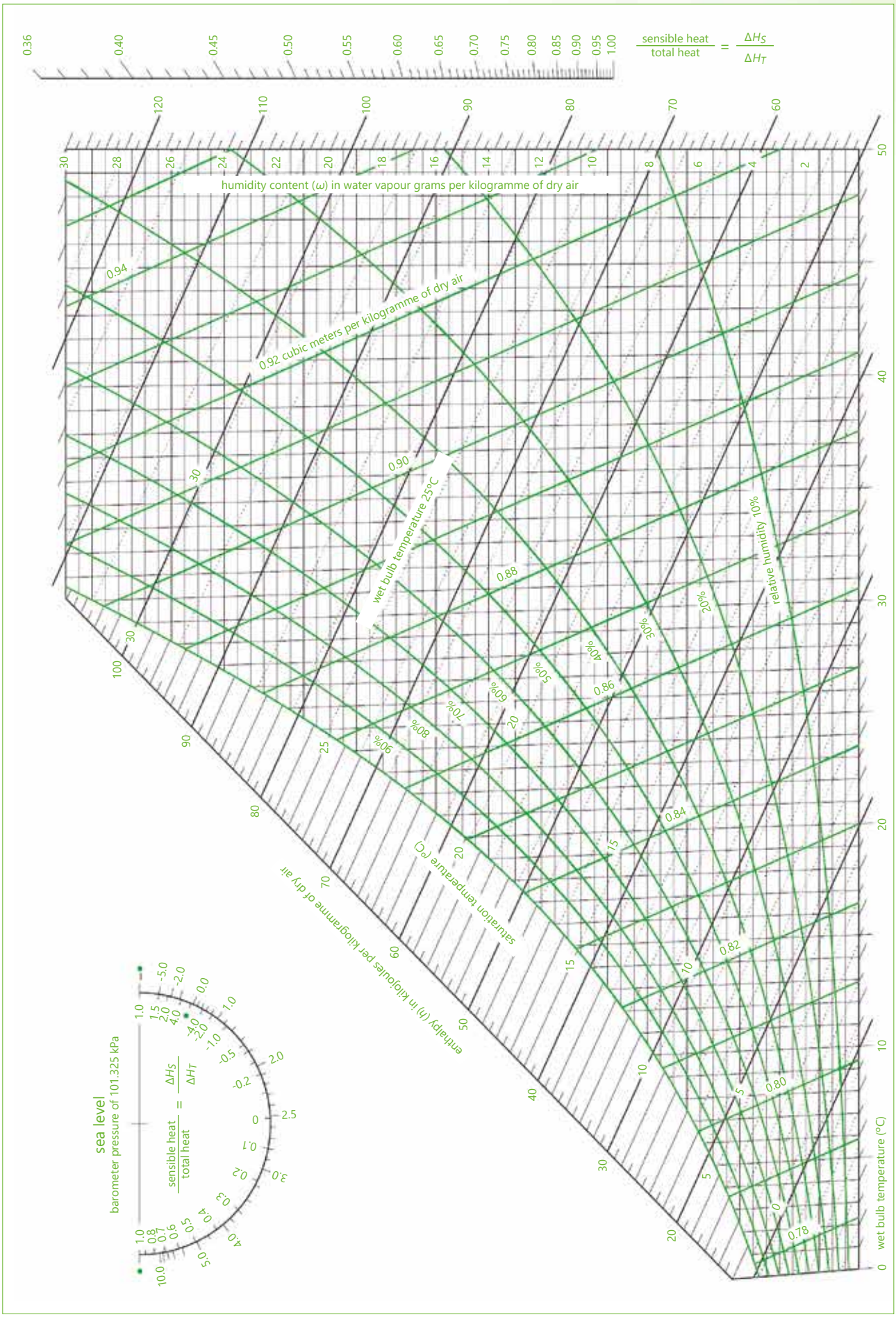
WARRANTY CONDITIONS:
The warranty is conditioned to all the following:
Payment on time of Keyter's invoices, not to void the warranty.
Presence of a manufacturing default or faulty spare part, that is unequivocally attributable to Keyter and accepted by Keyter's Technical Service.
Proper and correct installation, operation and maintenance of the equipment, in compliance with the in-vigor regulations.
Commissioning carried out by a Keyter's Official Technical Service, when requested by Keyter.
Equipment not being modified or handled by others than Keyter's.

DISCLAMER
Keyter does not accept any responsibility that may result from any event not expressly included in this warranty conditions and declines any responsibility for damages to persons or assets that may be caused by abnormal installation of the equipment.

Acceptance of these warranty conditions implies acceptance of the entire conditions. No modification on these conditions shall be accepted, unless priory agreed by the parties.

Keyter reserves the right to modify the information provided in this catalogue with no prior notice.

psychrometric diagram



natural experience

www.keyter.es

rooftop & wall-top units

dehumidifiers

packaged units and split systems

chillers and heat pumps

AHUs and terminal units

special developments

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