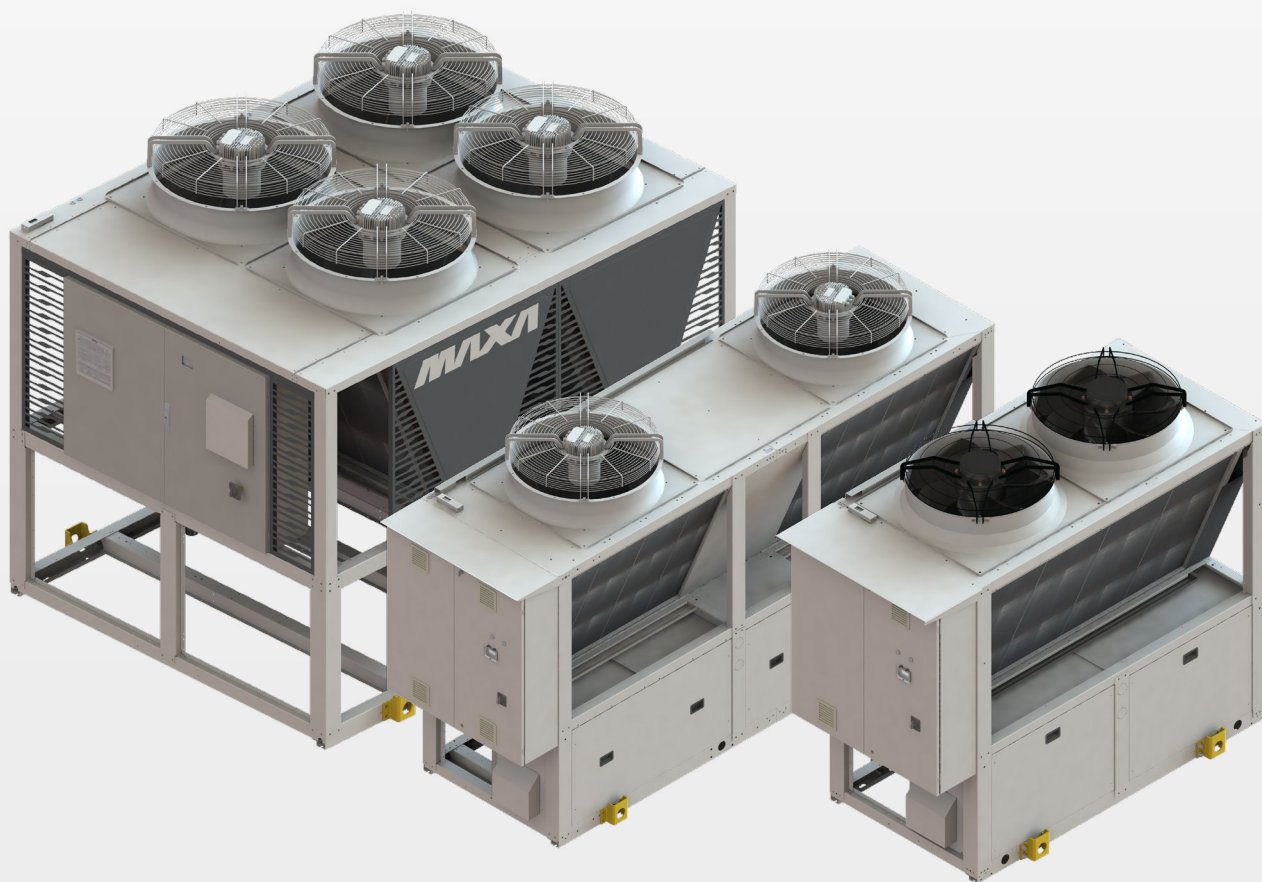


R290 GAS

HWA2 range of chillers and reversible heat pumps with scroll compressors

70kW-170kW

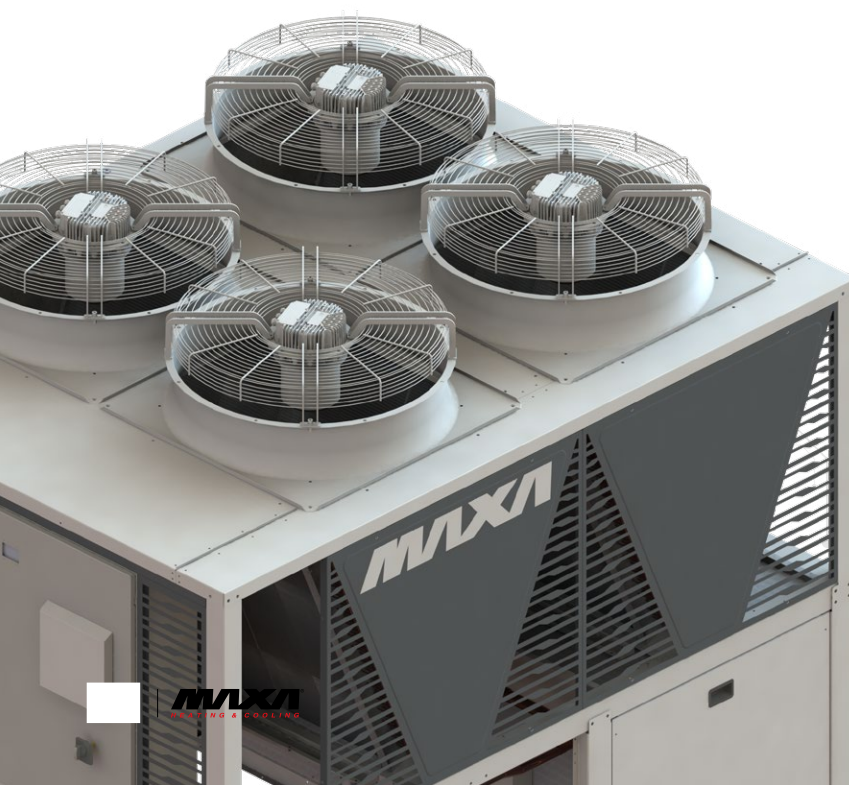


HWA2



Range of chillers and reversible heat pumps with scroll compressors and R290 refrigerant

- **A single solution for heating, cooling and domestic hot water production** with guaranteed performance all year round.
- Sustainability, technology and reliability make this range suitable for integration in both commercial and industrial applications, thanks to the use of fixed-speed scroll compressor technology.
- The HWA2 range is designed to achieve water temperatures suitable for a wide variety of applications, including the indirect production of domestic hot water.
-  **78°C hot water**
- The range includes **8 sizes**, available in cooling-only or heat pump versions.
- **Double range: chillers and reversible heat pumps.**
HWA2-A represents the range of chillers suitable for both comfort and industrial applications, thanks to the BT version, which allows fluid operating temperatures down to -8°C.
HWA2-AH thanks to its wide operating range and high maximum water temperature, it can easily be used both for new systems and for the replacement of existing systems.
- **3 different frames to meet every need**
The 8 different HWA2 sizes require different configurations; for this reason, 3 new frames have been developed, capable of accommodating all the components necessary for their proper operation.
- **Extensive hydraulic configurability**
Each size in the HWA2 range can be configured with various circulation pump models, which can optionally be complemented, on request, by the corresponding storage tank. In addition, the hydraulic connections to the distribution system can be easily oriented, optimizing the connection to it (04140-04155-04170).



HWA2

0270-0280-0290

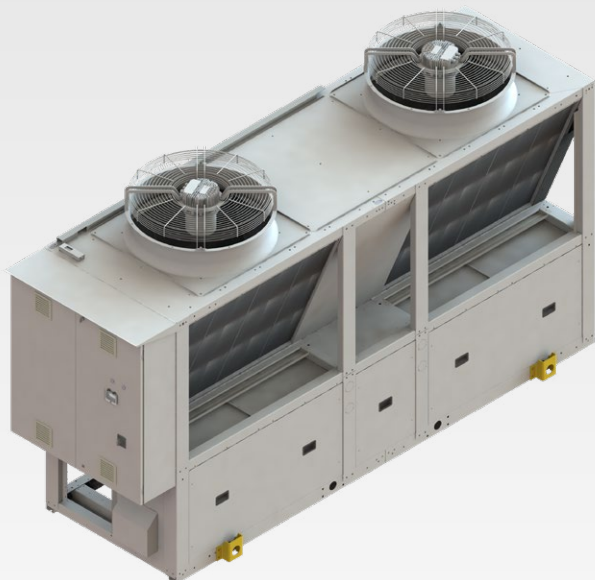
- 2 scroll compressors
- single refrigeration circuit
- optional: single AC pump, double AC pump, single inverter pump
- optional: integrated tank
- EC fans as standard (version A)
- optional: EC fans (AH version)
- optional: SL or SSL version



HWA2

04110-04120

- 4 scroll compressors
- dual refrigeration circuit
- optional: single AC pump, double AC pump, single inverter pump
- optional: integrated tank
- EC fans as standard (version A)
- optional: EC fans (AH version)
- optional: SL or SSL version



HWA2

04140-04155-04170

- 4 scroll compressors
- dual refrigeration circuit
- optional: single AC pump, double AC pump, single inverter pump
- optional: integrated tank
- EC fans as standard (version A)
- optional: EC fans (AH version)
- optional: SL or SSL version



HWA2-A 0270-04170

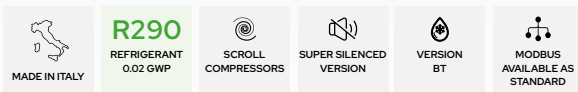
Air-cooled water chiller, with scroll compressors, axial fans and R290 GAS

70 kW-170 kW



During certification

NEW



Carpentry: all units in the series feature a structure suitable for outdoor installation, made of hot-dip galvanized steel sheet and coated with RAL 7035/RAL 7046 polyester powder paint (only for certain components) to ensure maximum resistance to atmospheric agents. All screws and inserts are in galvanized and stainless steel.

Compressors: scroll type, specifically designed to operate with R290, mounted on a double anti-vibration slide. The permanently installed crankcase heater is activated when the compressor is stopped and is disabled when it restarts.

Air-side heat exchangers: entirely made of aluminum using microchannel technology, which significantly reduces both air-side pressure drops and refrigerant charge, while at the same time ensuring higher heat transfer capacity for the same frontal surface area compared to traditional heat exchangers.

User side heat exchangers: of the brazed-plate type. Made of AISI stainless steel for both single-circuit and dual-circuit units, factory-insulated with closed-cell material. They can be equipped with an electric antifreeze heater (optional accessory KA). A differential pressure switch, installed on the water side, ensures the presence of water flow, preventing ice formation inside.

Fans: axial type with airfoil blades. They are statically and dynamically balanced and supplied complete with protective grille and inlet/outlet nozzles with double flared profile, specially shaped to increase efficiency and reduce noise. The motor has a degree of protection IP54 according to CEI EN 60529. The electric motor used is modulation-controlled with a directly coupled EC brushless motor and equipped with integrated thermal protection, which ensures condensation control down to an outdoor temperature of -20 °C.

Refrigeration circuit: built using components from leading international manufacturers and in accordance with UNI EN 13134. The refrigerant gas is R290. In its basic version, the refrigeration circuit includes: electronic expansion valve, service valves for maintenance and control, safety device compliant with current regulations (two high-pressure switches per circuit), pressure transducers to accurately measure evaporation and condensation pressures, filter drier, sight glass for monitoring the refrigerant charge, and solenoid valve.

Electrical panel: fully manufactured and wired in compliance with standard EN 60204, comprising a power section and a control section. The degree of protection of the electrical panel is IP54. The electrical panel is equipped with a terminal block with volt-free contacts for remote ON-OFF.

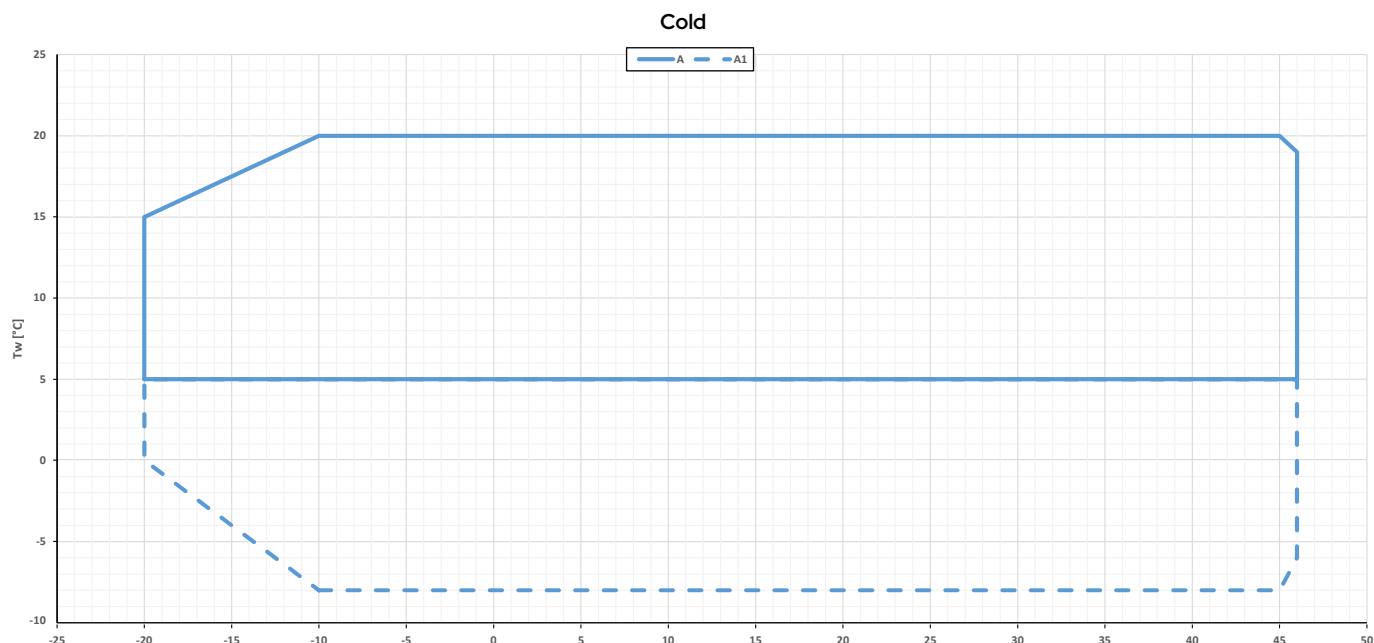
Control system: all units are equipped with a microprocessor control board with superheat control logic managed on the basis of the signals sent by the pressure transducers and temperature probes. The CPU also controls the following functions: regulation of the water temperature, antifreeze protection, compressor start-up and timing, management of fan and circulation pumps (if present), alarm reset, alarm signaling and operation LEDs. ModBus RTU RS-485 interface available as standard on the terminal block.

Control and protection devices: all units are equipped with the following control and protection devices: phase monitor complete with minimum and maximum voltage relay, which stops the unit if the phase sequence is incorrect or if the voltage of at least one phase differs by more than 10% from the others. Leaving water temperature sensor (with antifreeze function for the water circuit), return water temperature sensor, low-pressure transducer, high-pressure transducer, discharge temperature sensor on the compressors, suction temperature sensor on the compressors, outdoor air temperature sensor. Thermomagnetic circuit breakers for the protection of: transformer, compressors, pumps (if present) and fans, fan thermal protection, thermal protection on each compressor, differential pressure switch on the water side, two manually reset high-pressure switches installed on the compressor discharge line.

Hydraulic circuit: the HWA2 series can be supplied with a built-in, highly configurable hydronic kit which, in addition to the differential pressure switch, can include a single pump or a twin-pump set (one in standby as backup to the other), suitable for use with chilled water containing glycol up to 50%, and directly managed by the onboard unit controller. It is also possible to install an internal inertial buffer tank, externally insulated with closed-cell expanded material, with a capacity suitable for the unit size.

R290 gas safety: the HWA2 series is equipped with an automatic electronic system for detecting any R290 gas releases. Activation of the R290 gas safety system starts the ATEX fan in the compressor compartment, ensuring rapid dispersion and dilution of the gas. When the unit is fitted with a pump kit or twin pump, a second R290 detector is added, providing an additional level of monitoring and increasing the overall safety of the installation.

Operating Areas



Tw: water temperature - Ta: outdoor air temperature | n|A = HWA2-A + EC-CC
A1 = HWA2-A BT

Accessories

Factory-installed

- **KA1*** – Antifreeze heater for heat exchanger and pump (if present) – electric heating element installed on the front face of the plate heat exchanger, which is activated when the water temperature inside the exchanger falls below +4°C, and electric heating element that protects the pump motor at low temperatures.
- **SL **** – The silenced unit features an innovative acoustic insulation applied to the compressor compartment panels. This system significantly reduces noise during operation, improving the acoustic comfort of the surrounding environment.
- **SSL **** – The super-silenced unit combines the acoustic insulation applied to the compressor compartment panels with a special diffuser mounted on the fan. This diffuser increases its efficiency, allowing the speed to be reduced, lowering the sound pressure level and optimizing energy consumption.
- **PS ***** – Reversible heat pump, heating-only version with standard head.
- **PSAP ***** – Reversible heat pump, high head pump-only version.
- **PSI***** – AC circulation pump controlled by an external inverter installed in the electrical panel.
- **PSIAP**** – High head AC circulation pump controlled by an external inverter installed in the electrical panel.
- **PD ***** – Reversible heat pump, dual-pump version with standard head.
- **PDAP ***** – Reversible heat pump, dual high-head pump version.
- **PS-SI ***** – Reversible heat pump, pump-only version with standard head + tank and expansion vessel.
- **PSAP-SI ***** – Reversible heat pump, high-head pump only version + tank and expansion vessel.
- **PSI-SI***** – AC circulation pump controlled via external inverter installed in the electrical panel + tank and expansion vessel.
- **PSIAP-SI***** – High head AC circulation pump controlled via external inverter installed in the electrical panel + tank and expansion vessel.
- **PD-SI ***** – Reversible heat pump, dual-pump version with standard head + tank and expansion vessel.
- **PDAP-SI ***** – Reversible heat pump, high-head double pump version + tank and expansion vessel.
- **TR1** – Microchannel coil with Aero surface treatment. The treatment consists of spraying a special water-based coating, formulated with new resins offering extremely high chemical resistance. The product is flexible to withstand thermal contractions and expansions, UV-resistant, dirt-repellent, mechanically resistant, with very limited reduction in heat transfer and virtually no impact on air-side pressure drops. The treatment withstands 6,000 h according to ASTM B117.
- **TRIC4** – Anti-corrosion treatment on coil and sheet metal – includes a TR1-type treatment on the coil and, in addition, the hot-dip galvanized steel panels are painted so as to make them suitable for unit installation in C4H environments, according to UNI EN 12944. The external fastening hardware is made of AISI 304 material, class A2.
- **C4** – The hot-dip galvanized steel panels are painted to ensure compliance with installation in C4H-class environments, in accordance with UNI EN 12944. The external fastening hardware is made of AISI 304 stainless steel (A2 class), ensuring corrosion resistance and long-term durability.
- **BT** – The BT accessory allows the operating range of the water temperature to be extended down to -8°C. In this case, it is mandatory to use a water-glycol mixture suitable for the operating point and for the minimum temperature reached by the system.

** Accessories not usable simultaneously

*** Accessories not usable simultaneously

Accessories

- **EC-CC** - Modulating EC fan. Includes the CC function, condensation control down to -20°C. Mandatory accessory for cooling-only versions, comfort applications, EU market.
- **GR2** - Battery compartment anti-intrusion kit – wire mesh to prevent the entry of foreign objects into the coil and to protect the coil from accidental contact by people or objects.
- **GR4** - Anti-intrusion kit for hydraulic circuit compartment and anti-intrusion kit for coil compartment.
- **SS** - Soft starter – electronic static starter for inrush current management, installed inside the electrical panel; it allows a reduction of inrush current and of mechanical wear on the motor windings.
- **KS** - Lifting bracket kit – facilitates lifting and positioning of the unit.
- **MN** - External pressure gauges for quick monitoring of high and low pressure; four gauges in dual-circuit units.

Provided separately

- **AG** - Rubber anti-vibration kit – designed to prevent vibration transmission to the structure; they are to be installed beneath the unit, in the designated mounting holes.
- **AM** - Spring anti-vibration kit – designed to prevent transmission of vibrations to the structure; they must be installed underneath the unit, in the designated holes.
- **FY** - Y-strainer – contains a stainless steel mesh screen (500 µm filtration) that collects solid materials present in the water. Filtration prevents blockage and/or damage to the devices installed downstream of the strainer. Alternatively, it is possible to install a dirt separator that ensures a filtration level not greater than 1 mm (in this case, it is no longer necessary to install the Y-strainer).
- **SAS** - Remote system probe.
- **TQE** - Rainproof cover for electrical panel.
- **RV** - Grooved coupling joint kit with carbon steel pipe stubs, complete with grooved connection to the unit and flanged connection with gasket for direct connection to the system.
- **ISK**** - USB/RS485 serial converter – interface device capable of reading and writing control registers via the RS485 standard and converting them to a USB port that can be connected to any supervision system.
- **LNC**** - LAN-Wi-Fi router – device that allows the unit to be connected to a local network via Ethernet cable or Wi-Fi coverage for remote monitoring.
- **OVPN**** - 3G LAN-Wi-Fi router with VPN tunnel – device that allows the unit to be connected remotely with an industrial router using the secure OPENVPN service.
- **i-CR2**** - Wall-mounted remote control – Modbus remote controller with negative LCD and capacitive keys. The device is intended to be used as a remote unit keypad with local temperature sensing and replicates the functions of the on-board unit controller.
- **Hi-TV415**** - Color touch screen wired remote controller for the centralized management of a cascade of chillers/heat pumps, for up to 7 units.

** Accessories not usable simultaneously



i-CR2
Wall-mounted
remote control
ACCESSORY



Hi-TV415
Touch screen remote
controller for cascade
management (max 7 units)
ACCESSORY

HWA2-A			0270	0280	0290	04110
Cooling	Cooling capacity (1)	kW	67.1	75.7	79.1	98.3
	Total absorbed power (1)	kW	19.7	21.7	24.4	31.7
	EER (1)	W/W	3.41	3.49	3.24	3.10
	Cooling capacity (2)	kW	89.9	98.5	103	138
	Total absorbed power (2)	kW	22.3	24.7	28	34.5
	EER (2)	W/W	4.03	3.99	3.68	4.00
	SEER (3)	W/W	4.70	5.09	4.69	4.29
	IPLV (9)		5.55	6.04	5.69	TBD
	Cooling capacity (8)	kW	41.2	46.5	48.8	TBD
	Total absorbed power (8)	kW	18.1	19.5	21.5	TBD
	EER (8)	W/W	2.28	2.38	2.27	TBD
	Water flow rate (1)	l/s	3.21	3.62	3.78	4.70
	Pressure drops in the heat exchanger on the user side (1)	kPa	18.00	22.40	24.20	16.30
Compressor	Compressor type		SCROLL			
	Refrigerant oil (type)		POE 160SZ			
	No. of compressors	No.	2	2	2	4
	Standard capacity steps	No.	2	3	2	5
	Oil loading	l	6.6	6.6	6.6	13.2
	Refrigerant circuits	No.	1	1	1	2
Refrigerant	Type		R290			
	Refrigerant charge (4) Circuit 1	kg	4.5	4.5	4.5	3.8
	Refrigerant charge (4) Circuit 2	kg	-	-	-	3.8
	Tons of CO ₂ equivalent (4)	Ton	0.0001	0.0001	0.0001	0.0002
	Design pressure (high/low)	bar	33/1.7	33/1.7	33/1.7	33/1.7
Outdoor zone fans	Fan types		AXIAL - EC			
	No. of fans	No.	2	2	2	2
	Rated power (1)	kW	1.9	1.9	1.9	1.7
	Maximum power	kW	2.55	2.55	2.55	2
	Maximum absorbed current	A	4	4	4	3.1
	Standard air flow rate	m ³ /h	42000	42000	42000	42000
Internal heat exchanger	Internal heat exchanger type		PHE - PLATE TYPE			
	No. of indoor heat exchangers	No.	1	1	1	1
	Water content	l	5.30	5.30	5.30	8.30
Hydraulic circuit	Maximum water-side pressure	bar	6	6	6	6
	Maximum pressure of hydronic kit (safety valve setting)	bar	6	6	6	6
	Water connections		2"	2"	2"	2" 1/2
	Minimum system water content (5)	l	354	423	414	270
Sound data	Sound power (6)	dB (A)	85 std	86 std	86 std	87 std
			83 SL	84 SL	84 SL	85 SL
			81 SSL	82 SSL	82 SSL	83 SSL
	Sound pressure (7)	dB (A)	53 std	54 std	54 std	55 std
			51 SL	52 SL	52 SL	53 SL
			49 SSL	50 SSL	50 SSL	51 SSL
Electrical data	Power supply		400V/3P/50Hz			
	Maximum input power, version without accessories	kW	42.4	45.6	48.8	64.0
	Maximum current absorbed, version without accessories	A	64.2	71.0	77.8	102.4
	Maximum inrush current for version without accessories	A	327.0	366.0	405.0	241.8
Dimensions and weights	Standard length / with tank	mm	2570 / 3280	2570 / 3280	2570 / 3280	3960 / 4670
	Depth	mm	1135	1135	1135	1135
	Standard height / SSL	mm	2250 / 2300	2250 / 2300	2250 / 2300	2250 / 2300
	Net transport weight (standard version)	kg	1055	1060	1065	1270
	Operating weight (standard version)	kg	1065	1070	1075	1280

(1) Internal heat exchanger water temperature = 12/7°C, air entering the external heat exchanger 35°C.

(2) Internal heat exchanger water temperature = 23/18°C, air entering the external heat exchanger 35°C.

(3) Cooling: low temperature, variable output, constant flow rate.

(4) Data is indicative and subject to change. For the correct value, always refer to the technical label on the unit.

(5) The calculated value of minimum system water volume does not take into account the water volume contained in the internal heat exchanger (evaporator). For applications with low outdoor air temperature or low required average loads, the minimum system water volume is obtained by doubling the indicated value.

(6) Condition (1); value determined on the basis of measurements carried out in accordance with UNI EN ISO 9614-2, in compliance with the requirements of Eurovent certification.

(7) Value calculated from the sound power level using ISO 3744:2010, referenced to a distance of 10 m from the unit.

(8) Cooling BT version: outdoor air temperature 35°C, internal heat exchanger water temperature = -3/-8°C. Fluid treated with 35% ethylene glycol.

(9) Calculated according to AHRI 551/591 (SI) standard.

The performance data provided are indicative and may be subject to change. The capacities declared at points (1), (2), (8) refer to the instantaneous output in accordance with EN 14511:2022. The data declared at point (3) are determined in accordance with UNI EN 14825:2022.

Preliminary data

HWA2-A			04120	04140	04155	04170
Cooling	Cooling capacity (1)	kW	112.0	132.4	141.6	152.4
	Total absorbed power (1)	kW	35.2	42.3	47.0	50.8
	EER (1)	W/W	3.18	3.13	3.01	3.00
	Cooling capacity (2)	kW	155	169.6	180	192.4
	Total absorbed power (2)	kW	38.6	44.5	48.8	52.7
	EER (2)	W/W	4.02	3.81	3.69	3.65
	SEER (3)	W/W	4.45	≤ 4	≤ 4	≤ 4
	IPLV (9)		TBD	TBD	TBD	TBD
	Cooling capacity (8)	kW	TBD	TBD	TBD	TBD
	Total absorbed power (8)	kW	TBD	TBD	TBD	TBD
	EER (8)	W/W	TBD	TBD	TBD	TBD
	Water flow rate (1)	l/s	5.35	6.33	6.77	7.28
	Pressure drops in the heat exchanger on the user side (1)	kPa	20.70	21.86	21.36	21.52
Compressor	Compressor type		SCROLL			
	Refrigerant oil (type)		POE 160SZ			
	No. of compressors	No.	4	4	4	4
	Standard capacity steps	No.	4	4	6	4
	Oil loading	l	13.2	13.2	13.2	13.2
	Refrigerant circuits	No.	2	2	2	2
Refrigerant	Type		R290			
	Refrigerant charge (4) Circuit 1	kg	3.8	4.4	4.5	4.5
	Refrigerant charge (4) Circuit 2	kg	3.8	4.4	4.5	4.5
	Tons of CO ₂ equivalent (4)	Ton	0.0002	0.0002	0.0002	0.0002
	Design pressure (high/low)	bar	33/1.7	33/1.7	33/1.7	33/1.7
Outdoor zone fans	Fan types		AXIAL - EC			
	No. of fans	No.	2	4	4	4
	Rated power (1)	kW	1.7	1.9	1.9	1.9
	Maximum power	kW	2	2.6	2.6	2.6
	Maximum absorbed current	A	3.1	4	4	4
	Standard air flow rate	m ³ /h	42000	84000	84000	84000
Internal heat exchanger	Internal heat exchanger type		PHE – PLATE TYPE			
	No. of indoor heat exchangers	No.	1	1	1	1
	Water content	l	8.30	12.60	13.90	15.10
Hydraulic circuit	Maximum water-side pressure	bar	6	6	6	6
	Maximum pressure of hydronic kit (safety valve setting)	bar	6	6	6	6
	Water connections		2" 1/2	2" 1/2	2" 1/2	2" 1/2
	Minimum system water content (5)	l	326	TBD	TBD	TBD
Sound data	Sound power (6)	dB (A)	88 std 86 SL 84 SSL	TBD	TBD	TBD
	Sound pressure (7)	dB (A)	56 std 54 SL 52 SSL	TBD	TBD	TBD
Electrical data	Power supply		400V/3P/50Hz			
	Maximum input power, version without accessories	kW	68.8	77.5	84.0	90.5
	Maximum current absorbed, version without accessories	A	109.8	123.4	137.0	150.6
	Maximum inrush current for version without accessories	A	256.8	TBD	TBD	TBD
Dimensions and weights	Standard length / with tank	mm	3960 / 4670	2810	2810	2810
	Depth	mm	1135	2320	2320	2320
	Standard height / SSL	mm	2250 / 2300	2362 / 2369	2362 / 2369	2362 / 2369
	Net transport weight (standard version)	kg	1280	1950	1960	1975
	Operating weight (standard version)	kg	1290	1955	1965	1980

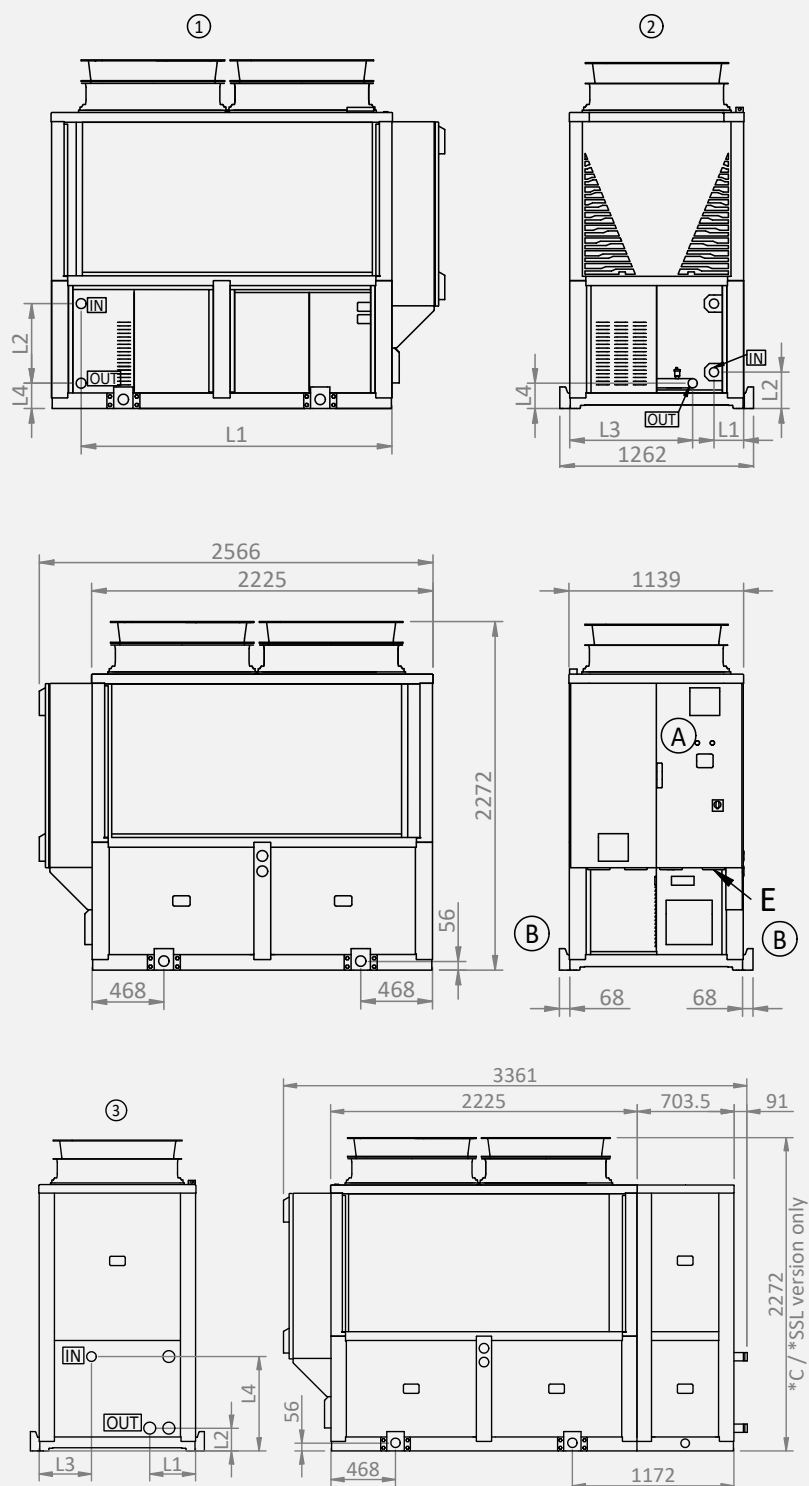
(1) Internal heat exchanger water temperature = 12/7°C, air entering the external heat exchanger 35°C.
(2) Internal heat exchanger water temperature = 23/18°C, air entering the external heat exchanger 35°C.
(3) Cooling: low temperature, variable output, constant flow rate.
(4) Data is indicative and subject to change. For the correct value, always refer to the technical label on the unit.
(5) The calculated value of minimum system water volume does not take into account the water volume contained in the internal heat exchanger (evaporator). For applications with low outdoor air temperature or low required average loads, the minimum system water volume is obtained by doubling the indicated value.
(6) Condition (1); value determined on the basis of measurements carried out in accordance with UNI EN ISO 9614-2, in compliance with the requirements of Eurovent certification.

(7) Value calculated from the sound power level using ISO 3744:2010, referenced to a distance of 10 m from the unit.
(8) Cooling BT version: outdoor air temperature 35°C, internal heat exchanger water temperature = -3/-8°C. Fluid treated with 35% ethylene glycol.
(9) Calculated according to AHRI 551/591 (SI) standard.
The performance data provided are indicative and may be subject to change. The capacities declared at points (1), (2), (8) refer to the instantaneous output in accordance with EN 14511:2022. The data declared at point (3) are determined in accordance with UNI EN 14825:2022.

Preliminary data

Dimensional Drawings

HWA2-A 0270 / 0280 / 0290



Version	L1	L2	L3	L4	IN / OUT	Version height -SSL / -C
Standard	2026	519	-	165	2" Victaulic	2295
Single - Dual pump	194	236	802	685		2295
Single - Dual pump with tank	332	165	380	685		2295

A: Electrical panel
B: Lifting bracket
E: Power supply input

* Accessory
** Standard version height; for -SSL /
-C: see table

Dimensions in mm

Price list

HWA2-A			270	280	290
HWA2-A	Cooling only	£	34.593	35.183	35.501
FACTORY-MOUNTED ACCESSORY MANDATORY: Standard EC fan for ERP regulation to be added to the unit price					
EC-CC	EC fan (included in BT, SSL versions). DC control included	£	994	994	994
FACTORY-MOUNTED ACCESSORIES					
BT	Cooling only BT version (EC-CC accessory already included)	£	2.080	2.080	2.080
KA1	Adhesive heater for heat exchanger + pump heater (if present). Not available for units with tank	£	246	246	246
GR2	Anti-intrusion battery compartment kit	£	1.348	1.348	1.348
GR4	Anti-intrusion kit for hydraulic circuit compartment and anti-intrusion kit for batteries compartment	£	2.526	2.526	2.526
PS	Standard head pump	£	3.882	3.882	3.882
PSI	Standard head pump controlled by an inverter installed in the electrical panel	£	4.422	4.422	4.422
PSAP	High-head pump	£	4.327	4.327	4.327
PSIAP	High-head pump controlled by an inverter installed in the electrical panel	£	4.866	4.866	4.866
PD	Twin pump, standard head	£	7.048	7.048	7.048
PDAP	Dual high-head pump	£	7.873	7.873	7.873
PS-SI	Standard head pump + tank	£	9.005	9.005	9.005
PSI-SI	Standard head pump controlled by an inverter installed in the electrical panel + tank and expansion vessel	£	9.505	9.505	9.505
PSAP-SI	High head pump + tank	£	9.417	9.417	9.417
PSIAP-SI	High-head pump with inverter control installed in the electrical panel + tank and expansion vessel	£	9.918	9.918	9.918
PD-SI	Dual standard-head pump + tank	£	12.583	12.583	12.583
PDAP-SI	Double high-head pump + tank	£	13.408	13.408	13.408
KS	Lifting bracket kit	£	710	710	710
MN	External pressure gauges	£	272	272	272
SS	Soft starter	£	1.944	1.944	1.944
SL	Silenced version	£	787	787	787
SSL	Ultra-silent version (EC-CC accessory is already included for these versions)	£	3.962	3.962	3.962
TR1	Microchannel coil with Aero surface treatment	£	Contact our office		
TR1C4	Cu/Al coil and sheet metal with anti-corrosion treatment	£	Contact our office		
C4	Protective treatment	£	Contact our office		
ACCESSORIES SUPPLIED SEPARATELY					
AG	Rubber anti-vibration mounts	£	727	727	727
AM	Spring anti-vibration mounts	£	1.873	1.873	1.873
FY	Y-strainer	£	175	175	175
Hi-TV415	Touchscreen remote control	£	640	640	640
i-CR2	Wall-mounted remote control	£	319	319	319
RV	Starter kit consisting of 2 jaws and 2 plain stubs	£	Contact our office		
SAS	Remote sensor	£	47	47	47
TQE	Rain cover for electrical control panel	£	300	300	300

HWA2-AH 0270-04170

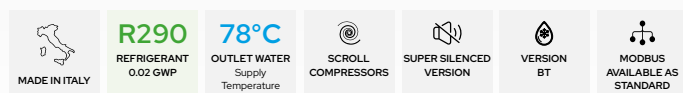
Reversible air/water heat pump, with scroll compressors, axial fans and R290 REFRIGERANT GAS

70 kW-170 kW



During certification

NEW



Carpentry: all units in the series feature a structure suitable for outdoor installation, made of hot-dip galvanized steel sheet and coated with RAL 7035/RAL 7046 polyester powder paint (only for certain components) to ensure maximum resistance to atmospheric agents. All screws and inserts are in galvanized and stainless steel.

Compressors: scroll type, expressly designed to operate with R290, mounted on a double anti-vibration slide. The crankcase heater, which is always present, is activated when the compressor is stopped and is disabled when it restarts.

Air side heat exchangers: finned coil type, made with copper tubes and aluminum fins with corrugated surface, spaced appropriately to ensure maximum heat exchange efficiency. At the base of the heat exchangers, there are drain pans for the collection and drainage of condensate water.

User side heat exchangers: of the brazed-plate type. Made of AISI stainless steel for both single-circuit and dual-circuit units, factory-insulated with closed-cell material. They can be equipped with an electric antifreeze heater (optional accessory KA). A differential pressure switch, installed on the water side, ensures the presence of water flow, preventing ice formation inside.

Fans: axial type with airfoil-profile blades. They are statically and dynamically balanced and supplied complete with protection grille and inlet and outlet air nozzles with double flared profile, specially shaped to increase efficiency and reduce noise. The motor has an IP54 protection rating according to CEI EN 60529. EC fans, with EC electric motor driven in modulation, are available as accessories on request.

Refrigeration circuit: is made using components from leading international manufacturers and in accordance with UNI EN 13134. The refrigerant gas is R290. In its basic version, the refrigeration circuit includes: electronic expansion valve, inspection valves for maintenance and control, a safety device compliant with current regulations (two high-pressure switches per circuit), pressure transducers to accurately measure evaporation and condensation pressures, high-capacity filter drier to prevent expansion valve clogging and remove any moisture present in the circuit, liquid sight glass for checking the refrigerant charge, solenoid valve, 4-way cycle-reversing valve, liquid separator, liquid receiver, and the outdoor air temperature sensor.

Electrical panel: fully manufactured and wired in compliance with standard EN 60204, comprising a power section and a control section. The degree of protection of the electrical panel is IP54. The electrical panel is equipped with a terminal block with volt-free contacts for

remote ON-OFF.

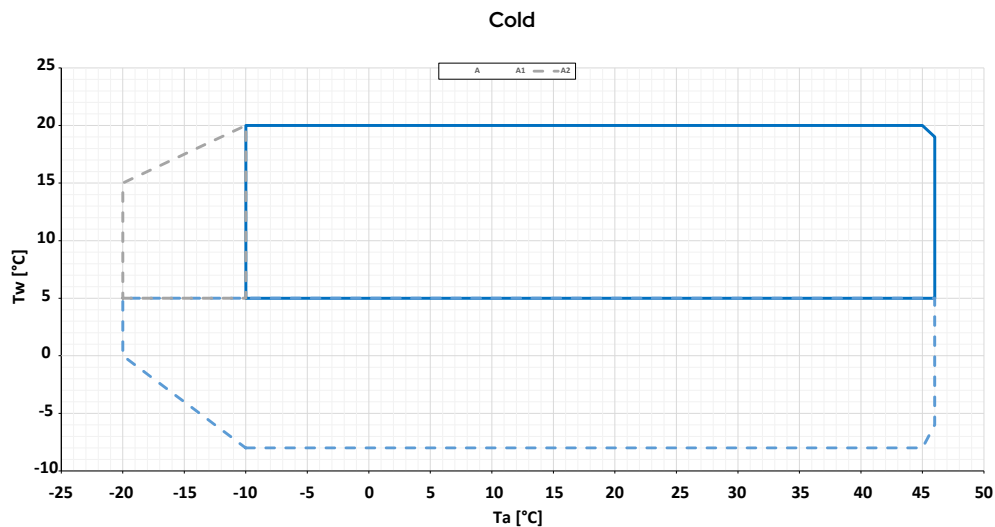
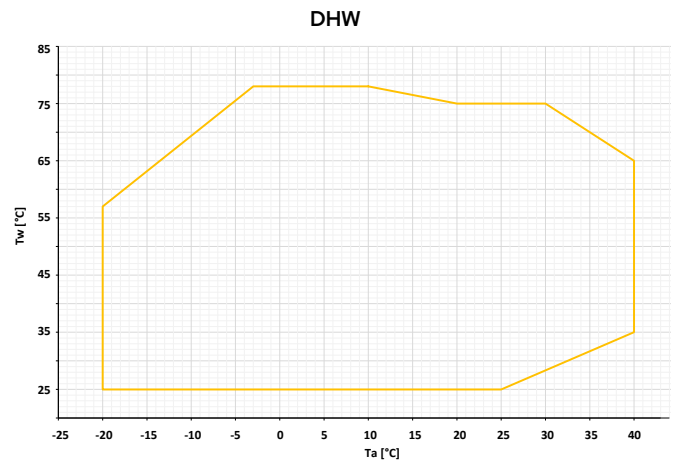
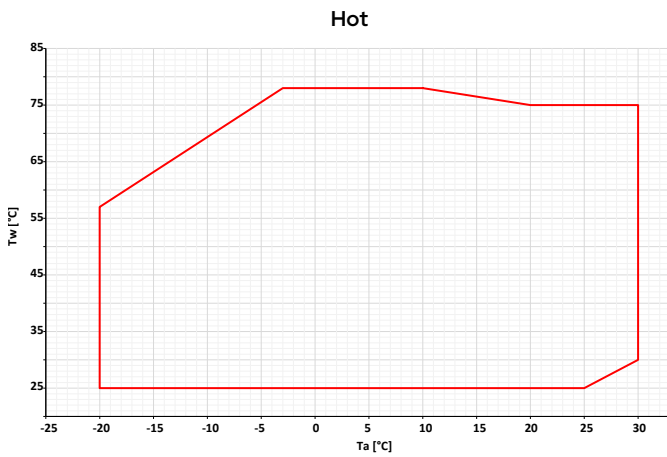
Control system: all units are equipped with a control board featuring a microprocessor with superheat control logic managed based on the signals sent by pressure transducers and temperature probes. The CPU also controls the following functions: water temperature regulation, antifreeze protection, compressor start-up and timing, fan and circulation pump management (if present), alarm reset, alarm indication and operating status LEDs. On request, the microprocessor can be connected to remote BMS control systems. ModBus RTU RS-485 interface available as standard on the terminal block.

Control and protection devices: all units are equipped with the following control and protection devices: phase monitor complete with minimum and maximum voltage relay, which stops the unit if the phase sequence is incorrect or if the voltage of at least one phase differs by more than 10% from the others. Leaving water temperature sensor (with antifreeze function for the water circuit), return water temperature sensor, low-pressure transducer, high-pressure transducer, discharge temperature sensor on the compressors, suction temperature sensor on the compressors, outdoor air temperature sensor. Thermomagnetic circuit breakers for the protection of: transformer, compressors, pumps (if present) and fans, fan thermal protection, thermal protection on each compressor, differential pressure switch on the water side, two manually reset high-pressure switches installed on the compressor discharge line.

Hydraulic circuit: the HWA2 series can be supplied with a built-in, highly configurable hydronic kit which, in addition to the differential pressure switch, can include a single pump or a twin-pump set (one in standby as backup to the other), suitable for use with chilled water containing glycol up to 50%, and directly managed by the onboard unit controller. It is also possible to install an internal inertial buffer tank, externally insulated with closed-cell expanded material, with a capacity suitable for the unit size.

R290 gas safety: the HWA2 series is equipped with an automatic electronic system for detecting any R290 gas releases. Activation of the R290 gas safety system starts the ATEX fan in the compressor compartment, ensuring rapid dispersion and dilution of the gas. When the unit is fitted with a pump kit or twin pump, a second R290 detector is added, providing an additional level of monitoring and increasing the overall safety of the installation.

Operating Areas



A = HWA2-AH cooling
A1 = HWA2-AH BT
A2 = HWA2-AH with EC-CC accessory (condensation control down to -20°C)

Accessories

Factory-installed

- **KA1*** – Antifreeze heater for heat exchanger and pump (if present) – electric heating element installed on the front face of the plate heat exchanger, which is activated when the water temperature inside the exchanger falls below +4°C, and electric heating element that protects the pump motor at low temperatures.
- **KA4*** – Electric heater located on the front side of the plate heat exchanger, activated when the water temperature drops below +4°C, and heater that protects the pump motor at low temperatures. It also includes heaters in the drain pans that collect water from coil defrosting, preventing ice formation.
- **SL**** – The silenced unit features an innovative acoustic insulation applied to the compressor compartment panels. This system significantly reduces noise during operation, improving the acoustic comfort of the surrounding environment.
- **SSL**** – The super-silenced unit combines the acoustic insulation applied to the compressor compartment panels with a special diffuser mounted on the fan. This diffuser increases its efficiency, allowing the speed to be reduced, lowering the sound pressure level and optimizing energy consumption.
- **PS***** – Reversible heat pump, heating-only version with standard head.
- **PSAP***** – Reversible heat pump, high head pump-only version.
- **PSI***** – AC circulation pump controlled by an external inverter installed in the electrical panel.
- **PSIAP***** – High-head AC circulation pump controlled via an external inverter installed in the electrical panel.
- **PD***** – Reversible heat pump, dual-pump version with standard head.
- **PDAP***** – Reversible heat pump, dual high-head pump version.
- **PS-SI***** – Reversible heat pump, pump-only version with standard head + tank and expansion vessel.
- **PSAP-SI***** – Reversible heat pump, high-head pump only version + tank and expansion vessel.
- **PSI-SI***** – AC circulation pump controlled via external inverter installed in the electrical panel + tank and expansion vessel.
- **PSIAP-SI***** – High head AC circulation pump controlled via

** Accessories not usable simultaneously

*** Accessories not usable simultaneously

Accessories

external inverter installed in the electrical panel + tank and expansion vessel.

- **PD-SI ***** – Reversible heat pump, dual-pump version with standard head + tank and expansion vessel.
- **PDAP-SI ***** – Reversible heat pump, high-head double pump version + tank and expansion vessel.
- **TR2** – Cu/Al coil with Silver Line surface treatment. Finned coil heat exchangers with copper tubes and aluminium fins, subjected to treatment with a special polyurethane-based paint for corrosion protection. The protection provides the coil with flexibility to withstand thermal contraction and expansion, UV resistance, and makes it dirt-repellent. The treatment ensures coil protection under virtually all environmental conditions: from marine to rural environments, from industrial to urban areas. For specific instructions on cleaning coils treated in this way, refer to the relevant chapter in the user-installer manual. The treatment withstands 6000 h according to ASTM B117.
- **TR2C4** – Anti-corrosion treatment on coil and sheet metal – includes a TR2-type treatment on the coil and, in addition, the hot-dip galvanized steel panels are painted to make them suitable for installing the unit in C4H environments, in accordance with UNI EN 12944. The external fastening hardware is made of AISI 304 material, class A2.
- **C4** – The hot-dip galvanized steel panels are painted to ensure compliance with installation in C4H-class environments,

in accordance with UNI EN 12944. The external fastening hardware is made of AISI 304 stainless steel (A2 class), ensuring corrosion resistance and long-term durability.

- **BT** – The BT accessory allows the operating range of the water temperature to be extended down to -8°C. In this case, it is mandatory to use a water-glycol mixture suitable for the operating point and for the minimum temperature reached by the system.
- **EC-CC** – Modulating EC fan. Includes CC function, condensing pressure control down to -20°C.
- **GR2** – Battery compartment anti-intrusion kit – wire mesh to prevent the entry of foreign objects into the coil and to protect the coil from accidental contact by people or objects.
- **GR4** – Anti-intrusion kit for hydraulic circuit compartment and anti-intrusion kit for coil compartment.
- **SS** – Soft starter – electronic static starter for inrush current management, installed inside the electrical panel; it allows a reduction of inrush current and of mechanical wear on the motor windings.
- **KS** – Lifting bracket kit – facilitates lifting and positioning of the unit.
- **MN** – External pressure gauges for quick monitoring of high and low pressure; four gauges in dual-circuit units.

Provided separately

- **AG** – Rubber anti-vibration kit – designed to prevent vibration transmission to the structure; they are to be installed beneath the unit, in the designated mounting holes.
- **AM** – Spring anti-vibration kit – designed to prevent transmission of vibrations to the structure; they must be installed underneath the unit, in the designated holes.
- **FY** – Y-strainer – contains a stainless steel mesh screen (500 µm filtration) that collects solid materials present in the water. Filtration prevents blockage and/or damage to the devices installed downstream of the strainer. Alternatively, it is possible to install a dirt separator that ensures a filtration level not greater than 1 mm (in this case, it is no longer necessary to install the Y-strainer).
- **SAS** – Remote system probe.
- **TQE** – Rainproof cover for electrical panel.
- **RV** – Grooved coupling joint kit with carbon steel pipe stubs, complete with grooved connection to the unit and flanged connection with gasket for direct connection to the system.
- **ISK**** – USB/RS485 serial converter – interface device capable of reading and writing control registers via the RS485 standard and converting them to a USB port that can be connected to any supervision system.
- **LNC**** – LAN-Wi-Fi router – device that allows the unit to be connected to a local network via Ethernet cable or Wi-Fi

coverage for remote monitoring.

- **OVPN**** – 3G LAN-Wi-Fi router with VPN tunnel – device that allows the unit to be connected remotely with an industrial router using the secure OPENVPN service.
- **i-CR2**** – Wall-mounted remote control – Modbus remote controller with negative LCD and capacitive keys. The device is intended to be used as a remote unit keypad with local temperature sensing and replicates the functions of the on-board unit controller.
- **Hi-TV415**** – Color touch screen wired remote controller for the centralized management of a cascade of chillers/heat pumps, for up to 7 units.

** Accessories not usable simultaneously

*** Accessories not usable simultaneously



i-CR2
Wall-mounted
remote control
ACCESSORY



Hi-TV415
Touch screen remote
controller for cascade
management (max 7 units)
ACCESSORY

HWA2-AH			0270	0280	0290	04110
Cooling	Cooling capacity (1)	kW	61.5	67.2	72.8	94.7
	Total absorbed power (1)	kW	19.7	21.5	23.5	33.4
	EER (1)	W/W	3.12	3.13	3.10	2.84
	Cooling capacity (2)	kW	73.9	81.2	86.3	116.0
	Total absorbed power (2)	kW	20.2	22.0	24.7	35.2
	EER (2)	W/W	3.66	3.69	3.49	3.30
	SEER (5)	W/W	4.40	4.60	4.29	4.31
	Water flow rate (1)	l/s	2.94	3.21	3.48	4.52
	Pressure drops in the heat exchanger on the user side (1)	kPa	19.7	22.7	25.9	16.7
Heating	Heating capacity (3)	kW	72.7	78.5	84.4	116.0
	Total absorbed power (3)	kW	16.8	18.6	20.4	29.1
	COP (3)	W/W	4.33	4.22	4.14	3.99
	Heating capacity (4)	kW	65.0	71.4	76.2	105.0
	Total absorbed power (4)	kW	23.2	24.8	27.5	36.3
	COP (4)	W/W	2.80	2.88	2.77	2.89
	Heating capacity (11)	kW	61.0	67.1	72.6	103.0
	Total absorbed power (11)	kW	26.7	28.5	31.5	44.4
	COP (11)	W/W	2.28	2.35	2.30	2.32
	SCOP (6)	W/W	4.00	4.16	3.87	3.70
	Water flow rate (3)	l/s	3.47	3.75	4.03	5.54
	Pressure drops in the user-side heat exchanger (3)	kPa	23.6	26.8	30.2	23.7
	Energy efficiency water 35°C/55°C	class	A++/A++	A++/A++	A++/A++	NA
	Compressor type		SCROLL			
Compressor	Refrigerant oil (type)		POE 160SZ			
	No. of compressors	No.	2	2	2	4
	Standard capacity steps	No.	2	3	2	5
	Oil loading	l	6.6	6.6	6.6	13.2
	Refrigerant circuits	No.	1	1	1	2
	Type		R290			
Refrigerant	Refrigerant charge (4) Circuit 1	kg	6.5	6.5	6.5	4.9
	Refrigerant charge (4) Circuit 2	kg	-	-	-	4.9
	Tons of CO ₂ equivalent (4)	Ton	0.0001	0.0001	0.0001	0.0002
	Design pressure (high/low)	bar	33/0.7	33/0.7	33/0.7	33/0.7
	Fan types		AXIAL - EC			
Outdoor zone fans	No. of fans	No.	2	2	2	2
	Rated power (1)	kW	1.9	1.9	1.9	1.7
	Maximum power	kW	2.55	2.55	2.55	2.00
	Maximum absorbed current	A	4	4	4	3.1
	Standard air flow rate	m³/h	40000	40000	40000	40000
	Internal heat exchanger type		PHE – PLATE TYPE			
Internal heat exchanger	No. of indoor heat exchangers	No.	1	1	1	1
	Water content	l	5.30	5.30	5.30	8.30
Hydraulic circuit	Maximum water-side pressure	bar	6	6	6	6
	Maximum pressure of hydronic kit (safety valve setting)	bar	6	6	6	6
	Water connections		2"	2"	2"	2" 1/2
	Minimum system water content (8)	l	394	466	456	302
Sound data	Sound power (9)	dB (A)	85 std/ 83 SL/ 81 SSL	86 std/ 84 SL/ 82 SSL	86 std/ 84 SL/ 82 SSL	87 std/ 85 SL/ 83 SSL
	Sound pressure (10)	dB (A)	53 std/ 51 SL/ 49 SSL	54 std/ 52 SL/ 50 SSL	54 std/ 52 SL/ 50 SSL	55 std/ 53 SL/ 51 SSL
Electrical data	Power supply		400V/3P/50Hz			
	Maximum input power, version without accessories	kW	42.4	45.6	48.8	64.0
	Maximum current absorbed, version without accessories	A	64.2	71.0	77.8	102.4
	Maximum inrush current for version without accessories	A	327.0	366.0	405.0	241.8
Dimensions and weights	Standard length / with tank	mm	2570 / 3280	2570 / 3280	2570 / 3280	3960 / 4670
	Depth	mm	1135	1135	1135	1135
	Standard height / SSL	mm	2250 / 2300	2250 / 2300	2250 / 2300	2250 / 2300
	Net transport weight (standard version)	kg	1070	1075	1080	1270
	Operating weight (standard version)	kg	1080	1085	1090	1280

(1) Internal heat exchanger water temperature = 12/7°C, air entering the external heat exchanger 35°C.
(2) Internal heat exchanger water temperature = 23/18°C, air entering the external heat exchanger 35°C.
(3) Internal heat exchanger water temperature = 30/35°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
(4) Internal heat exchanger water temperature = 47/55°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
(11) Internal heat exchanger water temperature = 55/65°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
(5) Cooling: low temperature, variable output, constant flow rate.
(6) Average climatic conditions; T_{biv} = -4°C, internal heat exchanger water temperature = 30/35°C; EC fans
(7) Indicative data, subject to change. For the correct data, always refer to the technical nameplate on

the unit.
(8) The calculated value of minimum system water volume does not take into account the water volume contained in the internal heat exchanger (evaporator). For applications with low outdoor air temperatures or low required average loads, the minimum system water volume is obtained by doubling the indicated value.
(9) Condition (3); value determined on the basis of measurements carried out in accordance with standard UNI EN ISO 9614-2, in compliance with the requirements of Eurovent certification.
(10) Value calculated from the sound power level using ISO 3744:2010, referred to a distance of 10 m from the unit.
The stated performance data are indicative and may be subject to variation. The capacities declared at points (1), (2), (3), (4) refer to the instantaneous output in accordance with EN 14511. The data declared at points (5), (6) are determined in accordance with UNI EN 14825.

Preliminary data

HWA2-AH			04120	04140	04155	04170
Cooling	Cooling capacity (1)	kW	107.0	111.6	123.2	134.0
	Total absorbed power (1)	kW	36.9	39.2	42.9	46.0
	EER (1)	W/W	2.90	2.85	2.87	2.91
	Cooling capacity (2)	kW	131.0	146.1	161.3	168.9
	Total absorbed power (2)	kW	39.1	42.0	45.7	51.5
	EER (2)	W/W	3.35	3.48	3.53	3.28
	SEER (5)	W/W	4.58	3.5 – 4	3.5 – 4	3.5 – 4
	Water flow rate (1)	l/s	5.11	5.33	5.89	6.40
	Pressure drops in the heat exchanger on the user side (1)	kPa	15.30	15.9	16.5	17.2
Heating	Heating capacity (3)	kW	129.0	140.2	154.7	169.3
	Total absorbed power (3)	kW	31.0	35.4	38.0	40.7
	COP (3)	W/W	4.16	3.96	4.08	4.16
	Heating capacity (4)	kW	118.0	125.5	139.5	153.3
	Total absorbed power (4)	kW	39.4	46.7	50.2	53.8
	COP (4)	W/W	2.99	2.69	2.78	2.85
	Heating capacity (11)	kW	115.0	120.6	134.0	147.2
	Total absorbed power (11)	kW	47.9	53.9	58.0	62.2
	COP (11)	W/W	2.40	2.24	2.31	2.37
	SCOP (6)	W/W	3.90	3.5 – 4	3.5 – 4	3.5 – 4
	Water flow rate (3)	l/s	6.16	6.70	7.39	8.09
	Pressure drops in the user-side heat exchanger (3)	kPa	21.0	24.3	25.3	26.4
	Energy efficiency water 35°C/55°C	class	NA	NA	NA	NA
	Compressor type		SCROLL			
Compressor	Refrigerant oil (type)		POE 160SZ			
	No. of compressors	No.	4	4	4	4
	Standard capacity steps	No.	4	4	6	4
	Oil loading	l	13.2	13.2	13.2	13.2
	Refrigerant circuits	No.	2	2	2	2
Refrigerant	Type		R290			
	Refrigerant charge (4) Circuit 1	kg	4.9	6.4	6.5	6.6
	Refrigerant charge (4) Circuit 2	kg	4.9	6.4	6.5	6.6
	Tons of CO ₂ equivalent (4)	Ton	0.0002	0.0003	0.0003	0.0003
	Design pressure (high/low)	bar	33/0.7	33/0.7	33/0.7	33/0.7
Outdoor zone fans	Fan types		AXIAL - EC			
	No. of fans	No.	2	4	4	4
	Rated power (1)	kW	1.7	1.9	1.9	1.9
	Maximum power	kW	2.00	2.55	2.55	2.55
	Maximum absorbed current	A	3.1	4	4	4
	Standard air flow rate	m ³ /h	40000	80000	80000	80000
Internal heat exchanger	Internal heat exchanger type		PHE – PLATE TYPE			
	No. of indoor heat exchangers	No.	1	1	1	1
	Water content	l	8.30	12.60	13.90	15.10
Hydraulic circuit	Maximum water-side pressure	bar	6	6	6	6
	Maximum pressure of hydronic kit (safety valve setting)	bar	6	6	6	6
	Water connections		2" 1/2	2" 1/2	2" 1/2	2" 1/2
	Minimum system water content (8)	l	368	TBD	TBD	TBD
Sound data	Sound power (9)	dB (A)	88 std/ 86 SL/ 84 SSL	TBD	TBD	TBD
	Sound pressure (10)	dB (A)	56 std/ 54 SL/ 52 SSL	TBD	TBD	TBD
Electrical data	Power supply		400V/3P/50Hz			
	Maximum input power, version without accessories	kW	68.8	77.5	84.0	90.5
	Maximum current absorbed, version without accessories	A	109.8	123.4	137.0	150.6
	Maximum inrush current for version without accessories	A	256.8	TBD	TBD	TBD
Dimensions and weights	Standard length / with tank	mm	3960 / 4670	2810	2810	2810
	Depth	mm	1135	2320	2320	2320
	Standard height / SSL	mm	2250 / 2300	2362 / 2369	2362 / 2369	2362 / 2369
	Net transport weight (standard version)	kg	1280	2050	2065	2080
	Operating weight (standard version)	kg	1290	2055	2070	2085

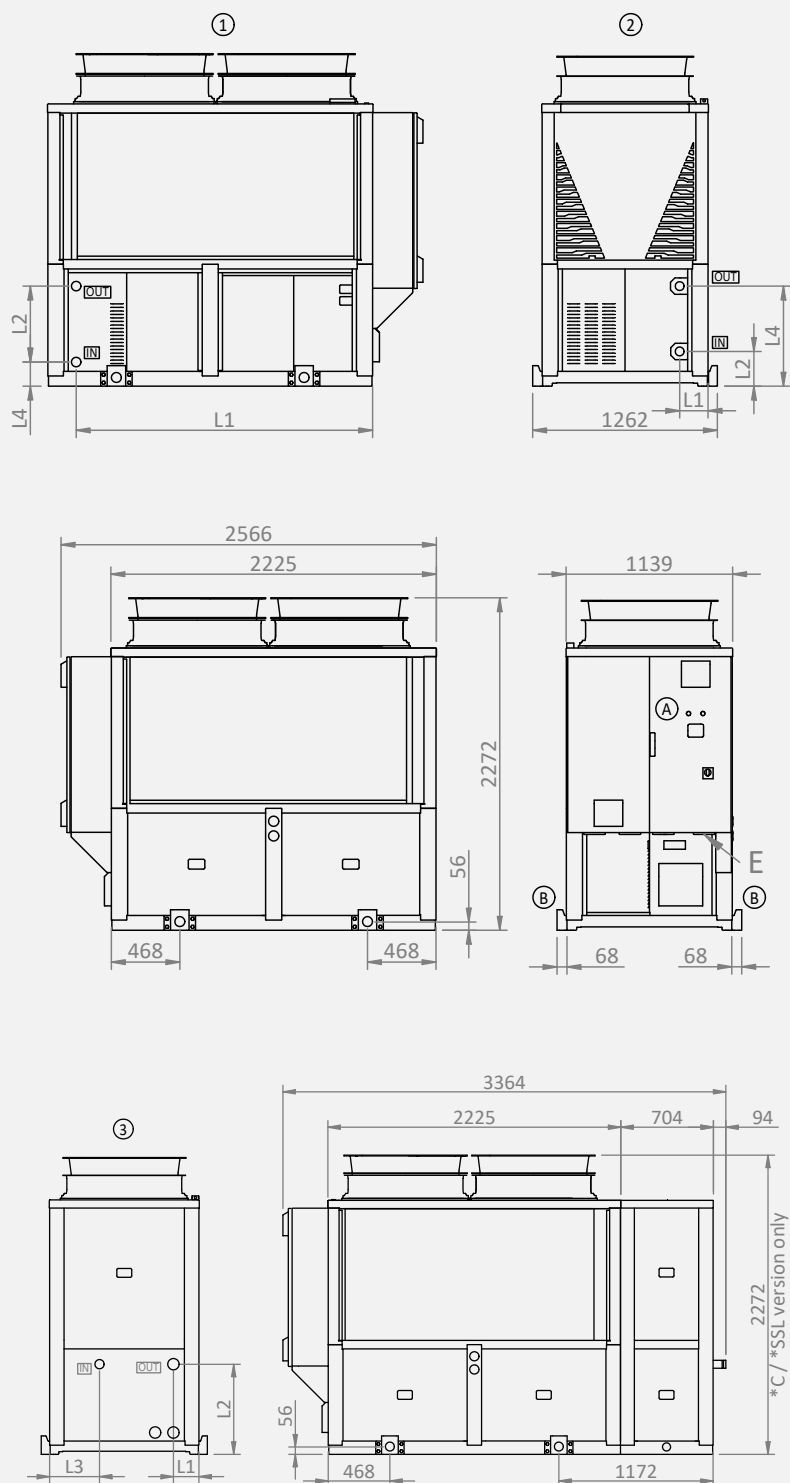
(1) Internal heat exchanger water temperature = 12/7°C, air entering the external heat exchanger 35°C.
 (2) Internal heat exchanger water temperature = 23/18°C, air entering the external heat exchanger 35°C.
 (3) Internal heat exchanger water temperature = 30/35°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
 (4) Internal heat exchanger water temperature = 47/55°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
 (11) Internal heat exchanger water temperature = 55/65°C, entering air temperature at the external heat exchanger = 7°C D.B./6°C W.B.; EC fans
 (5) Cooling: low temperature, variable output, constant flow rate.
 (6) Average climatic conditions; T_{biv} = -4°C, internal heat exchanger water temperature = 30/35°C; EC fans
 (7) Indicative data, subject to change. For the correct data, always refer to the technical nameplate on the unit.

(8) The calculated value of minimum system water volume does not take into account the water volume contained in the internal heat exchanger (evaporator). For applications with low outdoor air temperatures or low required average loads, the minimum system water volume is obtained by doubling the indicated value.
 (9) Condition (3); value determined on the basis of measurements carried out in accordance with standard UNI EN ISO 9614-2, in compliance with the requirements of Eurovent certification.
 (10) Value calculated from the sound power level using ISO 3744:2010, referred to a distance of 10 m from the unit.
 The stated performance data are indicative and may be subject to variation. The capacities declared at points (1), (2), (3), (4) refer to the instantaneous output in accordance with EN 14511. The data declared at points (5), (6) are determined in accordance with UNI EN 14825.

Preliminary data

Dimensional Drawings

HWA2-AH 0270 / 0280 / 0290



Version	L1	L2	L3	L4	IN / OUT	Version height -SSL / -C
Standard	2026	519	-	165	2" Victaulic	2295
Single - Dual pump	194	236	-	685		2295
Single - Dual pump with tank	194	685	380	-		2295

A: Electrical panel
B: Lifting bracket
E: Power supply input

* Accessory
** Standard version height; for -SSL /
-C: see table

Dimensions in mm

Price list

HWA2-AH			270	280	290
HWA2-AH	Reversible heat pump	£	41.786	42.428	42.885
FACTORY-MOUNTED ACCESSORY MANDATORY: Standard EC fan for ERP regulation to be added to the unit price					
EC-CC	EC fan (included in BT, SSL versions). DC control included	£	994	994	994
FACTORY-MOUNTED ACCESSORIES					
BT	Cooling only BT version (EC-CC accessory already included)	£	2.080	2.080	2.100
KA1	Adhesive heater for heat exchanger + pump heater (if present). Not available for units with tank	£	246	246	246
KA4	Exchanger heater + pump (if present) + tray	£	594	594	594
GR2	Anti-intrusion battery compartment kit	£	1.348	1.348	1.348
GR4	Anti-intrusion kit for hydraulic circuit compartment and anti-intrusion kit for batteries compartment	£	2.526	2.526	2.526
PS	Standard head pump	£	3.882	3.882	3.882
PSI	Standard head pump controlled by an inverter installed in the electrical panel	£	4.422	4.422	4.422
PSAP	High-head pump	£	4.327	4.327	4.327
PSIAP	High-head pump controlled by an inverter installed in the electrical panel	£	4.866	4.866	4.866
PD	Twin pump, standard head	£	7.048	7.048	7.048
PDAP	Dual high-head pump	£	7.873	7.873	7.873
PS-SI	Standard head pump + tank	£	9.005	9.005	9.005
PSI-SI	Standard head pump controlled by an inverter installed in the electrical panel + tank and expansion vessel	£	9.505	9.505	9.505
PSAP-SI	High head pump + tank	£	9.417	9.417	9.417
PSIAP-SI	High-head pump with inverter control installed in the electrical panel + tank and expansion vessel	£	9.918	9.918	9.918
PD-SI	Dual standard-head pump + tank	£	12.583	12.583	12.583
PDAP-SI	Double high-head pump + tank	£	13.408	13.408	13.408
KS	Lifting bracket kit	£	710	710	710
MN	External pressure gauges	£	229	229	636
SS	Soft starter	£	1.944	1.944	1.944
SL	Silenced version	£	787	787	787
SSL	Ultra-silent version (EC-CC accessory is already included for these versions)	£	3.962	3.962	3.962
TR2	Cu/Al coil with anti-corrosion treatment	£	3.374	3.374	3.374
TR2C4	Cu/Al coil and sheet metal with anti-corrosion treatment	£	Contact our office		
C4	Protective treatment	£	Contact our office		
ACCESSORIES SUPPLIED SEPARATELY					
AG	Rubber anti-vibration mounts	£	727	727	727
AM	Spring anti-vibration mounts	£	1.873	1.873	1.873
FY	Y-strainer	£	175	175	175
Hi-TV415	Touchscreen remote control	£	640	640	640
i-CR2	Wall-mounted remote control	£	319	319	319
RV	Starter kit consisting of 2 jaws and 2 plain stubs	£	Contact our office		
SAS	Remote sensor	£	47	47	47
TQE	Rain cover for electrical control panel	£	300	300	300



maxaheatpumps.co.uk



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