Outdoor packaged unit

EvitecH 50 - 180 kW

Hydro smart flow | Up-wind | Compressor EVI | Class A in heating mode | Axial fan | Refrigerant R-410A | Heating/ Cooling

Reliability and efficiency in every climatic condition

EvitecH is Galletti's new high efficiency multiscroll units equipped with R410A steam injection compressor.
The range consists of 10 air-water models available as chiller and heat pump, with cooling capacities from 50 to 180 kW.
The main strongpoint of this series is the large operating field, both in terms of maximum hot water temperature (65°C with -11°C of external air temperature) and minimum air temperature at which the continuous operation is allowed (-20°C)
The range allows high configurability from an acoustic point of view, having a wide range of accessories designed to reduce noise emissions. The advanced control, always present in the whole range, allows a continuous monitoring of the operating parameters, advanced adjustment logics, and connectivity.
The modular structure with V configuration condensing coils is designed to optimize air-side heat exchange, to ensure structural strength with a reduced footprint, and to maintain maximum accessibility to the basic components.
In addition to high efficiency in terms of nominal conditions (Eurovent A-class), in order to increase the efficiency at partial loads, the whole range consists of tandem solutions (2 compressors on a single refrigerant circuit).
The configuration of units with the Hydro Smart Flow kit allows an increase of the efficiency and extends the working area of the cooling mode.

PLUS

- Class A in heat pump operating mode
- Production of hot water up to 65°C
- Operation at full load with external air temperatures down to -20 °C
- High efficiency under part load conditions
- Possibility to configure low-noise versions
- Counterflow solutions in every operating mode
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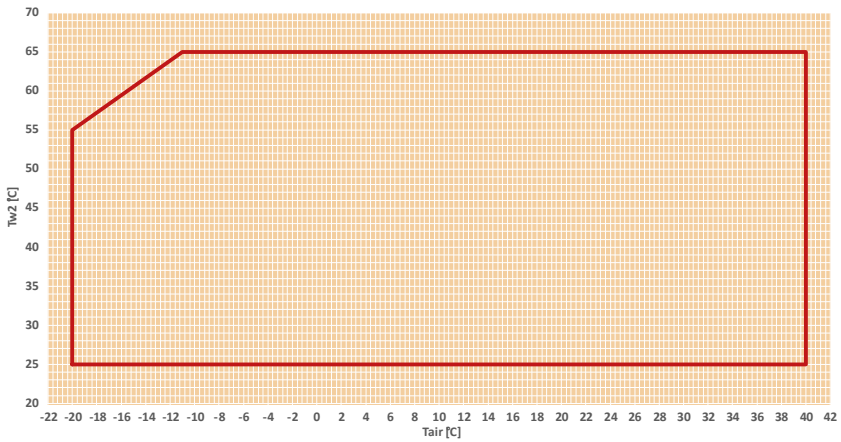

EvitecH heat pumps and are designed for heating or cooling the water to be used in air-conditioning systems for residential, commercial or industrial use.
The execution with injection steam compressors (EvitecH) guarantees the production of hot water at high temperatures even in very hard outdoor conditions (up to -20°C).

For detailed informations regarding the operating limits of the unit, refer to the product technical documentation.

MAIN COMPONENTS

Structure
The range is designed modularly, replicating the optimized structure of V configuration condensing coils and fans. Its design ensures stability, sturdiness even during the most critical phases (such as transportation), and maximum accessibility to components in every unit.

Hydro smart flow
The HSF kit (standard for models 52 and 62) is placed on the unit's hydronic side and consists of a 4-way valve and a kit. Hydro Smart Flow, which is activated at the time of seasonal changeover, reverses the direction of the water flow over the plates to be consistent with the flow of the refrigerant. In this manner heat exchange always occurs in counterflow, this optimizing the unit's operation in the summer and winter seasons and extending the unit's operating range.

Upwind
EvitecH is designed with an innovative technology which allows the refrigerant to get into the battery from the same direction when the cycle is inverted, with a constant counter-current exchange with air. This advanced technology considerably reduces the risk of ice generation on the finned heat exchangers.

Scroll compressors with vapour injection
The range consists of single and dual-circuit models in order to offer maximum redundancy. The distribution of load in multiple power steps and the use of tandem solutions (2 compressors on a single circuit) ensures maximum efficiency at partial loads and therefore greatly increases seasonal efficiency. Intercooled compression with steam injection allows a better control of the end-compression temperature, keeping it within the limits imposed by the compressor envelope, even in the most unfavorable working conditions (low evaporation pressures and high compression pressures), this results in one of the largest operating field in the market.

3-way valve
This is a smart kit able to convert EvitecH heat pumps in multi-function units in order to fulfill every necessity of the hydraulic air-conditioning plant. It allows domestic hot water priority production thanks to Galletti thermal accumulators of the TP or TN series. The switching of the valve is managed by the onboard microprocessor control of the unit.

CONFIGURATOR

The models are completely configurable by selecting the version and the options. To the right is shown an example of configuration.

Version	Field	1	2	3	4	5	6	7	8	9	10	11	12	13
EVI082HS0A		A	1	S	0	C	0	2	M	0	P	0	0	2

To verify the compatibility of the options, use the selection software or the price list.

AVAILABLE VERSIONS

Reversible heat pump versions

EVI..HS0A	Power supply 400V-3N-50Hz
EVI..HS4A	Power supply 400V-3-50Hz + transformer
EVI..HS2A	Power supply 400V-3N-50H + circuit breaker

CONFIGURATION OPTIONS

1 Expansion valve
- A Electronic

2 Water pump and accessories
- 0 Absent
- 1 LP pump + expansion vessel
- 2 LP run and standby double pump + expansion vessel
- 3 HP pump + expansion vessel
- 4 HP run and standby double pump + expansion vessel
- A LP inverter pump + expansion vessel
- B LP run and standby double inverter pump + expansion vessel
- C HP inverter pump + expansion vessel
- D HP run and standby double inverter pump + expansion vessel

3 Water buffer tank
- 0 Absent
- 1 Absent: hydro smart flow only
- H Present + Hydro smart flow
- S Selected

4 Partial heat recovery
- 0 Absent
- D Desuperheater with water pump free contact

5 Air flow modulation
- C Condensation control by phase-cut fans
- E Condensation control performed by EC fans

6 Antifreezing kit
- 0 Absent
- E Plate exchanger
- P Plate exchanger and water pump
- S Plate exchanger, water pump and inertial tank

7 Acoustic insulation and attenuation
- 0 Absent
- 1 Compressor sound blanket and compressor compartment sound proofing
- 2 Fans noise reduction (AXITOP)
- 3 Fans noise reduction (AXITOP) + compressor sound blanket + compartment acoustic insulation

8 Refrigerant pipework accessories
- 0 Absent
- M Refrigerant pressure gauges

9 Remote control / Serial communication
- 0 Absent
- 2 RS485 serial board (Carel / Modbus protocol)
- B BACNET IP / PCOWEB serial board (advanced controller required)
- F BACNET MS/TP / PCONET serial board (advanced controller required)
- G BACNET IP / PCOWEB serial board + supervision software Gweb (advanced controller required)
- L LON FTT10 serial board (advanced controller required)
- S Remote simplified user panel
- T Touch screen remote user panel
- X Remote user panel for advanced controller

10 Special coils / Protective treatments
- 0 Standard
- C Cataphoresis treatment on fins and coil carpentry
- I Hydrophilic
- P Pre-painted fins with polyester paint
- R Copper-copper

11 Anti vibration shock mounts
- 0 Absent
- G Rubber anti vibration shock mounts
- M Spring anti vibration shock mounts

12 Coil protection grill
- 0 Absent
- F Outdoor finned coil heat exchanger protection filters
- G Selected

13 Onboard controller
- 1 Advanced
- 2 Advanced + touchscreen user panel + USB

ACCESSORIES

A	3 way valve for DHW production (water tank not allowed)	**G**	Soft starter
B	Low temperature	**H**	Power factor capacitors
C	Pair of couplings Victaulic	**I**	Filter regulating kit
D	ON/OFF status of the compressors	**M**	0-10 V signal for external user pump control (on-board pump excluded)
E	Remote control for step capacity limit (advanced controller required)	**N**	Compressor tandem/trio isolation valves
F	Configurable digital alarm board (advanced controller required)	**O**	Anti-intrusion grille

EVITECH HEAT PUMPS RATED TECHNICAL DATA

EvitecH			052	062	072	082	092
Power supply		V-ph-Hz	400 - 3N - 50				
Cooling capacity	(1)(E)	kW	50,5	60,8	71,3	80,2	90,4
Total power input	(1)(E)	kW	17,9	21,3	24,1	27,0	31,2
EER	(1)(E)		2,82	2,85	2,96	2,97	2,90
SEER	(2)(E)		3,75	3,81	3,72	3,74	3,81
Water flow	(1)	l/h	8682	10469	12272	13806	15552
Water pressure drop	(1)(E)	kPa	21	30	29	37	26
Available pressure head - LP pumps	(1)	kPa	167	150	147	188	183
Heating capacity	(3)(E)	kW	59,7	70,3	82,9	92,1	105
Total power input	(3)(E)	kW	18,1	21,1	25,5	27,9	31,4
COP	(3)(E)		3,30	3,33	3,26	3,31	3,33
SCOP	(2)(E)		2,85	2,92	2,85	2,90	2,98
Heating energy efficiency class	(4)		A+				
SCOP	(2)		3,70	3,74	3,54	3,65	3,75
Heating energy efficiency class	(5)		A+				
Water flow	(3)	l/h	10352	12179	14365	15959	18113
Water pressure drop	(3)(E)	kPa	30	41	40	50	36
Available pressure head - LP pumps	(3)	kPa	150	128	123	156	148
Maximum current absorption		A	55,0	65,0	73,0	74,0	83,0
Start up current		A	152	179	214	215	203
Startup current with soft starter		A	111	130	153	154	144
Compressors / circuits			2/1				
Expansion vessel volume		dm^3	8	8	18	18	18
Buffer tank volume		dm^3	125	125	320	320	320
Sound power level	(6)(E)	dB(A)	82	82	83	83	83
Transport weight unit with pump and tank		kg	793	802	1081	1082	1095
Operating weight unit with pump and full tank		kg	895	904	1408	1412	1422

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2022)
(2) η efficiency values for heating and cooling are respectively calculated by the following formulas: [η = SCOP / 2,5 - F(1) - F(2)] e [η = SEER / 2,5 - F(1) - F(2)]. For further information, please refer to the technical document "ErP 2009/125/EC DIRECTIVE" in the catalogue introducing pages, or to the EN14825:2022 regulation.
(3) Outdoor air temperature dry bulb 7°C / wet bulb 6°C, water temperature 40°C / 45°C (EN14511:2022)
(4) Seasonal energy efficiency class for MEDIUM TEMPERATURE room heating under AVERAGE climatic conditions [EUROPEAN REGULATION No 811/2013]
(5) Seasonal energy efficiency class for LOW TEMPERATURE room heating under AVERAGE climatic conditions [EUROPEAN REGULATION No 811/2013]
(6) Sound power level measured according to ISO 9614
(E) EUROVENT certified data

EVITECH HEAT PUMPS RATED TECHNICAL DATA

EvitecH			104	124	154	174	184
Power supply		V-ph-Hz	400 - 3N - 50				
Cooling capacity	(1)(E)	kW	104	124	150	172	182
Total power input	(1)(E)	kW	36,6	44,8	51,2	58,2	62,7
EER	(1)(E)		2,85	2,77	2,94	2,95	2,90
SEER	(2)(E)		3,78	3,88	4,02	4,23	4,20
Water flow	(1)	l/h	17903	21369	25873	29515	31259
Water pressure drop	(1)(E)	kPa	32	23	33	24	27
Available pressure head - LP pumps	(1)	kPa	136	137	162	165	159
Heating capacity	(3)(E)	kW	118	139	173	194	206
Total power input	(3)(E)	kW	34,6	40,8	51,7	56,6	60,4
COP	(3)(E)		3,42	3,40	3,34	3,43	3,41
SCOP	(2)(E)		2,94	2,96	3,00	3,11	3,14
Heating energy efficiency class	(4)		A+				
SCOP	(2)		3,73	3,80	3,88	4,05	4,08
Heating energy efficiency class	(5)		A+	A+	A++	A++	A++
Water flow	(3)	l/h	20509	24067	29949	33643	35781
Water pressure drop	(3)(E)	kPa	42	29	44	31	35
Available pressure head - LP pumps	(3)	kPa	117	119	142	148	138
Maximum current absorption		A	92,0	112	147	156	165
Start up current		A	189	226	288	297	296
Startup current with soft starter		A	148	177	227	237	237
Compressors / circuits			4/2				
Expansion vessel volume		dm^3	18	18	24	24	24
Buffer tank volume		dm^3	320	320	450	450	450
Sound power level	(6)(E)	dB(A)	84	87	87	87	87
Transport weight unit with pump and tank		kg	1249	1265	2064	2102	2120
Operating weight unit with pump and full tank		kg	1576	1592	2491	2529	2547

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2022)
(2) η efficiency values for heating and cooling are respectively calculated by the following formulas: [η = SCOP / 2,5 - F(1) - F(2)] e [η = SEER / 2,5 - F(1) - F(2)]. For further information, please refer to the technical document "ErP 2009/125/EC DIRECTIVE" in the catalogue introducing pages, or to the EN14825:2022 regulation.
(3) Outdoor air temperature dry bulb 7°C / wet bulb 6°C, water temperature 40°C / 45°C (EN14511:2022)
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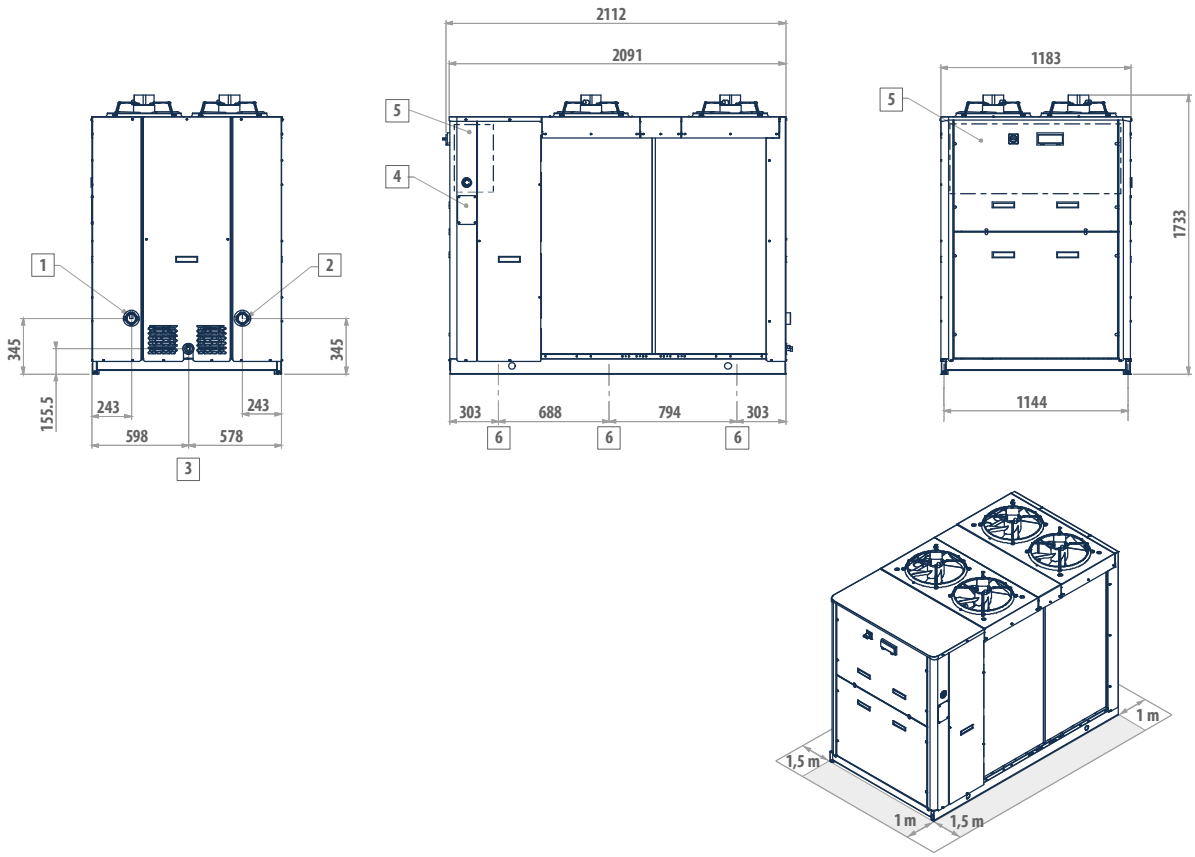
(5) Seasonal energy efficiency class for LOW TEMPERATURE room heating under AVERAGE climatic conditions [EUROPEAN REGULATION No 811/2013]
(6) Sound power level measured according to ISO 9614
(E) EUROVENT certified data

DIMENSIONAL DRAWINGS

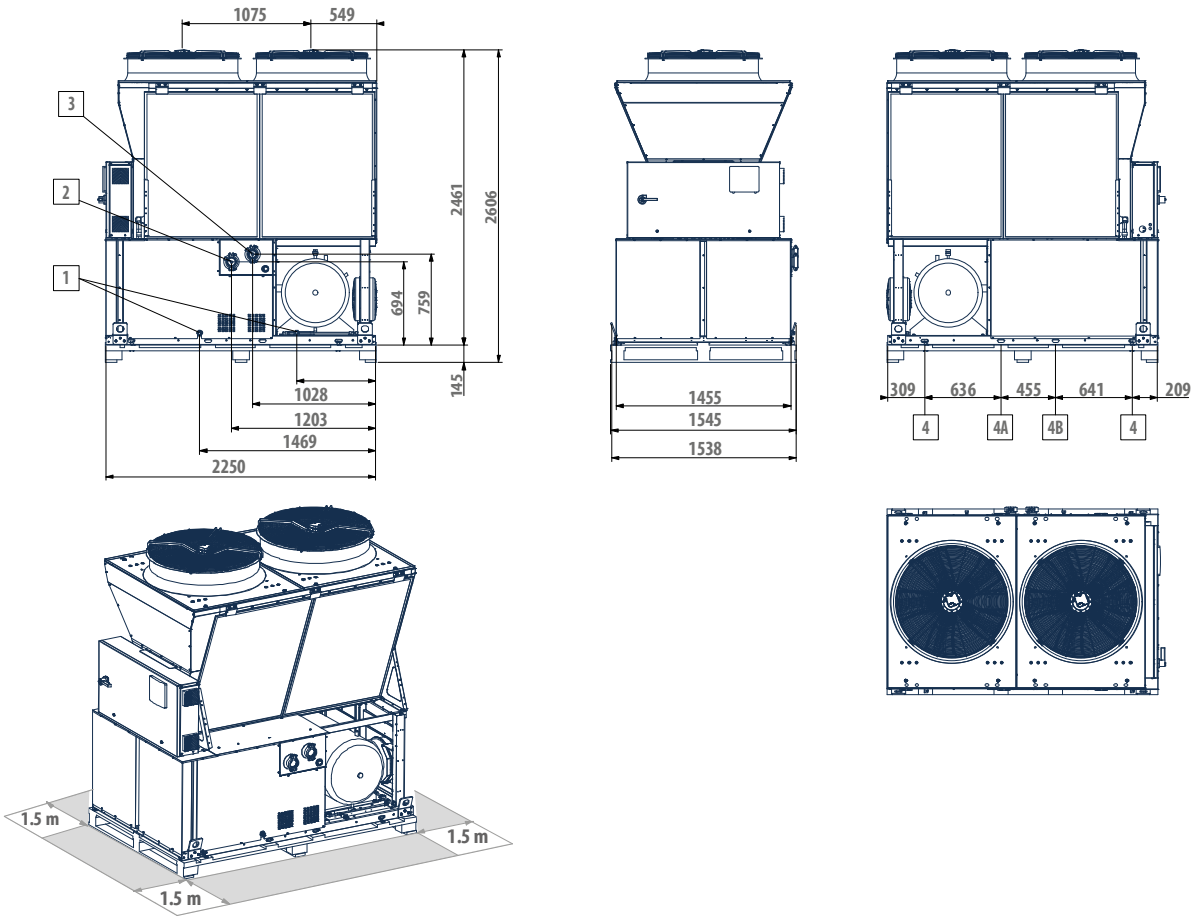
EVITECH 52 - 62



LEGEND	
1	Water inlet 2" female
2	Water outlet 2" female
3	Water drainage 1/2" female
4	Power supply
5	Electric control board
6	Fastening points for vibration dampers

DIMENSIONAL DRAWINGS

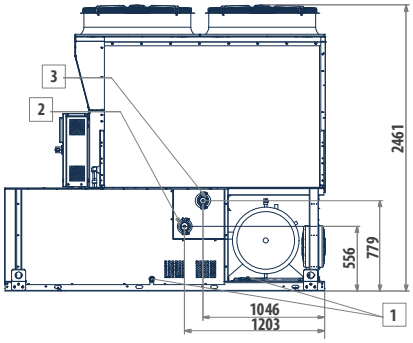
EVITECH 72 - 82 - 92

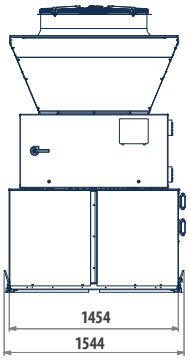


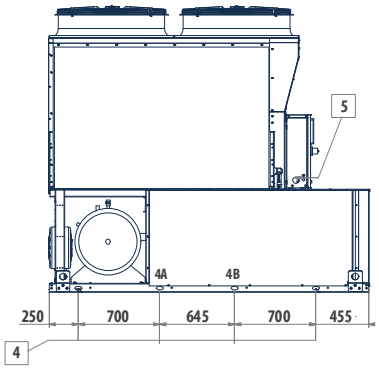
LEGEND	
1	Water drainage 1/2" female
2	Water inlet Victaulic 2 1/2"
3	Water outlet Victaulic 2 1/2"
4	Vibration dumpers

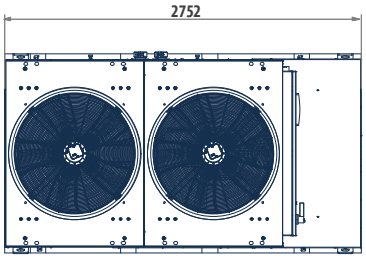
DIMENSIONAL DRAWINGS

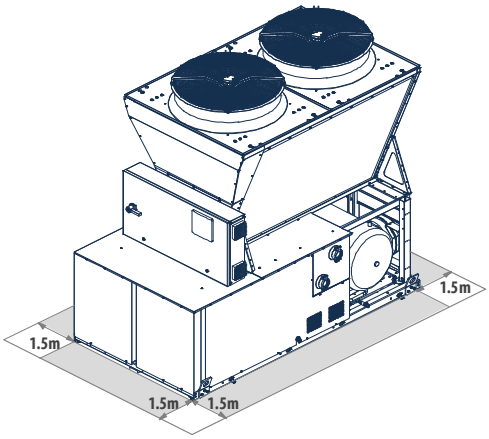
EVITECH 104 - 124







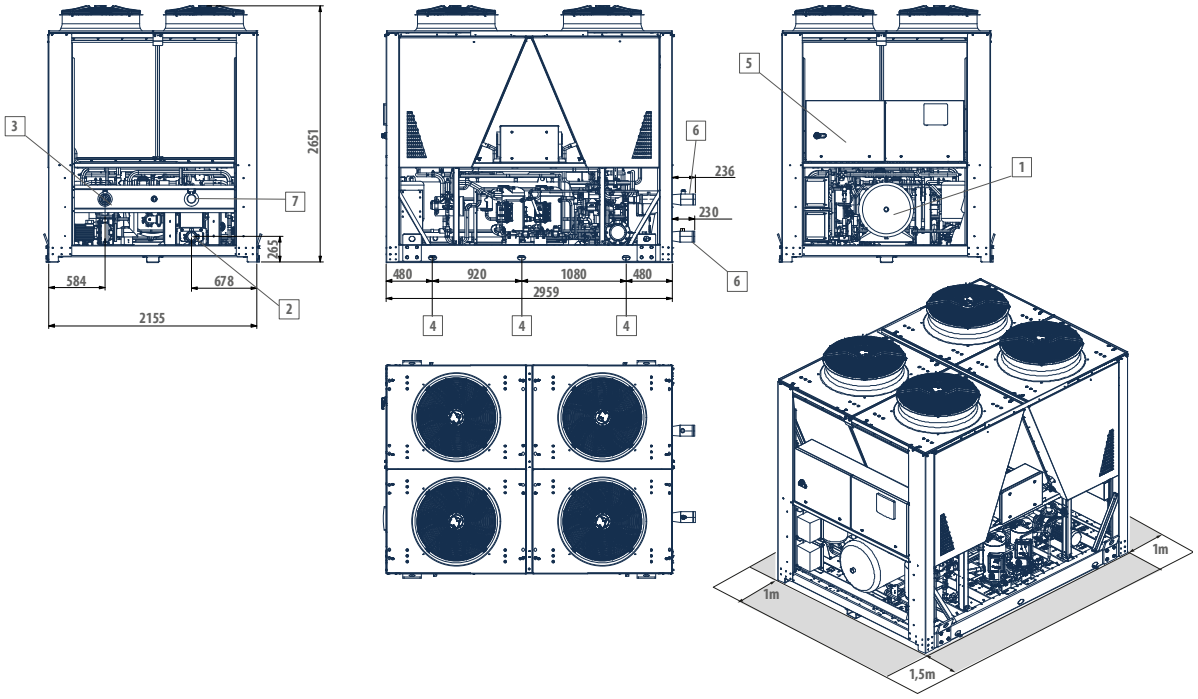




LEGEND	
1	Water drainage 1/2" female
2	Water inlet Victaulic 2 1/2"
3	Water outlet Victaulic 2 1/2"
4	Vibration dumpers

DIMENSIONAL DRAWINGS

EVITECH 154 - 174 - 184



LEGEND	
1	Water drainage 1/2" female
2	Water inlet Victaulic 4"
3	Water outlet Victaulic 4"
4	Vibration dumpers
5	Electric control board
6	Victaulic adapter from 4" to 3" to be mounted on-site
7	Water outlet, evaporator only