



Outdoor monobloc units

V-IPER 50 - 380 kW



A-Class



Scroll compressor



R-410A refrigerant



Cooling only



Cooling / Heating



Monobloc unit



Axial fans



Hydro smart flow



Continuous control of the charge



UP-wind

PLUS

- ✓ Class A in chiller and heat pump operating mode
- ✓ High efficiency under part load conditions
- ✓ Intelligent modulation of the water flow rate
- ✓ Extended operating range
- ✓ Possibility to configure low-noise versions
- ✓ Counterflow solutions in every operating mode

V-IPER heat pumps and water chillers are designed for heating or cooling the water to be used in air-conditioning systems for residential, commercial or industrial use. Its high efficiency ensures a considerable reduction in consumption and the ability to operate in various weather conditions.

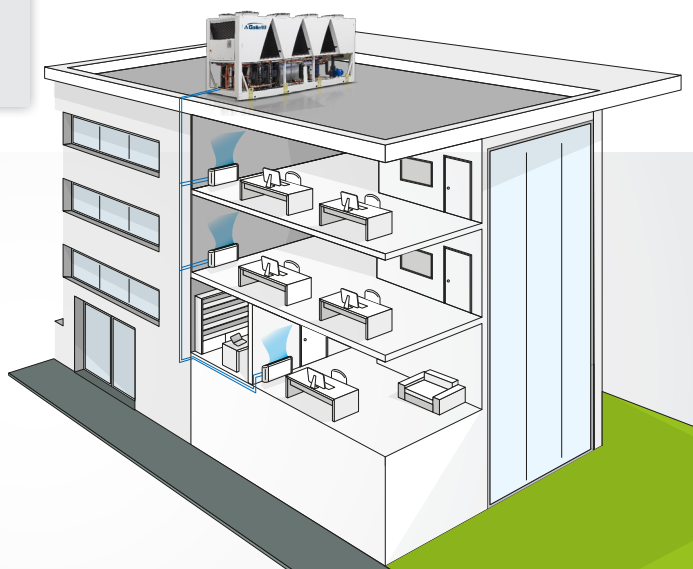
Technology and efficiency in Galletti's new solution

Viper is Galletti's new high efficiency range, featuring Galletti's most advanced technology in the R410A multiscroll units used in HVAC.

The range consists of 20 air-water models available as chiller and heat pump, with cooling capacities from 50 to 380 kW.

The range's main strongpoint is its high efficiency, not only as time efficiency (Class A Eurovent in chiller and heat pump mode) but especially as seasonal efficiency, aiming to permanently reduce annual energy consumption. In order to increase the efficiency at partial loads, much of the range is comprised of trio solutions (3 compressors on a circuit); furthermore, Viper employs components and adjustment logic that make it possible to manage the water-side flow rate modulation.

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.



CONFIGURATION

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

Version	Fields	1	2	3	4	5	6	7	8	9	10	11	12	13
VPR386CS0A		A	1	S	0	C	0	0	0	0	0	0	0	1

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

AVAILABLE VERSIONS

Cooling only versions

VPR..CS0A	400V-3N-50Hz power supply + circuit breakers
VPR..CS1A	230V-3-50Hz power supply + circuit breakers
VPR..CS2A	400V-3-50Hz power supply + transformer + circuit breakers

Versions with reversible heat pump

VPR..HS0A	400V-3N-50Hz power supply + circuit breakers
VPR..HS1A	230V-3-50Hz power supply + circuit breakers
VPR..HS2A	400V-3-50Hz power supply + transformer + circuit breakers

CONFIGURATION OPTIONS

1 - EXPANSION VALVE

A	Electronic
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2 - PUMP AND ACCESSORIES

0	Absent
1	Standard pump + expansion tank + filling tap
2	Dual standard pump OR + expansion tank + filling tap
3	HP pump + expansion tank + filling tap
4	Dual HP pump OR + expansion tank + filling tap
A	Option 1 + inverter
B	Option 2 + inverter
C	Option 3 + inverter
D	Option 4 + inverter

3 - INERTIAL BUFFER TANK

0	Absent
S	Present (excludes Hydro Smart Flow)

4 - PARTIAL HEAT RECOVERY

0	Absent
D	Desuperheater with pump contact

5 - AIR FLOW MODULATION

C	Condensation control with fans adjusted by potentiometer
E	Condensation control, BLDC brushless* electronically controlled fans

6 - ANTIFREEZE KIT

0	Absent
E	Base (plate exchangers only)
P	Additional protection for pump
S	Additional protection for pump and tank

7 - LOW NOISE VERSION (sound insulation)

0	Absent
1	Headsets + acoustical enclosure for compressors
2	Sound attenuation of the fans (AXITOP®)
3	Opt 1 + Opt 2

8 - COOLING ACCESSORIES

0	None
M	Refrigerant pressure gauges

9 - REMOTE CONTROL

0	Absent
2	RS485 (Carel / Modbus)
S	Simplified remote control
T	Touch Screen remote control
X	Remote microprocessor control
L	LON FTT10 serial card
B	BACNET IP / pCOWeb serial card
F	BACNET MS/TP / pCONet serial card
G	BACNET IP / pCOWeb serial card + Supervision Software

10 - SPECIAL HEAT EXCHANGERS

0	Standard copper-aluminum condensing coil (only heat pump)
I	Copper-aluminum condensing coil with hydrophilic treatment (only heat pump)
R	Copper-copper condensing coils (only heat pump)
M	Microchannel condensing coils with epoxy resin + UV treatment (only chiller)

11 - BASE VIBRATION DAMPERS

0	Absent
G	Made of rubber
M	With spring

12 - COMPRESSOR OPTIONS

0	Absent
1	Low air/water temperature: crankcase heating element (CHILLER), condensing coil cable (HP)

13 - MICROPROCESSOR CONTROL

1	Advanced
2	Advanced + touch interface + USB

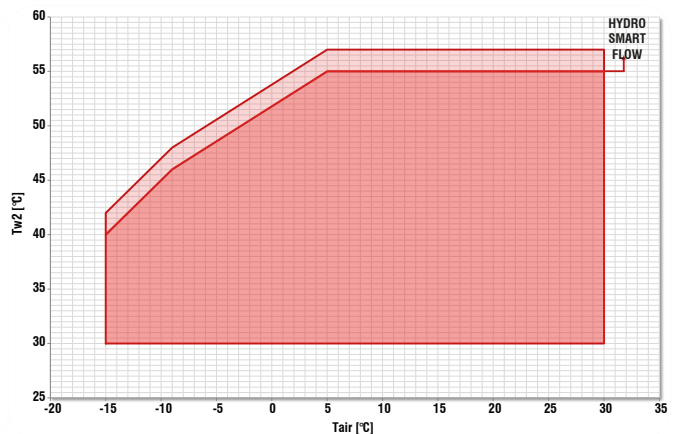
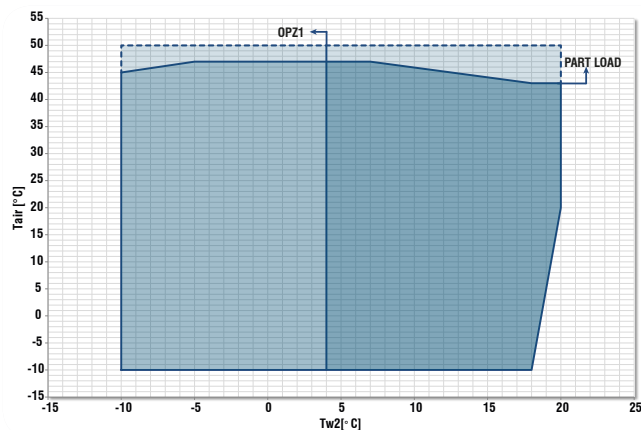
ACCESSORIES

A	Metal filter for protecting condensing coils
B	Hydro Smart Flow (EXCLUDES THE TANK)
C	Pair of VIC-TAULIC joints (and adapters, if necessary)
D	ON/OFF status of the compressors
E	Remote control for power step limits
F	Configurable digital alarm card
G	Soft starter

H	Power factor correction capacitors
I	Dehydrating filter shutoff kit
L	Double insulation on water side
M	0-10V signal for external pump control (ONLY IF FIELD 2 = 0)
N	Tandem/trio shutoff valves
O	Anti-intrusion mesh

EXTENDED OPERATING RANGE

The generous size of the condensing coils combined with various technological solutions allows Viper to operate in a wide range of climatic conditions. More specifically:





MAIN COMPONENTS

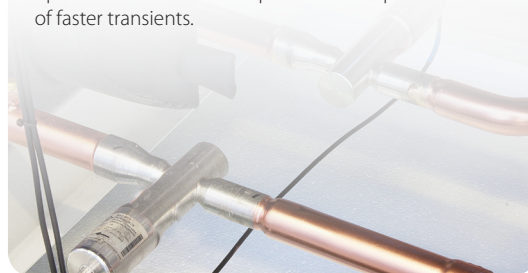
Structure

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 Viper unit.



Electronic valve

Supplied as a standard feature, it allows optimization of operation and reduction of power consumption as a result of faster transients.



Low noise execution

The units can be supplied in a low-noise version, with noise-canceling headsets, acoustical enclosure for the compressors, and Axitop diffusers on the axial fans. This configuration, combined with the night attenuation function, provides a large reduction in the sound power level.

Hsf - hydro smart flow

Available on request, the HSF kit 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.

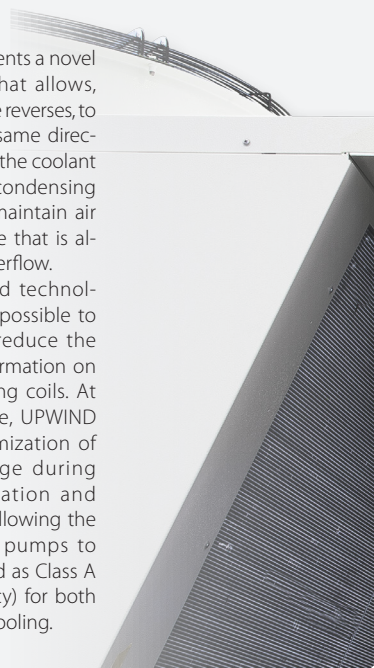
Scroll compressors

The range consists of mono- and dual-circuit models in order to offer maximum redundancy. The ability to distribute the load in multiple power steps (up to 6) and the use of trio solutions (3 compressors on a single circuit) ensures maximum efficiency at partial loads and, therefore, greatly increases seasonal efficiency.

Upwind

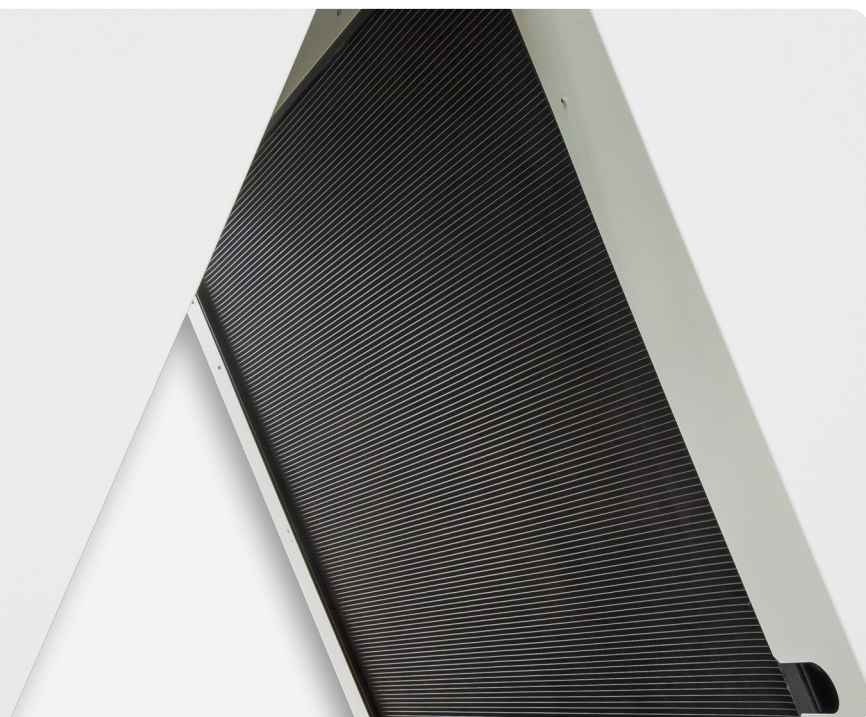
VIPER implements a novel technology that allows, when the cycle reverses, to maintain the same direction of flow of the coolant through the condensing coils and to maintain air heat exchange that is always in counterflow.

This advanced technology makes it possible to consistently reduce the risk of frost formation on the condensing coils. At the same time, UPWIND ensures optimization of heat exchange during both evaporation and condensing, allowing the Galletti heat pumps to be categorized as Class A (high efficiency) for both heating and cooling.



Microchannel

The entire chiller range features microchannel condensing coils as a standard feature. The large exchange surface, the lack of copper-aluminum interface, and the perfect passage of air makes it possible to achieve the same performance while reducing the refrigerant charge by up to 40%, with obvious benefits from an ecological point of view. The Galletti microchannel condensing coils always have a standard epoxy and UV dual surface treatment that provide 2400 hours of resistance under salt spray test conditions, to offer maximum safety even in aggressive environments.



FUNCTIONS

Variable water flow

The advanced controller allows the management of the variable flow on the primary circuit, thus ensuring an increase in cooling cycle efficiency, reduced pumping costs, and an overall increase in seasonal energy efficiency. The plate heat exchanger has an internal configuration especially designed to operate with modulation of flow rate up to 30% of nominal flow.

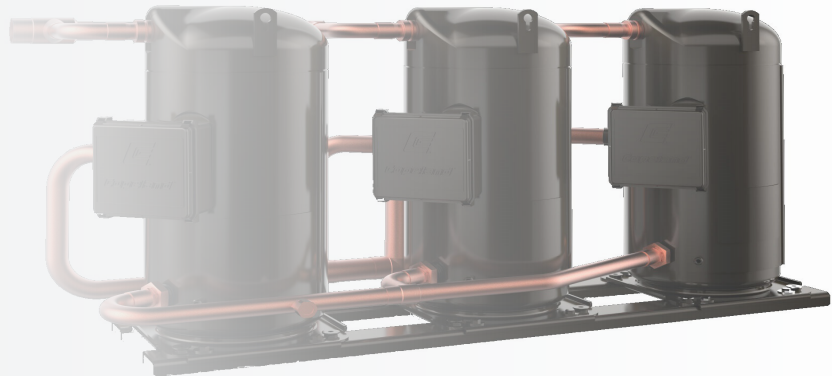


Economy – low-noise operation

This feature allows, on the basis of time periods or clean contact, a reduction in the maximum speed of the fans and the compressors that can be activated. This is especially useful during the night phase, when the required power is much lower and the unit can operate in low-impact conditions, thereby reducing the noise level in a sensitive time period.

Dynamic superheating management

The advanced control, a standard feature of Viper, synergistically manages the components in order to achieve maximum efficiency under all load conditions. In particular, when the cooling capacity is reduced, switching off the compressors will modify the superheating setting, thus increasing the efficiency of the cooling cycle.



Monitoring the charge

Through continuous monitoring of the cooling cycle's characteristic parameters, Viper will detect a possible reduction in the amount of refrigerant and promptly report this situation to prevent more serious problems and protect the main components.

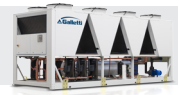
Primary pump management

In case of a decoupled circuit, it is possible, via remote sensor, to switch off the primary circuit's pumps, when permitted, due to low thermal load. In this manner a further reduction in pumping costs is achieved.

CDS - Continuous Data Storage

This feature makes it possible to continuously store the characteristic operating parameters of the unit and the system in the control microprocessor. This is achieved through the availability of additional memory, which is provided as a standard feature on the controls of the whole Viper range. The stored information can be accessed by means of simple USB memory if the unit is configured with a touch screen interface.





Rated technical data of V-IPER C water chillers

V-IPER...CS		52	62	72	82	92	112	114
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	52,4	65,1	73,7	83,7	97,3	109	102
Power input (1) (E)	kW	16,0	20,3	22,8	26,2	30,5	34,6	32,4
EER (1) (E)		3,28	3,21	3,23	3,19	3,19	3,16	3,16
ESEER (E)		4,12	4,17	4,08	4,06	4,04	4,00	4,08
Eurovent efficiency class		A	A	A	A	A	A	A
Water flow (1)	l/h	9050	11250	12737	14457	16776	18824	17656
Water pressure drop (1) (E)	kPa	39	45	47	41	31	29	31
Available pressure head - standard pump OR (1)	kPa	153	138	193	185	173	141	142
Maximum current absorption	A	40	50	59	68	74	81	79
Startup current	A	138	194	203	212	218	269	178
Startup current with softstarter kit	A	97	134	142	151	157	190	137
No. of compressors / circuits		2/1	2/1	2/1	2/1	2/1	2/1	4/2
Buffer tank volume	dm ³	250	250	350	350	350	350	350
Expansion vessel	dm ³	18	18	18	18	18	18	18
Sound power level (3) (E)	dB(A)	80	84	83	83	87	88	87
Transport weight unit with pump and tank	kg	813	823	875	888	968	1048	1866
Operating weight unit with pump and full tank	kg	1163	1173	1225	1238	1318	1398	2316

V-IPER...CS		133	134	164	173	174	204	213
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	125	131	156	166	171	194	203
Power input (1) (E)	kW	40,3	42,3	47,7	50,8	52,0	58,8	63,4
EER (1) (E)		3,10	3,10	3,26	3,26	3,28	3,30	3,21
ESEER (E)		4,14	4,22	4,04	4,14	4,13	4,24	4,27
Eurovent efficiency class		A	A	A	A	A	A	A
Water flow (1)	l/h	21513	22584	26815	28518	29399	33464	35043
Water pressure drop (1) (E)	kPa	24	24	36	31	24	29	34
Available pressure head - standard pump OR (1)	kPa	137	134	161	163	169	156	147
Maximum current absorption	A	98	101	125	125	136	148	149
Startup current	A	242	245	269	313	280	337	377
Startup current with softstarter kit	A	181	184	208	235	219	258	281
No. of compressors / circuits		3/1	4/2	4/2	3/1	4/2	4/2	3/1
Buffer tank volume	dm ³	350	350	450	450	450	450	450
Expansion vessel	dm ³	18	18	24	24	24	24	24
Sound power level (3) (E)	dB(A)	87	87	86	88	87	90	92
Transport weight unit with pump and tank	kg	981	1945	1710	1228	1746	1901	1271
Operating weight unit with pump and full tank	kg	1331	2395	2160	1578	2196	2351	1621

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2013)

(3) Sound power level measured according to UNI EN ISO 9614

(E) EUROVENT certified data

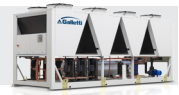
Rated technical data of V-IPER C water chillers

V-IPER..CS		226	256	276	306	336	386
Power supply	V-ph-Hz	400-3N-50					
Cooling capacity (1) (E)	kW	213	251	269	291	329	369
Power input (1) (E)	kW	66,4	80,4	84,6	89,2	104	115
EER (1) (E)		3,20	3,12	3,18	3,26	3,18	3,20
ESEER (E)		4,26	4,22	4,17	4,09	4,06	4,09
Eurovent efficiency class		A	A	A	A	A	A
Water flow (1)	l/h	36651	43163	46363	50087	56747	63627
Water pressure drop (1) (E)	kPa	27	31	32	37	41	45
Available pressure head - standard pump OR (1)	kPa	151	132	180	165	143	161
Maximum current absorption	A	162	195	206	222	247	274
Startup current	A	278	339	395	411	474	502
Startup current with softstarter kit	A	229	278	316	332	379	407
No. of compressors / circuits		6/2	6/2	6/2	6/2	6/2	6/2
Buffer tank volume	dm ³	450	450	750	750	750	750
Expansion vessel	dm ³	24	24	24	24	24	24
Sound power level (3) (E)	dB(A)	90	90	90	92	93	93
Transport weight unit with pump and tank	kg	1903	1916	2634	2640	2714	3831
Operating weight unit with pump and full tank	kg	2353	2366	3384	3390	3464	4581

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2013)

(3) Sound power level measured according to UNI EN ISO 9614

(E) EUROVENT certified data



Rated technical data of V-IPER H heat pumps

V-IPER..HS		52	62	72	82	92	112	114
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity (1) (E)	kW	51,8	65,1	72,3	84,1	96,0	108	103
Power input (1) (E)	kW	16,3	20,8	22,9	26,6	30,1	34,4	33,2
EER (1) (E)		3,18	3,13	3,16	3,16	3,19	3,14	3,11
ESEER (E)		4,07	4,13	3,96	3,94	3,92	3,92	3,74
Eurovent efficiency class		A	A	A	A	A	A	A
Water flow (1)	l/h	8940	11252	12486	14521	16560	18640	17805
Water pressure drop (1) (E)	kPa	38	45	45	41	30	28	32
Available pressure head - standard pump OR (1)	kPa	154	138	197	184	176	142	141
Heating capacity (2) (E)	kW	54,4	67,6	78,0	87,9	99,8	111	107
Power input (2) (E)	kW	16,5	20,2	23,9	26,8	30,1	33,5	32,8
COP (2) (E)		3,30	3,35	3,26	3,28	3,32	3,30	3,26
COP con HSF		+ 8 %						
SCOP		3,88	3,95	3,60	3,72	3,82	3,87	3,96
Efficiency class*		A++	A++	A+	A+	A++	A++	A++
Water flow (2)	l/h	9394	11671	13467	15188	17268	19161	18512
Water pressure drop (2) (E)	kPa	41	49	52	45	32	30	35
Available pressure head - standard pump OR (2)	kPa	149	133	182	174	167	139	136
Maximum current absorption	A	40	50	59	68	74	81	79
Startup current	A	138	194	203	212	218	269	178
Startup current with softstarter kit	A	97	134	142	151	157	190	137
No. of compressors / circuits		2/1	2/1	2/1	2/1	2/1	2/1	4/2
Buffer tank volume	dm ³	250	250	350	350	350	350	350
Expansion vessel	dm ³	18	18	18	18	18	18	18
Sound power level (3) (E)	dB(A)	80	84	83	83	87	88	87
Transport weight unit with pump and tank	kg	938	950	990	1006	1092	1177	2099
Operating weight unit with pump and full tank	kg	1288	1300	1340	1356	1442	1527	2549

V-IPER..HS		133	134	164	173	174	204	213
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity (1) (E)	kW	124	130	154	163	168	191	205
Power input (1) (E)	kW	40,1	42,0	48,5	50,9	52,5	59,9	64,7
EER (1) (E)		3,10	3,10	3,18	3,20	3,20	3,19	3,17
ESEER (E)		4,00	3,83	4,01	4,01	4,11	3,99	3,90
Eurovent efficiency class		A	A	A	A	A	A	A
Water flow (1)	l/h	21395	22422	26573	28059	28895	32876	35311
Water pressure drop (1) (E)	kPa	23	28	35	31	23	28	35
Available pressure head - standard pump OR (1)	kPa	139	130	163	164	170	158	146
Heating capacity (2) (E)	kW	126	132	161	167	175	200	211
Power input (2) (E)	kW	38,2	40,2	49,8	51,8	53,1	59,9	63,8
COP (2) (E)		3,31	3,27	3,24	3,22	3,30	3,33	3,31
COP con HSF		+ 8 %						
SCOP		3,91	3,81	3,71	3,58	3,82	3,86	3,80
Efficiency class*		A++	A++	A+	A+	A++	A++	A++
Water flow (2)	l/h	21893	22785	27895	28897	30371	34553	36514
Water pressure drop (2) (E)	kPa	24	29	38	32	25	31	37
Available pressure head - standard pump OR (2)	kPa	136	128	157	161	166	151	141
Maximum current absorption	A	98	101	125	125	136	148	149
Startup current	A	242	245	269	313	280	337	377
Startup current with softstarter kit	A	181	184	208	235	219	258	281
No. of compressors / circuits		3/1	4/2	4/2	3/1	4/2	4/2	3/1
Buffer tank volume	dm ³	350	350	450	450	450	450	450
Expansion vessel	dm ³	18	18	24	24	24	24	24
Sound power level (3) (E)	dB(A)	87	87	86	88	87	90	91
Transport weight unit with pump and tank	kg	1114	2196	1941	1435	1981	2148	1478
Operating weight unit with pump and full tank	kg	1464	2646	2391	1785	2431	2598	1828

Rated technical data of V-IPER H heat pumps

V-IPER..HS		226	256	276	306	336	386
Power supply	V-ph-Hz	400 - 3N - 50					
Cooling capacity (1) (E)	kW	212	249	270	290	327	367
Power input (1) (E)	kW	67,8	80,1	85,1	90,8	104	116
EER (1) (E)		3,13	3,11	3,18	3,19	3,13	3,16
ESEER (E)		3,98	4,01	4,05	3,93	3,94	3,97
Eurovent efficiency class		A	A	A	A	A	A
Water flow (1)	l/h	36544	42954	46555	49892	56248	63289
Water pressure drop (1) (E)	kPa	27	31	33	37	40	45
Available pressure head - standard pump OR (1)	kPa	151	132	178	166	146	161
Heating capacity (2) (E)	kW	220	253	279	297	337	379
Power input (2) (E)	kW	66,3	76,3	84,8	89,5	102	116
COP (2) (E)		3,32	3,31	3,29	3,32	3,31	3,28
COP con HSF		+ 8 %					
SCOP		4,25	4,33	4,02	4,14	4,22	3,94
Efficiency class*		A++	A++	A++	A++	A++	A++
Water flow (2)	l/h	38078	43757	48325	51521	58382	65672
Water pressure drop (2) (E)	kPa	29	32	35	39	43	48
Available pressure head - standard pump OR (2)	kPa	146	129	172	160	136	154
Maximum current absorption	A	162	195	206	222	247	274
Startup current	A	278	339	395	411	474	502
Startup current with softstarter kit	A	229	278	316	332	379	407
No. of compressors / circuits		6/2	6/2	6/2	6/2	6/2	6/2
Buffer tank volume	dm ³	450	450	750	750	750	750
Expansion vessel	dm ³	24	24	24	24	24	24
Sound power level (3) (E)	dB(A)	90	90	90	91	93	93
Transport weight unit with pump and tank	kg	2160	2186	2919	2926	3032	4329
Operating weight unit with pump and full tank	kg	2610	2636	3669	3676	3782	5079

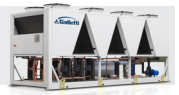
(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2013)

(2) Water temperature 40 / 45°C, outdoor air temperature 7°C B.S. / 6°C B.U. (14511:2013)

(3) Sound power level measured according to UNI EN ISO 9614

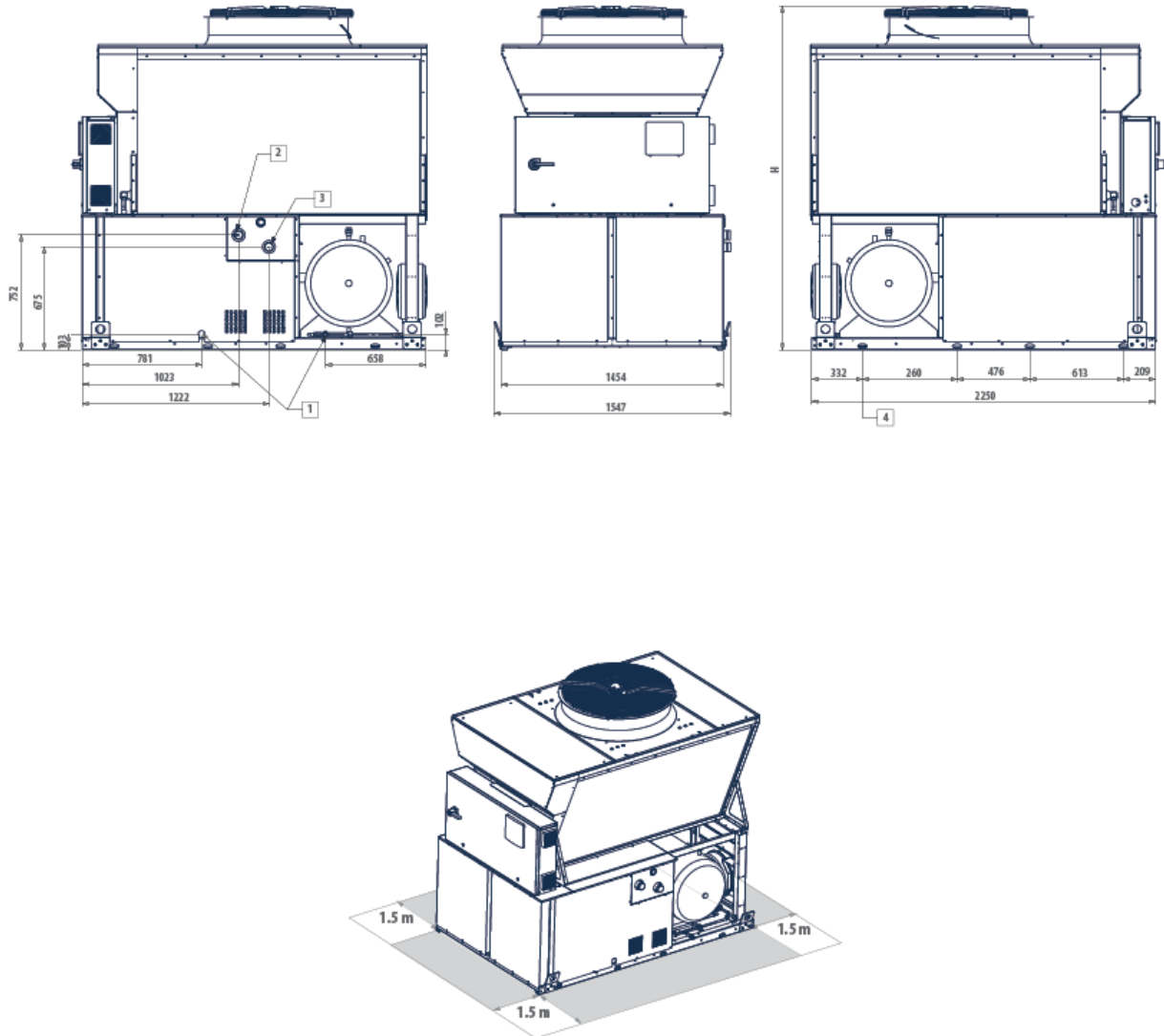
(E) EUROVENT certified data

* Seasonal energy efficiency class for LOW TEMPERATURE room heating under AVERAGE climatic conditions [EUROPEAN REGULATION No 811/2013]



Dimensional drawings

VPR 52 - 62

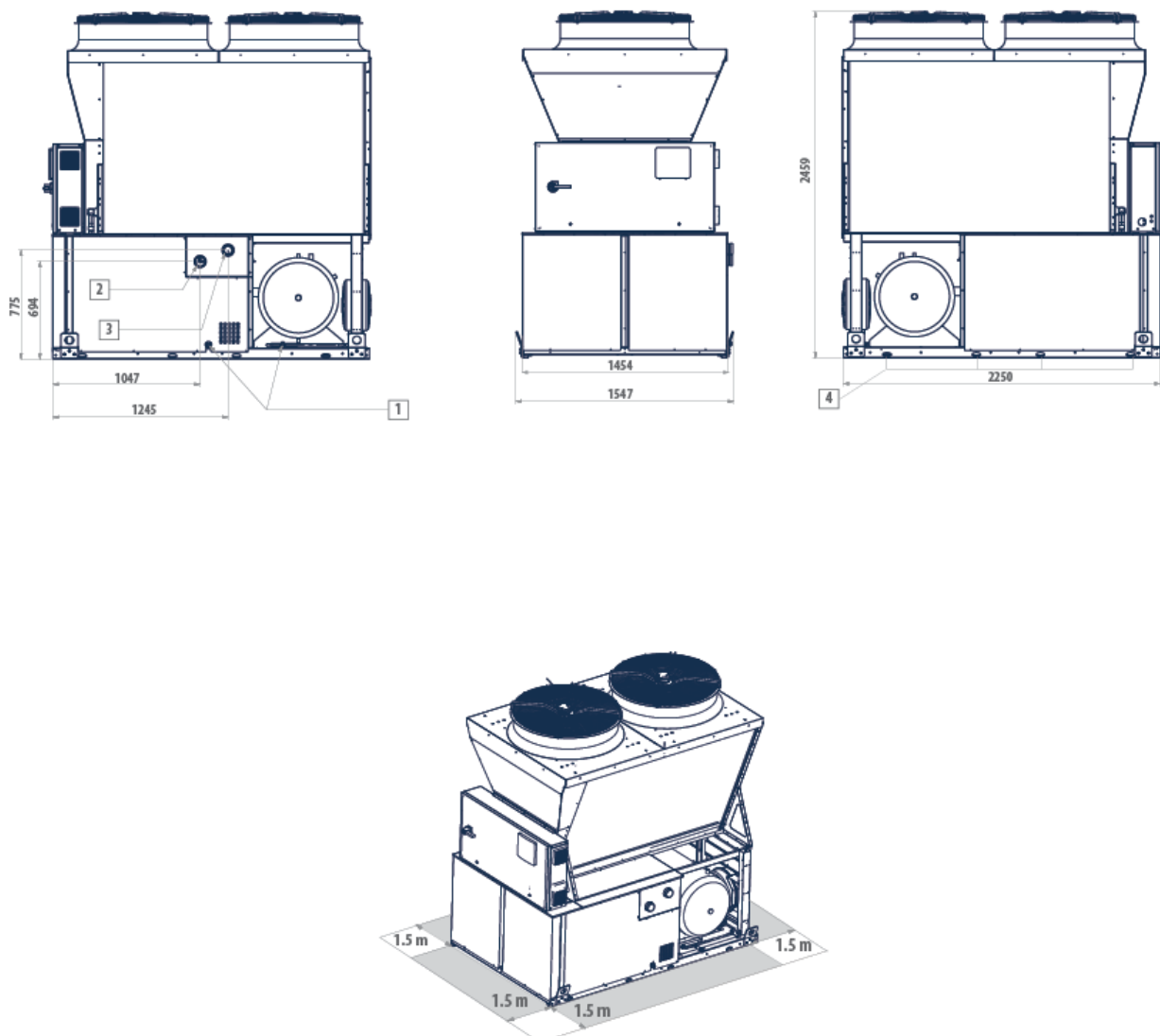


LEGEND

1	Water drainage 1/2" female	
2	Water inlet Victaulic 2"	
3	Water outlet Victaulic 2"	
4	Vibration dampers	
H	C version	H version
	2459	2252

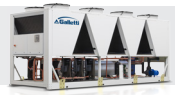
Dimensional drawings

VPR 72 - 82 - 92 - 112 - 133



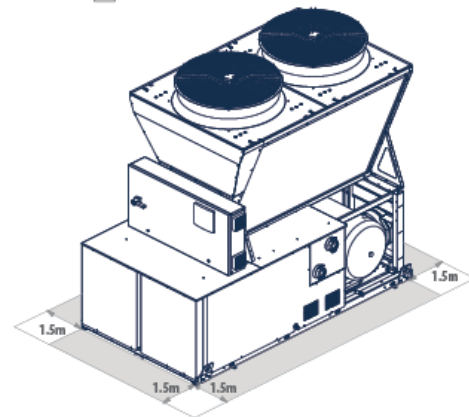
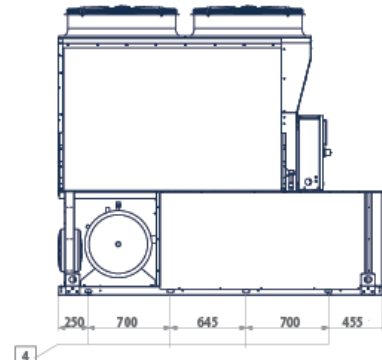
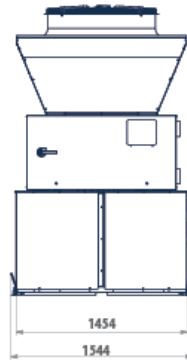
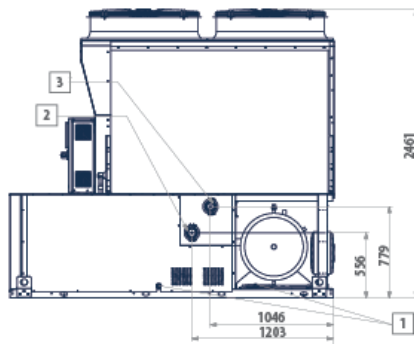
LEGEND

- | | |
|---|-------------------------------|
| 1 | Water drainage 1/2" female |
| 2 | Water inlet Victaulic 2 1/2" |
| 3 | Water outlet Victaulic 2 1/2" |
| 4 | Vibration dampers |



Dimensional drawings

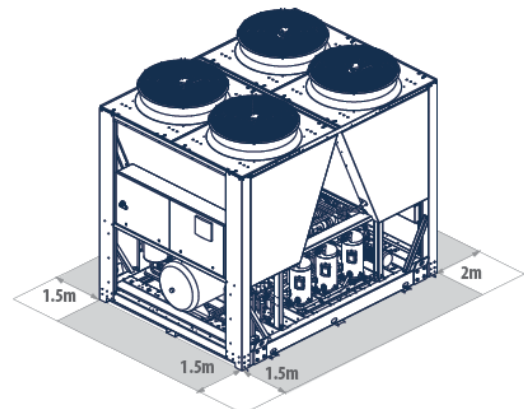
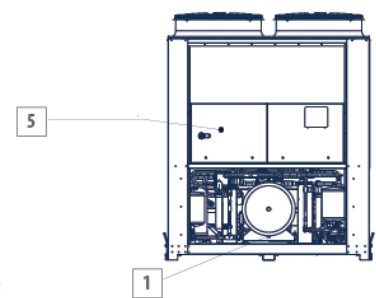
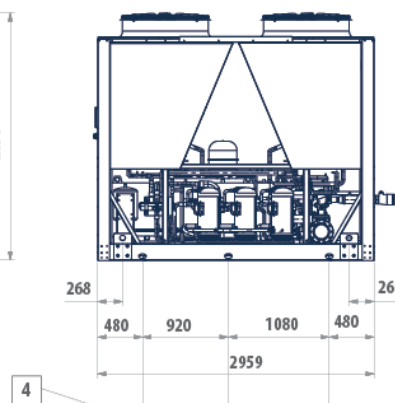
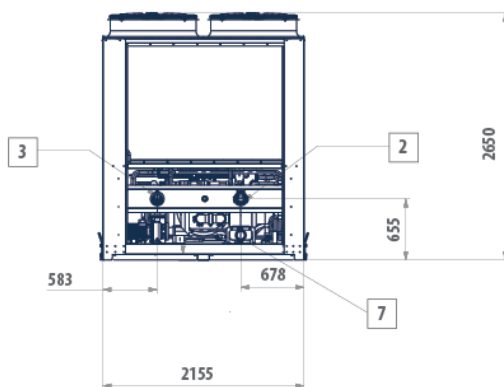
VPR 114 - 134



LEGEND

- | | |
|---|-------------------------------|
| 1 | Water drainage 1/2" female |
| 2 | Water inlet Victaulic 2 1/2" |
| 3 | Water outlet Victaulic 2 1/2" |
| 4 | Vibration dampers |

VPR 173 - 213 - 164 - 174 - 204 - 226 - 256

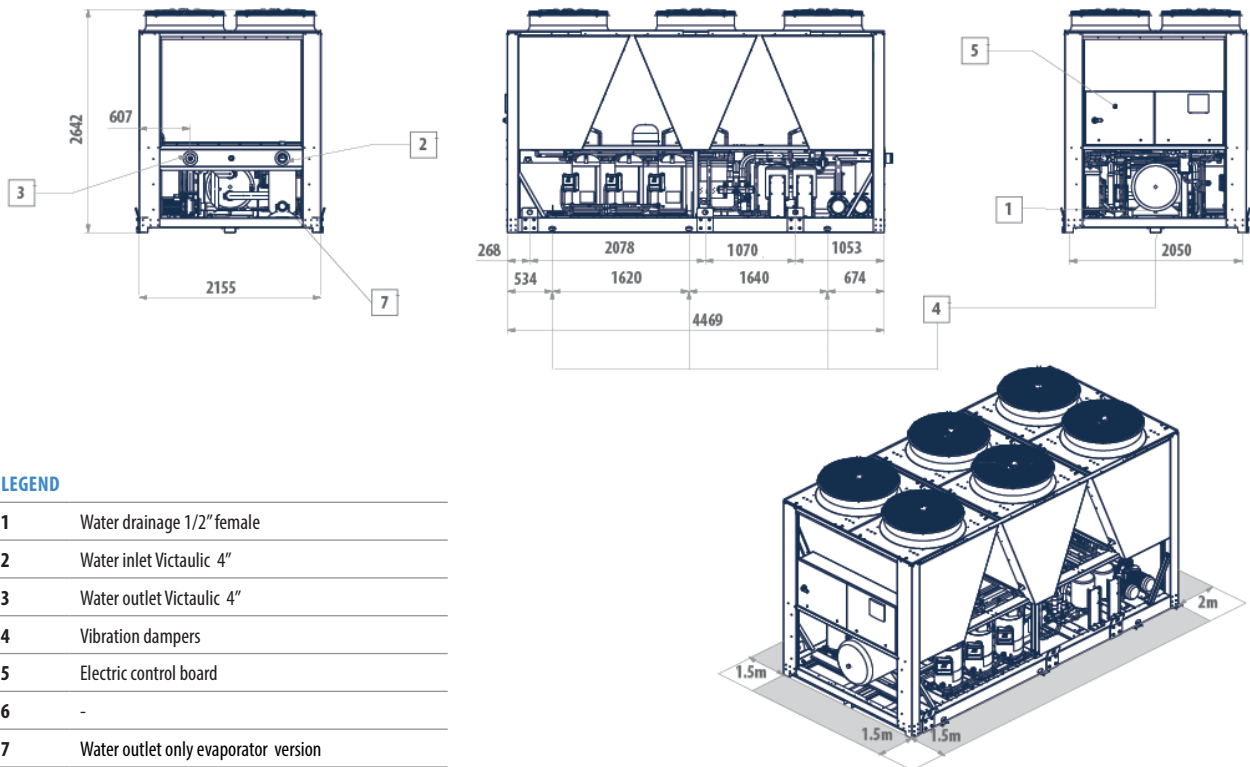


LEGEND

- | | |
|---|---|
| 1 | Water drainage 1/2" female |
| 2 | Water inlet Victaulic 4" |
| 3 | Water outlet Victaulic 4" |
| 4 | Vibration dampers |
| 5 | Electric control board |
| 6 | Victaulic reduction from 4" to 3" to be mounted on site |
| 7 | Water outlet only evaporator version |

Dimensional drawings

VPR 276 - 306 - 336



VPR 386

