

Motor-driven evaporating units LRE

Indoor or outdoor motor-driven evaporating unit

LRE 40 kW - 680 kW



Scroll compressor



Refrigerant R-410A



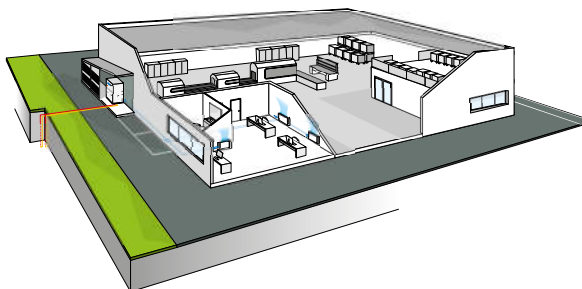
Cooling only



Split version

PLUS

- » High seasonal efficiency values
- » Production of cold water down to -8°C
- » Electronic expansion valve
- » Up to 6 compressors
- » 1 or 2 cooling circuits
- » Remote connectivity with the most common protocols
- » Compact dimensions
- » 3 different acoustic configurations
- » Possibility of including an oil recovery kit for long-distance refrigeration lines within the unit



The possibility of keeping the evaporator indoors means there is no need to add glycol to the water inside the system. In addition, you can keep all components requiring maintenance in an easily accessible room.

High efficiency split unit with low acoustic impact

LRE is the new Galletti series of motor-driven evaporating unit for indoor or outdoors (with IP54 electrical panel option) installation, suitable for both air conditioning and industrial process applications. The range covers capacities from 40 kW up to a maximum of 750 kW and is characterised by reduced space requirements in order to facilitate access to technical compartments (for capacities of up to 560 kW, the width and height are less than 88 cm and 190 cm respectively).

In order to increase the efficiency at partial loads, LRE models are provided with tandem or trio solutions (2 or 3 compressors on a single circuit) and equipped with electronic expansion valve as standard. Both single and dual circuit versions are available.

The use of top quality components at the cutting edge of technology in the cooling and electrical systems makes LRE motor-driven evaporating units state of the art in terms of efficiency, reliability, and operating limits. In fact, the possibility of producing water down to -8 °C and condensing with maximum temperatures of 60 °C is guaranteed, in order to ensure minimum space requirements for the external fan unit even in the hottest climates.

The high configurability of the series, which is in the DNA of Galletti, is guaranteed by 2 different versions, with and without closing panels, and 3 different acoustic configurations: standard, low noise, and super low noise, able to ensure a sound power level reduction of up to 12 dB(A). The range of the configuration available is completed by the possibility of producing hot water up to 60 °C at zero cost through partial heat recovery.

It is also possible to provide an oil recovery kit inside the refrigerator compartment to prevent it from being trapped in the connection refrigerator lines between the indoor unit and the external condenser when the distances, due to the requirements of the installation site, are characterized by long lengths.

Finally, the advanced microprocessor that regulates the operation of the unit allows: the control of a maximum 2 user-side pumps, on/off or modulating, the possibility of cascade connection up to 6 units and the control of the modulation of the air flow in the remote condenser unit with single or double 0-10V signal.

MAIN COMPONENTS

Structure

Made in galvanised steel sheet with a polyester powder coating for outdoors.

On request the compressor compartment is completely sealed and accessible on 3 sides thanks to easily removable panels that greatly simplify all maintenance and inspection operations.

Compressori scroll

Scroll-type compressors in a tandem or trio configuration equipped with IDV valve. The IDV intermediate delivery valve technology allows the compressor to avoid losses caused by overcompression and, consequently, the additional work the motor has to perform in partial-load operation, saving energy and improving seasonal and partial-load efficiency from 3% to 10%.



Heat exchangers

All units have heat exchangers with braze-welded AISI 316 austenitic stainless steel plates and connections made of AISI 316 L, characterised by a reduced carbon content to facilitate brazing.

Electronic microprocessor control

It allows complete management of the unit. The electronic control system allows the setpoint to be adjusted automatically according to the outdoor temperature in order to reduce consumption and broaden the working temperature range. With the advanced microprocessor control it is possible to set up LAN networks for controlling 6 units in parallel.

Oil recovery kit

Necessary in case of long distances between indoor unit and remote condenser. The separator, by intercepting the oil carried by the compressed gas, and returning it regularly to the carter of the machine, helps to ensure the effective lubrication of the moving parts of the compressor.

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
LRE132CSG		2	B	0	P	0	1	G	0	0	0	0

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

AVAILABLE VERSIONS

Only cooling versions

LRE...CSG
LRE...CLG
LRE...CQG

Standard execution
Low noise execution
Super low noise execution

CONFIGURATION OPTIONS

- | | |
|--|---|
| <p>1 Power supply</p> <ul style="list-style-type: none"> 0 400/3/50 + N 1 400/3/50 2 400/3/50 + N + Circuit breakers 3 400/3/50 + circuit breakers <p>2 Control microprocessor and lamination device</p> <ul style="list-style-type: none"> B Advanced + electronic expansion valve <p>3 Partial heat recovery</p> <ul style="list-style-type: none"> 0 Absent D Desuperheater (partial heat recovery) <p>4 Outdoor unit air flow modulation</p> <ul style="list-style-type: none"> 0 Absent I Condensation control performed by one 0-10V signal for each refrigerant circuit P Condensation control performed by a single 0-10V signal <p>5 User water flow modulation</p> <ul style="list-style-type: none"> 1 Single pump 2 Dual pump 3 Single pump + output signal with water flow modulation in ΔT logic = cost 4 Dual pump + output signal with water flow modulation in ΔT logic = cost 5 Single pump + output signal with water flow modulation in T logic = cost 6 Dual pump + output signal with water flow modulation in T logic = cost <p>6 Remote communication</p> <ul style="list-style-type: none"> 0 Absent | <ul style="list-style-type: none"> 1 RS485 serial card (Modbus or Carel protocol) 2 Lonworks serial card 3 Ethernet card (SNMP or BACNET protocol) + clock card 4 Ethernet card + clock card + monitoring software <p>7 Anti vibration shock mounts</p> <ul style="list-style-type: none"> 0 Absent G Rubber vibration dampers at the base of the unit M Spring vibration dampers at the base of the unit <p>8 Packing</p> <ul style="list-style-type: none"> 0 Standard 1 Wooden cage 2 Wooden crate <p>9 Remote control</p> <ul style="list-style-type: none"> 0 Absent 1 Simplified remote control panel 3 Remote display for programmable microprocessor <p>10 Anti-intrusion panelling</p> <ul style="list-style-type: none"> 0 Absent P Present (standard for Q version and mandatory for field 11 = 1) <p>11 Unit installation</p> <ul style="list-style-type: none"> 0 Indoor installation 1 Outdoor installation |
|--|---|

ACCESSORIES

A	Power factor capacitors	I	Pair of couplings Victaulic
B	Soft starter	L	Filter regulating kit
C	Service kit (advanced controller required)	M	Set point compensation outdoor temperature probe
D	Oil recovery kit for refrigerant pipes > 30 m	N	Compressor tandem/trio isolation valves
E	ON/OFF status of the compressors	P	Unit lifting pipes
F	Remote control for step capacity limit (advanced controller required)	Q	Temperature probe for pump shutdown on the primary circuit
G	Configurable digital alarm board (advanced controller required)	T	Mains power analyzer for monitoring and reducing power consumption
H	Refrigerant pressure gauges	V	Set-point modification with 4-20mA signal

Motor-driven evaporating units LRE

RATED TECHNICAL DATA OF LRE C MOTOR-DRIVEN EVAPORATING UNITS

LRE			052	062	072	082	092	122	132	
Power supply		V-ph-Hz	400/3N/50							
Cooling capacity	(1)	kW	40,9	51,3	59,6	69,8	80,3	103	118	
Total power input	(1)	kW	13,4	16,6	19,5	22,7	26,2	33,7	38,3	
EER	(1)		3,06	3,09	3,06	3,08	3,06	3,07	3,07	
Water flow	(1)	l/h	7038	8837	10260	12021	13821	17792	20256	
Water pressure drop	(1)	kPa	39	39	37	38	38	37	37	
Maximum current absorption		A	29,0	36,0	42,0	49,0	57,0	72,0	81,0	
Start up current		A	112	161	211	218	178	288	296	
Startup current with soft starter		A	67	97	127	131	107	173	178	
Compressors / circuits			2/1							
Sound power level	(2)	dB(A)	73	75	76	77	80	80	82	
Sound power level, low-noise version	(2)	dB(A)	67	69	70	71	74	74	76	
Sound power level quiet version	(2)	dB(A)	61	63	64	65	68	68	70	
Weight without options		kg	293	311	321	339	383	529	581	

LRE			152	154	182	184	212	214	242
Power supply		V-ph-Hz	400/3N/50						
Cooling capacity	(1)	kW	136	131	161	163	190	188	214
Total power input	(1)	kW	43,8	42,1	48,7	51,3	57,3	58,8	62,5
EER	(1)		3,10	3,10	3,30	3,17	3,32	3,19	3,42
Water flow	(1)	l/h	23359	22470	27638	27976	32733	32292	36807
Water pressure drop	(1)	kPa	37	28	32	30	33	33	30
Maximum current absorption		A	91,0	90,0	112	114	130	128	151
Start up current		A	356	224	380	293	399	307	420
Startup current with soft starter		A	214	153	228	199	239	210	252
Compressors / circuits			2/1	4/2	2/1	4/2	2/1	4/2	2/1
Sound power level	(2)	dB(A)	87	79	87	83	89	83	89
Sound power level, low-noise version	(2)	dB(A)	81	73	83	77	84	77	85
Sound power level quiet version	(2)	dB(A)	75	67	77	71	78	71	79
Weight without options		kg	650	949	674	884	746	920	816

(1) Water temperature - user side 12°C / 7°C, condensation temperature 50°C (EN14511:2022)

(2) Sound power level measured according to ISO 9614

RATED TECHNICAL DATA OF LRE C MOTOR-DRIVEN EVAPORATING UNITS

LRE			244	274	302	314	364	384	454
Power supply		V-ph-Hz	400/3N/50						
Cooling capacity	(1)	kW	209	238	266	275	319	340	395
Total power input	(1)	kW	65,9	74,9	78,7	85,2	98,3	106	117
EER	(1)		3,17	3,17	3,39	3,23	3,24	3,22	3,37
Water flow	(1)	l/h	35979	40901	45787	47326	54801	58363	67822
Water pressure drop	(1)	kPa	35	36	36	36	37	37	23
Maximum current absorption		A	144	161	166	182	224	240	261
Start up current		A	360	377	510	447	492	508	529
Startup current with soft starter		A	244	259	306	305	340	353	369
Compressors / circuits			4/2	4/2	2/1	4/2	4/2	4/2	4/2
Sound power level	(2)	dB(A)	83	85	91	90	90	90	92
Sound power level, low-noise version	(2)	dB(A)	77	79	88	84	86	86	87
Sound power level quiet version	(2)	dB(A)	71	73	82	78	80	80	81
Weight without options		kg	932	1034	1048	1314	1398	1422	1719

LRE			504	564	606	636	696	746
Power supply		V-ph-Hz	400/3N/50					
Cooling capacity	(1)	kW	443	490	513	557	615	658
Total power input	(1)	kW	129	145	156	170	176	188
EER	(1)		3,44	3,39	3,28	3,28	3,49	3,51
Water flow	(1)	l/h	76106	84244	88214	95637	105646	113024
Water pressure drop	(1)	kPa	27	33	33	36	37	37
Maximum current absorption		A	303	317	328	370	412	454
Start up current		A	571	661	593	638	680	722
Startup current with soft starter		A	403	460	421	457	491	524
Compressors / circuits			4/2	4/2	6/2	6/2	6/2	6/2
Sound power level	(2)	dB(A)	92	93	94	94	94	94
Sound power level, low-noise version	(2)	dB(A)	88	90	88	89	89	90
Sound power level quiet version	(2)	dB(A)	82	84	82	83	83	84
Weight without options		kg	1762	1829	2349	2446	2378	2460

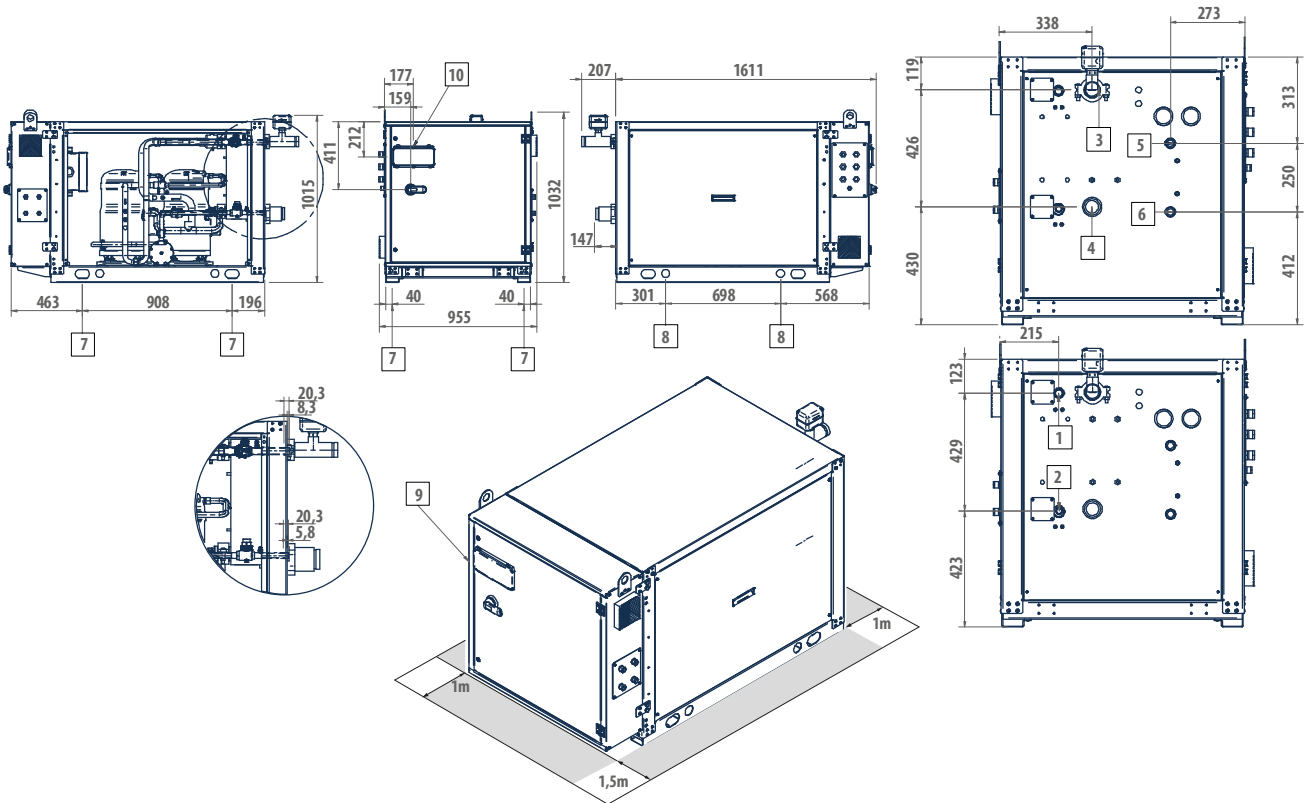
(1) Water temperature - user side 12°C / 7°C, condensation temperature 50°C (EN14511:2022)

(2) Sound power level measured according to ISO 9614

Motor-driven evaporating units LRE

DIMENSIONAL DRAWINGS

LRE 52 - 92



LEGEND

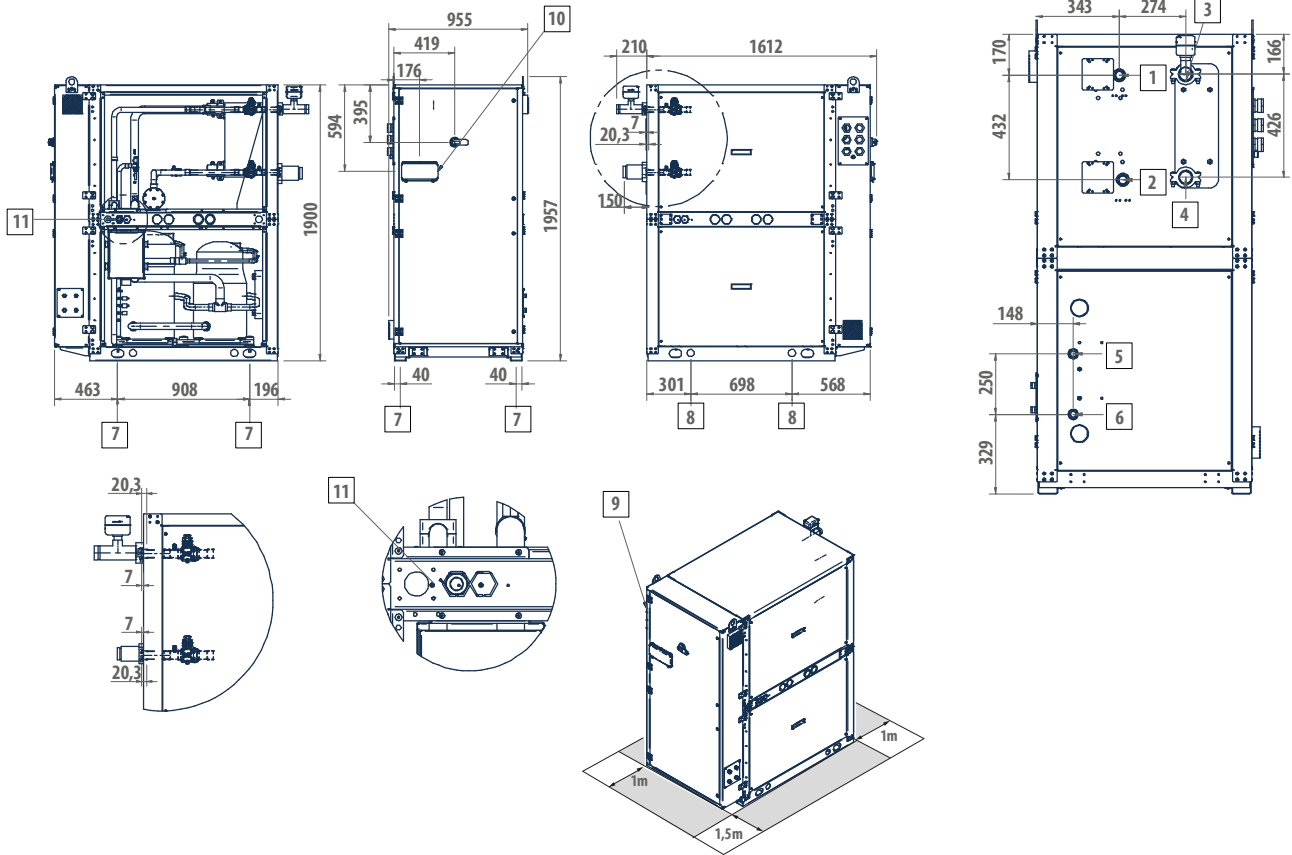
1	Refrigerant outlet
2	Refrigerant return
3	User side - inlet (Victaulic 2")
4	User side - outlet (Victaulic 2")
5	De-superheater water outlet 1"
6	Desuperheater water inlet 1"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface

CLOSING PANELLING AVAILABLE ON REQUEST

LRE	052	062	072	082	092
1) Ø	18	22	22	22	28
2) Ø	18	18	22	22	22

DIMENSIONAL DRAWINGS

LRE 122 - 152



LEGEND

1	Refrigerant outlet
2	Refrigerant return
3	User side - inlet (Victaulic 2")
4	User side - outlet (Victaulic 2")
5	De-superheater water outlet 1"
6	Desuperheater water inlet 1"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface
11	Outlet safety valve G. 3/4" F (only 152)

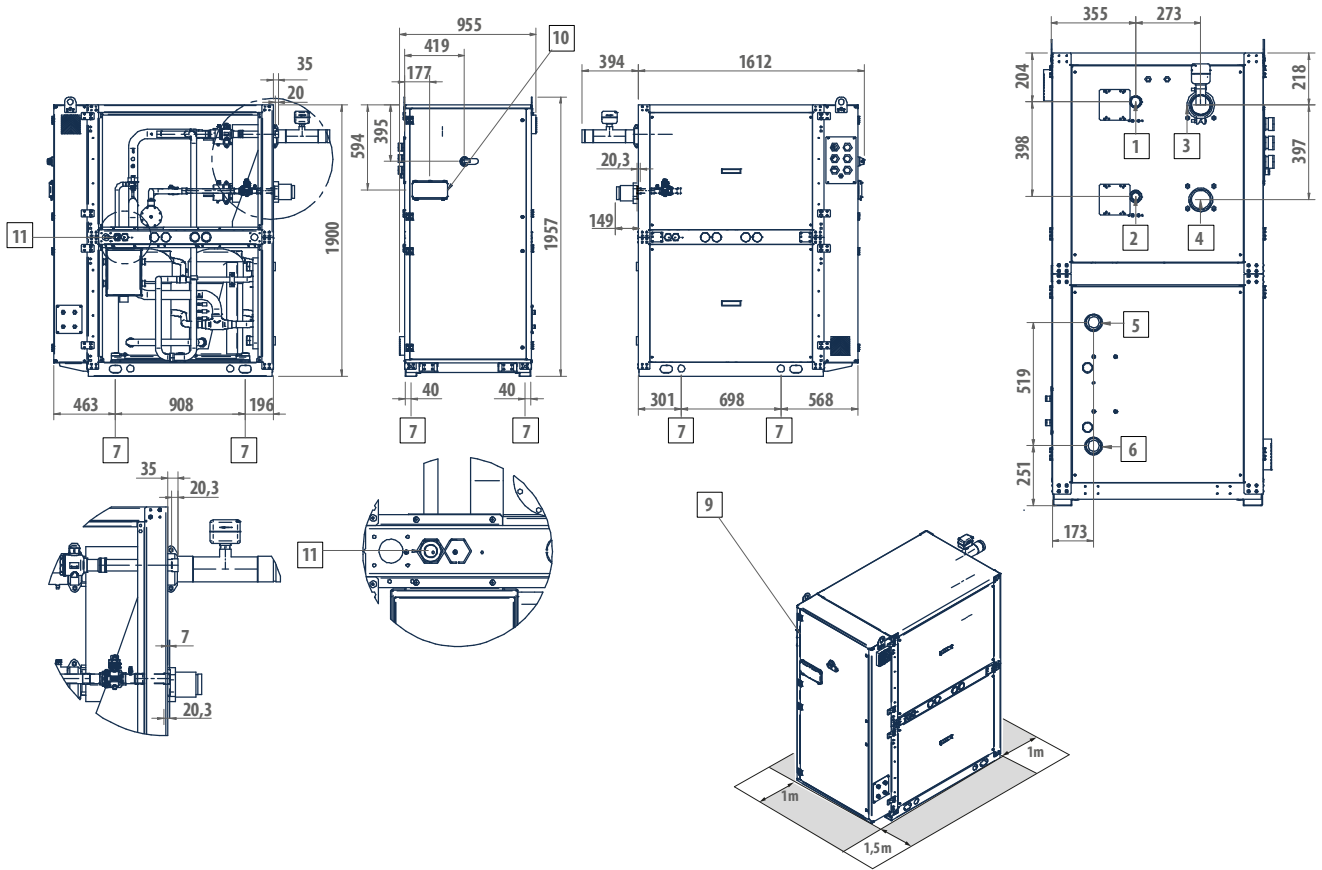
CLOSING PANNELLING AVAILABLE ON REQUEST

LRE	122	132	152
1) Ø	28	35	35
2) Ø	28	28	35

Motor-driven evaporating units LRE

DIMENSIONAL DRAWINGS

LRE 182 - 242



LEGEND

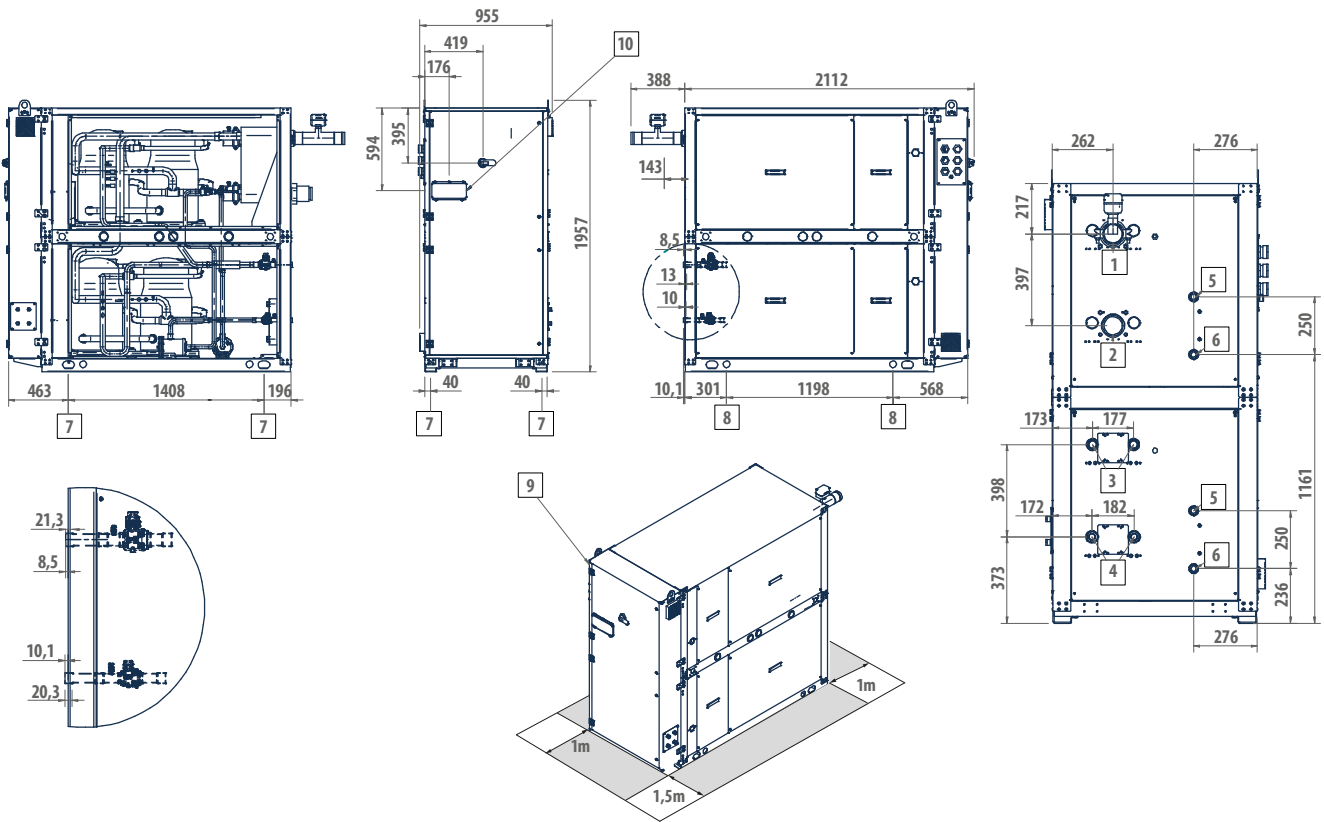
1	Refrigerant outlet
2	Refrigerant return
3	User side - inlet (Victaulic 3")
4	User side - outlet (Victaulic 3")
5	De-superheater water outlet 2"
6	Desuperheater water inlet 2"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface
11	Outlet safety valve G. 3/4" F

CLOSING PANNELLING AVAILABLE ON REQUEST

LRE	182	212	242
1) Ø	35	42	42
2) Ø	35	35	35

DIMENSIONAL DRAWINGS

LRE 154-274



LEGEND

1	User side - inlet (Victaulic 3")
2	User side - outlet (Victaulic 3")
3	Refrigerant outlet
4	Refrigerant return
5	De-superheater water outlet 2"
6	Desuperheater water inlet 2"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface

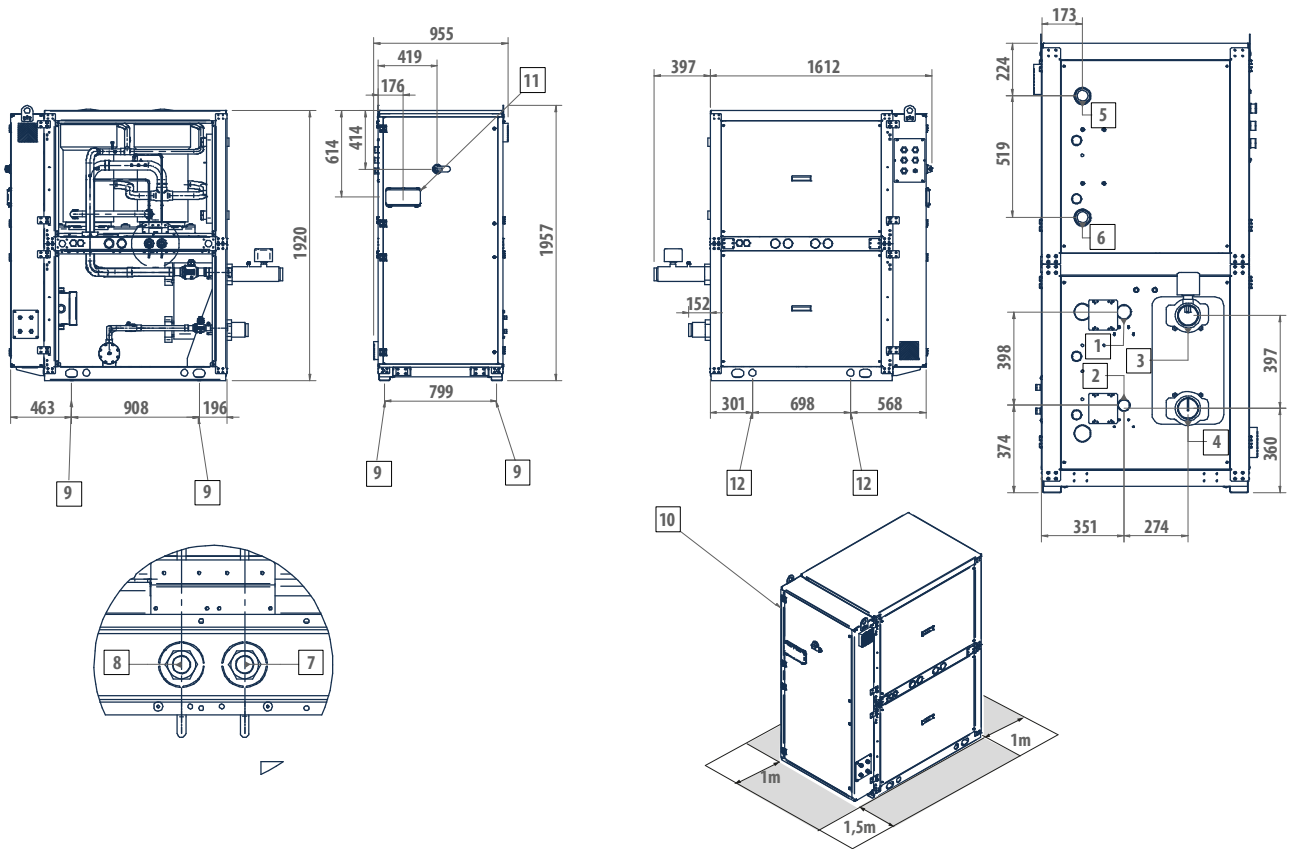
CLOSING PANNELLING AVAILABLE ON REQUEST

LRE	154	184	214	244	274
3) Ø	28	28	28	28	35
4) Ø	22	22	28	28	28

Motor-driven evaporating units LRE

DIMENSIONAL DRAWINGS

LRE 302



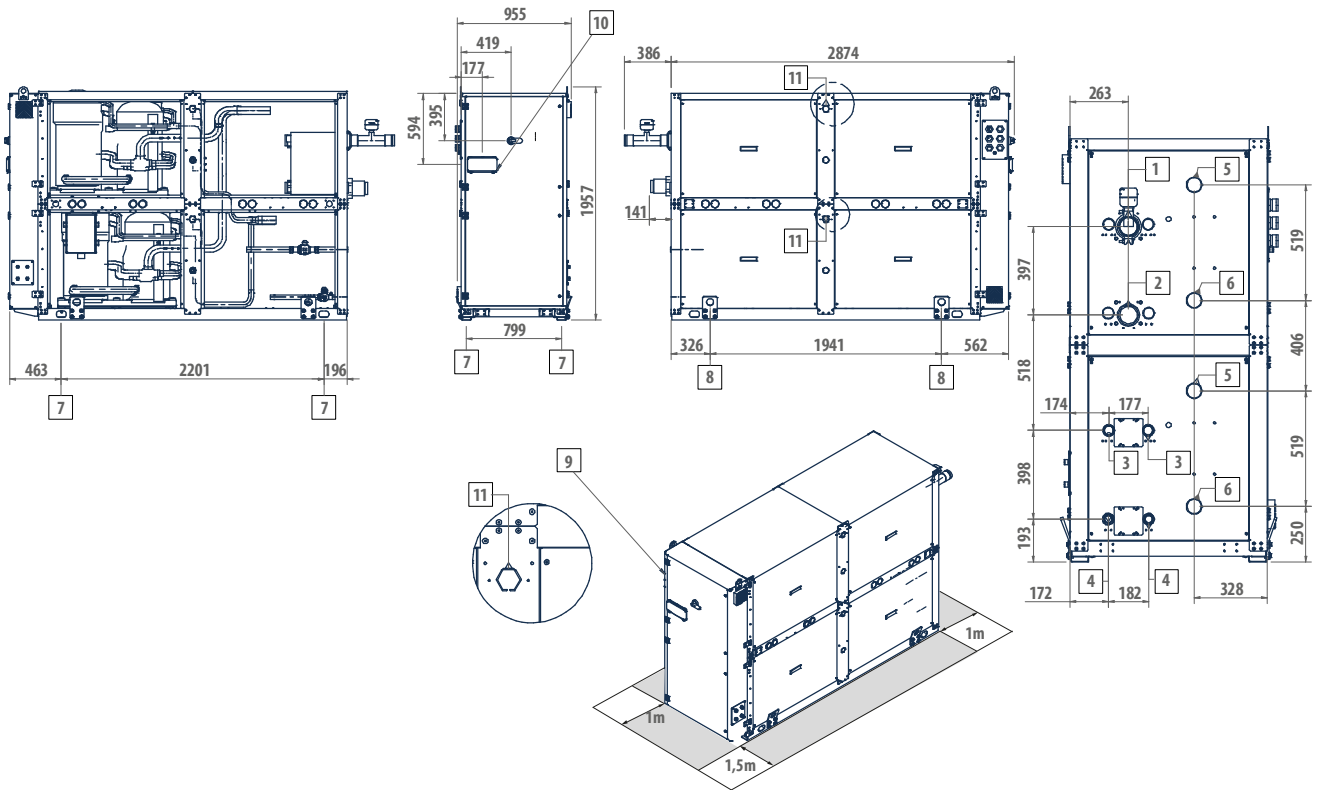
LEGEND

1	Refrigerant outlet
2	Refrigerant return
3	User side - inlet (Victaulic 3")
4	User side - outlet (Victaulic 3")
5	De-superheater water outlet 2"
6	Desuperheater water inlet 2"
7	Low pressure safety valve outlet G. 3/4" F
8	High-pressure relief valve outlet G. 3/4" F
9	Vibration dumpers
10	Power supply input
11	User interface
12	Lifting points

CLOSING PANELLING AVAILABLE ON REQUEST

DIMENSIONAL DRAWINGS

LRE 314 - 384



LEGEND

1	User side - inlet (Victaulic 3")
2	User side - outlet (Victaulic 3")
3	Refrigerant outlet
4	Refrigerant return
5	De-superheater water outlet 2"
6	Desuperheater water inlet 2"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface
11	Outlet safety valve G. 1" F

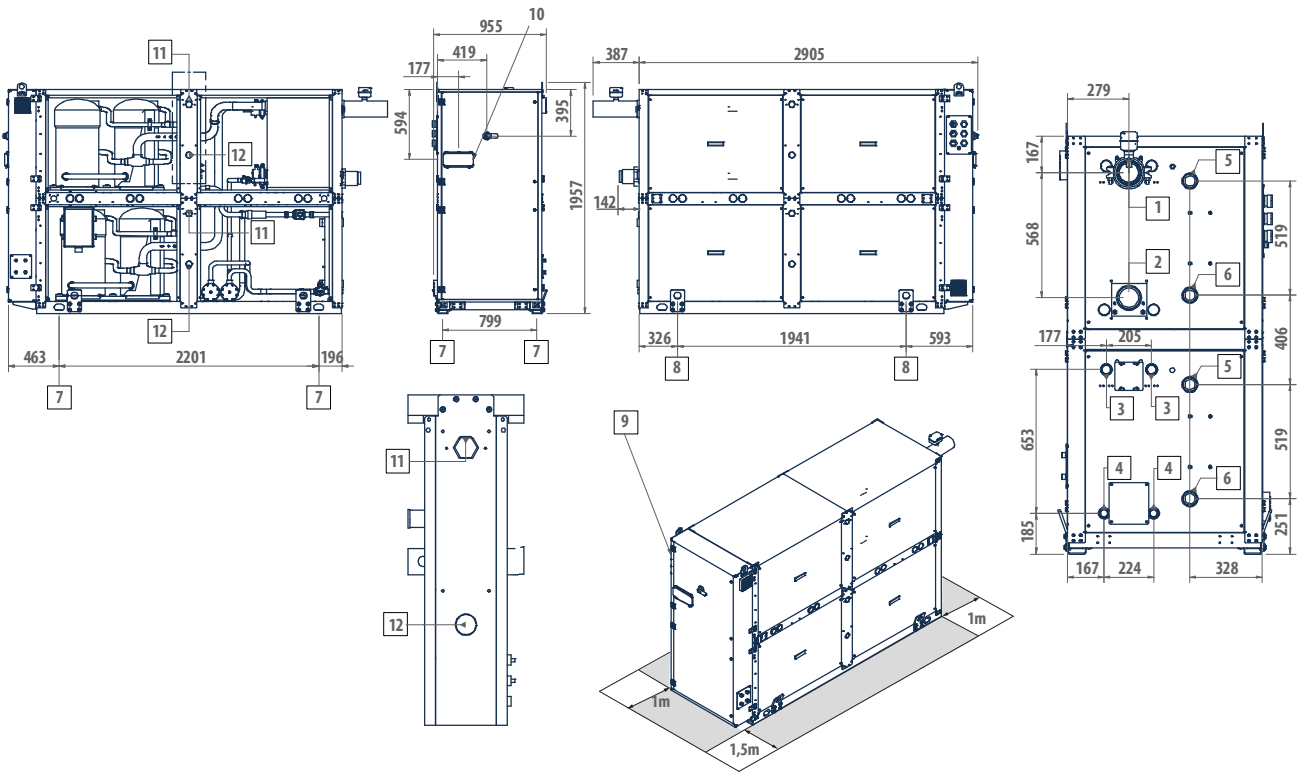
CLOSING PANNELLING AVAILABLE ON REQUEST

LRE	314	364	384
3) Ø	35	35	35
4) Ø	28	28	28

Motor-driven evaporating units LRE

DIMENSIONAL DRAWINGS

LRE 454 - 564



LEGEND

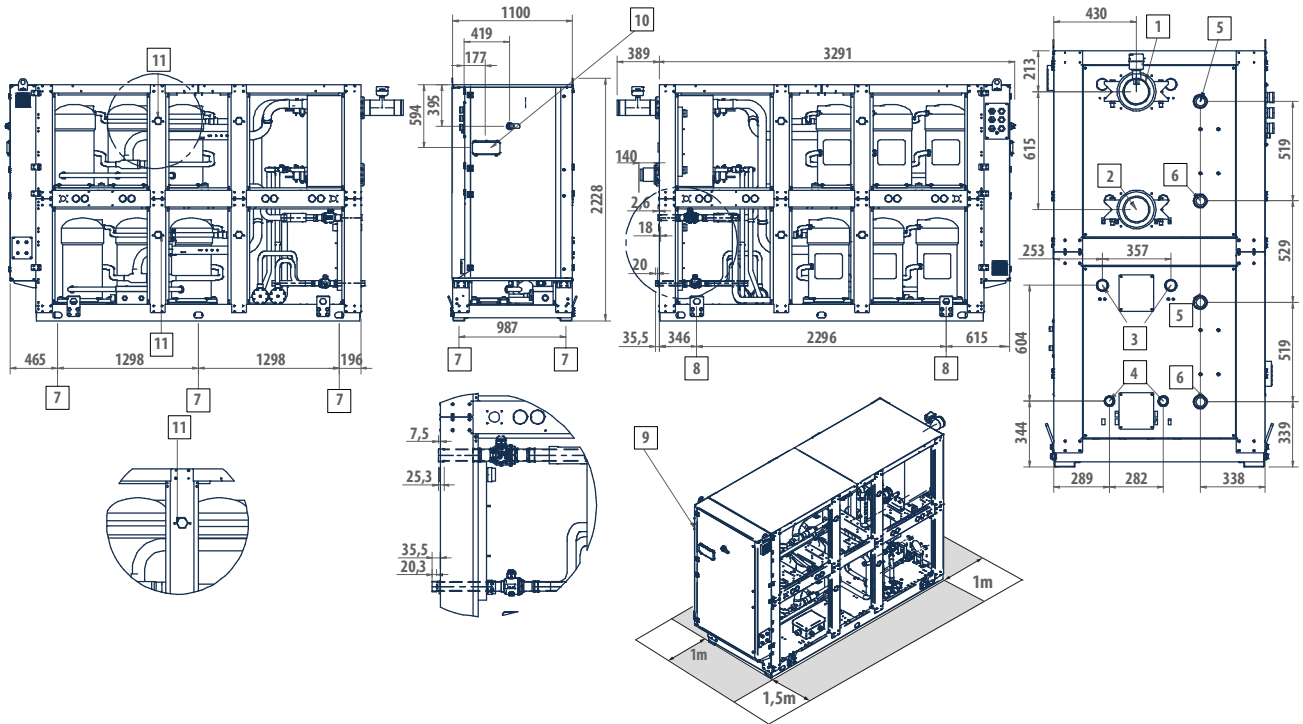
1	User side - inlet (Victaulic 4")
2	User side - outlet (Victaulic 4")
3	Refrigerant outlet
4	Refrigerant return
5	De-superheater water outlet 2"
6	Desuperheater water inlet 2"
7	Vibration dumpers
8	Lifting points
9	Power supply input
10	User interface
11	Low pressure safety valve outlet LRE 454-504 G. 1" F; LRE 564 G. 3/4" F
12	High-pressure relief valve outlet LRE 564 G. 1" M

CLOSING PANELLING AVAILABLE ON REQUEST

LRE	454	504	564
3) Ø	42	42	42
4) Ø	35	35	35

DIMENSIONAL DRAWINGS

LRE 606 - 746



LEGEND

- 1 User side - inlet (Victaulic 5")
- 2 User side - outlet (Victaulic 5")
- 3 Refrigerant outlet
- 4 Refrigerant return
- 5 De-superheater water outlet 2"
- 6 Desuperheater water inlet 2"
- 7 Vibration dumpers
- 8 Lifting points
- 9 Power supply input
- 10 User interface
- 11 Outlet safety valve G. 1" 1/4 F

CLOSING PANNELLING AVAILABLE ON REQUEST

LRE	606	636	696	746
3) Ø	42	54	54	54
4) Ø	42	42	42	42