

Outdoor packaged unit

LCX 55 - 360 kW



LCX: wide range of models and configurability

The main feature of the new LCX design is its extremely wide range: the 16 models that comprise it can be built as chiller, free cooling, or heat pump versions, in 2 different acoustic configurations, and cover a range of powers from 55 to 360 kW.

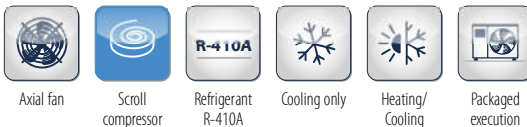
The possibility of setting up different cooling circuits in units of the same power means being able to personalise efficiency levels under full or part load conditions.

– 1 circuit, 2 compressors. The solution of using two compressors in a single cooling circuit increases efficiency under part load conditions, reaching ESEER/SEER and SCOP values greater than 4.

– 2 circuits / 4 compressors, 4 compressors enable the unit to output power in 4 steps and adapt perfectly to the actual thermal load of the system, while reducing starting currents.

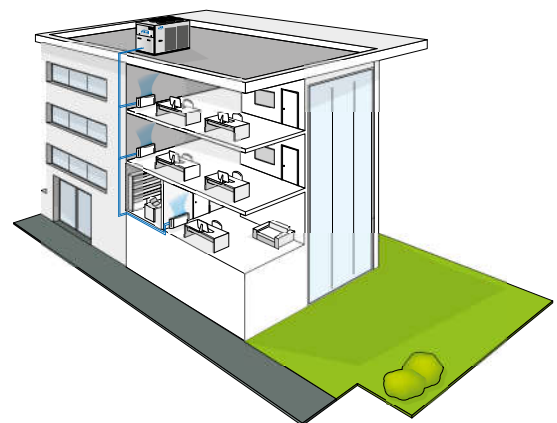
Complete hydronic kits can be incorporated within the units without modifying their size and you have the option of choosing the water circulation pump.

All units, irrespective of type of construction, are equipped with electronic expansion valves to maximise efficiency under part load conditions.



PLUS

- » Super low noise execution available on request
- » Electronic expansion valve
- » Incorporable hydraulic kit
- » Up to 4 compressors
- » 1 or 2 cooling circuits
- » Remote connectivity with the most common protocols
- » Super low noise execution available on request
- » -



LCX 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.

MAIN COMPONENTS

Structure

Made in galvanised steel sheet with a polyester powder coating for outdoors. The compressor compartment is completely sealed and may be accessed on 3 sides thanks to easy-to-remove panels that greatly simplify maintenance and/or inspection.

Scroll compressors

Scroll compressors are now the best solution in terms of reliability and limiting the sound power emitted. The compressors are supplied complete with motor protection against overheating, overcurrents and excessive outlet gas temperatures.

Heat exchanger

Made of generously sized aluminum fins and copper piping. The special engineering allows defrost cycles to be carried out at maximum speed in the models with heat pump operation, which brings clear benefits in terms of the integrated efficiency of the whole cycle.

Electronic microprocessor control

It completely manages 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 up to 4 units in parallel.

Fan drive assembly

Axial fans with airfoil blades made of plastic-aluminum composite, connected to an electric motor with external rotor. The condensation control system continuously and automatically regulates the fan speed. Electric fans with BLDC motor are available on request.



Cooling circuit

It can be made in two different versions with the same power (Efficiency Pack), using mainly:

- R410A scroll compressors
- brazed plate heat exchangers
- finned block condenser
- electronic expansion valve



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
LCX092HL		0	B	1	S	0	0	S	1	0	0	G	0	V

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

AVAILABLE VERSIONS

Only cooling versions

- LCX..CSGO** Standard execution
- LCX..CLGO** Low noise execution
- LCX..CQGO** Super low noise execution (on request)

Reversible heat pump versions

- LCX..HSGO** Standard execution
- LCX..HLGO** Low noise execution
- LCX..HQGO** Super low noise execution (on request)

CONFIGURATION OPTIONS

- | | |
|---|--|
| <p>1 Power supply</p> <ul style="list-style-type: none"> 0 400 V - 3 N - 50 Hz 1 400 V - 3 - 50 Hz 2 400 V - 3 N - 50 Hz + magnetic breakers 3 400 V - 3 - 50 Hz + magnetic breakers <p>2 Onboard controller and expansion valve</p> <ul style="list-style-type: none"> B Advanced + electronic expansion valve <p>3 User side water pump</p> <ul style="list-style-type: none"> 0 Absent 1 LP pump + expansion vessel 2 HP pump + expansion vessel 3 Double pump LP parallel operation and expansion vessel (advanced controller required) 4 Double pump HP parallel operation and expansion vessel (advanced controller required) 5 LP run and standby double pump + expansion vessel 6 HP run and standby double pump + expansion vessel <p>4 Water buffer tank</p> <ul style="list-style-type: none"> 0 Absent S Selected user side <p>5 Partial heat recovery</p> <ul style="list-style-type: none"> 0 Absent D Desuperheater with water pump free contact <p>6 Air flow modulation</p> <ul style="list-style-type: none"> 0 Absent C Condensation control by phase-cut fans E Condensation control performed by EC fans <p>7 Antifreezing kit</p> <ul style="list-style-type: none"> 0 Absent E Evaporator P Evaporator and water pump S Evaporator, water pump and water buffer tank | <p>8 Remote communication</p> <ul style="list-style-type: none"> 0 Absent 1 RS485 serial board (Carel / Modbus protocol) 2 LON FTT10 serial board (advanced controller required) 3 GSM modem board (advanced controller required) 4 BACNET IP / PCOWEB serial board + supervision software Gweb (advanced controller required) 5 BACNET IP / PCOWEB serial board + clock board + supervision software Gweb (advanced controller required) <p>9 Special coils / Protective treatments</p> <ul style="list-style-type: none"> 0 Standard B Pre-painted fins with polyester paint C Cataphoresis treatment on fins and coil carpentry R Copper-copper <p>10 Packing</p> <ul style="list-style-type: none"> 0 Standard 1 Wooden cage 2 Wooden crate <p>11 Anti vibration shock mounts</p> <ul style="list-style-type: none"> 0 Absent G Rubber anti vibration shock mounts M Spring anti vibration shock mounts <p>12 Remote control</p> <ul style="list-style-type: none"> 0 Absent 1 Remote simplified user panel 2 Remote simplified user panel for standard controller 3 Remote user panel for advanced controller <p>13 Unit installation accessories</p> <ul style="list-style-type: none"> 0 Absent V Pair of couplings Victaulic |
|---|--|

ACCESSORIES

A	Power factor capacitors	H	Set point compensation outdoor temperature probe
B	Soft starter	I	Refrigerant pressure gauges
C	Service kit (advanced controller required)	L	Filter regulating kit
D	Clock board (advanced controller required)	M	Directives reference other than "2014/68/UE - PED"
E	ON/OFF status of the compressors	N	Unit lifting pipes
F	Remote control for step capacity limit (advanced controller required)	P	Outdoor finned coil heat exchanger protection grille
G	Configurable digital alarm board (advanced controller required)	Q	Outdoor finned coil heat exchanger protection filters

Air chillers and heat pumps LCX

LCX CS WATER CHILLERS RATED TECHNICAL DATA

LCX CS			92	102	122	124	142	144	162	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	88,8	102	113	118	144	143	160	
Total power input	(1)(E)	kW	32,1	35,9	40,4	42,8	50,9	50,8	58,9	
EER	(1)(E)		2,77	2,83	2,80	2,76	2,83	2,82	2,71	
SEER	(2)(E)		4,14	4,45	4,15	4,11	4,14	4,20	4,32	
Water flow	(1)	l/h	15285	17530	19470	20283	24766	24674	27492	
Water pressure drop	(1)(E)	kPa	32	32	34	34	36	36	36	
Available pressure head - LP pumps	(1)	kPa	128	125	113	114	174	168	158	
Maximum current absorption		A	91,0	101	119	120	131	129	144	
Start up current		A	261	269	319	247	330	245	396	
Startup current with soft starter		A	199	207	254	172	265	186	313	
Compressors / circuits			2 / 1	2 / 1	2 / 1	4 / 2	2 / 1	4 / 2	2 / 1	
Expansion vessel volume		dm ³	12	12	12	12	12	12	12	
Buffer tank volume		dm ³	220	220	340	340	340	340	340	
Sound power level	(3)(E)	dB(A)	86	86	86	85	87	85	87	
Transport weight unit with pump and tank		kg	918	918	1241	1301	1286	1321	1316	
Operating weight unit with pump and full tank		kg	1138	1138	1581	1641	1626	1661	1656	

LCX CS			164	174	194	214	244	274	294	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	152	162	183	202	245	264	294	
Total power input	(1)(E)	kW	56,4	58,2	65,6	76,2	95,7	90,5	104	
EER	(1)(E)		2,70	2,78	2,79	2,65	2,56	2,91	2,82	
SEER	(2)(E)		4,19	4,13	4,28	4,31	4,19	4,33	4,37	
Water flow	(1)	l/h	26160	27855	31447	34689	42201	45368	50493	
Water pressure drop	(1)(E)	kPa	36	37	37	38	38	39	40	
Available pressure head - LP pumps	(1)	kPa	159	170	150	161	196	183	170	
Maximum current absorption		A	150	136	155	173	196	224	237	
Start up current		A	266	252	310	330	380	403	468	
Startup current with soft starter		A	214	200	248	268	315	338	385	
Compressors / circuits			4 / 2							
Expansion vessel volume		dm ³	12	24	24	24	24	24	24	
Buffer tank volume		dm ³	340	600	600	600	600	765	765	
Sound power level	(3)(E)	dB(A)	85	88	88	89	89	89	89	
Transport weight unit with pump and tank		kg	1471	1608	1676	1686	1869	2129	2161	
Operating weight unit with pump and full tank		kg	1811	2208	2276	2286	2469	2894	2926	

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

LCX CS WATER CHILLERS RATED TECHNICAL DATA

LCX CS			324	364
Power supply		V-ph-Hz	400 - 3N - 50	
Cooling capacity	(1)(E)	kW	318	355
Total power input	(1)(E)	kW	120	138
EER	(1)(E)		2,66	2,57
SEER	(2)(E)		4,12	4,15
Water flow	(1)	l/h	54657	60969
Water pressure drop	(1)(E)	kPa	39	41
Available pressure head - LP pumps	(1)	kPa	162	143
Maximum current absorption		A	251	300
Start up current		A	476	497
Startup current with soft starter		A	393	440
Compressors / circuits			4 / 2	
Expansion vessel volume		dm ³	24	24
Buffer tank volume		dm ³	765	765
Sound power level	(3)(E)	dB(A)	89	90
Transport weight unit with pump and tank		kg	2196	2196
Operating weight unit with pump and full tank		kg	2961	2961

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

Air chillers and heat pumps LCX

LCX HS HEAT PUMPS RATED TECHNICAL DATA

LCX HS			092	102	122	124	142	144	162	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	87,7	100	112	117	142	141	157	
Total power input	(1)(E)	kW	32,0	35,3	40,4	41,9	50,8	50,7	58,8	
EER	(1)(E)		2,74	2,84	2,76	2,80	2,79	2,79	2,68	
SEER	(2)(E)		4,11	4,38	4,02	3,97	4,10	4,16	4,27	
Water flow	(1)	l/h	15080	17276	19183	20189	24399	24308	27085	
Water pressure drop	(1)(E)	kPa	24	26	27	25	31	31	32	
Available pressure head - LP pumps	(1)	kPa	136	131	121	123	177	173	161	
Heating capacity	(3)(E)	kW	107	120	133	146	166	168	187	
Total power input	(3)(E)	kW	30,0	34,2	38,1	41,7	47,7	47,3	53,2	
COP	(3)(E)		3,55	3,50	3,50	3,51	3,49	3,55	3,51	
SCOP	(2)(E)		4,22	4,30	4,18	4,11	4,13	4,10	4,15	
Heating energy efficiency class	(4)(E)		A++							
Water flow	(3)	l/h	18461	20768	23116	25387	28831	29176	32378	
Water pressure drop	(3)(E)	kPa	36	37	39	39	43	44	46	
Available pressure head - LP pumps	(3)	kPa	130	123	113	114	162	156	139	
Maximum current absorption		A	91,0	101	119	120	131	129	144	
Start up current		A	261	269	319	247	330	245	396	
Startup current with soft starter		A	199	207	254	172	265	186	313	
Compressors / circuits			2 / 1	2 / 1	2 / 1	4 / 2	2 / 1	4 / 2	2 / 1	
Expansion vessel volume		dm ³	12	12	12	12	12	12	12	
Buffer tank volume		dm ³	220	220	340	340	340	340	340	
Sound power level	(5)(E)	dB(A)	86	86	86	85	87	85	87	
Transport weight unit with pump and tank		kg	918	918	1241	1301	1286	1321	1316	
Operating weight unit with pump and full tank		kg	1138	1138	1581	1641	1626	1661	1656	

LCX HS			164	174	194	214	244	274	294	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	150	160	180	199	242	260	289	
Total power input	(1)(E)	kW	56,3	58,1	65,6	76,2	95,7	90,4	104	
EER	(1)(E)		2,66	2,74	2,74	2,61	2,53	2,88	2,77	
SEER	(2)(E)		4,15	3,45	3,64	3,67	3,55	3,69	3,73	
Water flow	(1)	l/h	25773	27443	30948	34175	41577	44698	49746	
Water pressure drop	(1)(E)	kPa	32	34	34	35	35	35	35	
Available pressure head - LP pumps	(1)	kPa	162	172	152	164	198	186	173	
Heating capacity	(3)(E)	kW	181	189	213	232	281	308	342	
Total power input	(3)(E)	kW	50,7	56,9	64,6	71,0	85,6	88,7	99,5	
COP	(3)(E)		3,56	3,32	3,31	3,27	3,28	3,47	3,44	
SCOP	(2)(E)		4,07	3,57	3,64	3,64	3,66	3,71	3,74	
Heating energy efficiency class	(4)(E)		A++	A+	A+	A+	A+	A+	A+	
Water flow	(3)	l/h	31359	32758	37031	40301	48719	53462	59409	
Water pressure drop	(3)(E)	kPa	47	48	48	48	48	50	50	
Available pressure head - LP pumps	(3)	kPa	141	155	129	136	181	167	153	
Maximum current absorption		A	150	136	155	173	196	224	237	
Start up current		A	266	252	310	330	380	403	468	
Startup current with soft starter		A	214	200	248	268	315	338	385	
Compressors / circuits			4 / 2							
Expansion vessel volume		dm ³	12	24	24	24	24	24	24	
Buffer tank volume		dm ³	340	600	600	600	600	765	765	
Sound power level	(5)(E)	dB(A)	85	88	88	89	89	89	89	
Transport weight unit with pump and tank		kg	1471	1608	1676	1686	1869	2129	2161	
Operating weight unit with pump and full tank		kg	1811	2208	2276	2286	2469	2894	2926	

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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 30°C / 35°C (EN14511:2022)

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

(5) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

LCX HS HEAT PUMPS RATED TECHNICAL DATA

LCX HS			324	364
Power supply		V-ph-Hz	400 - 3N - 50	
Cooling capacity	(1)(E)	kW	324	349
Total power input	(1)(E)	kW	119	138
EER	(1)(E)		2,72	2,53
SEER	(2)(E)		3,86	4,04
Water flow	(1)	l/h	55669	60026
Water pressure drop	(1)(E)	kPa	37	35
Available pressure head - LP pumps	(1)	kPa	165	147
Heating capacity	(3)(E)	kW	374	418
Total power input	(3)(E)	kW	110	128
COP	(3)(E)		3,39	3,26
SCOP	(2)(E)		3,75	3,70
Heating energy efficiency class	(4)(E)		A+	
Water flow	(3)	l/h	64891	72629
Water pressure drop	(3)(E)	kPa	51	51
Available pressure head - LP pumps	(3)	kPa	139	104
Maximum current absorption		A	251	300
Start up current		A	476	497
Startup current with soft starter		A	393	440
Compressors / circuits			4 / 2	
Expansion vessel volume		dm ³	24	24
Buffer tank volume		dm ³	765	765
Sound power level	(5)(E)	dB(A)	89	90
Transport weight unit with pump and tank		kg	2196	2196
Operating weight unit with pump and full tank		kg	2961	2961

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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 30°C / 35°C (EN14511:2022)

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

(5) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

Air chillers and heat pumps LCX

LCX CL WATER CHILLERS RATED TECHNICAL DATA

LCX CL			062	072	082	092	094	102	104	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	58,3	66,7	78,6	88,9	90,6	102	105	
Total power input	(1)(E)	kW	20,3	22,9	26,5	31,0	31,4	35,1	35,9	
EER	(1)(E)		2,88	2,91	2,97	2,87	2,89	2,90	2,91	
SEER	(2)(E)		4,13	4,39	4,64	4,40	4,15	4,67	4,46	
Water flow	(1)	l/h	10031	11481	13526	15297	15594	17545	18027	
Water pressure drop	(1)(E)	kPa	28	29	31	32	32	32	34	
Available pressure head - LP pumps	(1)	kPa	140	135	131	127	127	125	125	
Maximum current absorption		A	51,0	55,0	66,0	77,0	81,0	86,0	87,0	
Start up current		A	185	183	191	246	194	254	198	
Startup current with soft starter		A	111	124	139	184	122	192	137	
Compressors / circuits			2 / 1	2 / 1	2 / 1	2 / 1	4 / 2	2 / 1	4 / 2	
Expansion vessel volume		dm ³	12	12	12	12	12	12	12	
Buffer tank volume		dm ³	220	220	220	340	340	340	340	
Sound power level	(3)(E)	dB(A)	80	80	80	81	80	81	80	
Transport weight unit with pump and tank		kg	762	767	847	1086	1217	1096	1217	
Operating weight unit with pump and full tank		kg	982	987	1067	1426	1557	1436	1557	

LCX CL			122	124	142	144	162	164	194	
Power supply		V-ph-Hz	400 - 3N - 50							
Cooling capacity	(1)(E)	kW	113	117	128	133	160	152	178	
Total power input	(1)(E)	kW	40,1	41,0	46,6	46,4	58,5	56,1	63,6	
EER	(1)(E)		2,82	2,85	2,74	2,87	2,74	2,72	2,79	
SEER	(2)(E)		4,15	4,23	4,10	4,16	4,20	4,15	4,21	
Water flow	(1)	l/h	19453	20090	21967	22953	27613	26228	30531	
Water pressure drop	(1)(E)	kPa	34	34	36	36	37	37	37	
Available pressure head - LP pumps	(1)	kPa	111	109	165	162	152	153	154	
Maximum current absorption		A	95,0	96,0	106	105	120	126	148	
Start up current		A	295	220	306	222	371	241	307	
Startup current with soft starter		A	230	146	241	163	288	189	245	
Compressors / circuits			2 / 1	4 / 2	2 / 1	4 / 2	2 / 1	4 / 2	4 / 2	
Expansion vessel volume		dm ³	24	24	24	24	24	24	24	
Buffer tank volume		dm ³	600	600	600	600	600	600	600	
Sound power level	(3)(E)	dB(A)	83	80	84	80	84	80	85	
Transport weight unit with pump and tank		kg	1440	1455	1490	1470	1510	1620	1676	
Operating weight unit with pump and full tank		kg	2040	2055	2090	2070	2110	2220	2276	

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

LCX CL WATER CHILLERS RATED TECHNICAL DATA

LCX CL			214	244	274	294	324	364
Power supply		V-ph-Hz	400 - 3N - 50					
Cooling capacity	(1)(E)	kW	198	220	256	279	316	338
Total power input	(1)(E)	kW	74,2	83,9	90,0	107	122	150
EER	(1)(E)		2,66	2,62	2,84	2,59	2,59	2,26
SEER	(2)(E)		4,25	4,16	4,28	4,34	4,10	4,12
Water flow	(1)	l/h	33965	37745	43948	47875	54311	58055
Water pressure drop	(1)(E)	kPa	37	38	38	39	40	41
Available pressure head - LP pumps	(1)	kPa	163	192	185	171	166	147
Maximum current absorption		A	167	190	215	229	242	290
Start up current		A	318	382	398	464	472	487
Startup current with soft starter		A	256	317	333	381	389	430
Compressors / circuits			4 / 2					
Expansion vessel volume		dm ³	24	24	24	24	24	24
Buffer tank volume		dm ³	600	600	765	765	765	765
Sound power level	(3)(E)	dB(A)	85	85	87	87	87	88
Transport weight unit with pump and tank		kg	1726	1869	2129	2161	2196	2196
Operating weight unit with pump and full tank		kg	2326	2469	2894	2926	2961	2961

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

Air chillers and heat pumps LCX

LCX HS HEAT PUMPS RATED TECHNICAL DATA

LCX HL		062	072	082	092	094	102	104
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity	(1)(E) kW	57,3	65,6	77,6	87,4	89,0	101	103
Total power input	(1)(E) kW	20,3	22,9	26,5	31,1	31,5	35,2	36,1
EER	(1)(E)	2,82	2,86	2,93	2,81	2,83	2,85	2,86
SEER	(2)(E)	4,09	4,35	4,60	4,37	4,13	4,62	4,42
Water flow	(1) l/h	9856	11285	13358	15029	15313	17286	17778
Water pressure drop	(1)(E) kPa	25	24	26	25	25	29	29
Available pressure head - LP pumps	(1) kPa	143	139	136	134	133	127	130
Heating capacity	(3)(E) kW	66,5	76,1	87,8	103	105	113	117
Total power input	(3)(E) kW	19,0	21,3	24,8	28,7	29,7	32,2	33,8
COP	(3)(E)	3,50	3,57	3,53	3,58	3,53	3,49	3,48
SCOP	(2)(E)	4,17	4,38	4,38	4,36	4,13	4,03	4,19
Heating energy efficiency class	(4)(E)	A++						
Water flow	(3) l/h	11534	13190	15218	17819	18200	19506	20336
Water pressure drop	(3)(E) kPa	33	33	33	35	36	37	37
Available pressure head - LP pumps	(3) kPa	137	133	128	126	124	117	120
Maximum current absorption	A	51,0	55,0	66,0	77,0	81,0	86,0	87,0
Start up current	A	185	183	191	246	194	254	198
Startup current with soft starter	A	111	124	139	184	122	192	137
Compressors / circuits		2 / 1	2 / 1	2 / 1	2 / 1	4 / 2	2 / 1	4 / 2
Expansion vessel volume	dm ³	12	12	12	12	12	12	12
Buffer tank volume	dm ³	220	220	220	340	340	340	340
Sound power level	(5)(E) dB(A)	80	80	80	81	80	81	80
Transport weight unit with pump and tank	kg	762	767	847	1086	1217	1096	1217
Operating weight unit with pump and full tank	kg	982	987	1067	1426	1557	1436	1557

LCX HL		122	124	142	144	162	164	194
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity	(1)(E) kW	112	115	126	133	158	150	176
Total power input	(1)(E) kW	40,6	41,1	47,1	47,0	59,6	56,4	63,6
EER	(1)(E)	2,75	2,81	2,68	2,82	2,65	2,67	2,77
SEER	(2)(E)	3,80	3,61	3,79	3,88	4,12	3,88	3,66
Water flow	(1) l/h	19202	19842	21739	22795	27214	25881	30277
Water pressure drop	(1)(E) kPa	27	27	29	29	34	32	33
Available pressure head - LP pumps	(1) kPa	118	116	172	169	154	157	157
Heating capacity	(3)(E) kW	135	139	147	154	182	173	206
Total power input	(3)(E) kW	38,0	39,4	45,1	43,7	53,0	53,8	59,9
COP	(3)(E)	3,56	3,52	3,27	3,52	3,43	3,22	3,44
SCOP	(2)(E)	4,38	4,22	3,95	3,74	3,77	3,91	3,81
Heating energy efficiency class	(4)(E)	A++	A++	A++	A+	A+	A++	A++
Water flow	(3) l/h	23409	24033	25547	26722	31536	30016	35733
Water pressure drop	(3)(E) kPa	40	40	40	40	46	43	46
Available pressure head - LP pumps	(3) kPa	112	110	165	160	136	140	130
Maximum current absorption	A	95,0	96,0	106	105	120	126	148
Start up current	A	295	220	306	222	371	241	307
Startup current with soft starter	A	230	146	241	163	288	189	245
Compressors / circuits		2 / 1	4 / 2	2 / 1	4 / 2	2 / 1	4 / 2	4 / 2
Expansion vessel volume	dm ³	24	24	24	24	24	24	24
Buffer tank volume	dm ³	600	600	600	600	600	600	600
Sound power level	(5)(E) dB(A)	83	80	84	80	84	80	85
Transport weight unit with pump and tank	kg	1440	1455	1490	1470	1510	1620	1676
Operating weight unit with pump and full tank	kg	2040	2055	2090	2070	2110	2220	2276

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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 30°C / 35°C (EN14511:2022)

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

(5) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

LCX HS HEAT PUMPS RATED TECHNICAL DATA

LCX HL			214	244	274	294	324
Power supply		V-ph-Hz	400 - 3N - 50				
Cooling capacity	(1)(E)	kW	195	216	253	275	312
Total power input	(1)(E)	kW	75,2	84,8	90,8	108	123
EER	(1)(E)		2,59	2,55	2,78	2,55	2,54
SEER	(2)(E)		3,89	3,68	3,86	3,82	3,89
Water flow	(1)	l/h	33537	37139	43430	47237	53602
Water pressure drop	(1)(E)	kPa	34	33	36	34	37
Available pressure head - LP pumps	(1)	kPa	166	197	186	175	168
Heating capacity	(3)(E)	kW	233	265	295	330	366
Total power input	(3)(E)	kW	67,3	76,9	86,2	97,5	109
COP	(3)(E)		3,46	3,44	3,42	3,39	3,36
SCOP	(2)(E)		3,80	3,97	3,79	3,82	3,92
Heating energy efficiency class	(4)(E)		A++	A++	A+	A++	A++
Water flow	(3)	l/h	40476	45910	51192	57334	63554
Water pressure drop	(3)(E)	kPa	49	50	50	50	51
Available pressure head - LP pumps	(3)	kPa	137	176	164	151	139
Maximum current absorption		A	167	190	215	229	242
Start up current		A	318	382	398	464	472
Startup current with soft starter		A	256	317	333	381	389
Compressors / circuits			4 / 2				
Expansion vessel volume		dm ³	24	24	24	24	24
Buffer tank volume		dm ³	600	600	765	765	765
Sound power level	(5)(E)	dB(A)	85	85	87	87	88
Transport weight unit with pump and tank		kg	1726	1869	2129	2161	2196
Operating weight unit with pump and full tank		kg	2326	2469	2894	2926	2961

(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: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. 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 30°C / 35°C (EN14511:2022)

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

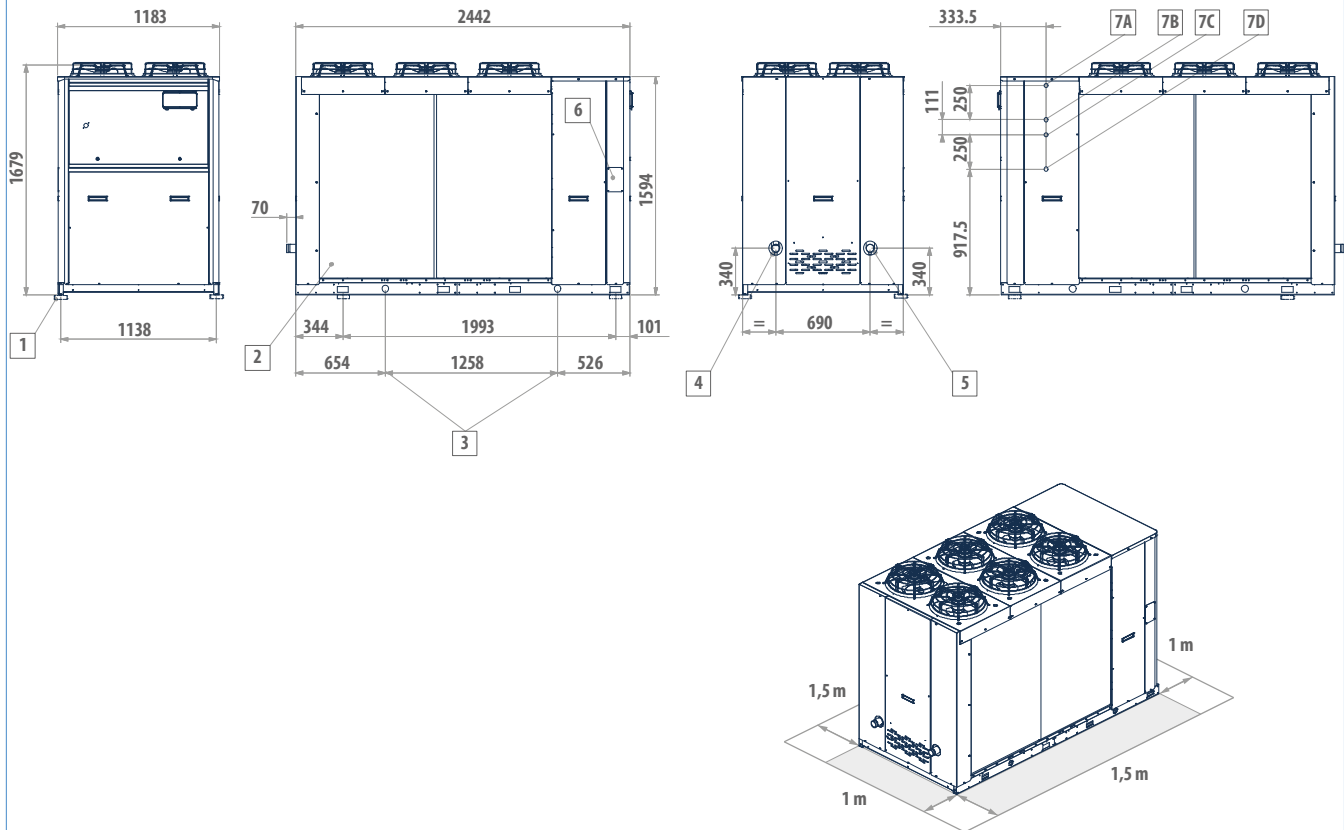
(5) Sound power level measured according to ISO 9614

(E) EUROVENT certified data

Air chillers and heat pumps LCX

DIMENSIONAL DRAWINGS

LCX FRAME 2



LEGEND

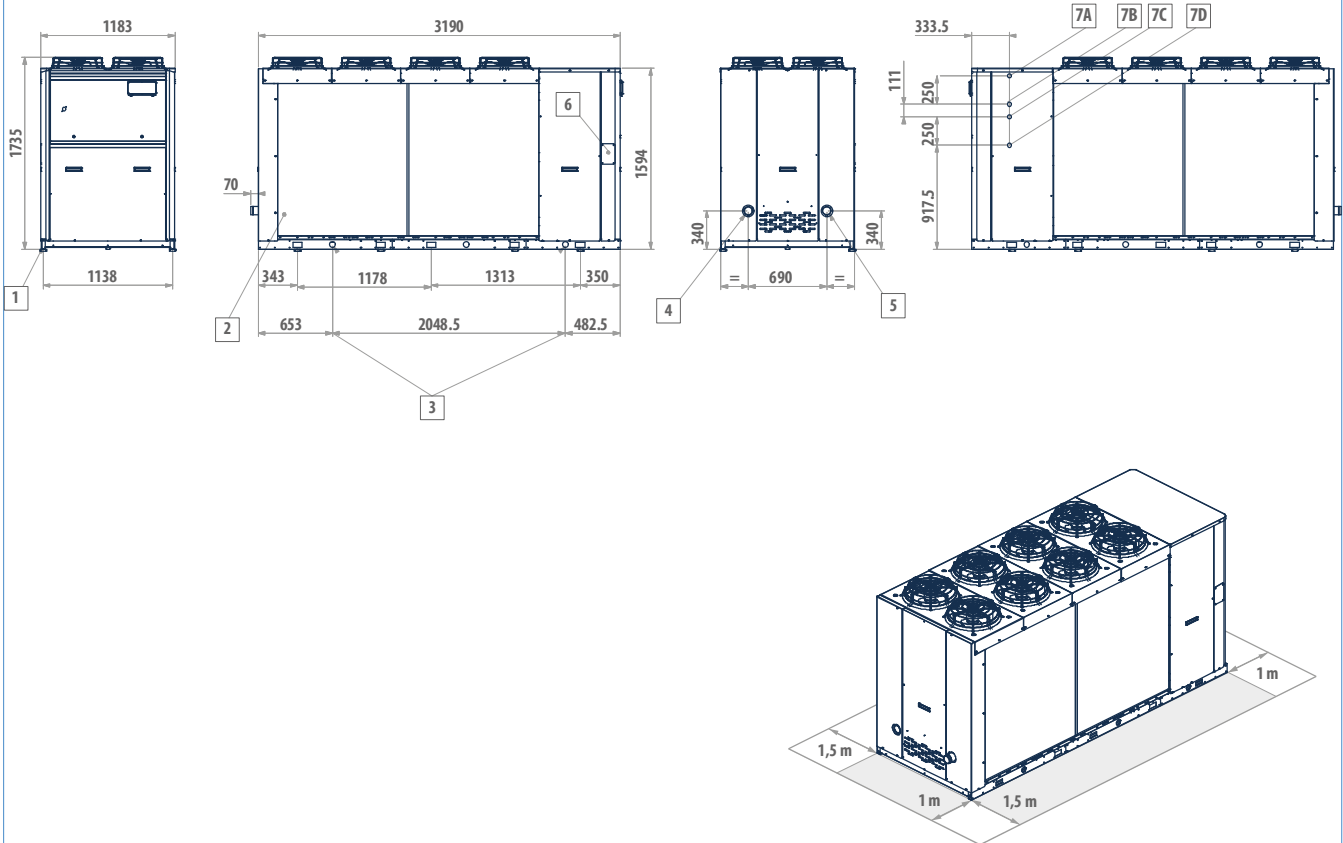
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet (1"), right-hand circuit
7D	Heat recovery water inlet (1"), right-hand circuit

MODEL VERSION FRAME 2

LCX 62	L - Q
LCX 72	L - Q
LCX 82	L - Q
LCX 92	S
LCX 102	S

DIMENSIONAL DRAWINGS

LCX FRAME 3



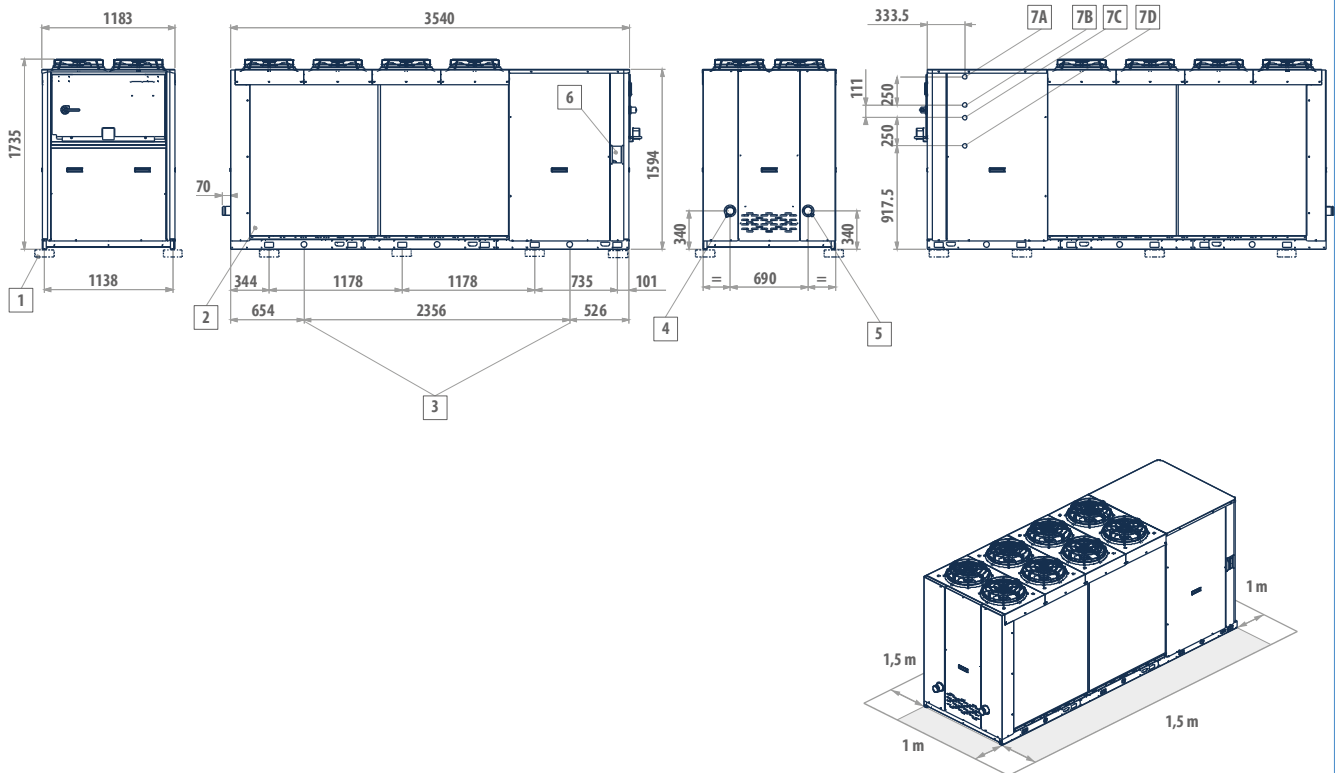
LEGEND

1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2 1/2")
5	Water outlet (Victaulic 2 1/2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet (1"), right-hand circuit
7D	Heat recovery water inlet (1"), right-hand circuit

MODEL	VERSION FRAME 3
LCX 92	L - Q
LCX 102	L - Q
LCX 122	S
LCX 142	S
LCX 162	S

DIMENSIONAL DRAWINGS

LCX FRAME 3+



LEGEND

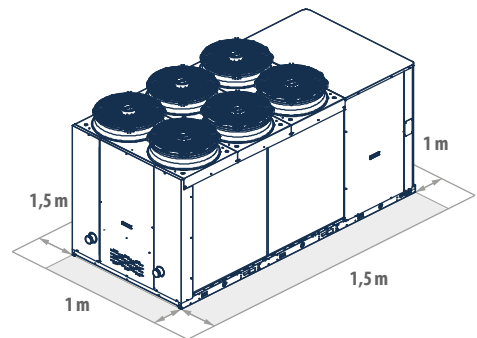
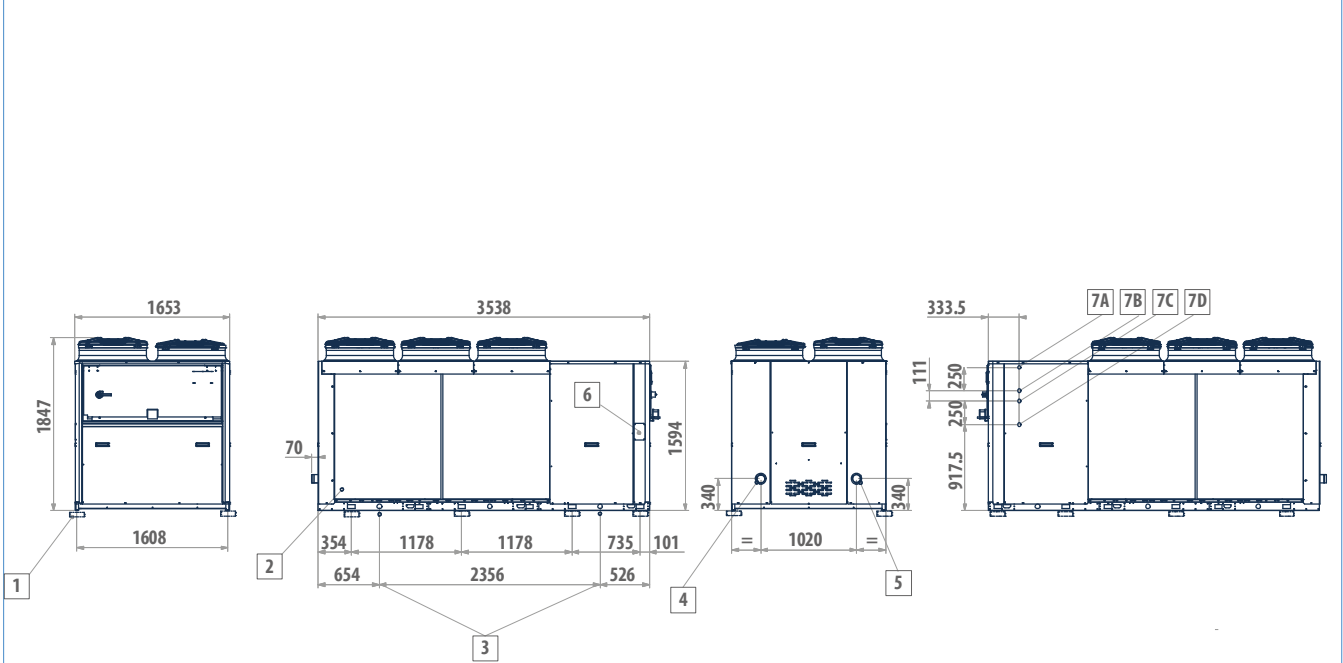
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2 1/2")
5	Water outlet (Victaulic 2 1/2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet (1"), right-hand circuit
7D	Heat recovery water inlet (1"), right-hand circuit

MODEL VERSION FRAME 3+

LCX 94	L - Q
LCX 104	L - Q
LCX 124	S
LCX 144	S
LCX 164	S

DIMENSIONAL DRAWINGS

LCX FRAME 4



LEGEND

1	Vibration dampers
2	Protection grill (optional)
3	Lifting points (optional)
4	Water inlet (Victaulic 3")
5	Water outlet (Victaulic 3")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet (1"), right-hand circuit
7D	Heat recovery water inlet (1"), right-hand circuit
*	With EC=1884 fans

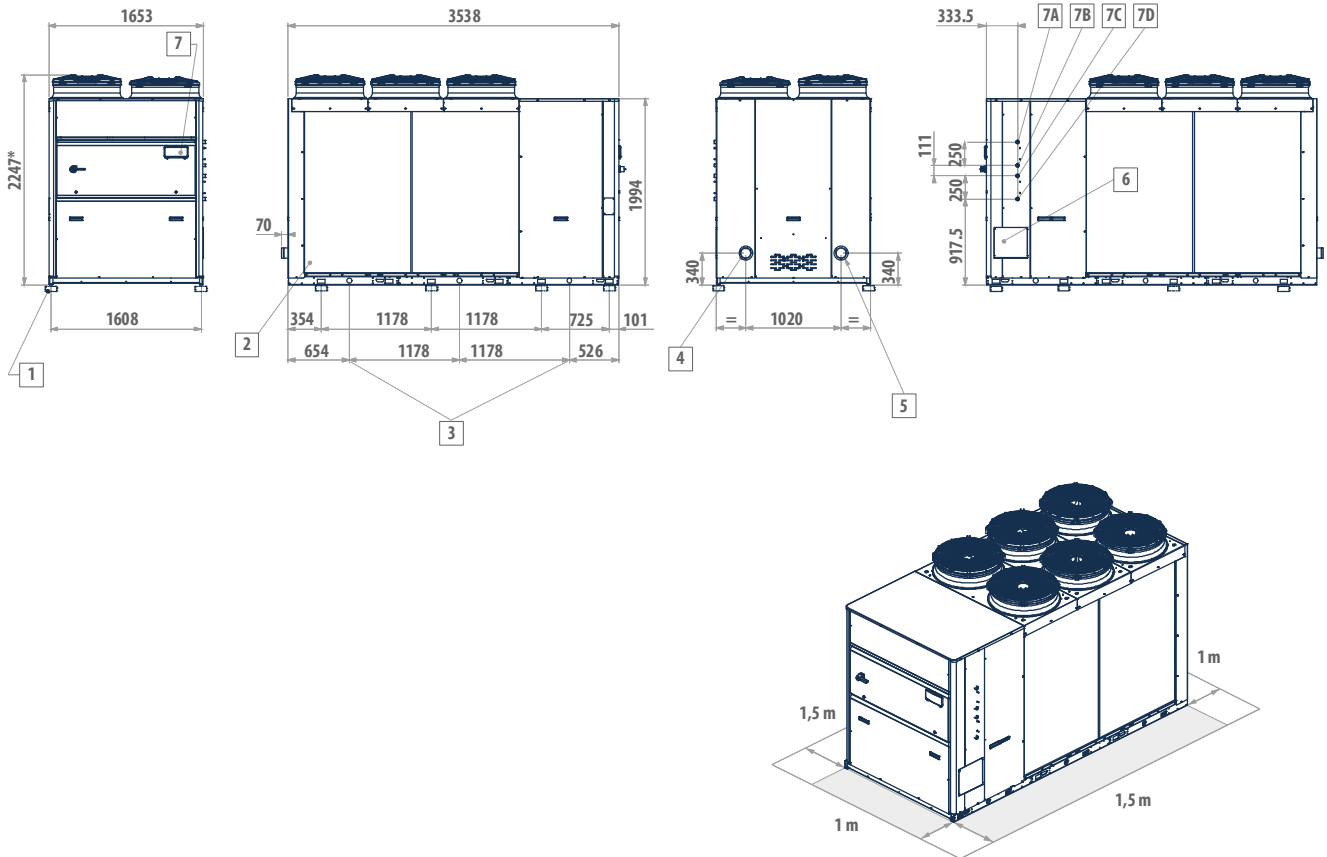
MODEL VERSION FRAME 4

LCX122	L-Q
LCX124	L-Q
LCX142	L-Q
LCX144	L-Q
LCX162	L-Q
LCX164	L-Q
LCX174	S
LCX194	S-L-Q
LCX214	S

Air chillers and heat pumps LCX

DIMENSIONAL DRAWINGS

LCX FRAME 5



LEGEND

1	Vibration dampers
2	Protection grill (optional)
3	Lifting points (optional)
4	Water inlet (Victaulic 4")
5	Water outlet (Victaulic 4")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet (1"), right-hand circuit
7D	Heat recovery water inlet (1"), right-hand circuit
*	With EC=2284 fans

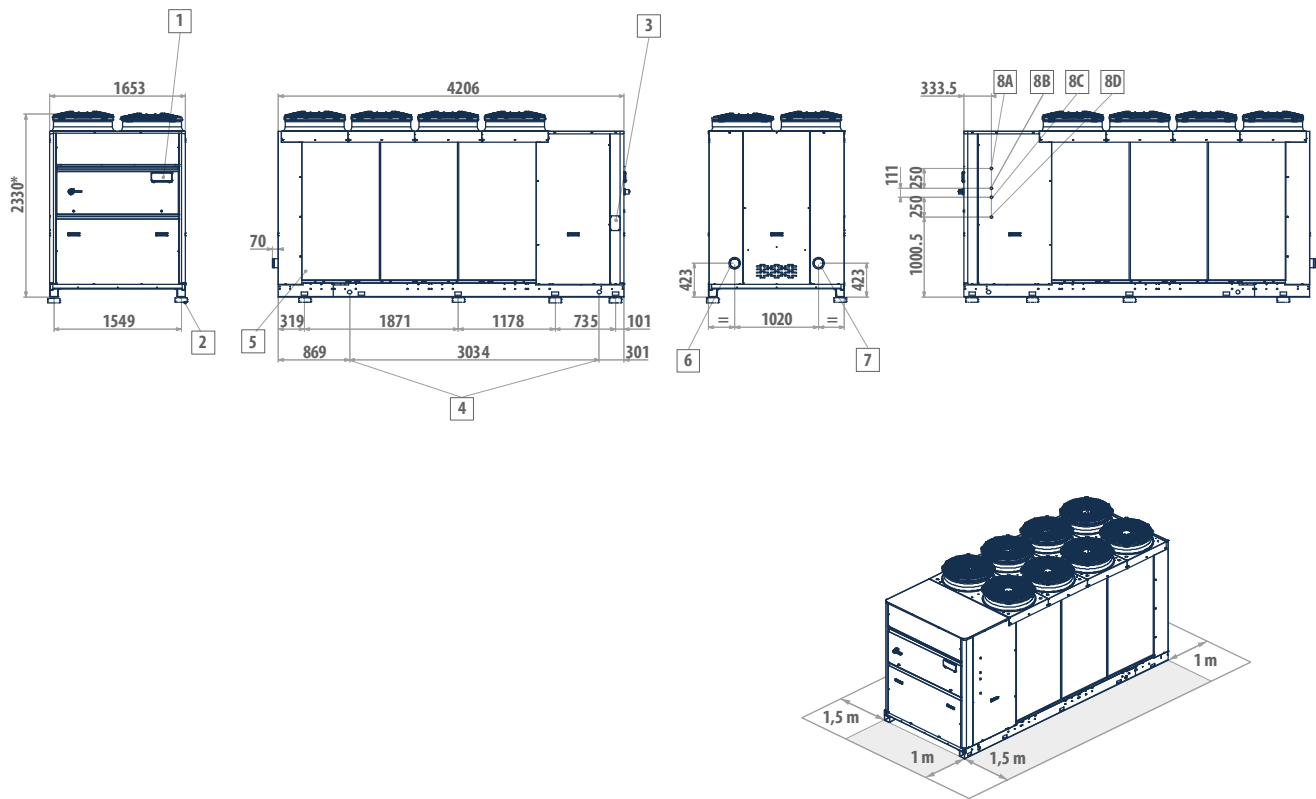
MODEL	VERSION FRAME
	5

LCX 214	L - Q
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LCX 244	S - L - Q
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DIMENSIONAL DRAWINGS

LCX FRAME 6



LEGEND

1	User interface
2	Vibration dampers
3	Power supply
4	Lifting points (optional)
5	Protection grill (optional)
6	Water inlet (Victaulic 4")
7	Water outlet (Victaulic 4")
8A	Heat recovery water outlet (1") left-hand circuit
8B	Heat recovery water inlet (1") left-hand circuit
8C	Heat recovery water outlet (1") right-hand circuit
8D	Heat recovery water inlet (1") right-hand circuit
*	With EC=2367 fans

MODEL	VERSION FRAME 6
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LCX 274	S - L - Q
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LCX 294	S - L - Q
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LCX 324	S - L - Q
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LCX 364	S - L
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