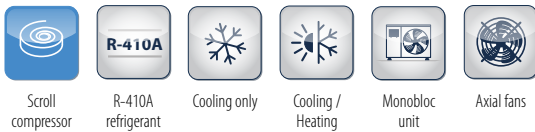


Outdoor monobloc unit

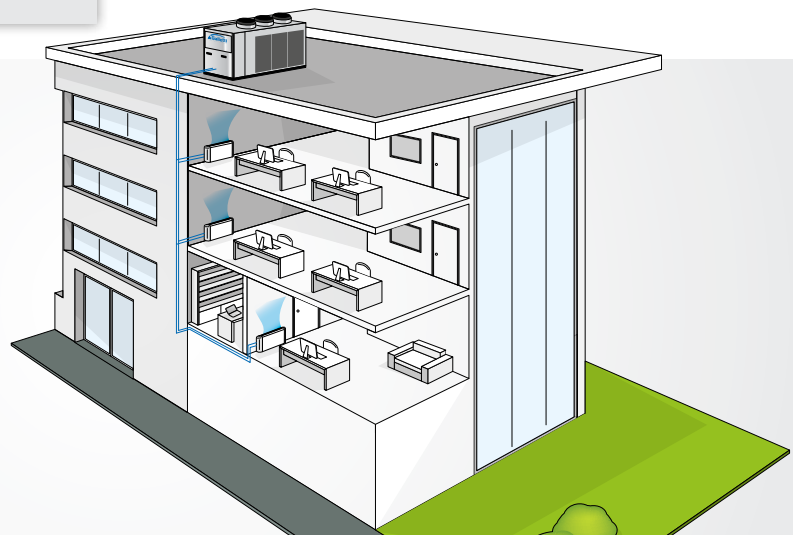
SCX 80 - 360 kW



PLUS

- ✓ Completely configurable range
- ✓ Incorporable hydronic kits
- ✓ HyBlade® fans
- ✓ Tandem and trio solutions for high efficiency at partial loads
- ✓ Remote connectivity with the most common protocols

The choice to install scroll compressors in a tandem or trio configuration on the same cooling circuit is a move in the right direction in terms of machine efficiency at partial loads, which is the normal operating condition for air conditioning systems.



High configurability and efficiency at partial loads

SCX is the new series of air-cooled heat pumps and chillers designed to meet the requirements of efficiency, configurability, reliability, and ease of maintenance.

The series comprises 22 models with cooling capacities ranging from 80 to 360 kW. They are available both in models with a cooling function only and in models with heat pump operation.

The finned block heat exchanger is generously sized to optimize operation as both evaporator and condenser by type of fin and circuit.

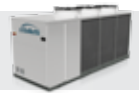
The solution of a single heat exchanger with delivered power of up to 160 kW was adopted due to the complete accessibility to the internal water and cooling circuit for the periodic inspection and maintenance operations. The solution of a single heat exchanger makes it possible to reduce the space necessary for the installation of the units.

The electric axial fans with blades with an exclusive aerodynamic profile (HyBlade®) are characterized by extraordinary aerodynamic and acoustic performance and represent the current state of the art for axial fans.

The AxiTop® diffuser allows fan efficiency to be further increased with benefits in terms of noise level (together with condensation control) and unit efficiency.

The SCX design adopts innovative solutions in the use and arrangement of the hydronic kit's internal components, which is simplified to reduce the number of connections and minimize the water side head loss inside the machine.

Every model is completely configurable with a choice of control, hydraulic, acoustic, and heat recovery options that do not result in any change to the dimensions.



MAIN COMPONENTS

Structure

Made in galvanised steel sheet with a polyester powder coating for outdoors. Base with reinforcement modules for eliminating any deformities resulting from impacts sustained in the transportation and handling phase.

Scroll compressors

Scroll type compressors in a tandem or trio configuration that can be sound insulated. The adopted components' efficiency, reliability, and noise emission levels represent the state of the art for scroll compressors.

Electronic microprocessor controller

In standard or advanced version, it enables the complete control of the units. It can be easily accessed through a polycarbonate flap with IP65 protection rating. 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. The advanced version makes it possible to construct LAN networks for the parallel control of 4 units and the management of BACNET and LON communication protocols, as well as the modulation of the pump assembly, of the Smart Defrost System.

Fan drive assembly

Electric fan with 6-pole external rotor motor directly keyed to the axial fan, with internal thermal protection on the windings, complete with safety grille and dedicated supporting structure. Electric fans with BLDC motor are available on request.



Heat exchanger

Made of 8mm diameter copper pipes and aluminium fins. The special engineering of the heat exchangers 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.

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
SCX162CS0A		0	1	0	S	C	P	1	0	L	0	T	0	2

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

AVAILABLE VERSIONS

Cooling only versions

SCX..CS0A	400V-3N-50Hz power supply
SCX..CS1A	230V-3-50Hz power supply
SCX..CS2A	400V-3N-50Hz power supply + circuit breakers
SCX..CS3A	230V-3-50Hz power supply + circuit breakers
SCX..CS4A	400V-3-50Hz power supply + transformer
SCX..CS5A	400V-3-50Hz power supply + transformer + circuit breakers

Versions with reversible heat pump

SCX..HS0A	400V-3N-50 Hz power supply
SCX..HS1A	230V-3-50 Hz power supply
SCX..HS2A	400V-3N-50 Hz power supply + circuit breakers
SCX..HS3A	230V-3-50 Hz power supply + circuit breakers
SCX..HS4A	400V-3-50Hz power supply + transformer
SCX..HS5A	400V-3-50Hz power supply + transformer + circuit breakers

CONFIGURATION OPTIONS

1 - EXPANSION VALVE

0	Traditional
A	Electronic 230V

2 - PUMP AND ACCESSORIES

0	Absent
1	Standard pump + expansion tank + filling tap
2	Dual standard pump + expansion tank + filling tap
3	HP pump + expansion tank + filling tap
4	Dual HP pump + expansion tank + filling tap
5	Option 1 + inverter (only with advanced microprocessor)
6	Option 2 + inverter (only with advanced microprocessor)
7	Option 3 + inverter (only with advanced microprocessor)
8	Option 4 + inverter (only with advanced microprocessor)

3 - INERTIAL BUFFER TANK

0	Absent
S	Present

4 - PARTIAL HEAT RECOVERY (the condensation control must be added)

0	Absent
D	Desuperheater with pump contact (recovery 25%)

5 - AIR FLOW MODULATION

0	Absent
C	Condensation control with fans adjusted by potentiometer
E	Condensation control with BLDC fans

6 - ANTIFREEZE KIT

0	Absent
E	For units with evaporator only
P	For units with evaporator, pump and expansion tank
S	For units with evaporator, pump, expansion tank and tank

7 - SOUND INSULATION

0	Absent
1	Sound attenuation of the fans (AXITOP®)
2	Compressor silencing housings
3	Opt 1 + Opt 2

8 - COOLING ACCESSORIES

0	None
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M Refrigerant pressure gauges

R Filter taps

9 - REMOTE CONTROL

0	Absent
2	Output RS485 (Modbus or Carel protocol)
S	Simplified remote control
M	BASE microprocessor remote control (modbus disabling)
X	ADVANCED microprocessor remote control
L	LON FTT10 serial card
B	BACNET serial card

10 - SPECIAL HEAT EXCHANGERS

0	Standard
R	Copper
C	Cataphoresis
I	Hydrophilic
P	Fins pre-coated with epoxy paint

11 - PROTECTION OF HEAT EXCHANGERS

0	Absent
G	Protective grille
T	Anti-hail roof

12 - COMPRESSOR OPTIONS

0	Absent
1	Power factor correction capacitors
2	Soft starter
3	Power factor correction capacitors + soft starter
4	Low air/water temperature (crankcase heating element)
5	Opt 4 + Opt 2

13 - CONTROL MICROPROCESSOR

1	BASE control microprocessor
2	ADVANCED control microprocessor
3	ADVANCED control microprocessor + GSM kit

ACCESSORIES

A	Base rubber vibration dumpers
B	Base spring vibration dumpers
C	Pair of VIC-TAULIC quick couplings
D	Service kit for diagnosis
E	ON/OFF status of the compressors

F Remote control for power step limits

G Configurable digital alarm card

H Unit lifting pipes

- MYCHILLER BASE (RS485 is a mandatory accessory)

- MYCHILLER PLUS (RS485 is a mandatory accessory)

Rated technical data of SCX C water chillers

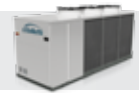
SCX..CS		82	92	102	112	122	142	162
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	78,2	94,0	98,6	111	121	135	153
Power input (1) (E)	kW	27,1	34,5	34,4	37,8	42,8	51,1	56,4
EER (1) (E)		2,88	2,73	2,87	2,93	2,83	2,64	2,72
ESEER (E)		3,81	3,59	3,49	3,90	3,76	3,41	3,79
Eurovent efficiency class		C	C	C	B	C	D	C
Water flow (1)	l/h	13465	16191	16991	19086	20874	23264	26419
Water pressure drop (1) (E)	kPa	17	21	26	22	26	32	25
Available pressure head - standard pump (1)	kPa	139	139	130	129	121	166	163
Maximum current absorption	A	65	73	75	83	92	105	117
Startup current	A	190	150	237	236	286	329	329
Startup current with softstarter kit	A	145	120	181	182	219	253	255
No. of compressors / circuits		2/1	2/1	2/1	2/1	2/1	2/1	2/1
Buffer tank volume	dm ³	200	200	340	340	340	340	340
Expansion vessel	dm ³	12	12	12	12	12	12	12
Sound power level (2) (E)	dB(A)	80	83	85	86	86	86	86
Transport weight unit with pump and tank	kg	629	729	1160	1171	1181	1205	1247
Operating weight unit with pump and full tank	kg	815	915	1474	1485	1495	1520	1562

SCX..CS		174	194	204	192	212	243	214	224
Power supply	V-ph-Hz	400-3N-50							
Cooling capacity (1) (E)	kW	173	185	194	185	199	234	208	222
Power input (1) (E)	kW	61,3	61,0	66,5	62,9	69,3	82,6	71,2	76,1
EER (1) (E)		2,83	3,02	2,92	2,94	2,88	2,83	2,92	2,91
ESEER (E)		3,82	3,94	4,15	4,09	4,02	3,80	4,16	4,20
Eurovent efficiency class		C	B	B	B	C	C	B	B
Water flow (1)	l/h	29902	31811	33453	31843	34350	40219	35895	38201
Water pressure drop (1) (E)	kPa	39	42	45	18	33	27	40	38
Available pressure head - standard pump (1)	kPa	147	138	123	161	164	197	158	147
Maximum current absorption	A	146	140	150	135	147	177	158	165
Startup current	A	288	290	295	334	431	375	295	301
Startup current with softstarter kit	A	241	342	250	261	241	329	309	266
No. of compressors / circuits		4/2	4/2	4/2	2/1	2/1	3/1	4/2	4/2
Buffer tank volume	dm ³	700	700	700	700	700	700	700	700
Expansion vessel	dm ³	24	24	24	24	24	24	24	24
Sound power level (2) (E)	dB(A)	84	86	86	88	90	88	87	88
Transport weight unit with pump and tank	kg	1683	1747	1811	1643	1656	1814	1853	1861
Operating weight unit with pump and full tank	kg	2108	2189	2269	2059	2075	2272	2322	2332

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2011)

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

(E) EUROVENT certified data



Rated technical data of SCX C water chillers

SCX..CS		244	264	284	304	324	344	364
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	231	265	282	302	316	341	354
Power input (1) (E)	kW	82,1	95,9	103	109	115	126	134
EER (1) (E)		2,81	2,76	2,74	2,78	2,75	2,71	2,63
ESEER (E)		4,08	3,99	3,58	3,64	3,60	3,75	3,65
Eurovent efficiency class		C	C	C	C	C	C	D
Water flow (1)	l/h	39743	45550	48621	52026	54495	58721	60909
Water pressure drop (1) (E)	kPa	41	28	32	36	30	30	37
Available pressure head - standard pump (1)	kPa	189	183	170	160	153	150	130
Maximum current absorption	A	175	203	215	225	237	251	289
Startup current	A	308	401	410	417	427	516	526
Startup current with softstarter kit	A	341	353	365	430	442	442	455
No. of compressors / circuits		4/2	4/2	4/2	4/2	4/2	4/2	4/2
Buffer tank volume	dm ³	700	700	700	700	700	700	700
Expansion vessel	dm ³	24	24	24	24	24	24	24
Sound power level (2) (E)	dB(A)	88	88	89	89	89	91	92
Transport weight unit with pump and tank	kg	1891	2343	2360	2428	2449	2465	2482
Operating weight unit with pump and full tank	kg	2369	2936	2958	3056	3077	3089	3110

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2011)

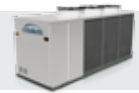
(2) Sound power level measured according to UNI EN ISO 9614

(E) EUROVENT certified data

Rated technical data of SCX H heat pumps

SCX..HS		82	92	102	112	122	142	162
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity (1) (E)	kW	74,6	89,6	94,9	107	117	129	145
Power input (1) (E)	kW	27,5	34,7	34,8	38,7	43,7	52,0	58,2
EER (1) (E)		2,77	2,64	2,78	2,80	2,71	2,55	2,54
ESEER (E)		3,63	3,45	3,35	3,71	3,59	3,16	3,51
Eurovent efficiency class		C	D	C	C	C	D	D
Water flow (1)	l/h	12874	15482	16386	18407	20123	22384	25013
Water pressure drop (1) (E)	kPa	17	23	26	22	26	30	24
Available pressure head - standard pump (1)	kPa	136	133	127	126	117	165	160
Heating capacity (3) (E)	kW	88,4	106	109	125	137	156	173
Power input (3) (E)	kW	28,2	34,7	35,8	39,1	43,4	50,0	55,2
COP (3) (E)		3,13	3,07	3,04	3,20	3,15	3,12	3,14
Eurovent efficiency class		B	B	B	A	B	B	B
Water flow (3)	l/h	15298	18389	18844	21627	23671	26947	29962
Water pressure drop (3) (E)	kPa	20	28	29	26	30	39	30
Available pressure head - standard pump (3)	kPa	124	122	116	114	101	137	135
Maximum current absorption	A	65	73	75	83	92	105	118
Startup current	A	190	150	237	237	286	329	329
Startup current with softstarter kit	A	133	105	166	166	200	229	229
No. of compressors / circuits		2/1	2/1	2/1	2/1	2/1	2/1	2/1
Buffer tank volume	dm ³	200	200	340	340	340	340	340
Expansion vessel	dm ³	12	12	12	12	12	12	12
Sound power level (2) (E)	dB(A)	80	83	85	86	86	86	86
Transport weight unit with pump and tank	kg	731	818	1215	1232	1255	1285	1335
Operating weight unit with pump and full tank	kg	913	1022	1530	1547	1570	1600	1650

SCX..HS		174	194	204	192	212	243	214	224
Power supply	V-ph-Hz	400 - 3N - 50							
Cooling capacity (1) (E)	kW	169	180	187	178	192	219	194	209
Power input (1) (E)	kW	61,5	62,7	66,8	61,5	71,6	85,6	73,0	78,7
EER (1) (E)		2,78	2,88	2,80	2,94	2,73	2,62	2,66	2,65
ESEER (E)		3,70	3,76	3,99	4,07	3,78	3,49	3,80	3,79
Eurovent efficiency class		C	C	C	B	C	D	D	D
Water flow (1)	l/h	29083	31079	32300	30698	33100	37886	33556	36030
Water pressure drop (1) (E)	kPa	37	42	37	25	32	26	40	38
Available pressure head - standard pump (1)	kPa	150	139	132	151	160	193	157	139
Heating capacity (3) (E)	kW	195	207	215	206	224	261	232	245
Power input (3) (E)	kW	63,5	65,8	70,8	61,8	70,8	82,4	75,4	79,3
COP (3) (E)		3,07	3,15	3,04	3,33	3,17	3,17	3,07	3,09
Eurovent efficiency class		B	B	B	A	B	B	B	B
Water flow (3)	l/h	33742	35842	37257	35574	38748	45119	39967	42242
Water pressure drop (3) (E)	kPa	48	53	48	31	38	32	54	50
Available pressure head - standard pump (3)	kPa	114	97	91	122	122	168	108	89
Maximum current absorption	A	146	140	150	133	147	177	158	165
Startup current	A	288	290	294	332	431	376	294	302
Startup current with softstarter kit	A	200	200	203	201	300	259	202	207
No. of compressors / circuits		4/2	4/2	4/2	2/1	2/1	3/1	4/2	4/2
Buffer tank volume	dm ³	700	700	700	700	700	700	700	700
Expansion vessel	dm ³	24	24	24	24	24	24	24	24
Sound power level (2) (E)	dB(A)	84	86	86	88	90	88	87	88
Transport weight unit with pump and tank	kg	1174	1584	1639	1634	1696	1842	1400	1844
Operating weight unit with pump and full tank	kg	1824	1980	2048	2042	2120	2302	2050	2459



Rated technical data of SCX H heat pumps

SCX..HS		244	264	284	304	324	344	364
Power supply	V-ph-Hz	400 - 3N - 50						
Cooling capacity (1) (E)	kW	221	254	273	290	302	325	336
Power input (1) (E)	kW	83,2	97,7	104	110	118	129	135
EER (1) (E)		2,66	2,60	2,62	2,62	2,55	2,52	2,49
ESEER (E)		3,74	3,80	3,45	3,46	3,35	3,51	3,42
Eurovent efficiency class		D	D	D	D	D	D	E
Water flow (1)	l/h	38220	43819	47133	49996	52054	56077	57911
Water pressure drop (1) (E)	kPa	42	28	32	36	30	35	37
Available pressure head - standard pump (1)	kPa	182	178	164	158	150	143	128
Heating capacity (3) (E)	kW	256	294	318	340	353	379	393
Power input (3) (E)	kW	83,3	100	107	118	119	123	129
COP (3) (E)		3,07	2,93	2,97	2,89	2,96	3,07	3,05
Eurovent efficiency class		B	C	C	C	C	B	B
Water flow (3)	l/h	44209	50740	55048	58700	61035	65517	67919
Water pressure drop (3) (E)	kPa	55	33	39	44	41	46	50
Available pressure head - standard pump (3)	kPa	144	152	135	120	111	89	73
Maximum current absorption	A	175	201	212	224	236	250	288
Startup current	A	309	399	442	416	426	516	525
Startup current with softstarter kit	A	212	276	305	287	293	355	361
No. of compressors / circuits		4/2	4/2	4/2	4/2	4/2	4/2	4/2
Buffer tank volume	dm ³	700	700	700	700	700	700	700
Expansion vessel	dm ³	24	24	24	24	24	24	24
Sound power level (2) (E)	dB(A)	88	88	89	89	89	91	92
Transport weight unit with pump and tank	kg	1850	2421	2507	2522	2538	2543	2565
Operating weight unit with pump and full tank	kg	2502	3073	3142	3161	3180	3187	3217

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2011)

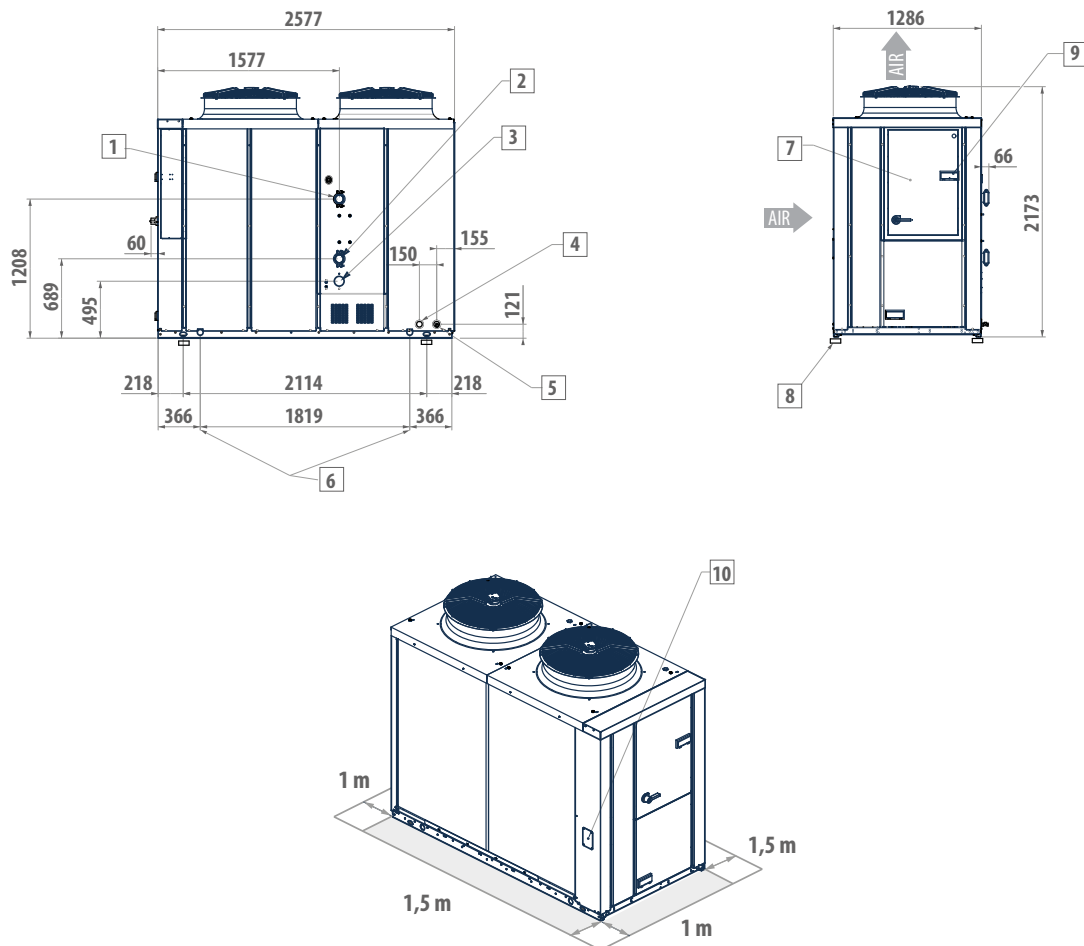
(2) Sound power level measured according to UNI EN ISO 9614

(3) Water temperature 40/45 °C, outdoor air temperature 7 °C D.B. / 6 °C W.B. (UNI EN 14511:2011)

(E) EUROVENT certified data

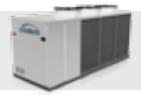
Dimensional drawings

SCX 82 - 92



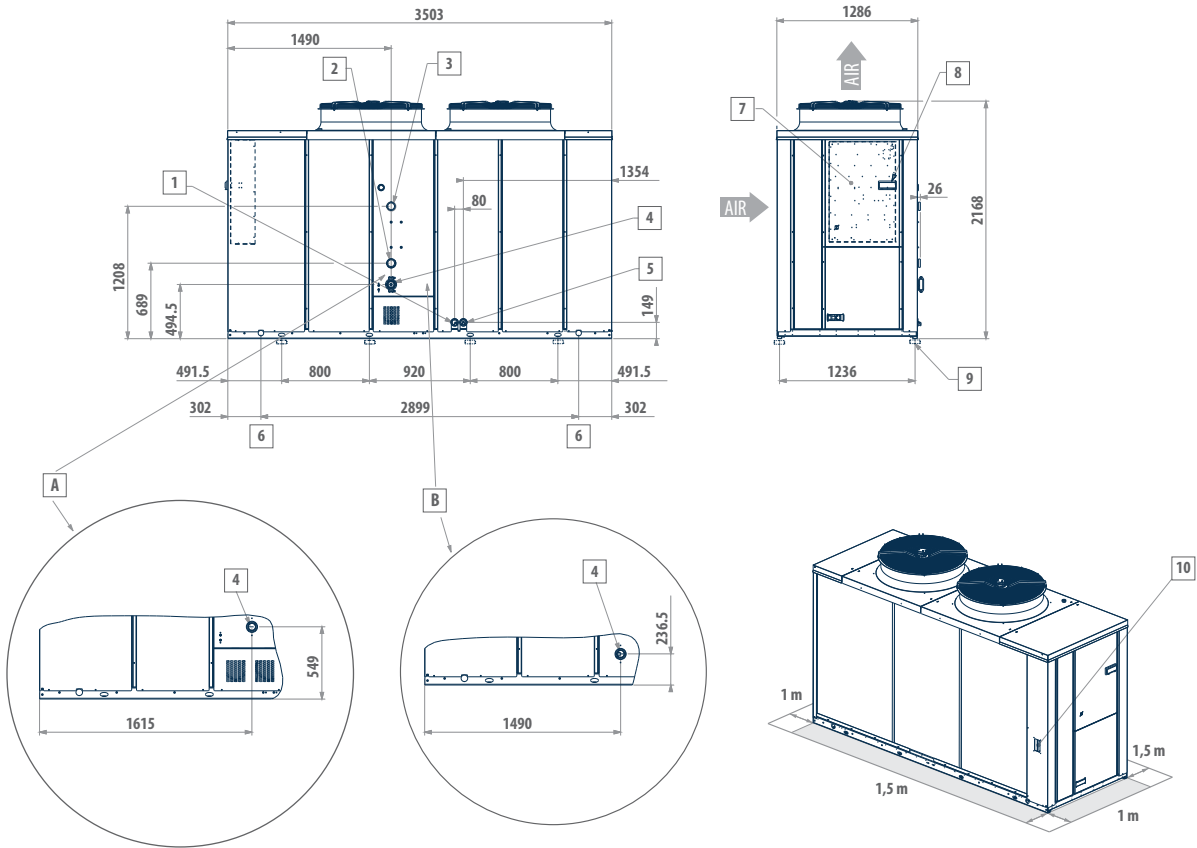
LEGEND

1	Water inlet (Victaulic 2")
2	Water outlet, evaporator only (Victaulic 2")
3	Water outlet (Victaulic 2")
4	Water filling
5	Water drainage
6	Fastening points
7	Electric control board
8	Vibration dampers
9	User interface
10	Power supply input



Dimensional drawings

SCX 102 - 162

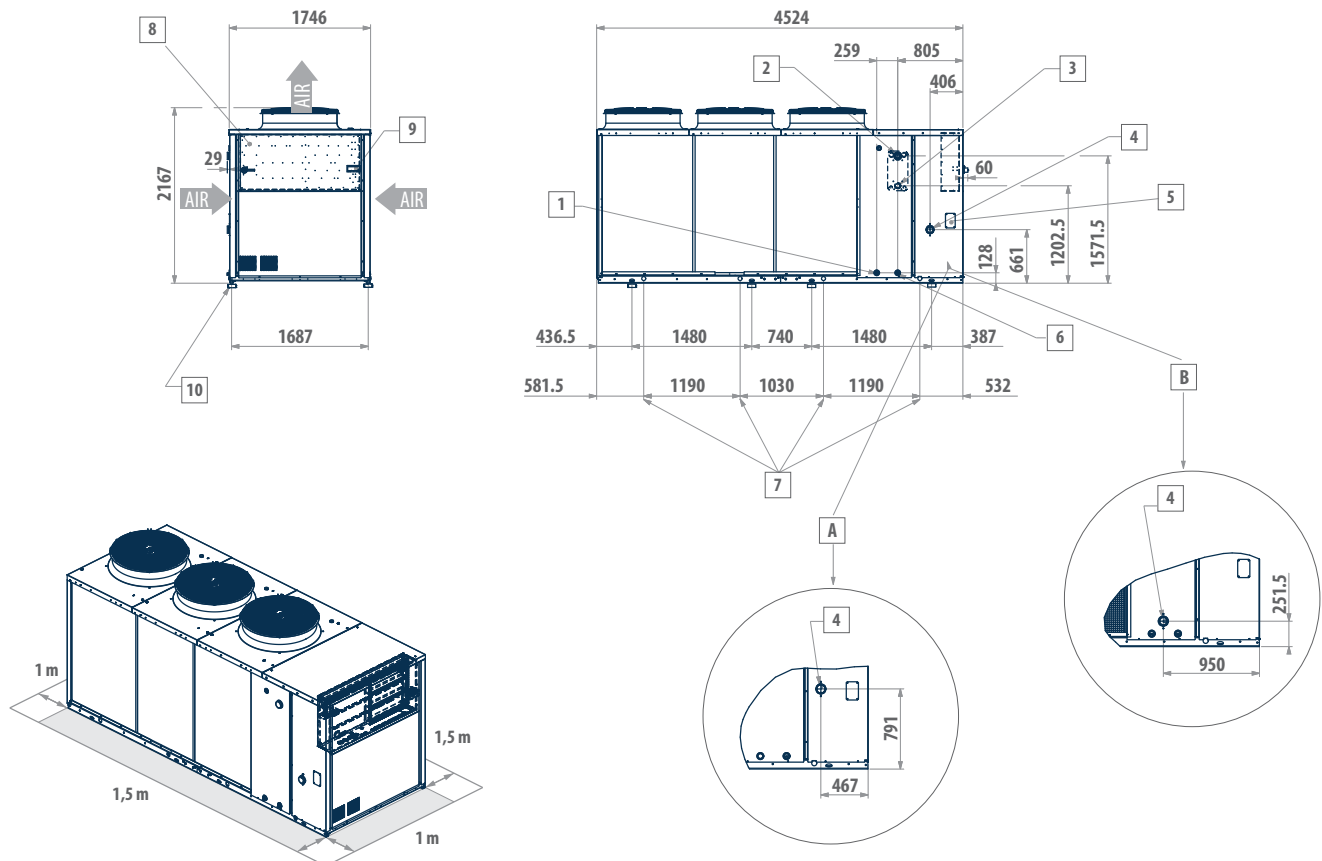


LEGEND

1	Water filling
2	Water outlet, evaporator only (Victaulic 2"½)
3	Water inlet (Victaulic 2"½)
4	Water outlet (Victaulic 2"½)
5	Water drainage
6	Fastening points
7	Electric control board
8	User interface
9	Vibration dampers
10	Power supply input
A	Version with 2 pumps
B	Version with buffer tank only

Dimensional drawings

SCX 174 - 244



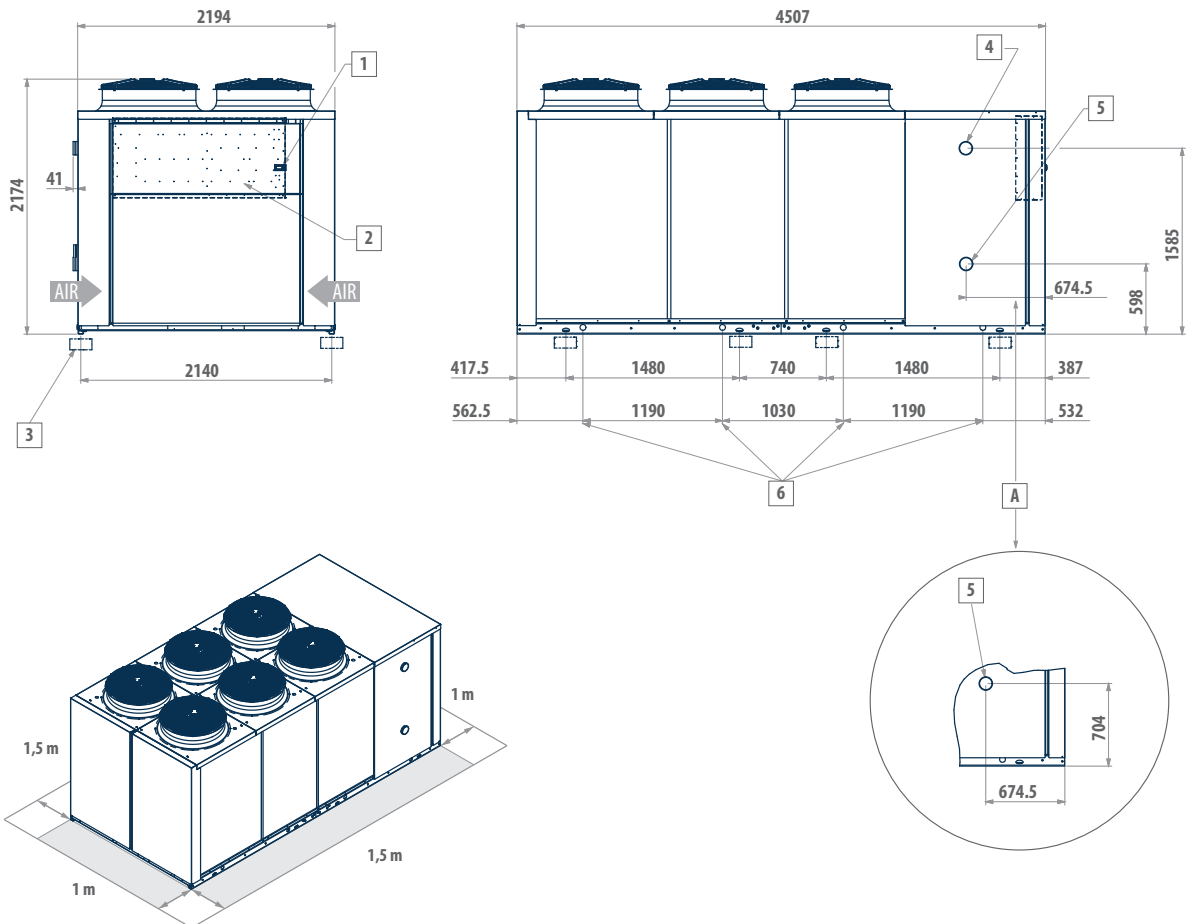
LEGEND

1	Water drainage
2	Water inlet (Victaulic 3")
3	Water outlet, evaporator only version (Victaulic 3")
4	Water outlet (Victaulic 3")
5	Power supply input
6	Water filling
7	Fastening points
8	Electric control board
9	User interface
10	Vibration dampers
A	Version with 2 pumps
B	Version with buffer tank only



Dimensional drawings

SCX 264 - 364



LEGEND

1	User interface
2	Electric control board
3	Vibration dampers
4	Water inlet (Victaulic 4")
5	Water outlet (Victaulic 4")
6	Fastening points
A	Version with 2 pumps