

Indoor air/water chiller and heat pumps for ducted installation **MCC** 5 - 37 kW



Centrifugal fans Scroll compressor R-410A refrigerant Cooling only Cooling / Heating Packaged unit

PLUS

- ✓ Direct coupling of the centrifugal fans to the electric motor without any pulleys or belts.
- ✓ Fan available static pressure up to 100 Pa
- ✓ Possibility of inspecting the ventilation compartment while the machine is in operation
- ✓ Condensation control, standard option
- ✓ Hydraulic pump cooled by outside air by means of special grille

The self-adaptive ductable machine

The series features 10 models in cooling only version, and cooling capacity ranging from 5 to 37 kW, and 10 models with reversible heat pump, and heating capacity ranging from 6 to 41 kW. The centrifugal fans guarantee ducting of air delivery for indoor installation, making it possible to achieve extremely low noise emissions.

The design of the MCC series uses R410A as the refrigerant, which allows the use of finned block heat exchangers with 8mm pipes to minimize air side head loss.

The design philosophy places a priority on compactness, "plug & play" solutions and easy access to all the components. The logic of the plug&play water system, already in the DNA of the whole line of Galletti air-water units, is combined here with the innovative plug&play ventilation system philosophy.

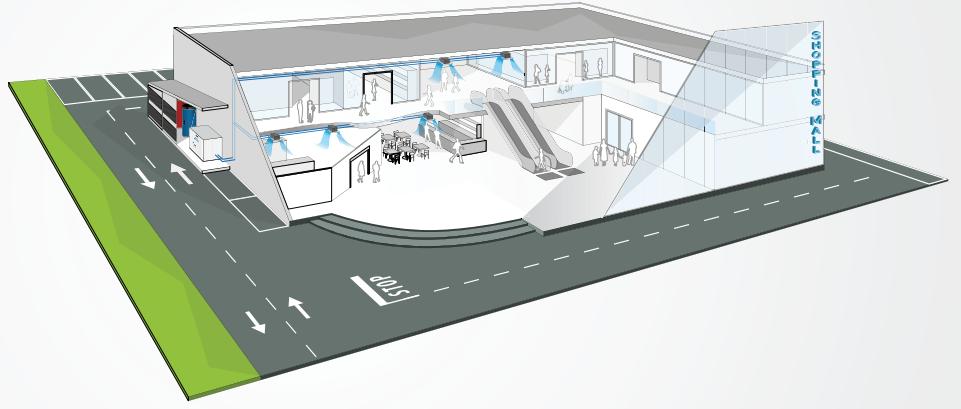
The latter consists of the self-adaptation of the air flow rate depending on the head loss of the expulsion ducts and depending on the intake air temperature. The units are supplied with air flow rate adaptive controls with continuous modulation of the speed in order to drastically reduce setup times.

Air delivery can be configured vertically or horizontally (optional).

Plug & play water system:

To enable immediate application of MCC to the system, 3 different hydronic kits are available:

The centrifugal fans guarantee ducting of air delivery for installation in equipment compartment





MAIN COMPONENTS

Structure

Galvanised sheet steel supporting base and enclosing panels made of Peraluman to ensure effective protection against corrosive agents.

The ventilation compartment is separated from the compressor compartment of the unit, for inspection purposes when the unit is working.



Customised hydraulic kit

The hydraulic circuit can be comprised of:

- high head pump with stainless steel impeller, equipped with thermal protection, designed for use with mixtures of water and glycol up to a concentration of 30% glycol;
- expansion tank
- safety valve (6 bar)
- automatic filling unit
- automatic vent valve
- water differential pressure switch and outlet water temperature probe with anti-freeze thermostat function
- buffer tank of the hydraulic circuit outlet side.

Ventilation section



Statically and dynamically balanced centrifugal fans with forward-curving blades, directly mounted on the electric motor.

All units are equipped with phase-cut speed regulator controlled by the pressure probe.

Finned block heat exchanger

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 operating 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
MCC022C0AB		0	1	S	0	C	0	0	M	0	0	F	2	0

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

AVAILABLE VERSIONS

Cooling only versions

- MCC..COAB Unit with 400V - three-phase - 50 Hz power supply
 MCC..C2AB Unit with 400V - three-phase - 50 Hz power supply + circuit breakers
 MCC..CMAB Unit with 230V - single phase - 50 Hz power supply

Versions with reversible heat pump

- MCC..HOAB Unit with 400V - three-phase - 50 Hz power supply
 MCC..H2AB Unit with 400V - three-phase - 50 Hz power supply + circuit breakers
 MCC..HMAB Unit with 230V - single phase - 50 Hz power supply

CONFIGURATION OPTIONS

1 - EXPANSION VALVE

- O Traditional
 A Electronic 230V

2 - WATER PUMP

- O Absent
 1 Pump and expansion tank

3 - INERTIAL BUFFER TANK

- O Absent
 S Present

4 - PARTIAL HEAT RECOVERY

- O Absent
 D Desuperheater

5 - AIR FLOW MODULATION

- C Condensation control with fans adjusted by potentiometer

6 - ANTIFREEZE KIT

- O Absent
 E Present, units with evaporator only
 P Present, units with evaporator, pump and expansion tank
 Q Present, units with evaporator and tank
 S Present, units with evaporator, pump, expansion tank and tank

7 - REMOTE CONTROL PANEL

- O Absent
 S Simplified remote control
 M Remote control for μChiller2 (to be specified on order)

8 - COOLING ACCESSORIES

- O None
 M Pressure gauges

9 - REMOTE COMMUNICATION

- O Absent
 2 RS485 x ERGO (modbus included)

10 - SPECIAL HEAT EXCHANGERS

- O Standard
 R Copper / copper exchangers
 C Cataphoresis
 B Fins pre-coated with epoxy paint

11 - HEAT EXCHANGER OPTIONS

- O None
 R Protection net
 F Metal filter

12 - COMPRESSOR OPTIONS

- O Absent
 1 Power factor correction capacitors
 2 Soft starter
 3 Power factor correction capacitors + soft starter

13 - CONTROL PANEL

- O Base microprocessor control

ACCESSORIES

- Straight outlet connector
- Horizontal air outlet
- Flanged water connections
- Base vibration dampers
- Vibration dampers - air outlet

- Simplified remote control
- Heat exchanger protection net
- Heat exchanger metal filter
- MYCHILLER BASE (RS485 is a mandatory accessory)
- MYCHILLER PLUS (RS485 is a mandatory accessory)

MCC C Rated technical data

MCC-C		06	06M	07	07M	09	09M
Power supply	V-ph-Hz	400-3N-50	230-1-50	400-3N-50	230-1-50	400-3N-50	230-1-50
Cooling capacity (1) (E)	kW	5,46	5,46	6,68	6,59	8,77	8,69
Power supply (1) (E)	kW	2,57	2,61	2,99	3,16	4,45	4,73
EER (1) (E)		2,17	1,97	1,84	2,17	1,97	1,84
ESEER (E)		2,59	2,69	2,58	2,59	2,69	2,58
Eurovent efficiency class		D	E	F	D	E	F
Water flow (1)	l/s	0,27	0,33	0,44	0,27	0,33	0,44
Water pressure drop (1) (E)	kPa	<5	<5	<5	<5	34	33
Available pressure head (1)	kPa	57	55	155	57	55	155
Maximum current absorption	A	17	19	34	8	10	17
Start up current	A	62	83	100	33	36	51
Start up current with softstarter kit	A	24	24	26	26	38	38
nr. of compressors / circuits		1/1	1/1	1/1	1/1	1/1	1/1
nr. of fans		1	1	1	1	1	1
Air flow	m³/h	2500	2500	2500	2500	5500	5500
Maximum available static pressure	Pa	91	85	140	91	85	135
Expansion vessel	dm³	1	1	5	1	1	5
Water tank volume	dm³	20	20	20	20	36	36
Sound power level (2) (E)	dB(A)	70	70	70	70	73	81
Transport weight	kg	160	165	220	160	165	220
Operating weight	kg	168	178	239	168	178	239

MCC-C		12	15	18	22	25	33	37
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	11,8	13,7	17,0	21,2	25,3	32,9	36,4
Power supply (1) (E)	kW	5,42	6,36	7,63	9,10	11,1	15,2	17
EER (1) (E)		2,17	2,15	2,23	2,33	2,27	2,17	2
ESEER (E)		2,67	2,76	2,97	3,02	2,58	2,67	3
Eurovent efficiency class		D	D	D	C	D	D	D
Water flow (1)	l/s	0,57	0,70	0,86	1,07	1,22	1,58	1,75
Water pressure drop (1) (E)	kPa	38	51	35	37	48	41	38
Available pressure head (1)	kPa	148	125	136	118	123	123	121
Maximum current absorption	A	19	20	23	25	28	35	38
Start up current	A	67	77	104	114	135	163	200
Start up current with softstarter kit	A	49	56	76	83	99	120	146
nr. of compressors / circuits		1/1	1/1	1/1	1/1	1/1	1/1	1/1
nr. of fans		1	1	1	1	2	2	2
Air flow	m³/h	5500	5500	6500	6500	11000	13000	13000
Maximum available static pressure	Pa	130	120	120	110	125	95	90
Expansion vessel	dm³	5	5	5	5	8	8	8
Water tank volume	dm³	36	36	96	96	155	155	155
Sound power level (2) (E)	dB(A)	70	70	70	70	73	81	81
Transport weight	kg	228	240	295	301	405	430	440
Operating weight	kg	248	260	375	381	546	572	583

(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



MCC H Rated technical data

MCC-H		06	06M	07	07M	09	09M
Power supply	V-ph-Hz	400-3N-50	230-1-50	400-3N-50	230-1-50	400-3N-50	230-1-50
Cooling capacity (1) (E)	kW	5,36	5,37	6,54	6,44	8,63	8,50
Power supply (1) (E)	kW	2,47	2,51	2,89	3,06	3,80	4,05
EER (1) (E)		2,17	2,14	2,26	2,10	2,27	2,10
ESEER (E)		2,59	2,70	2,34	2,50	2,70	2,34
Eurovent efficiency class		D	D	D	D	D	D
Water flow (1)	l/s	0,26	0,26	0,31	0,31	0,42	0,41
Water pressure drop (1) (E)	kPa	<5	<5	<5	<5	34	33
Available pressure head (1)	kPa	57	56	157	57	55	156
Heating capacity (2) (E)	kW	6,23	6,24	7,50	7,66	9,75	9,95
Power supply (2) (E)	kW	2,94	2,86	3,19	3,36	5,00	5,29
COP (2) (E)		2,12	2,18	2,35	2,28	1,95	1,88
Eurovent efficiency class		D	D	C	D	E	F
Water flow (2)	l/s	0,30	0,30	0,36	0,37	0,47	0,48
Water pressure drop (2) (E)	kPa	<5	<5	5	5	40	40
Available pressure head (2)	kPa	55	53	145	55	53	148
Maximum current absorption	A	17	19	34	8	10	17
Start up current	A	62	83	100	33	36	51
Start up current with softstarter kit	A	24	24	26	26	38	38
nr. of compressors / circuits		1/1	1/1	1/1	1/1	1/1	1/1
nr. of fans		1	1	1	1	1	1
Air flow	m³/h	2500	2500	2500	2500	5500	5500
Maximum available static pressure	Pa	91	85	140	91	85	135
Expansion vessel	dm³	1	1	5	1	1	5
Water tank volume	dm³	20	20	20	20	36	36
Sound power level (3) (E)	dB(A)	70	70	70	70	73	81
Transport weight	kg	170	180	240	170	180	240
Operating weight	kg	173	183	260	173	183	260

(1) Water temperature 12/7 °C, outdoor air temperature 35 °C (UNI EN 14511:2011)
 (2) Water temperature 40/45 °C, outdoor air temperature 7 °C D.B. - 6 °C W.B. (UNI EN 14511:2011)

(3) Sound power level measured according to UNI EN ISO 9614
 (E) EUROVENT certified data



MCC H Rated technical data

MCC-H		12	15	18	22	25	33	37
Power supply	V-ph-Hz	400-3N-50						
Cooling capacity (1) (E)	kW	11,5	13,4	16,6	20,7	24,8	32,2	35,6
Power supply (1) (E)	kW	4,73	5,61	7,36	8,86	10,7	14,8	16,2
EER (1) (E)		2,42	2,39	2,26	2,34	2,32	2,18	2,20
ESEER (E)		2,96	2,56	2,75	2,86	2,43	2,50	2,53
Eurovent efficiency class		C	C	D	C	C	D	D
Water flow (1)	l/s	0,55	0,65	0,80	1,00	1,19	1,55	1,71
Water pressure drop (1) (E)	kPa	38	51	35	40	48	41	38
Available pressure head (1)	kPa	150	128	138	121	125	125	124
Heating capacity (2) (E)	kW	12,6	15,2	18,6	23,5	28,5	36,7	41,5
Power supply (2) (E)	kW	6,03	6,87	7,94	9,44	12,6	15,5	17,0
COP (2) (E)		2,10	2,21	2,35	2,49	2,26	2,37	2,44
Eurovent efficiency class		D	D	C	C	D	C	C
Water flow (2)	l/s	0,60	0,73	0,89	1,12	1,36	1,76	1,99
Water pressure drop (2) (E)	kPa	43	61	42	50	59	49	48
Available pressure head (2)	kPa	139	116	128	107	111	112	109
Maximum current absorption	A	19	20	23	25	28	35	38
Start up current	A	67	77	104	114	135	163	200
Start up current with softstarter kit	A	49	56	76	83	99	120	146
nr. of compressors / circuits		1/1	1/1	1/1	1/1	1/1	1/1	1/1
nr. of fans		1	1	1	1	2	2	2
Air flow	m³/h	5500	5500	6500	6500	11000	13000	13000
Maximum available static pressure	Pa	130	120	120	110	125	95	90
Expansion vessel	dm³	5	5	5	5	8	8	8
Water tank volume	dm³	36	36	96	96	155	155	155
Sound power level (3) (E)	dB(A)	81	81	82	82	83	85	87
Transport weight	kg	245	250	310	342	450	475	485
Operating weight	kg	265	270	388	436	601	627	638

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

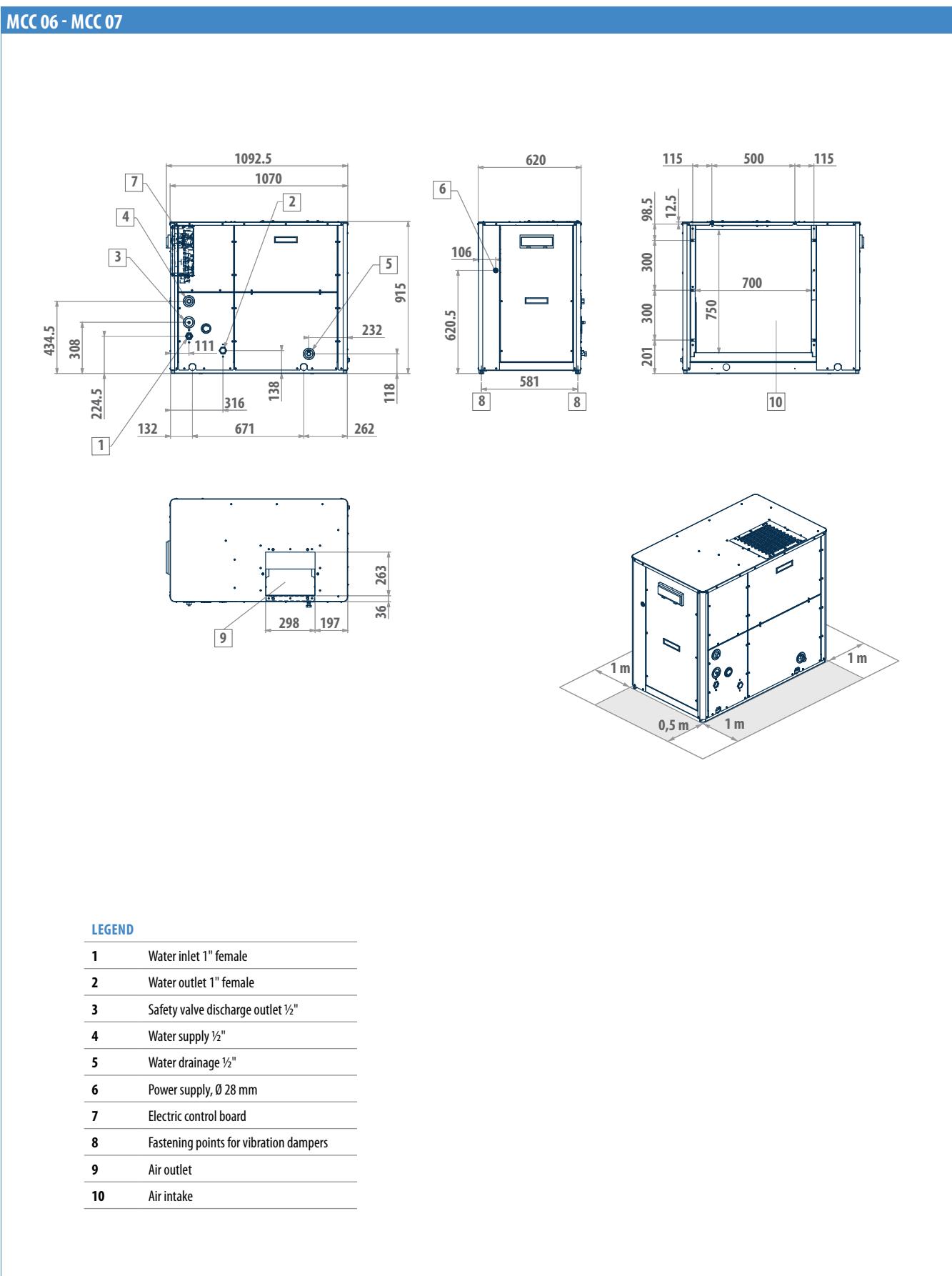
(2) Water temperature 40/45 °C, outdoor air temperature 7 °C D.B. - 6 °C W.B. (UNI EN 14511:2011)

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

(E) EUROVENT certified data

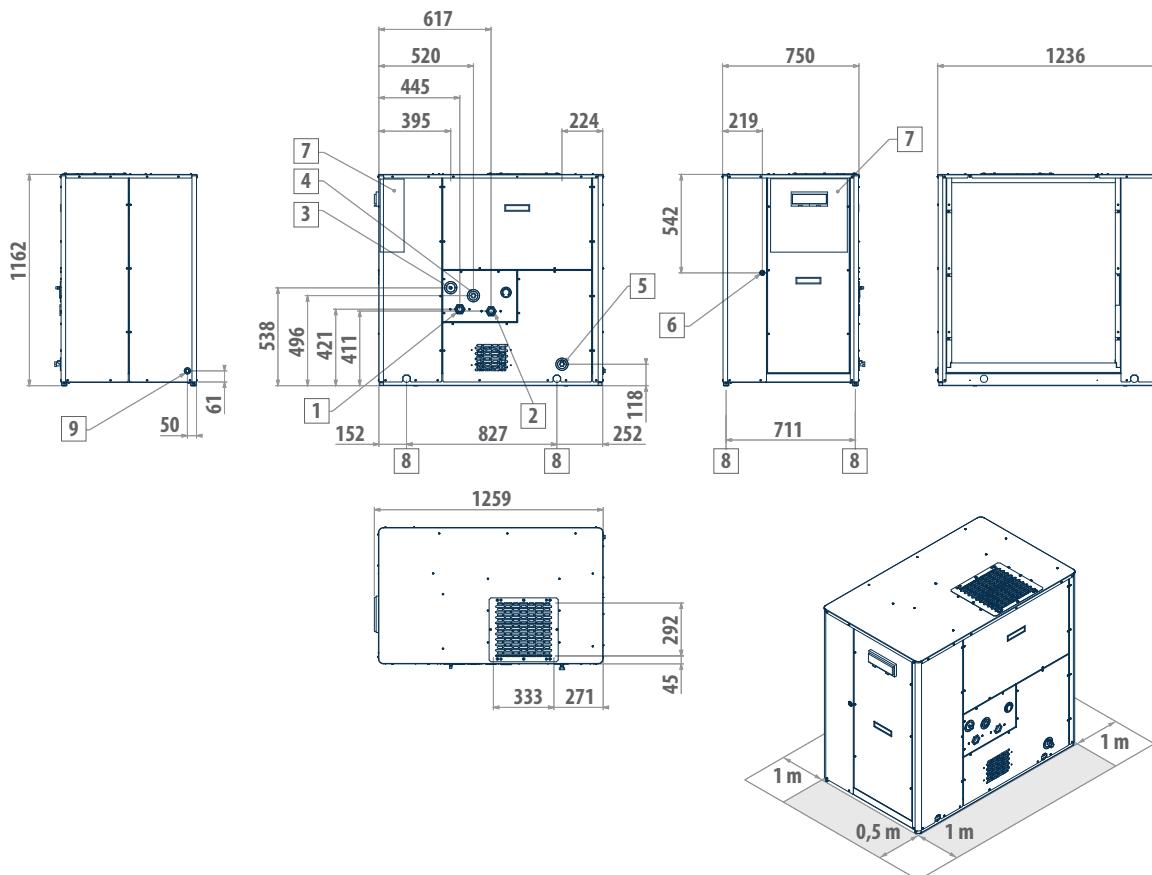


Dimensional drawings



Dimensional drawings

MCC 09 - MCC 12 - MCC 15

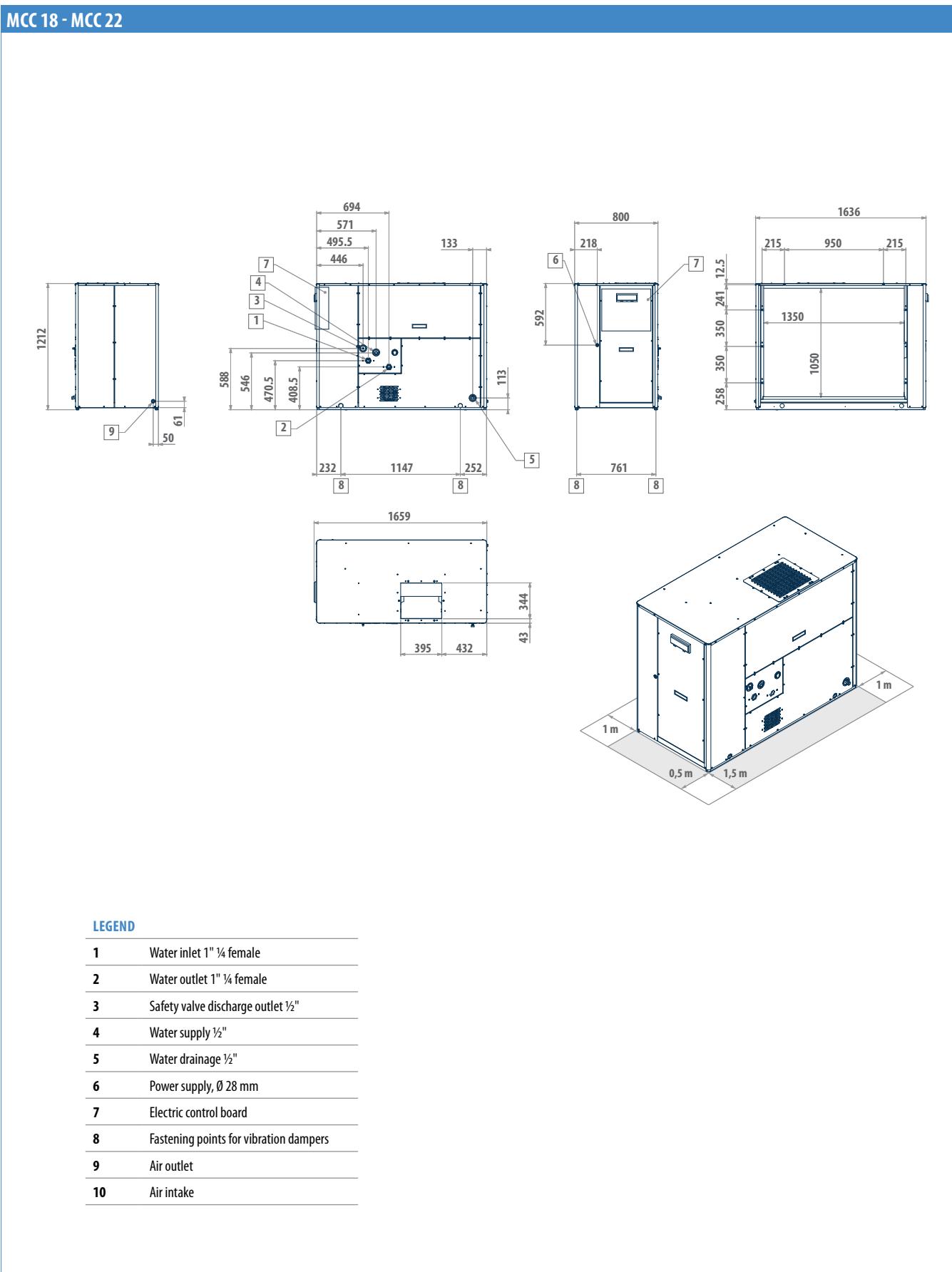


LEGEND

- | | |
|----|--|
| 1 | Water inlet 1" ¼ female |
| 2 | Water outlet 1" ¼ female |
| 3 | Safety valve discharge outlet ½" |
| 4 | Water supply ½" |
| 5 | Water drainage ½" |
| 6 | Power supply, Ø 28 mm |
| 7 | Electric control board |
| 8 | Fastening points for vibration dampers |
| 9 | Air outlet |
| 10 | Air intake |

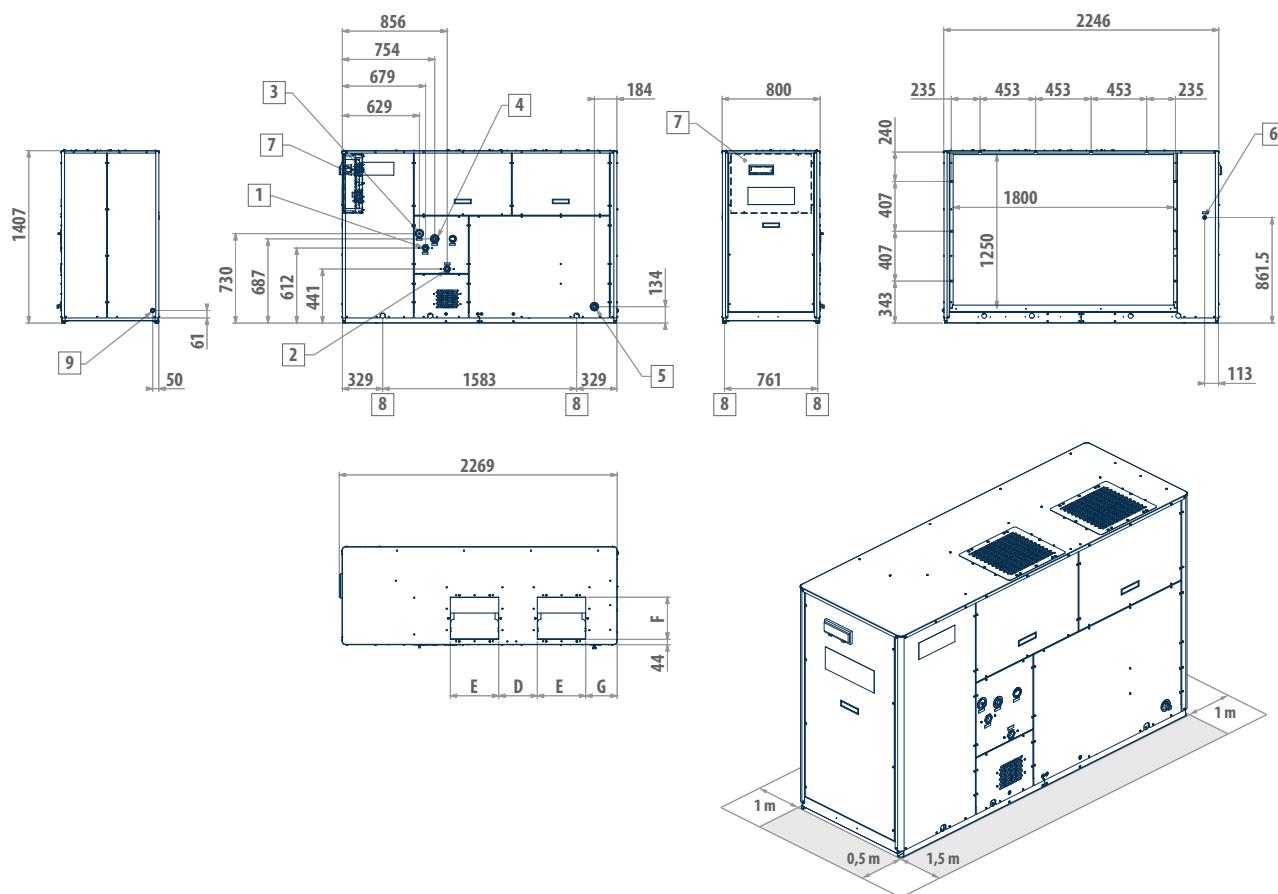


Dimensional drawings



Dimensional drawings

MCC 25 - MCC 33 - MCC 37



LEGEND

- 1 Water inlet 1" ¼ female
- 2 Water outlet 1" ¼ female
- 3 Safety valve discharge outlet ½"
- 4 Water supply ½"
- 5 Water drainage ½"
- 6 Power supply, Ø 28 mm
- 7 Electric control board
- 8 Fastening points for vibration dampers
- 9 Air outlet
- 10 Air intake