

EXPLODED DIAGRAM

► AIR 85



TRANSLATION OF THE ORIGINAL MANUAL

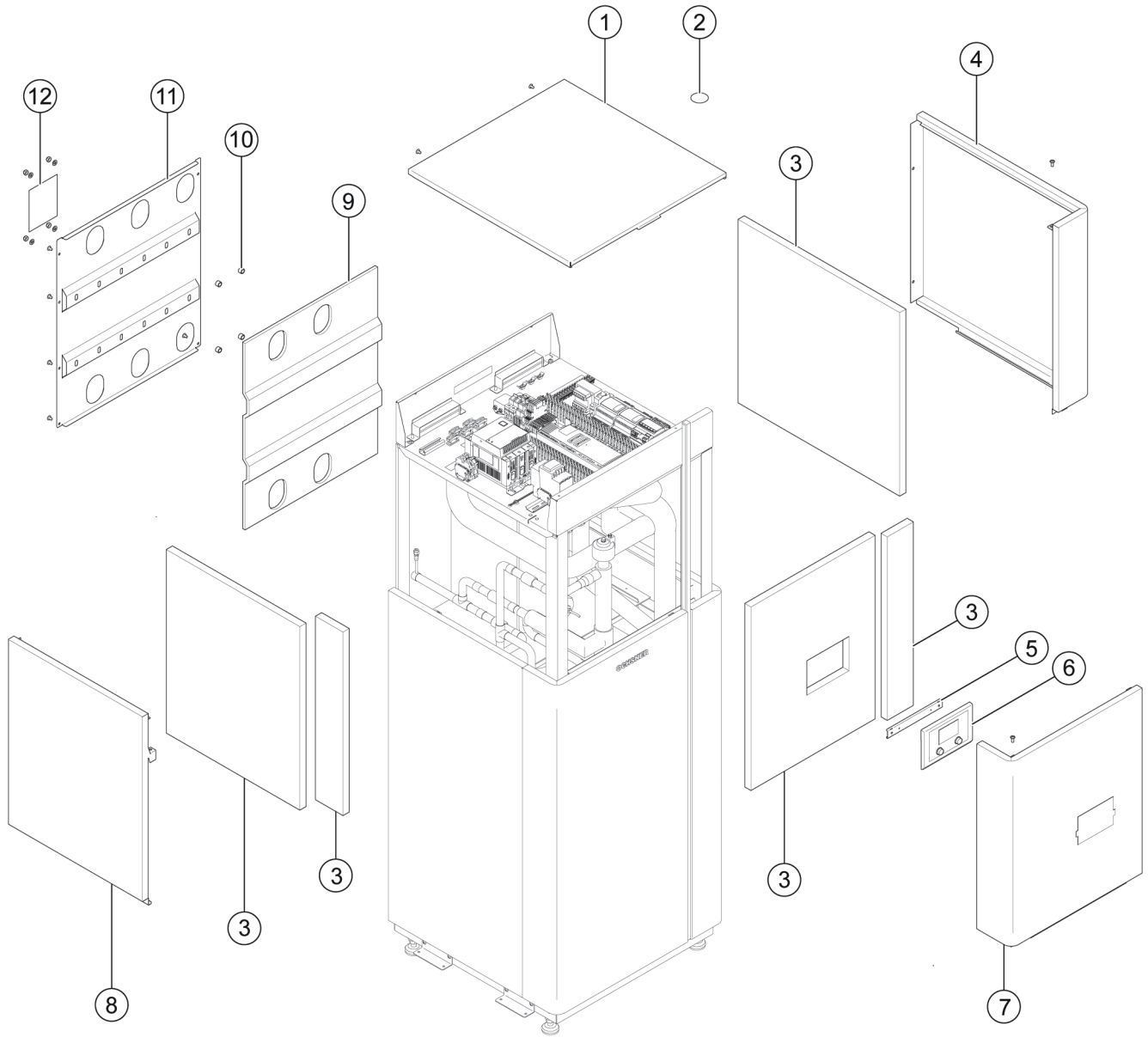
OCHSNER
WÄRMEPUMPEN

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CHANGE OVERVIEW FOR LATEST VERSION

1. Appliance casing for indoor unit, top

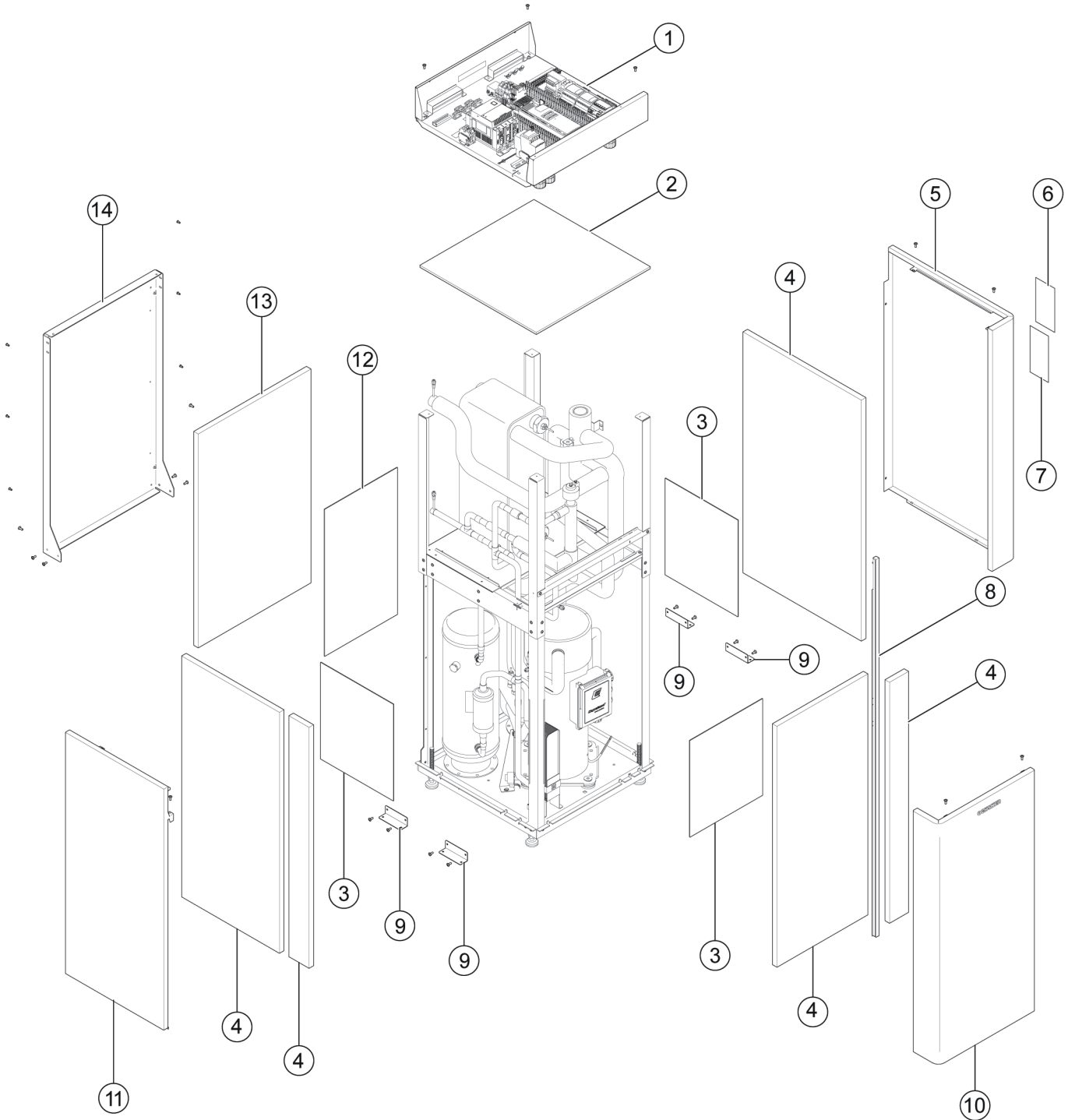


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Key	Part number	Designation
1	915775	Top cover, RAL 7016
2	919288	Label "No entry to this area", Ø 5 cm
3	917318	Insulation assembly, 10-part
4	915772	Side panel top right, RAL 9016
5	915787	Bracket, touchscreen
6	918334	User interface, master remote control MFB6420
7	915774	Front panel top, RAL 9016
8	915773	Side panel top left, RAL 9016
9	917320	Adaptor plate insulation, 10-part
10	916508	Spacer sleeve
11	915768	Adaptor plate, multi plate heat exchanger

Key	Part number	Designation
12	919330	Label: Connections M6

2. Appliance casing for indoor unit, bottom



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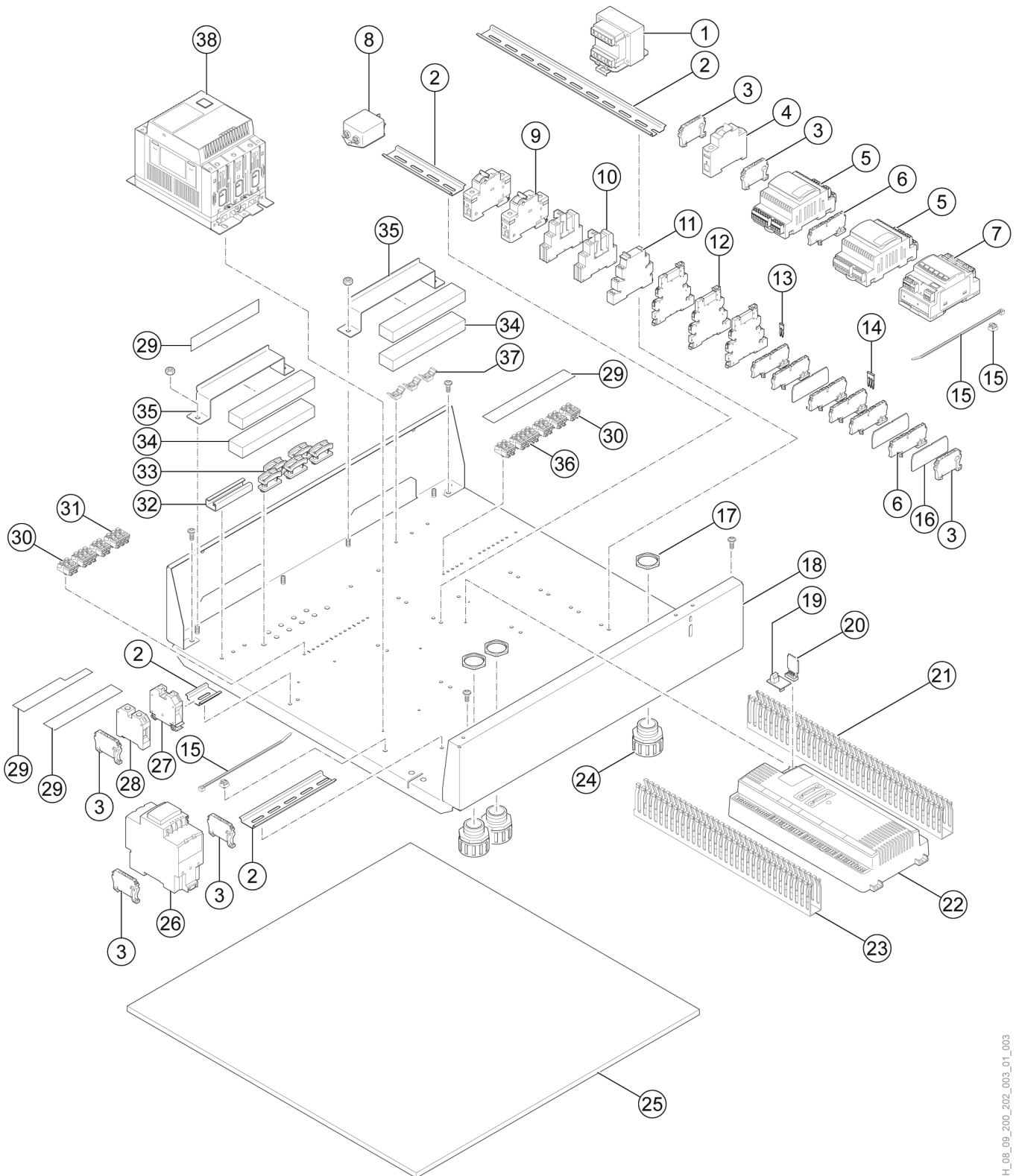
Key	Part number	Designation
1	9291025	Basic control box, AIR 85
2	917320	Control box insulation
3	917321	Plates EVA 6-01, 560 x 360 x 3 mm
4	917318	Insulation assembly, 10-part
5	915738	Side section maxi bottom right, RAL 9016

Key	Part number	Designation
6	919083	Name plate
7	919302	Label: Disconnect power supply M2/M4
8	916591	Plexiglass strip M6
9	915698	Transport bracket
10	915771	Front panel M6 bottom

EXPLODED DIAGRAM | Appliance casing for indoor unit, bottom

Key	Part number	Designation
11	915737	Side section left maxi bottom, RAL 9016
12	917310	Plate EVA 6-01 back panel
13	917319	Insulation B-SK back panel
14	915777	Back panel bottom M6

3. Basic control cabinet box



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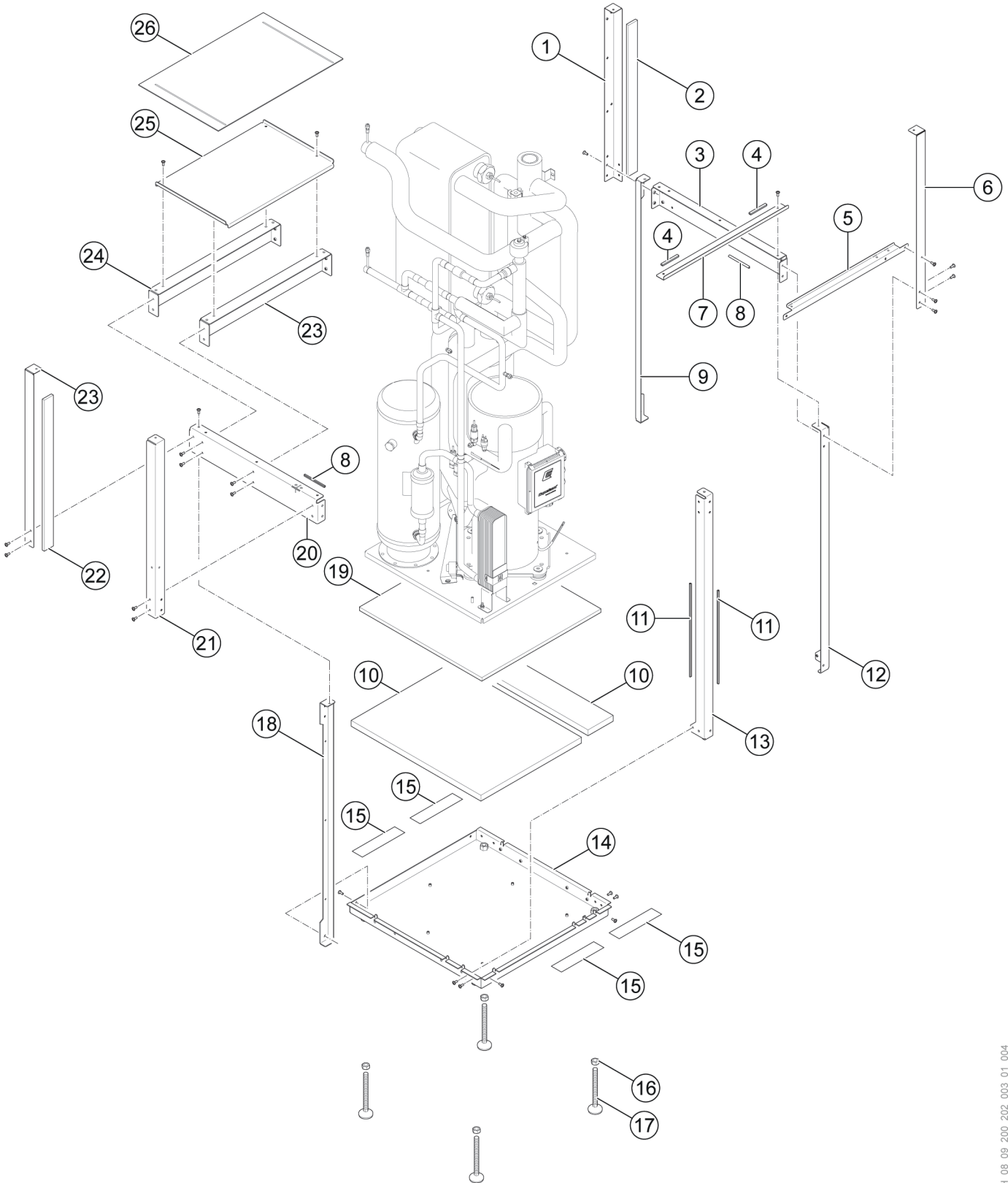
Key	Part number	Designation
1	9290689	Transformer, prim: 230 V - sec: 24 V, 2.5 A, 50-60 Hz
2	9290681	Top-hat profile rail
3	9290091	End bracket for terminal strip ZEW 35

Key	Part number	Designation
4	929872	Circuit breaker 2 A, 1-pole, C/10 ka
5	912557	Superheating controller, EVD driver
6	929414	Feed-through terminal strip, 2.5 mm ²

EXPLODED DIAGRAM | Basic control cabinet box

Key	Part number	Designation
7	918424	EVI controller EXD-HP1 including software
8	929909	Interference filter FN 2020 16-06, 250 VAC, 16 A
9	929874	Circuit breaker 10 A, 1-pole
10	929524	Relay module K12, 230 V AC, 10 A
11	929997	Coupling relay 8 A, 250 VAC, 2 change-over contacts
12	9290968	Coupling relay 6 A, 250 VAC, 1 change-over contact
13	9290691	Terminal strip cross connector 24 A, yellow
14	9290969	Terminal strip cross connector 24 A, yellow
15	9290715	Cable mounting
16	9290690	Terminal strip end plate
17	929758	Locking nut M32 x 1.5
18	9150131	Control box base plate, AIR 85
19	918191	Auxiliary PCB OTE-24VDC for flow sensor
20	918462	Dongle, AIR 85
21	9290682	Cable duct L 430 mm, 25 x 60 mm
22	918204	OTE controller HW 3.0
23	9290682	Cable duct L 390 mm, 25 x 60 mm
24	929757	Hose screw connector M32 x 1
25	917320	Control box insulation, 10 mm
26	929749	Contactors LC1-D65AP7, 400 VAC, 3/65 A, coil 230 V
27	929861	Feed-through terminal strip, grey, 35 mm ²
28	929862	Protective conductor terminal strip, yellow-green, 35 mm ²
29	919290	Control box label
30	9290724	Appliance terminal, 2-pole without PE contact, 2.5 mm ²
31	9290722	Appliance terminal, 3-pole without direct PE contact, 2.5 mm ²
32	9290774	C-profile rail, 60 mm
33	922679	Cover clip, 3 - 23 mm
34	917407	Safety guard M2/M4, 160 x 30 x 20 mm
35	915714	Cable entry 162 x 45 x 29.9 mm
36	9290726	Appliance terminal, 4-pole without PE contact, 2.5 mm ²
37	9290698	Cable tie mounting base KR6G5
38	930447	Starting current limiter RSBT 4870, 70 A

4. Casing frame for the indoor unit



Key	Part number	Designation
1	915782	Base frame upright, top back right M6

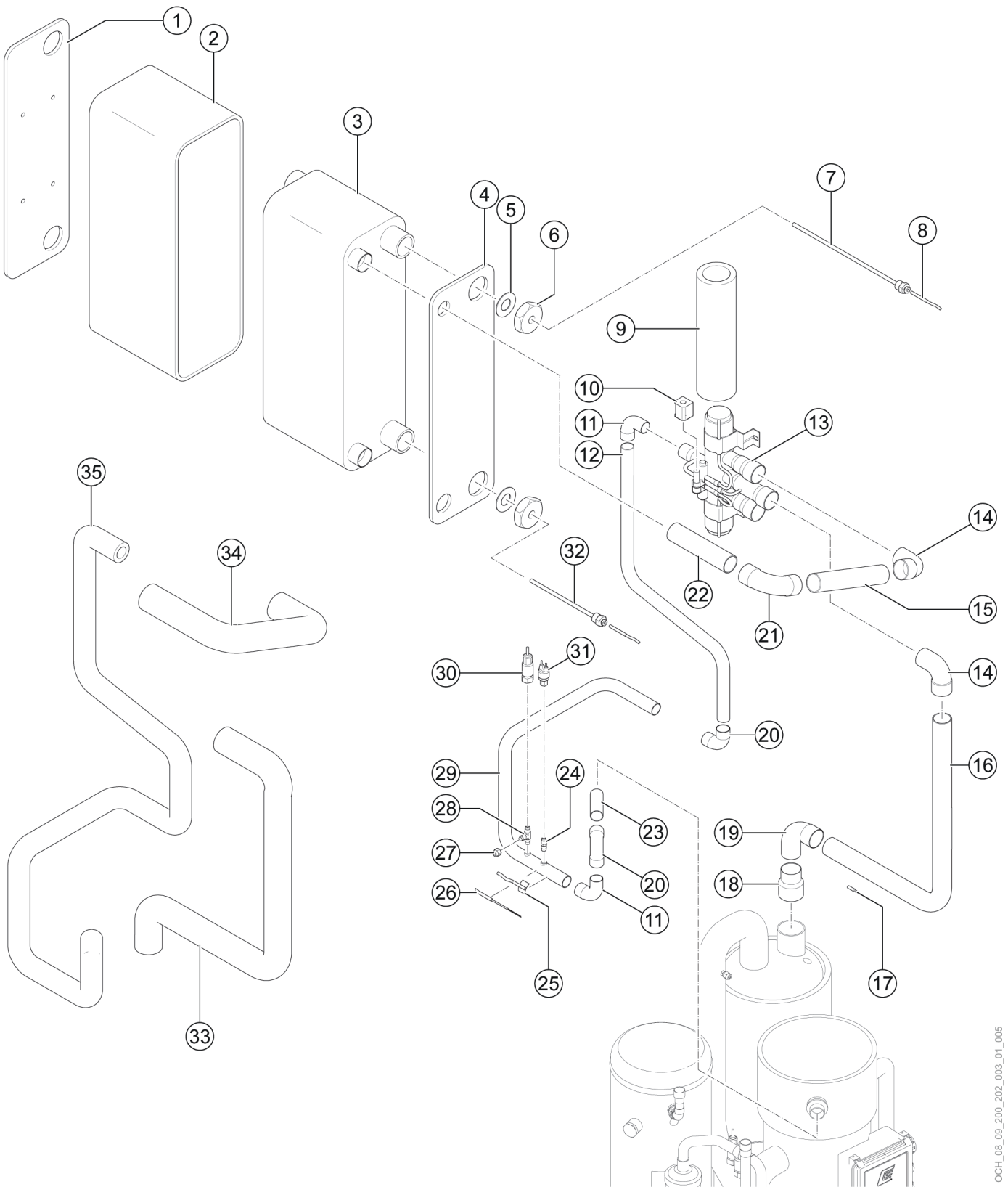
Key	Part number	Designation
2	917320	Insulation B-SK frame, left/right

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EXPLODED DIAGRAM | Casing frame for the indoor unit

Key	Part number	Designation
3	915761	Base frame strut, top right
4	916652	Edge protection profile L 80 mm
5	915785	Base frame strut, top front
6	915784	Base frame upright, top front right M6
7	915781	Heavy mat holder M6
8	916654	Edge protection profile L 100 mm
9	915777	Back panel upright, bottom right
10	917311	Plates D2600, 645 x 625 x 25 mm
11	916653	Edge protection profile L 400 mm
12	915759	Base frame upright, bottom front right M6
13	915758	Base frame upright, bottom front left M6
14	915776	Base plate M6
15	923460	Anti-slip label
16	923229	Hexagon nut M16, galvanised
17	916431	Adjustable foot M16 x 150 mm, galvanised
18	915777	Base frame upright, back panel bottom left
19	917310	Plate EVA, 3 mm
20	915760	Base frame strut, top left
21	915784	Base frame upright, top front left
22	917320	Insulation B-SK frame, left/right
23	915783	Base frame upright, top back left
24	915778	Base frame strut, PHE M6
25	915780	Mounting plate, PHE M6
26	917310	Plate EVA, 3 mm

5. Refrigeration technology



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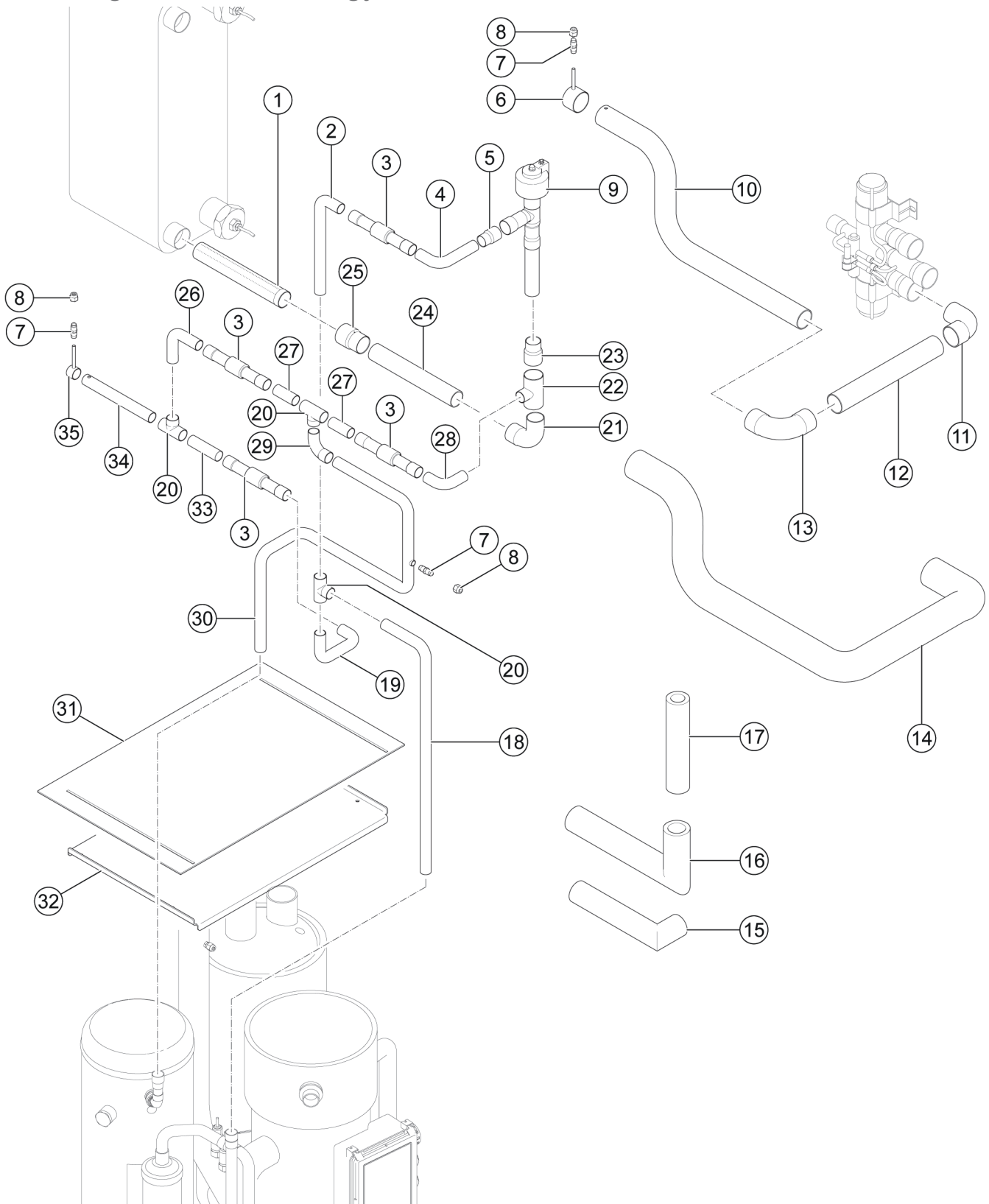
Key	Part number	Designation
1,2,4	917446	Insulation assembly for CBH 112
3	911729	CBH-112-110AM-G

Key	Part number	Designation
3.1	9500018	Assembly, plate heat exchanger condenser
5	916252	Rubber seal ring Ø 58 x 28 x 2

EXPLODED DIAGRAM | Refrigeration technology

Key	Part number	Designation
6	911001	Connection adaptor 2" x 1/2", stainless steel
7	922566	Sensor pocket THVADS 335, AF 22 mm/1/2", L335 mm
8	930455	Temperature sensor NTC 5K, L 2000 mm
9	917396	Insulating sleeve HT 60 x 13 mm
10	912514	Solenoid valve coil for 4-way valve, 230 V
11	913004	Copper bend 90° 28 mm f/m 5001A
12	9220175	Copper hot gas line AIR 85/3 - Ø 28 x 1 mm
13	912652	4-way valve STF-2506G, without MV coil
14	913269	Copper bend 90°, 42 mm, TYPE 207-C2
15	9220176	Copper pipe Ø 42 x 2 mm - hot gas line
16	9220171	Copper suction gas line AIR 85/3 - Ø 42 x 2 mm
17	930226	Contact thermostat NTC 10K with V-groove
18	913074	Reducing nipple 54 x 42 mm, (m/f), 5243
19	913072	Copper bend 90°, 42 mm, f/m, 5001A
20	913006	Copper bend 90° 28 mm f/f 5002A
21	913073	Copper bend 90°, 42 mm, f/f, 5002A
22	9220177	Copper hot gas line AIR 85/5 Ø 42 x 2 mm
23	9220173	Copper hot gas line AIR 85/1 Ø 28 x 1.5 mm
24	912638	Fill valve, single
25	930315	Contact thermostat NTC 5K - silicone
26	918422	Temperature sensor EVI - PT 1000 / -30+150°C
27	912931	Sealing cap for fill valve, 7/16" UNF
28	912639	Fill valve, double
29	9220174	Copper hot gas line AIR 85/2 Ø 28 x 1.5 mm
30	930297	Pressure sensor LP - HP 0 - 45 bar
31	930394	Pressure switch cartridge ACB-2UB/ 45 bar
32	922564	Sensor pocket THVADS 210 - 210 x 8 x 0.75 mm
33	917019	Insulating sleeve XG Ø 42 x 9 mm
34	917394	Insulating sleeve HT Ø 42 x 10 mm
35	917392	Insulating sleeve HT Ø 28 x 10 mm

6. Refrigeration technology



Key	Part number	Designation
1	911286	Refrigerant distributor CB112 - 110AH-F
2	9220159	Copper liquid line AIR 85/12 Ø 22 x 1 mm
3	912088	Non-return valve NRV 19s, 22 mm soldered

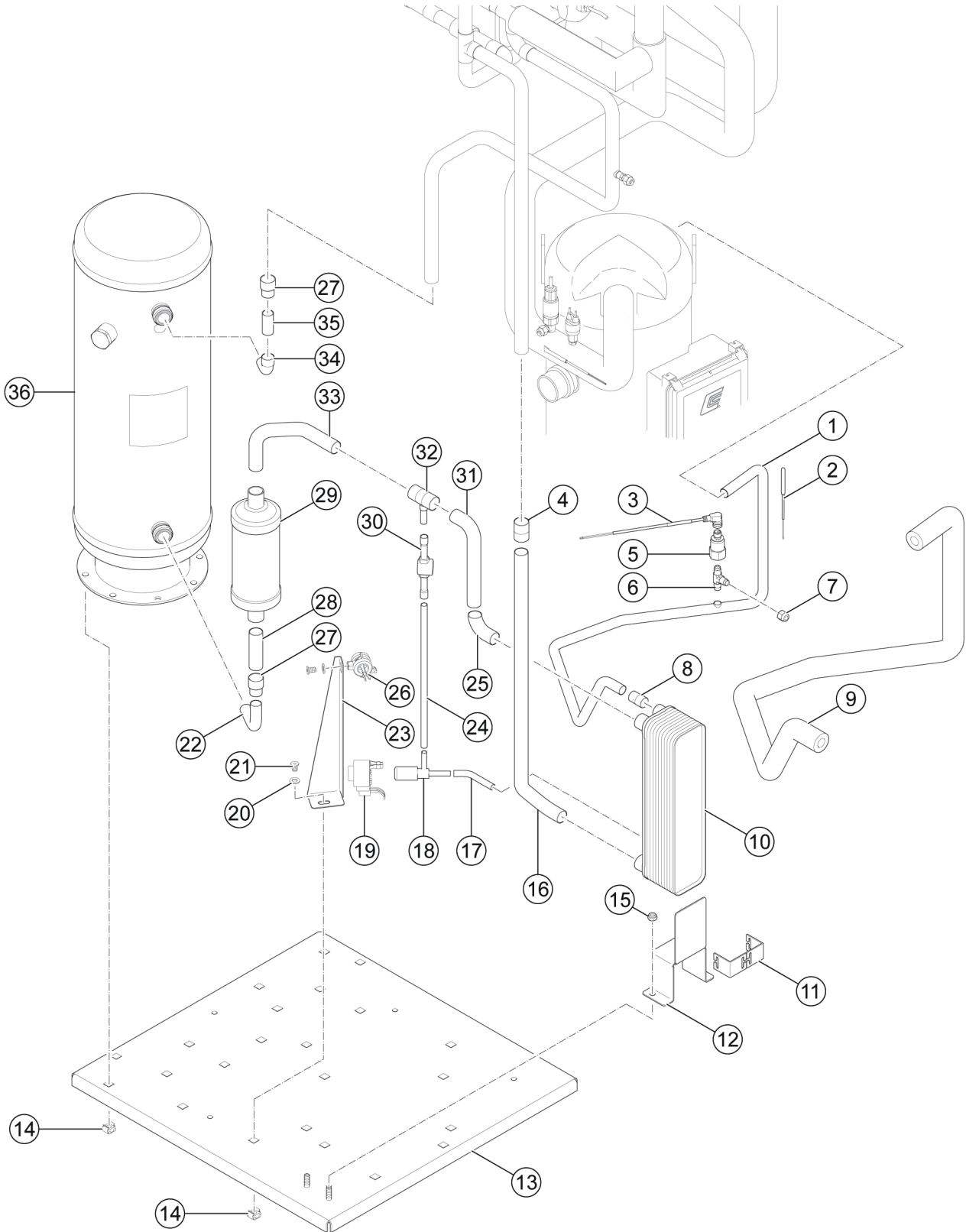
Key	Part number	Designation
4	9220158	Copper liquid line AIR 85/12 Ø 22 x 1 mm
5	913028	Reducing nipple 28 x 22 mm, (m/f), 5243
6	913046	Cap, solder connection Ø 42 mm - 5301

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EXPLODED DIAGRAM | Refrigeration technology

Key	Part number	Designation
7	912638	Fill valve, single
8	912931	Sealing cap for fill valve, 7/16" UNF
9	9120596	Electric expansion valve E4V85FSSB1, Ø 28/28 mm, without solenoid valve coil
10	9220169	Copper suction gas line AIR 85/1 Ø 42 x 2 mm
11	913269	Copper bend 90°, 42 mm, type 207-C2
12	9220170	Copper suction gas line Ø 42 x 2 mm
13	913073	Copper bend 90°, 42 mm, f/f, 5002A
14	917019	Insulating sleeve XG Ø 42 x 9 mm
15	917015	Insulating sleeve XG Ø 28 x 9 mm
16	917020	Insulating sleeve XG Ø 35 x 9 mm
17	917015	Insulating sleeve XG Ø 28 x 9 mm
18	9220149	Copper liquid line AIR 85/2 Ø 22 x 1 mm
19	9220150	Copper liquid line AIR 85/3 Ø 22 x 1 mm
20	913071	Tee 22 x 22 x 22 mm, 5130
21	913031	Copper bend 90°, 35 mm, f/m, 5001A
22	913012	Tee 35 x 22 x 35 mm, 5130
23	913087	Reducing nipple 35 x 28 mm, (m/f), 5243
24	9220156	Copper liquid line AIR 85/9 Ø 35 x 2 mm
25	913069	Reducing nipple 42 x 35 mm, (m/f), 5243
26	9220153	Copper liquid line AIR 85/6 Ø 22 x 1 mm
27	9220154	Copper liquid line AIR 85/7 Ø 22 x 1 mm
28	9220155	Copper liquid line AIR 85/8 Ø 22 x 1 mm
29	913035	Copper bend 90° 22 mm f/m 5001A
30	9220160	Copper liquid line AIR 85/13 Ø 22 x 1 mm
31	x	Intermediate plate
32	915780	Mounting plate, plate heat exchanger M6
33	9220151	Copper liquid line AIR 85/4 Ø 22 x 1 mm
34	9220152	Copper liquid line AIR 85/5 Ø 22 x 1 mm
35	913044	Cap, solder connection Ø 22 mm, 5301

7. Refrigeration technology



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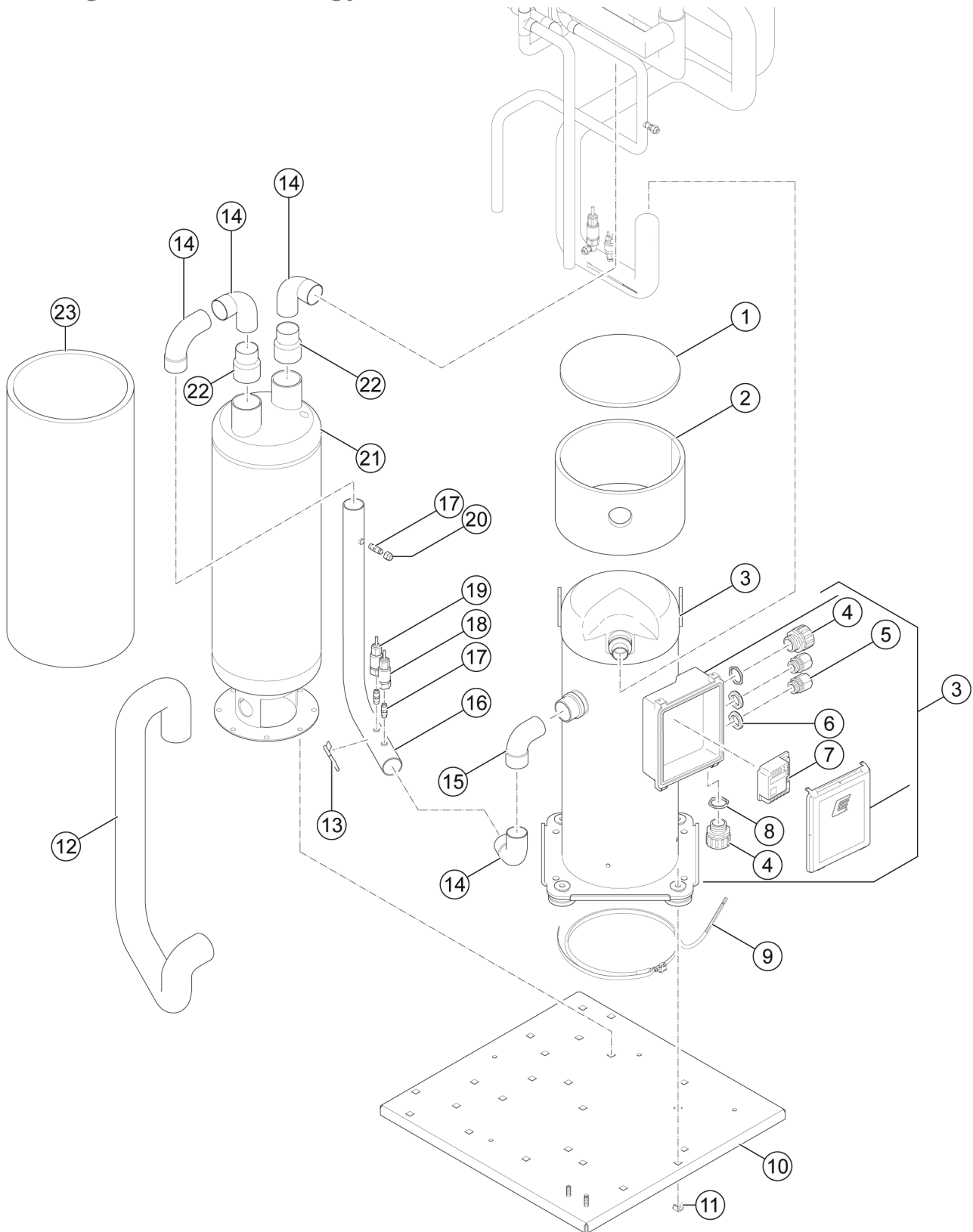
Key	Part number	Designation
1	9220178	Copper injection line AIR 85, 16 x 1 mm
2	918422	Temperature sensor EVI, PT 1000, L 3 m

Key	Part number	Designation
3	912529	Connecting cable, pressure transmitter PT4-M30
4	913670	Sleeve on both sides 22 mm, 5270
5	918463	Pressure sensor PT5-30M

EXPLODED DIAGRAM | Refrigeration technology

Key	Part number	Designation
6	912639	Fill valve, double
7	912931	Sealing cap for fill valve, 7/16" UNF
8	913450	Reducing nipple 18 x 16 mm, (m/f), 5243
9	917016	Insulating sleeve XG Ø 15/16 x 9 mm
10	911780	Plate heat exchanger ACH 18-30HF
11	925049	Edge protection corner with tape slots KE12
12	9150106	Bracket, EVI plate heat exchanger
13	9150115	Mounting plate AIR 85, RAL 7016
14	923166	Captive nut M8
15	923168	Hexagon nut M8, self-locking
16	9220148	Copper liquid line AIR 85/21 Ø 10 x 1 mm
17	9220168	Copper liquid line AIR 85/21 Ø 10 x 1 mm
18	9120383	Electronic expansion valve B1G, without coil
19	9120393	Coil for electric expansion valve, 12 VDC unipolar
20	923051	Washer M8, galvanised
21	923336	Flat head screw M8 x 12 mm
22	9220162	Copper liquid line AIR 85/15 Ø 18 x 1 mm
23	9150205	Anti-vibration mount L 265 mm
24	9220167	Copper liquid line AIR 85/20 Ø 10 x 1 mm
25	9220165	Copper liquid line AIR 85/18 Ø 22 x 1 mm
26	922791	Pipe clamp, silicone 15-18 mm - M8
27	913023	Reducing socket 22 x 18 mm (m/f), 5240
28	9220163	Copper liquid line AIR 85/16 Ø 22 x 1 mm
29	912121	Dryer ADK-307S - 22 mm, soldered
30	912991	Sight glass SYJ10H12 - 10 mm, soldered
31	9220165	Copper liquid line AIR 85/18 Ø 22 x 1 mm
32	913226	Tee 22 x 10 x 22 mm, 5130
33	9220164	Copper liquid line AIT 85/17 Ø 22 x 1 mm
34	913091	Copper bend 90°, 18 mm, f/m, 5001A
35	9220161	Copper liquid line AIR 85/14 Ø 18 x 1 mm
36	9120438	Liquid receiver RLVC 82729 CL

8. Refrigeration technology



Key	Part number	Designation
1, 2	917457	Insulation assembly, compressor
3	910588	Compressor ZW430HSP-TEP-522
4	929757	Hose screw connector M32

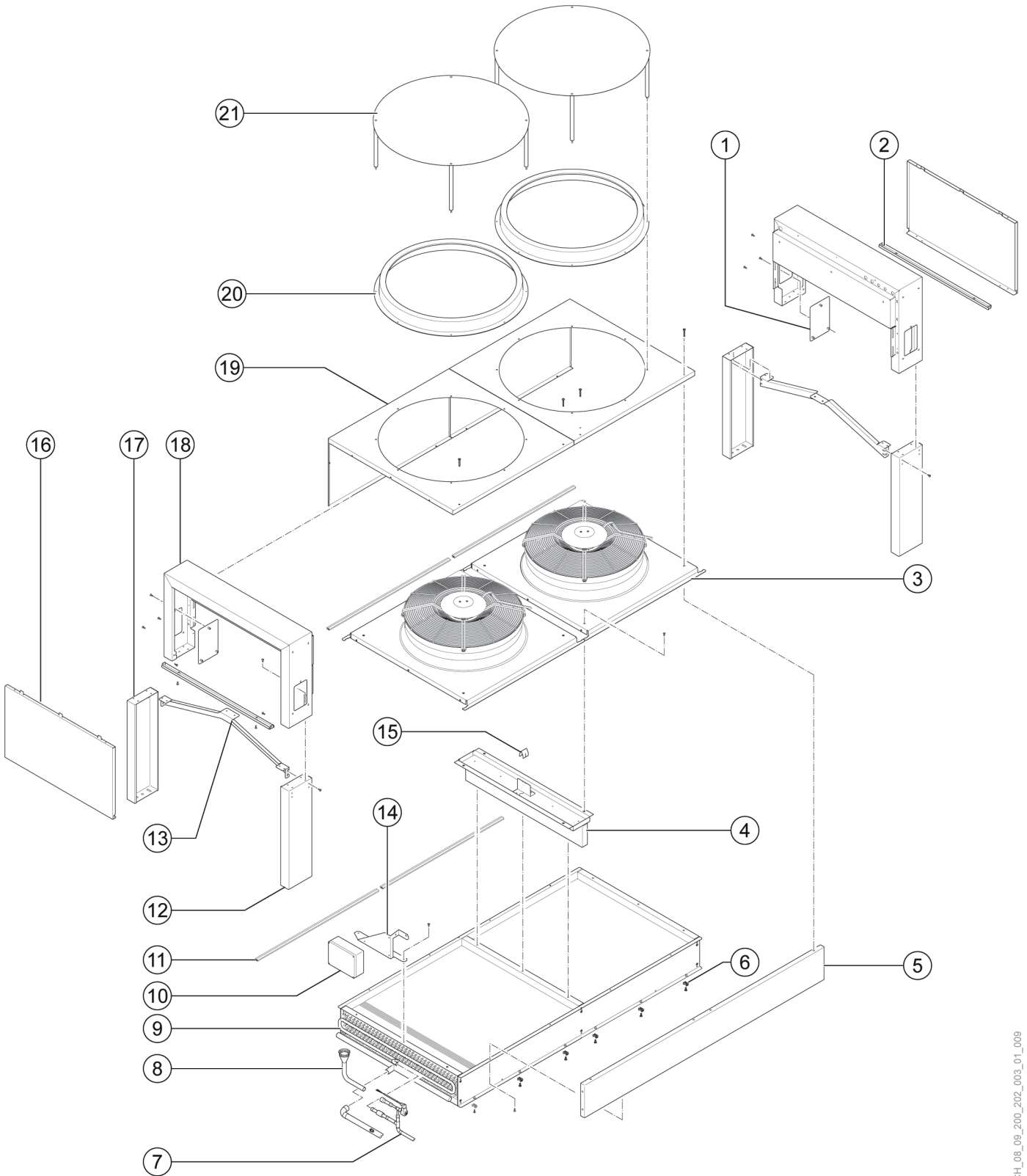
Key	Part number	Designation
5	923318	Cable gland M25 x 1.5
6	923316	Hexagonal locking nut M25 x 1.5
7	910850	Motor protection

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EXPLODED DIAGRAM | Refrigeration technology

Key	Part number	Designation
8	929758	Hexagonal locking nut M32 x 1.5
9	910584	Crankcase heater 230 V, 66 W
10	9150115	Mounting plate AIR 85, RAL 7016
11	923166	Captive nut M8
12	917019	Insulating sleeve XG Ø 42 x 9 mm
13	930315	Contact thermostat NTC 5K, silicone
14	913072	Copper bend 90°, 42 mm, f/m, 5001A
15	913269	Copper bend 90°, 42 mm, TYPE 207-C2
16	9220172	Suction gas line Ø 42 x 2 mm
17	912638	Fill valve, single
18	930297	Pressure sensor LP-HP 0 - 45 bar
19	930243	Pressure sensor LP-HP 0 - 45 bar
20	912931	Sealing cap for fill valve, 7/16" UNF
21	9120359	Liquid separator
22	913074	Reducing nipple 54 x 42 mm, (m/f), 5243
23	991688	Insulation, fluid separator

9. VHS AIR 85



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Key	Part number	Designation
1	9150052	Foot cover, RAL 7016
2	9150109	Foot strut, RAL 7016
3	931115	Fan W3G630-GL06-G4

Key	Part number	Designation
4	915592	Centre support
5	9150049	Side panel 1865 x 220 mm
6	9290976	Mounting base KR8G5

Key	Part number	Designation
7	991964	Expansion valve assembly, evaporator, left side
	991966	Expansion valve assembly, evaporator, right side
8	x	Venturi distributor
9	9120491	Set of fins, left/right ident.
10	929865	Terminal strip enclosure, 190 x 155 mm
11	916405	Edge protection profile, 927 mm
12	9150133	Base RAL 7016
13	9150135	Bracket
14	9150132	Bracket, control box
15	915617	Spacer for cowl
16	9150111	Side cover RAL 7016
17	9150133	Base RAL 7016
18	9150134	Foot AIR 85 evaporator
19	9150050	Cowl AIR 85 evaporator
20	932033	Reducer ring, RAL 7016
21	915763	Snow cover, RAL 7016

9.1 Special colours for the outdoor unit



Note

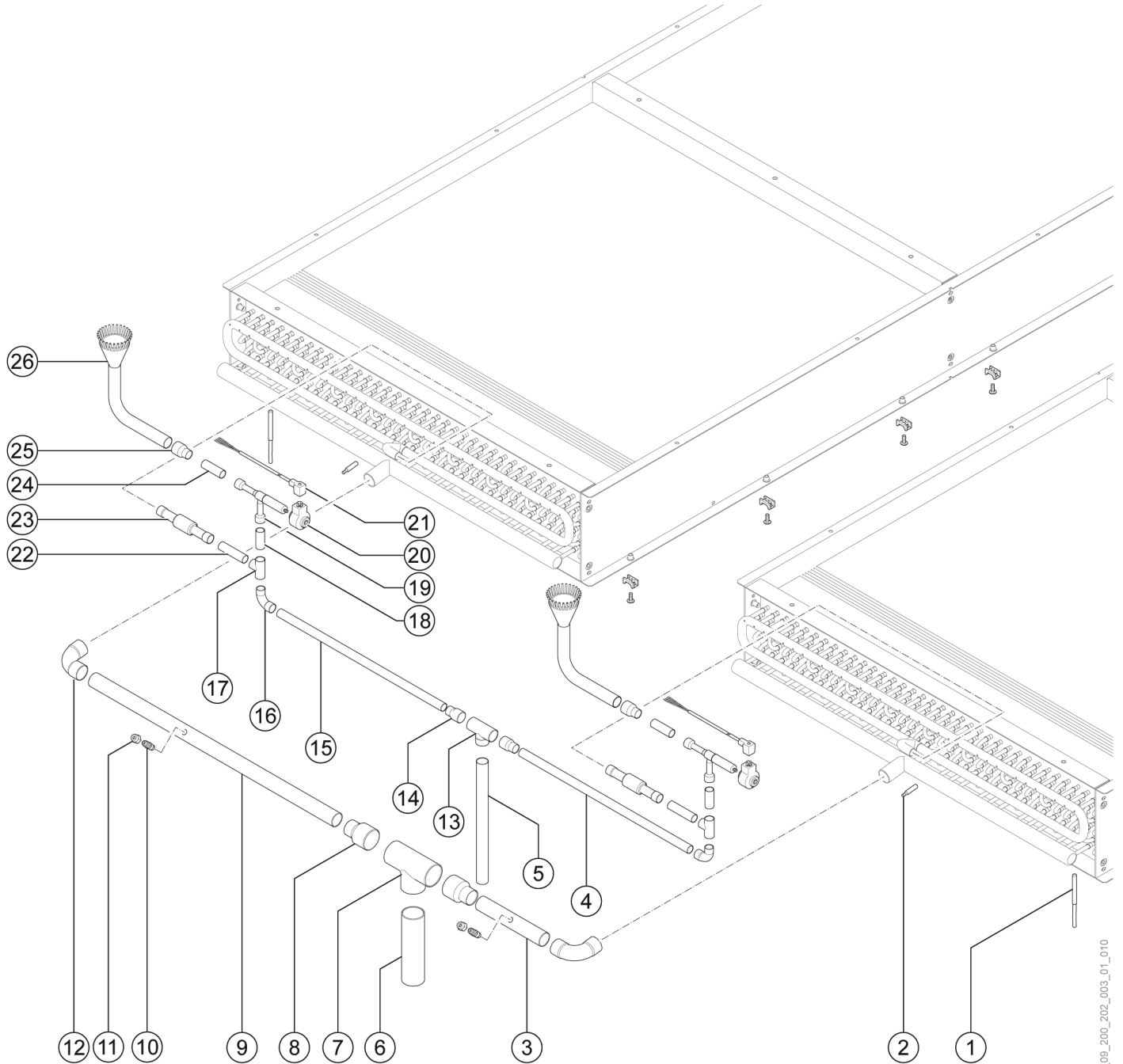
The spare parts numbers in this documentation relate to standard colour RAL 7016 "anthracite grey".

If a special colour was used for the outdoor unit and you require a spare part in this special colour, please email us.

Your email should include the following details:

- ▶ Name
- ▶ Address
- ▶ Serial number of the indoor unit and outdoor unit
- ▶ Spare part required

10. Expansion valve assembly



Key	Part number	Designation
1	930232	Temperature sensor OTE-NTC 5K, silicone
2	930226	Contact thermostat NTC 10K
3	913461	Copper pipe Ø 28 x 1.5 mm
4	913057	Copper pipe Ø 16 x 1 mm
5	913055	Copper pipe Ø 22 x 1 mm
6	913462	Copper pipe Ø 42 x 2 mm
7	913094	Tee 42 x 42 x 42 mm
8	913399	Reducing nipple 42 x 28 mm (m/f)
9	913461	Copper pipe 28 x 1.5 mm

Key	Part number	Designation
10	912638	Fill valve, single
11	912931	Sealing cap for fill valve, 7/16" UNF
12	913006	Copper bend 90° 28 mm f/f 5002A
13	913071	Tee 22 x 22 x 22 mm, 5130
14	913116	Reducing nipple 22 x 16 mm, (m/f), 5243
15	913057	Copper pipe Ø 16 x 1 mm
16	913037	Copper bend 90°, 16 mm, f/m, 5001A
17	913085	Tee 16 x 16 x 16 mm, 5130
18	913057	Copper pipe 16 x 1 mm

EXPLODED DIAGRAM | Assembly, evaporator connecting pipes

Key	Part number	Designation
19	9120439	Expansion valve E2V30F
20	9120440	Coil for expansion valve E2V
21	9120441	Connecting cable, magnet coil
22	913057	Copper pipe 16 x 1 mm
23	912262	Non-return valve NRV 12s, 16 mm soldered
24	913057	Copper pipe 16 x 1 mm
25	913022	Reducing nipple 22 x 16 (f/m), 5240
26	x	Venturi distributor

11. Assembly, evaporator connecting pipes

Part number	Designation
9500022	Evaporator connecting pipes AIR85 comprising
913116	Reducing nipple 22 x 16 mm, (m/f), 5243
913071	Tee 22 x 22 x 22 mm, 5130
912638	Fill valve, single
912931	Sealing cap for fill valve, 7/16" UNF
913399	Reducing nipple 42 x 28 mm (m/f)
913094	Tee 42 x 42 x 42 mm
913006	Copper bend 90° 28 mm f/f 5002A
913052	Copper pipe 16 x 1 mm, R220
913053	Copper pipe 22 x 1 mm, R220
913461	Copper pipe 28 x 1.5 mm, R290
913462	Copper pipe 42 x 2 mm, R290
913059	Copper pipe 8 x 1 mm, R220

12. Accessories

Part number	Designation
991968	Basic heating/cooling package incl. 918357 remote controller, white, wall mounted with graphic display
991969	Surcharge for heating/cooling incl. remote controller 918470 touchscreen HW 4.0
991891	Assembly, electricity meter III
9290115	Electricity meter III, EM 21072 DMV
922462	Energy saving pump, Stratos 65/1-12
922508	Electric immersion heater 6 kW - 400 V / HLSC 75°C, 6/4" - installation length 500 mm
922509	Electric immersion heater 9 kW - 400 V / HLSC 75°C, 6/4" - installation length 710 mm
290342	3-way switching module 2" fem., KSV 40
990850	ABL set / 3 - 16 m, 1 x 42 x 2.0 / 1 x 22 x 1 mm - order through CSO
929958	Cable harness 10 m
929935	Cable harness 15 m
929959	Cable harness 20 m
929960	Cable harness 25 m
290960V	Snow cover set consisting of 4 pce
290676	Super Silent Package SSP
290961V	SSP snow cover set consisting of 4 pce
930313	Outdoor temperature sensor OTE - NTC 5K

12.1 OTE sensor set

Part number	Designation	Quantity
930312	OTE sensor set consisting of	
930232	Cable temperature sensor NTC 5K, minus 40 to 130°C / length 4 metres, silicone	3
930313	Outdoor temperature sensor NTC 5K 100°C - IP 65	1
930314	Contact sensor NTC 5K 100°C - IP 65 including strap and heat conducting paste	1

TECHNICAL SPECIFICATIONS

13. Medium specification

Part number	Detailed designation
	Refrigerant R 410A comprising: 50% pentafluoroethane 50% difluoromethane
	GWP 2088 (global warming potential)

14. Compressor specification

Part number	Detailed designation
910588	Compressor ZW430HSP-TEP-522
	Net weight 93,5 kg
	Length/width/height 315 x 315 x 661,5 mm
	Supply voltage 400 V / 3 Ph / 50 Hz [$\pm 10\%$]
	Speed 50 Hz 2900 rpm
	Maximum operating current 41,2 A
	Maximum starting current 95,6 A
	Blocked rotor current 255,5 A
	Motor winding temperature $\leq 135\text{ }^\circ\text{C}$
	Winding resistance at 25°C, 0.452 Ω (ohm)
	Operating pressure range high pressure side ≤ 46 bar
	Operating pressure range low pressure side ≤ 28 bar
	Maximum hot gas temperature 120°C
	Delivery volume 36.59 m ³ /h
	Running noise level 83,6 dB(A) at 50 Hz
	Control of wet steam injection between 85 - 105 °C
926043	Oil type: POE RL32-3MFA (1-litre container)
	Oil volume 4.436 l

15. EU inspection obligation

Charge	Leakage test
≥ 2.4 kg	Every 12 months
≥ 23.9 kg	Every 6 months

CHANGE OVERVIEW FOR LATEST VERSION

Section	Change
Basic control box	9500026 changed to 918424
8. Refrigeration technology	Part number added to legend 7
Accessories	980189 changed to 991891
Technical specifications	Section created

System installer:	
Company	
Address	
Tel. no.	
Service engineer:	

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Subject to technical modifications.