

Spare part list:

BioUltra UL570 Std./Hybrid – HC/HFC – 50/60Hz

*Item number: 765042334 Rev. 008
Release date: 19-01-2024
Released by: John Lund
Approved by: John B. S. Petersen*

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Introduction, intended use and important notes

BioUltra UL570

BioUltra ultra-low temperature bio storage cabinets are designed and built to last, ensuring maximum ROI as well as effective use of resources. They are meticulously engineered to use the least possible energy to greatest possible effect. Designed for an operating range between -60°C and -86°C, with a maximum ambient temperature of +30°C and a maximum relative humidity of 70%.

Keeping temperatures stable

BioUltra cabinets ensure consistent temperatures throughout the storage space, and rapid temperature recovery after you have opened the door. This enables you to store blood, tissue and other lab material under the safest, most stable conditions possible.

Hybrid

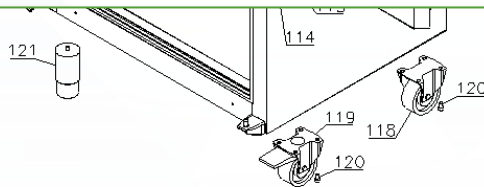
Besides a regular air-cooled condenser, the BioUltra is also available with a hybrid water/air-cooled condenser option (Requires process water supply). The hybrid option combines the convenience of minimal heat and noise emission from water cooling, with the safety of a redundant condensing system in the event of interruptions in the supply of process water - securing maximum item safety and cabinet uptime.

This spare part document is intended for the **BioUltra UL570** product series.

Important note concerning understanding spare list

Please note that when ordering a spare part, the item number only applies to ordering one single spare part!

For this reason, there is a column in the tables with name “**Orig. used [pcs]**” that shows the amount of the spare parts that is originally used on the product. Eg. when ordering new legs, the item number only applies to one single piece, but the column informs that 4 pieces have been used. In columns with “**Introduced**” and “**Terminated**”, a six-digit number is given, which means product release year and week (YYYY-WW).

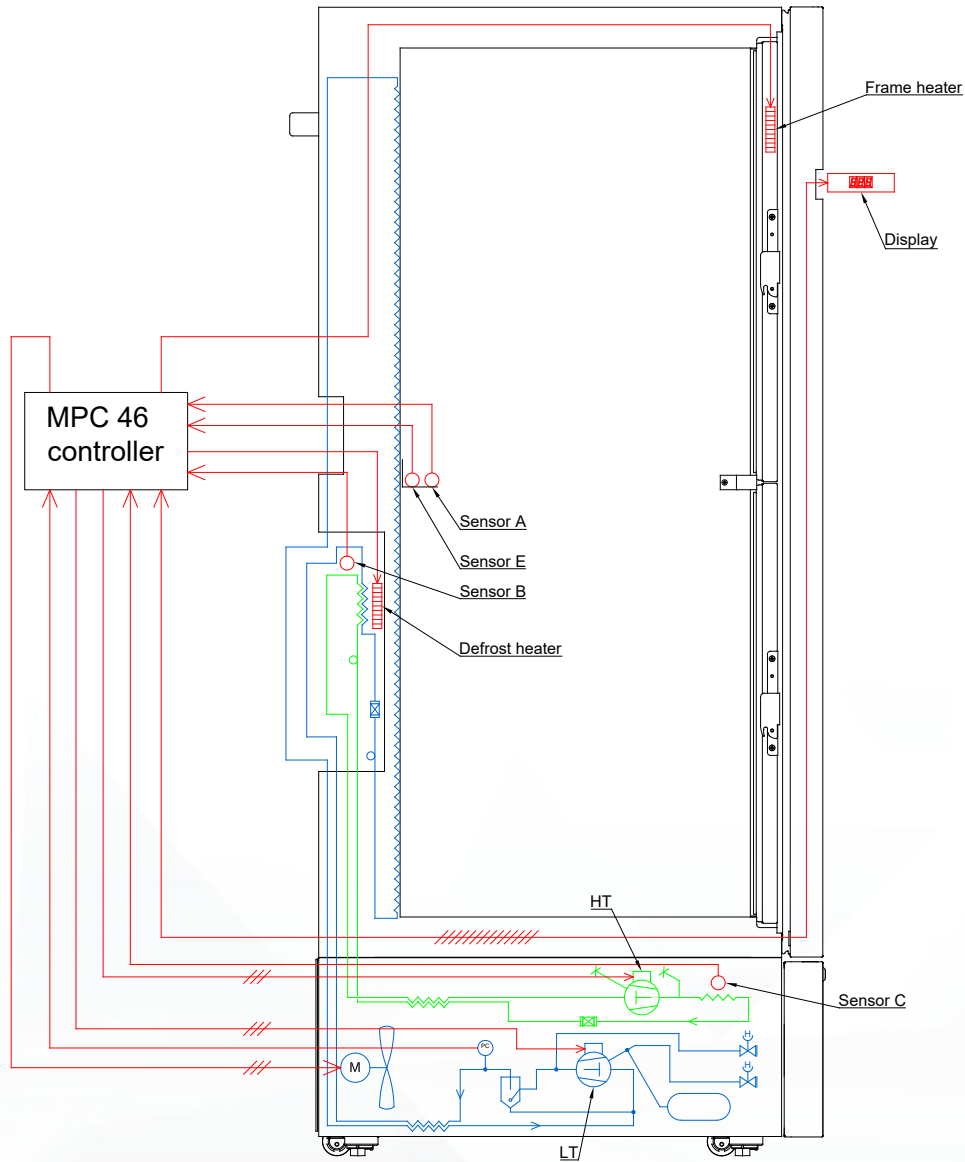


Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
118	Straight castor H = 125 mm	2	480270520	2016-37	
119	Swivel castor H = 125 mm w/brake 360°	2	480260050	2016-37	
120	Screw M8x12	16	422715000	2016-37	
121	Leg H = 100-130 mm	4	765080118	2016-37	
121	Leg H = 134-200 mm	4	765080115	2016-37	
121	Leg H = 180-250 mm	4	765080116	2016-37	

Overall drawings of BioUltra UL570 cabinet

Sectional drawing of BioUltra cabinet with Electrical and Piping system represented.

LT piping system in blue, HT piping system in green and electrical system in red

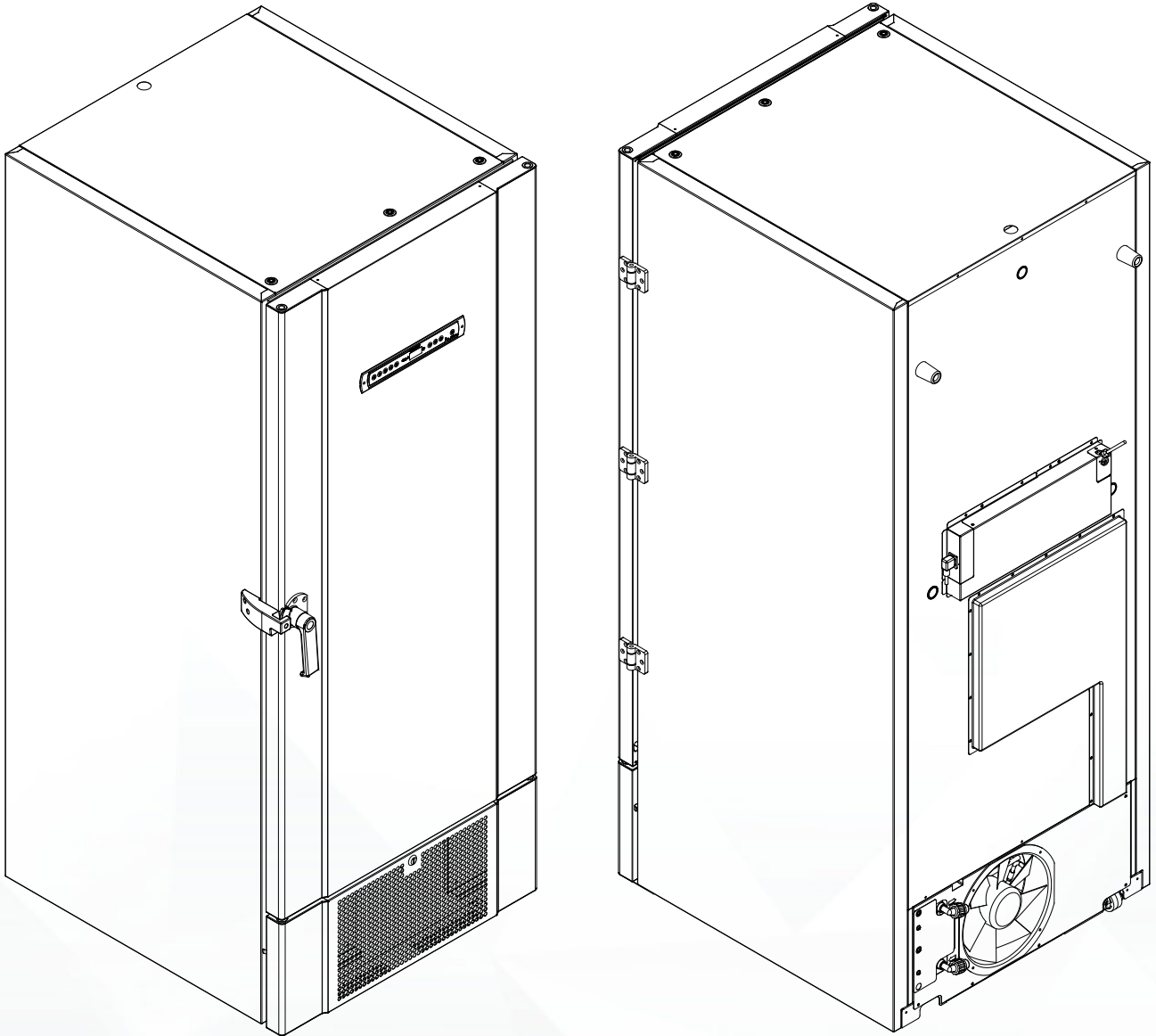


Sensors and sensor positioning

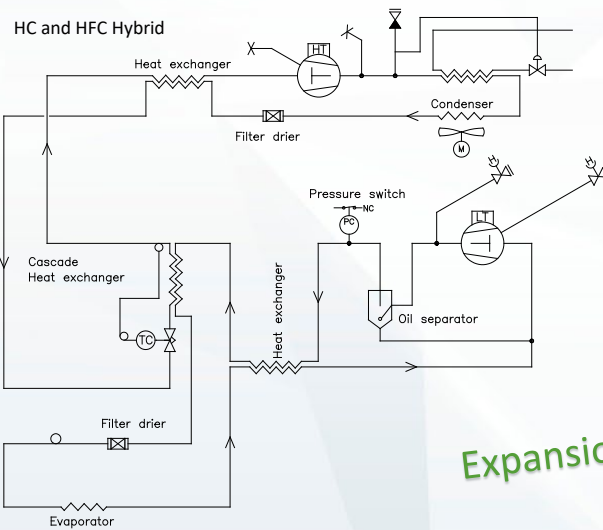
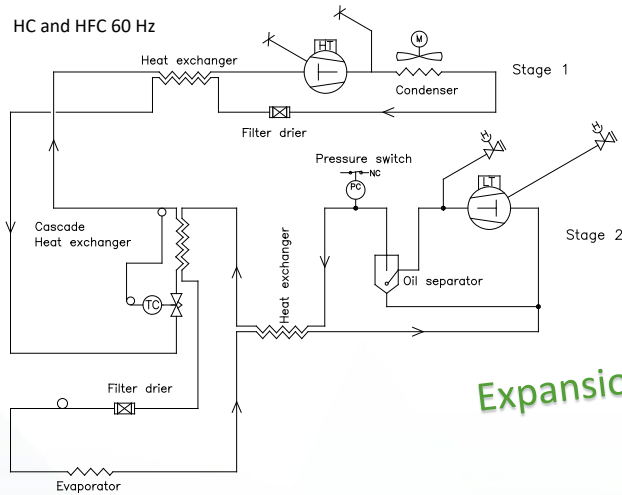
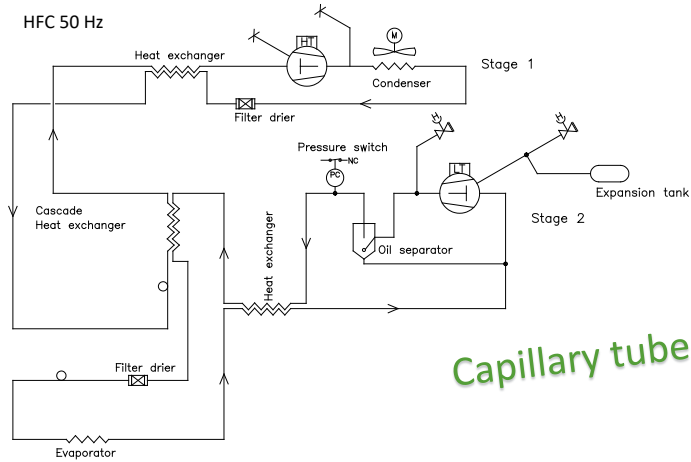
Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
A	Room sensor (2000 mm)	1	453531513	2014-01	
B	Cascade sensor (600 mm)	1	453531538	2014-01	2023-15
B	Cascade sensor (1500mm)	1	453531542	2023-16	
C	Condenser sensor (2500 mm)	1	453531504	2014-01	
E	Reference sensor (2000 mm)	1	453531513	2014-01	

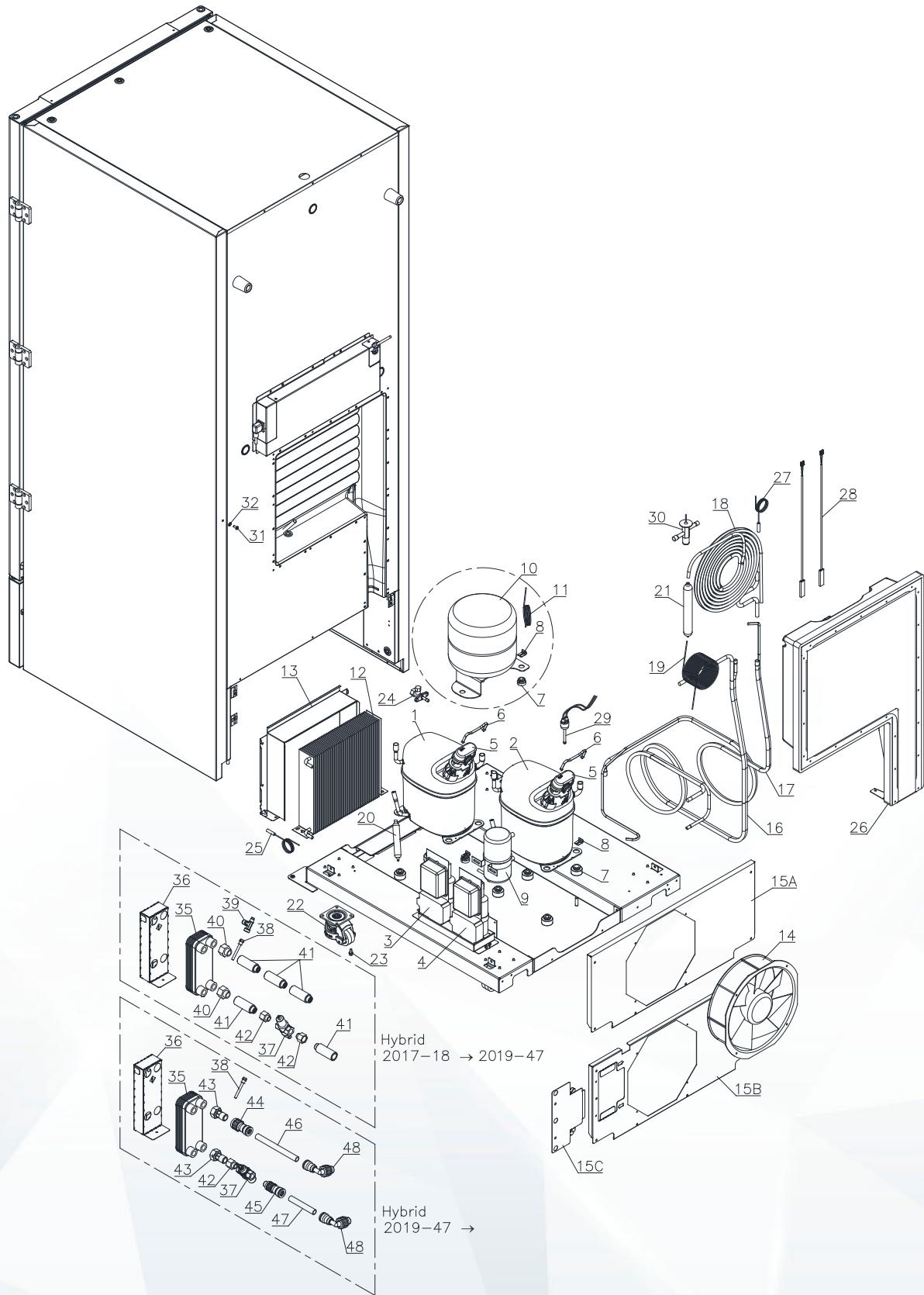
Front and back view of BioUltra cabinet

Front of cabinet (left) seen from left upper corner and down. Back of cabinet (right) seen from right upper corner and down.
 Note: On backside at bottom the pipe spigots ready for water connection. This is not standard, but additional and only applicable for Hybrid versions.



Refrigeration diagram and cooling parts





Item no.	Compressor parts HC 50 Hz (R290/R170)	Orig. used (pcs)	Gram part no.	Introduced	Terminated
1	Compressor GS26CLX (HT) 50Hz	1	500550600	2020-08	
2	Compressor GS26CLX (LT) 50Hz	1	500550600	2020-08	
3-4	Starting device (GS26CLX) 50Hz	2	453051005	2020-08	

Item no.	Compressor parts HFC 50 Hz (R404A/R507)	Orig. used (pcs)	Gram part no.	Introduced	Terminated
1	Compressor GS26CLX (HT) 50Hz	1	500550600	2014-01	
2	Compressor GS34CLX (LT) 50Hz	1	500550601	2014-01	2015-15
2	Compressor GS26CLX (LT) 50Hz	1	500550600	2015-15	
3-4	Starting device (GS26CLX) 50Hz	2	453051005	2014-01	
4	Starting device (GS34CLX) 50Hz	1	453051006	2014-01	2015-15

Item no.	Compressor parts HFC 60 Hz (R404A/R507)	Orig. used (pcs)	Gram part no.	Introduced	Terminated
1	Compressor GS26CLX (HT) 60Hz	1	500550604	2019-18	
2	Compressor GS26CLX (LT) 60Hz	1	500550604	2019-18	
3-4	Starting device (GS26CLX) 60Hz	2	453050042	2019-18	

Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
5	Cover	2	452440281	2014-01	
6	Clamp	2	452440284	2014-01	
7	Rubber bush	2 x 4	760080519	2014-01	
8	Compressor clip	2 x 4	760082367	2014-01	
9	Oil separator	1	600020052	2014-01	
10	Expansion tank	1	600020020	2014-01	2019-46
11	Capillary tube to exp. tank L=700 mm	1	760000340	2014-01	2016-09
12	Condenser	1	765080166	2014-01	
13	Condenser shroud, white	1	761238666	2014-01	
13	Condenser shroud, stainless	1	761238731	2014-01	
14	Condenser fan	1	761238534	2014-01	
15A	Fan shroud, standard	1	761238669	2014-01	
15B	Fan shroud 1, hybrid	1	761238773	2019-10	
15C	Fan shroud 2, hybrid	1	761238774	2019-10	
16	Heat exchanger LT	1	760000337	2014-01	
17	Heat exchanger HT, Capillary tube	1	760000338	2014-01	
17	Heat exchanger HT, Expansion valve	1	760000449	2019-51	
18	Cascade heat exchanger	1	760080969	2014-01	
19	Capillary tube LT	1	760000341	2014-01	
20	Filter drier HT Ø6,1/2,6 (Capillary tube)	1	765080158	2014-01	
20	Filter drier HT Ø6,1/6,1 (Expansion valve)	1	765080159	2019-51	
21	Filter drier LT	1	765080194	2014-01	
22	Castor, adjustable	4	480260105	2014-01	
23	Screw M6x12	4 x 4	422712010	2014-01	
24	Auxiliary 2-way service valve	2	460978041	2016-17	
25	Condenser sensor (2500 mm)	1	453531504	2014-01	
26	Cover for cascade system	1	761238683	2014-01	
27	Cascade sensor (600 mm)	1	453531538	2014-01	2023-15
27	Cascade sensor PT10k	1	453531542	2023-16	

Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
28	Defrost heater	1	765072758	2014-01	2021-30
28	Defrost heater	2	765073329	2021-31	
29	Pressure switch	1	410222000	2014-01	
30	Expansion valve TUB	1	413165030	2017-18	
31	M5 Screw for equipotential bonding	1	422733001	2020-07	
32	Washer for equipotential bonding	1	421748009	2020-07	

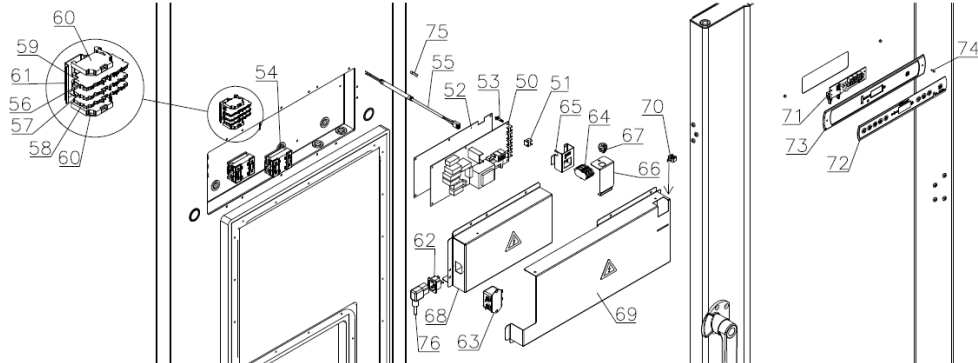
Parts for Hybrid versions

Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
35	Condenser 2 kW	1	765080221	2017-18	
36	Condenser holder	1	761238588	2017-18	
37	Water valve	1	765080149	2017-18	2019-47
37	Water valve	1	765080527	2019-47	
38	Schrader valve	1	765080148	2017-18	
39	T-nipple w/schrader valve	1	765080519	2017-18	
40	Taper socket 1/2" x 3/4" brass	2	460318068	2017-18	2019-47
41	Tap extension 1/2" 65 mm	5	460318067	2017-18	2019-47
42	Taper socket 1/2" x 3/8" brass	2	460318065	2017-18	
43	Screwed coupling 1/2" x 3/4"	2	460318069	2019-47	
44	Alupex fitting 16 mm x 1/2" inside	1	460318076	2019-47	
45	Alupex fitting 16 mm x 3/8" outside	1	460318075	2019-47	
46	16 x 2 mm Alupex tube L=166 mm	1	761234139	2019-47	
47	16 x 2 mm Alupex tube L=100 mm	1	761234138	2019-47	
48	Alupex fitting 16 mm x 1/2" outs. 90°	2	460318074	2019-47	

Electrical parts (50/60Hz)

Controller and electrical terminal box

Controller (back) and Door (front):

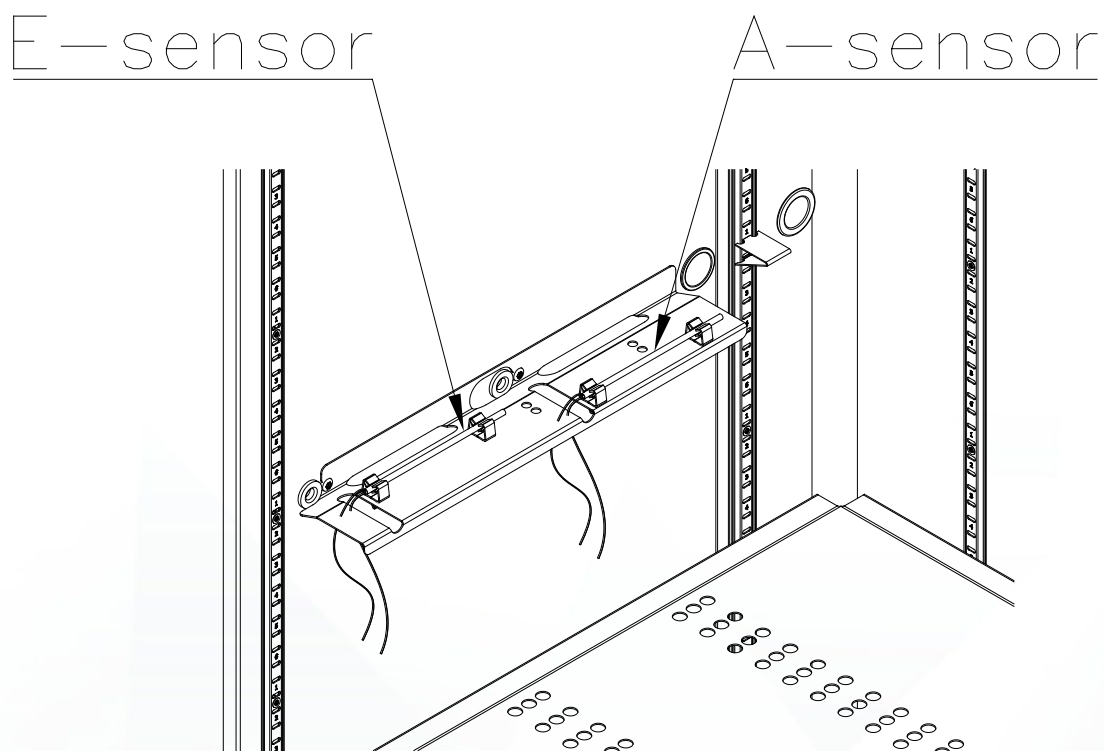


Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
50	Controller power part E3+ (Capillary tube)	1	761256142	2014-01	2023-15
50	Controller power part E6+ (Expansion valve)	1	761256171	2019-47	2023-15
50	Controller power part E7+ (Capillary tube)	1	761256176	2023-16	
50	Controller power part E8+ (Expansion valve)	1	761256177	2023-16	
50	Controller power part E8+ Incl. Sensor	1	761250804	2023-16	
50	Controller power part E7+ Incl. Sensor	1	761250805	2023-16	
51	AMP Duo Plug 2.5 frame	4	452260601	2014-01	
52	Plastic foil	1	765040777	2014-01	
53	Spacer	6	451119515	2014-01	
54	Contacteur B6-40-00	2	450241000	2014-01	2015-35
54	SSR relay	2	450200300	2015-35	
55	Cable to SSR incl. resistance	2	765071445	2015-35	
56	Terminal block, grey	1	765070706	2014-01	
57	Terminal block, blue	1	765070707	2014-01	
58	Terminal block, yellow/green	1	765070708	2014-01	
59	Terminal block end plate	1	765070709	2014-01	
60	Terminal block end stop	2	765070711	2014-01	
61	DIN rail	1	760254475	2014-01	
62	Appliance inlet	1	451022002	2014-01	
63	EMC/EMI filter	1	451022004	2020-13	
64	Terminal block for alarm	1	765070705	2014-01	
65	Bracket for alarm terminal	1	761232157	2014-01	
66	Cover for alarm terminal	1	761238673	2014-01	
67	Cord relief	1	422210002	2014-01	
68	Cover for high current parts	1	761234092	2014-01	
69	Cover for low current parts	1	761234093	2014-01	
70	Cable clamp	2	452470001	2014-01	
71	Display PCB	1	612900058	2014-01	
72	Keypad – 9 buttons	1	765041752	2014-01	
73	Display holder	1	761238685	2014-01	
74	Plug for display holder	2	765081251	2014-01	
75	10 A Time-delay fuses 5 x 20 mm	2	765070719	2015-35	
76	Power cord EU (1,0 mm ³ / 3000mm)	1	765072566	2014-01	
76	Power cord UK (1,0 mm ³ / 3000mm)	1	765072567	2014-01	
76	Power cord DK (1,0 mm ³ / 3000mm)	1	765072568	2014-01	

Sensors and sensor positioning

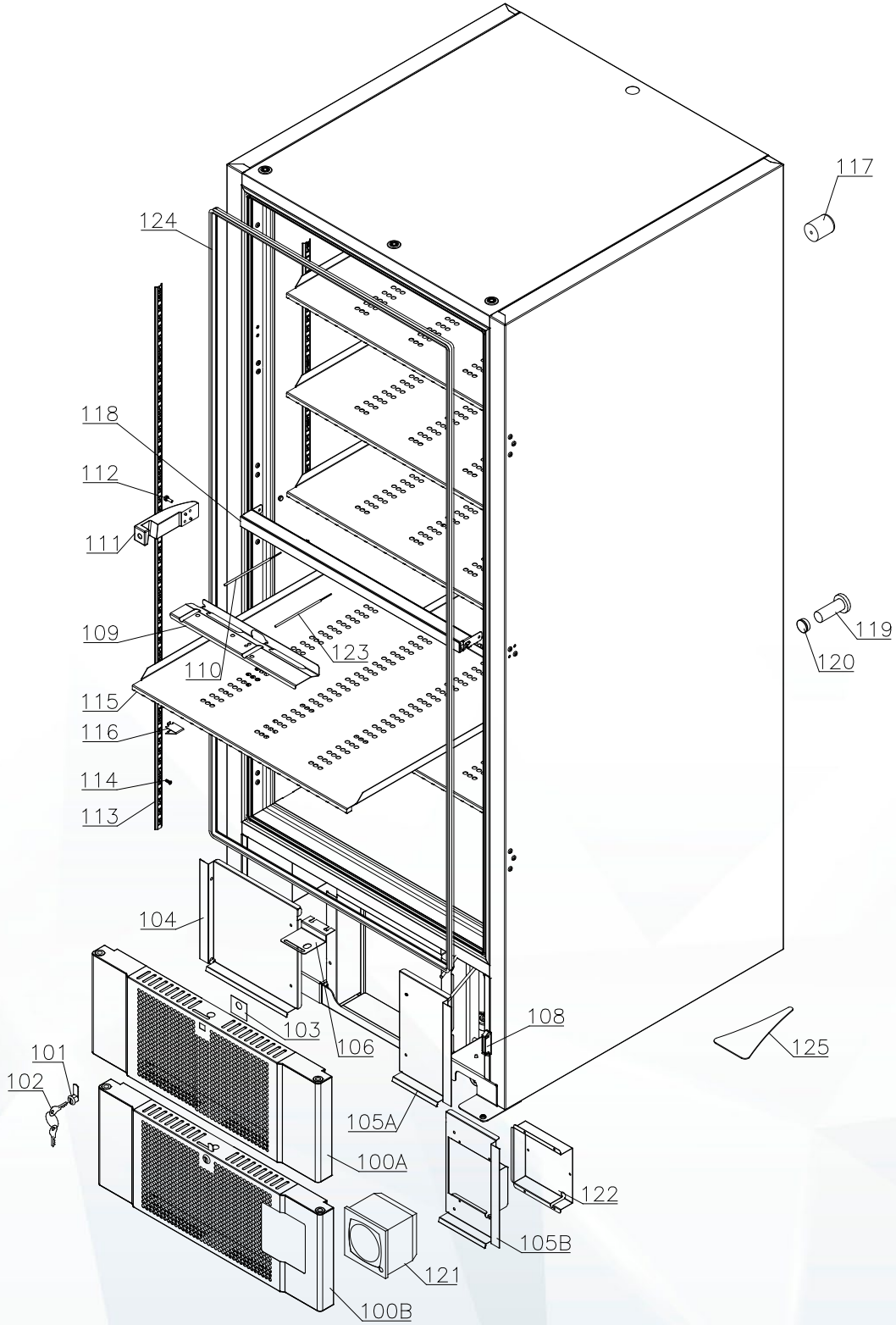
Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
A	Room sensor (2000 mm)	1	453531513	2014-01	
B	Cascade sensor (600 mm)	1	453531538	2014-01	2023-15
B	Cascade sensor (1500mm)	1	453531542	2023-16	
C	Condenser sensor (1500 mm)	1	453531504	2014-01	
E	E-sensor (2000 mm)	1	453531513	2014-01	

Note: For A- and E-sensor, see section for Mechanical parts. For B- and C-sensor see section for Refrigeration parts



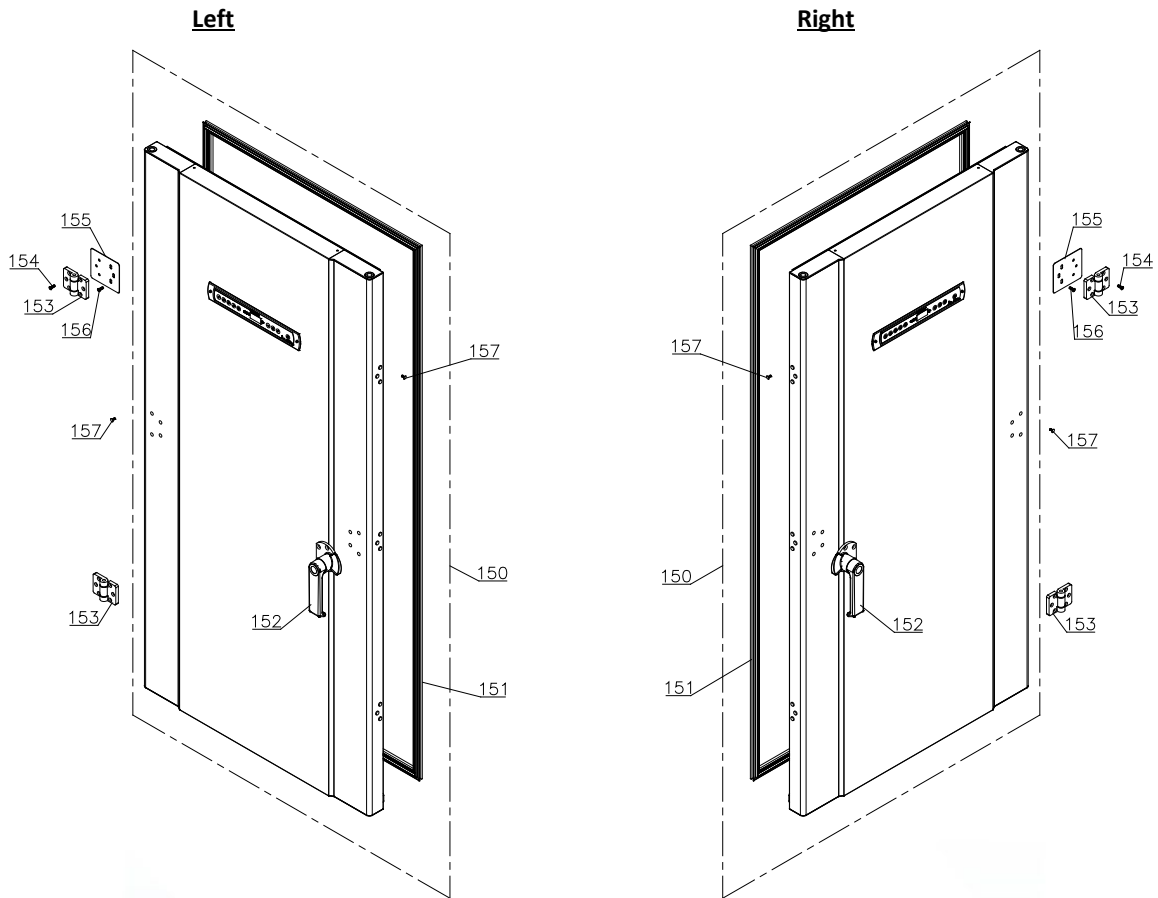
Mechanical parts

Cabinet



Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
100A	Front panel complete, white	1	761231490	2014-01	
100A	Front panel complete, stainless	1	761234033	2014-01	
100B	Front panel complete for chart – white	1	761234034	2014-01	
100B	Front panel complete for chart – stainless	1	761234083	2014-01	
101	Lock complete B842/58/2 - w/2 keys (random combination number)	1	765080092	2014-01	
102	Key no. 1 (25010)	1	765080340	2014-01	
102	Key no. 2 (25020)	1	765080341	2014-01	
102	Key no. 3 (25030)	1	765080342	2014-01	
102	Key no. 4 (25040)	1	765080343	2014-01	
102	Key no. 5(25050)	1	765080344	2014-01	
102	Master key	1	765080385	2014-01	
103	Lock bracket	1	760091149	2014-01	
104	Condenser screen, left	1	761238664	2014-01	
105A	Condenser screen, right	1	761238663	2014-01	
105B	Condenser screen, right, f. chart recorder	1	761238739	2014-01	
106	Lock backstop bracket	1	761238562	2014-01	
108	Magnet for front panel	1	761253312	2014-01	
109	Sensor shelf	1	761238553	2014-01	
110	Reference sensor (E-sensor, 2000 mm)	1	453531513	2014-01	
111	Strike side-mount, right hand	1	765080471	2014-01	
111	Strike side-mount, left hand	1	765080473	2014-01	
112	Screw for striker	2	420182020	2014-01	
113	Wall rail	6	761238594	2014-01	
114	Screw for wall rail	24	420168170	2014-01	
115	Shelf	5	761238599	2014-01	
116	Shelf support	30	761238592	2014-01	
117	Spacer bush L = 50 mm	2	762251184	2014-01	
118	Cabinet crossbar	1	761238628	2014-01	
119	Insulation plug for access port	6	765080563	2014-01	
120	Plastic cap	3	501020023	2014-01	
121	Chart recorder	1	761256515	2014-01	
122	Back cover	1	761238740	2014-01	
123	Room sensor (A-sensor, 2000 mm)	1	453531513	2014-01	
124	Gasket inside cabinet frame (4200 mm)	1	761238629	2014-01	2022-05
124	Gasket inside cabinet frame	2	761238866	2022-05	
125	Ice scraper GRAM	1	765080526	2014-01	

External Door

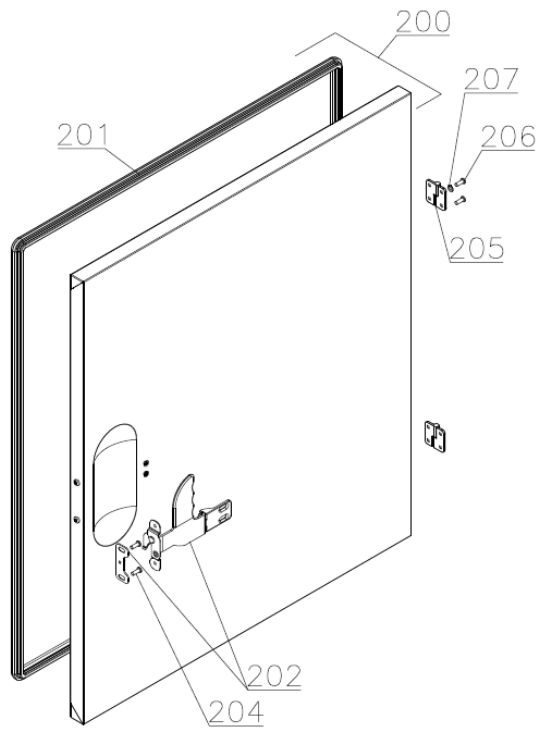


Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
150	Door complete, white – Right (handle pos. 152 not included)	1	761231489	2014-01	
150	Door complete, white – Left (handle pos. 152 not included)	1	761234084	2014-01	
150	Door complete, stainless – Right (handle pos. 152 not included)	1	761234035	2014-01	
150	Door complete, stainless – Left (handle pos. 152 not included)	1	761234085	2014-01	
151	Gasket	1	761238641	2014-01	2022-05
151	Gasket	1	761238678	2022-05	
152	Handle, right hand	1	765080470	2014-01	
152	Handle, left hand	1	765080472	2014-01	
153	Hinge	3	424180030	2014-01	
154	Screw for hinge	18	420182025	2014-01	
155	Transport security plate	2	761238573	2014-01	
156	Screw for transport security plate	12	420182000	2014-01	
157	Plastic cover plug, white	17	765080504	2014-01	2021-34
157	Plastic cover plug, grey	17	765080501	2014-01	2021-34
157	Screws	17	420182000	2021-35	

Note: All items 150 includes Display, Wiring and Gasket. Handles and hinges must be ordered separately

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Internal Door



Item no.	Description	Orig. used (pcs)	Gram part no.	Introduced	Terminated
200	Internal door complete (top – Right hinged) (Inner door lock set not included)	1	761234019	2014-01	
200	Internal door complete (bottom – Right hinged) (Inner door lock set not included)	1	761234126	2014-01	
201	Gasket	2	761238649	2014-01	2022-05
201	Gasket	2	761238867	2022-05	
202	Inner door lock set - Right	2	761238555	2014-01	
202	Inner door lock set - Left	2	761238556	2014-01	
204	Inner door striker screw	4	420340098	2014-01	
205	Hinge	4	424180032	2014-01	
206	Screw for hinge	16	420182025	2014-01	
207	Washer for hinge	8	421708005	2014-01	



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Log book

Continuous changes are introduced in the log book.

Version 008:

- **19. January 2024:**
 - o Pos. 28 Defrost heater, 1 -> 2 pcs.
 - o Pos. 76 Power cord added.

Version 007:

- **28. April 2023:**
 - o Pos. 27 Cascade sensor PT10k replace Cascade sensor 300Ohm NTC.
 - o Pos. 50 Controller power part E7+ (Capillary tube) added.
 - o Pos. 50 Controller power part E8+ (Expansion valve) added.
 - o Pos. 50 Controller power part E8+ Incl. Sensor added.
 - o Pos. 50 Controller power part E7+ Incl. Sensor added.

Version 006:

- **30. January 2023:** Pos. 203 striker removed from Spare Part document.

Version 001-005:

- **21. December 2022:** First release of this Spare Part document.

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