ENGINEERING
TOMORROW

Catalogue

Optyma™ **Slim Pack** & Optyma™ **INVERTER**

R22, R404A/R507, R134a, R448A, R449A, R452A, R513A - 60Hz
R404A/R507 – 50Hz / 60Hz

www.danfoss.com.br

OPTYMA™
DANFOSS CONDENSING UNITS

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Danfoss Optyma™ packaged condensing units

Highly efficient and reliable plug and play condensing units designed with the contractor and end-user in mind, and providing unique benefits.

Benefits for the contractor

- Simple and fast selection and installation, reduced maintenance time
- Models compatible with multiple lower GWP refrigerants
- Reduced refrigerant costs thanks to microchannel condenser inside

Benefits for the end-user

- Higher food safety and longer products shelf life
- Units suitable for residential areas thanks to low sound level operation
- Reduced life cycle costs of refrigeration equipment thanks to highly efficient units

Quiet solution

The Optyma™ **Slim Pack** and Optyma™ **INVERTER** can be located even in residential areas. Smart compressor design. This unit presents low acoustic levels improving comfort and reducing surrounding impact.

Compact and light for easy handling and transportation

System designed to perfectly fit into a compact and light housing.

Well-known Danfoss quality and standards

We provide the units with highly reliable scroll and reciprocating compressors, micro channel heat exchangers and all needed components which are pre-assembled, integrated and factory tested.

Easy installation and cleaning

With quick connections of suction & liquid lines & service ports outside Optyma™ **Slim Pack** and Optyma™ **INVERTER** is among the fastest & easiest units to install. Easy-to-clean MCHE saves your time & efforts, ensuring longer lifetime & optimized efficiency.

Tailored for outdoor use

Danfoss Optyma™ **Slim Pack** and Optyma™ **INVERTER** is designed for Outdoor & Indoor conditions using corrosion resistant microchannel heat exchangers and housing. The galvanized, painted and salt spray tested housing is used to ensure long lifetime.

Increase business opportunity with extended range of condensing units

Danfoss Optyma™ **Slim Pack** and Optyma™ **INVERTER** extends your business opportunities with models for low and medium temperatures.

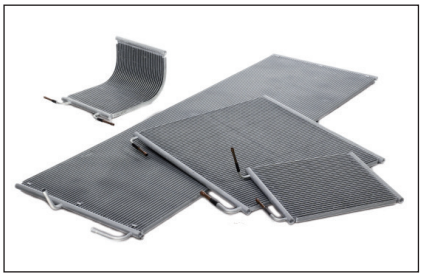
For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

Main product features

Outdoor application

- Wall & floor mounting
- Weather proof housing IP54
- Robust and resistant to corrosion
- Compact design

Micro channel heat exchanger

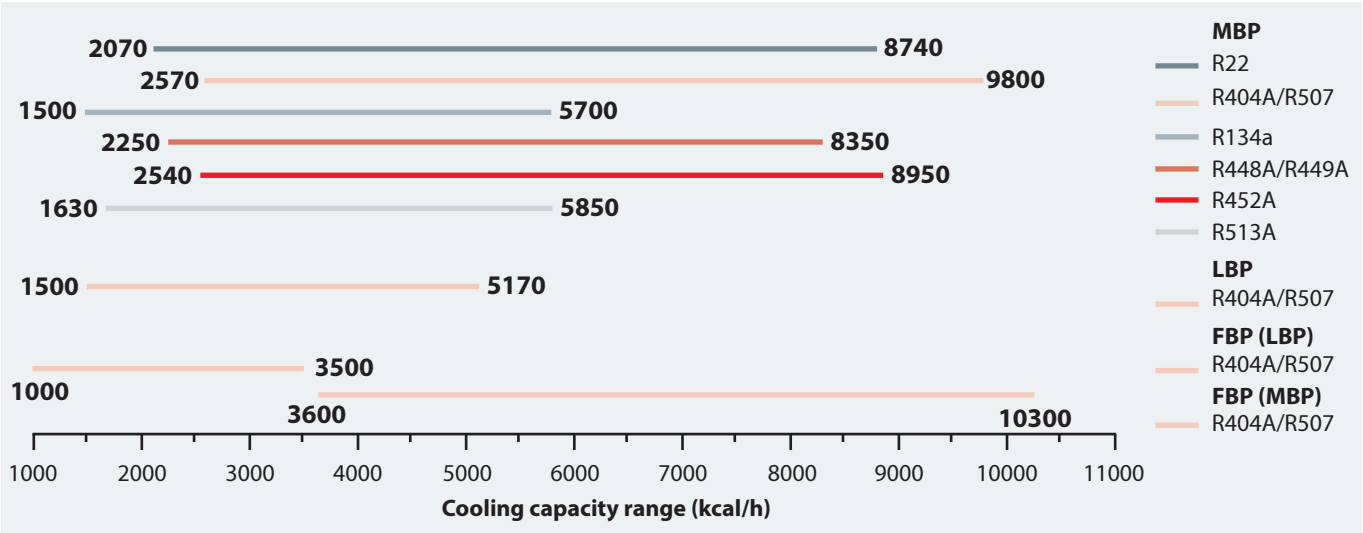


- Easy & fast cleaning
- Less refrigerant charge
- Longer life time

Service ports outside

- Fast and easy installation
- Quick connections of suction & liquid lines
- Shut off valves on receiver and service valves on service ports for easier & quick servicing

Capacity & Operating range



MBP Rated conditions, Saturated suction temperature -10°C. Ambient air temperature +32°C. Superheat 18K. Subcooling 3K
LBP Rated conditions, Saturated suction temperature -30°C. Ambient air temperature +32°C. Superheat 18K. Subcooling 3K
FBP(MBP) Rated conditions, Saturated suction temperature -10°C. Ambient air temperature +32°C. Superheat 10K. Subcooling 0K
FBP(LBP) Rated conditions, Saturated suction temperature -30°C. Ambient air temperature +32°C. Superheat 10K. Subcooling 0K

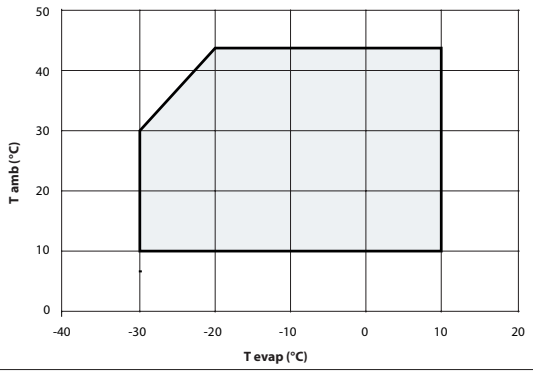
Condensing unit limits
Ambient temp [°C] Up to 43°C

T Evaporation [°C]	Min	Max
MBP R22	-20	10
MBP R404/507	-30	10
MBP R134a	-15	10
MBP R448A/R449A	-30	10
MBP R452A	-30	10
MBP R513A	-30	20
LBP R404A/R507	-40	-10
FBP R404A/R507	-30	5

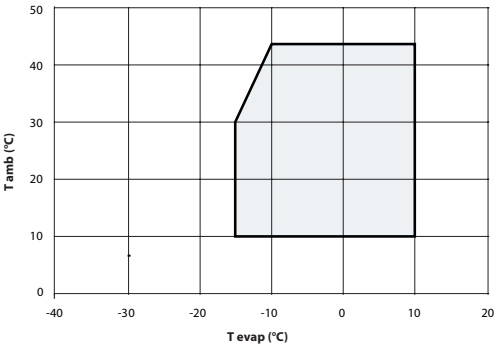
Limits depends on the selected unit

MBP

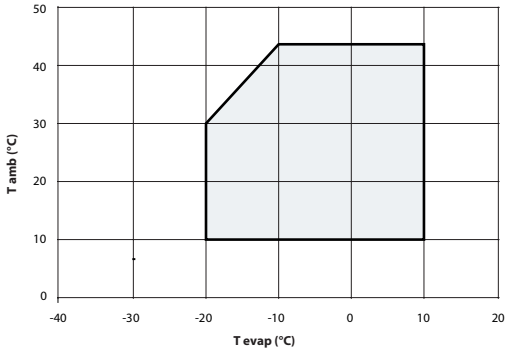
Refrigerant R404A



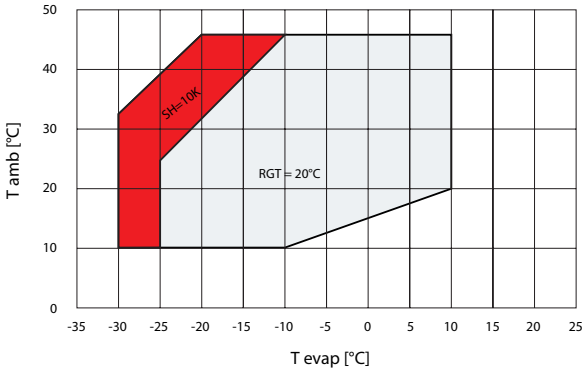
Refrigerant R134a



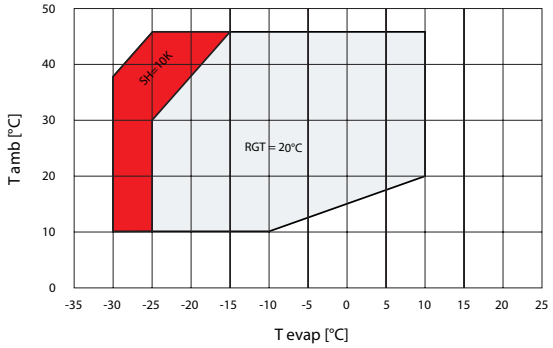
Refrigerant R22



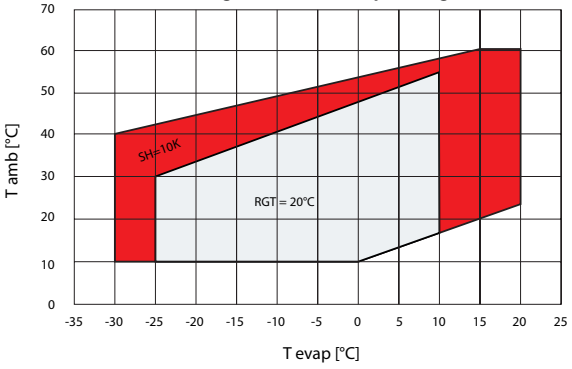
Refrigerant R448A/R449A - Reciprocating



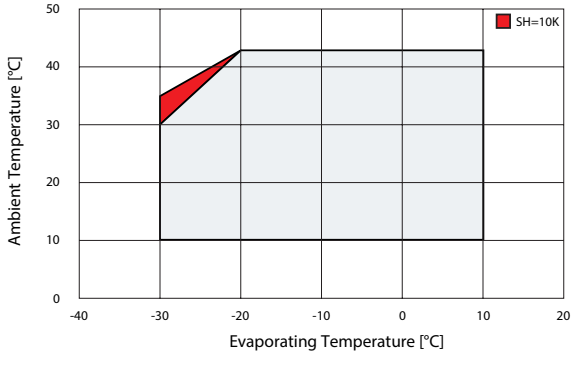
Refrigerant R452A - Reciprocating



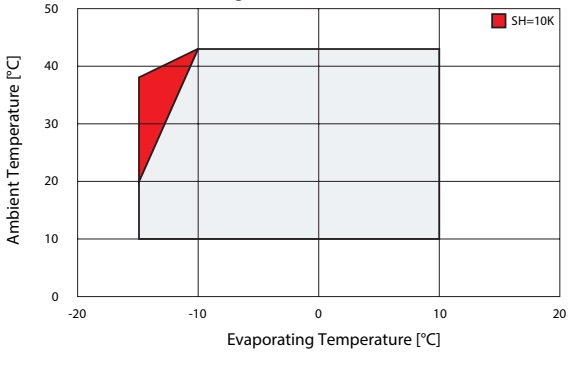
Refrigerant R513A - Reciprocating

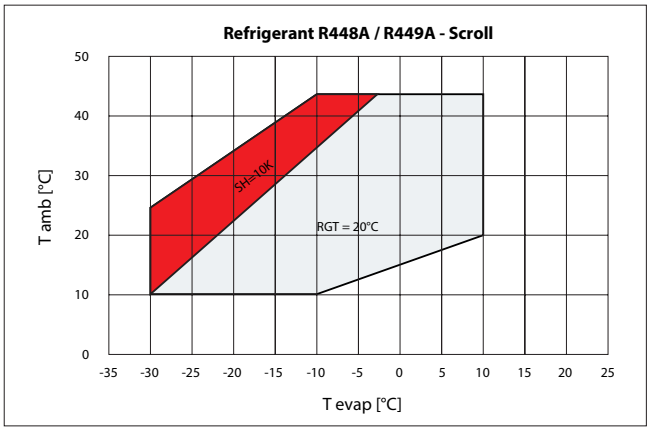


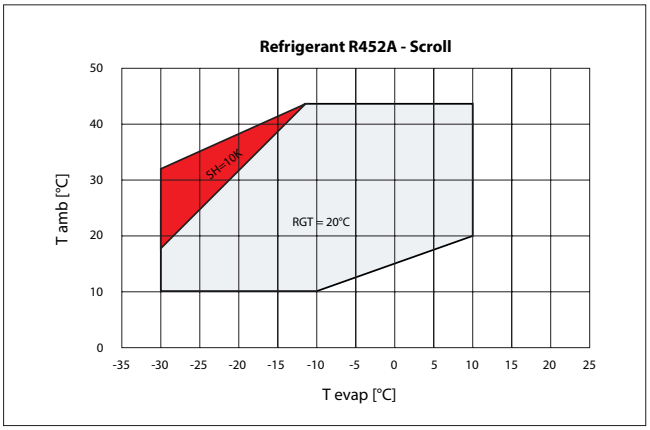
Refrigerant R404A - Scroll

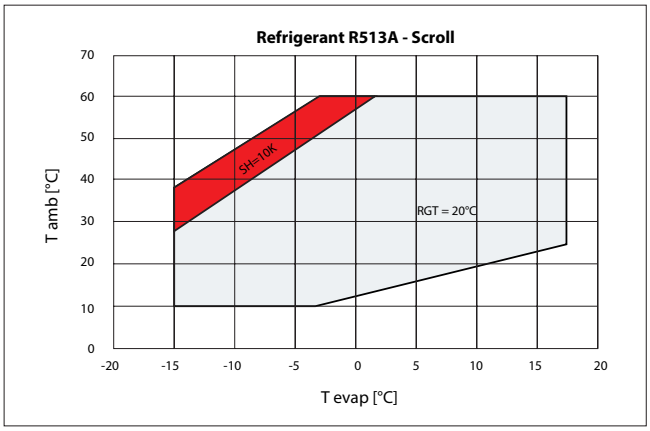


Refrigerant R134a - Scroll

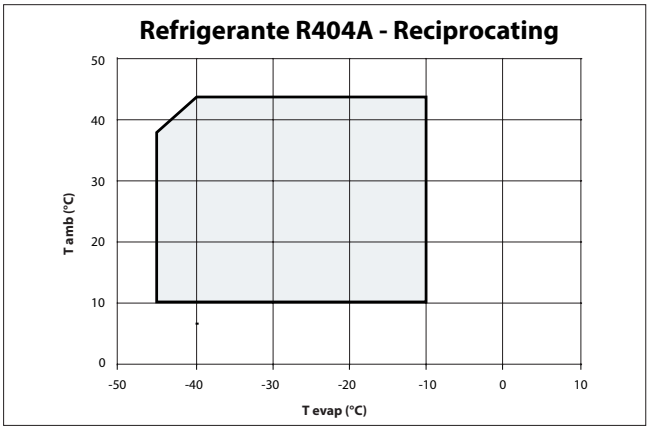


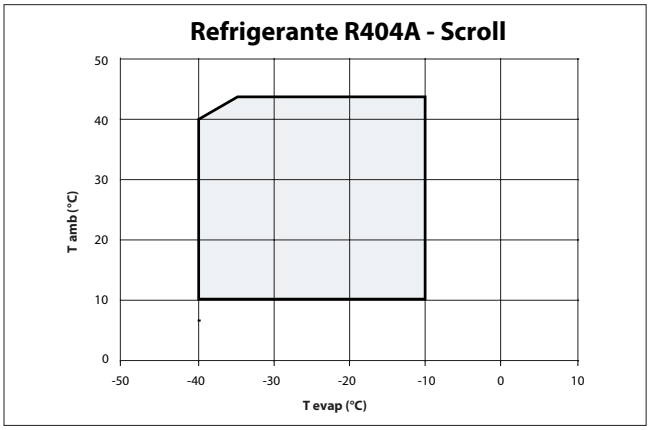




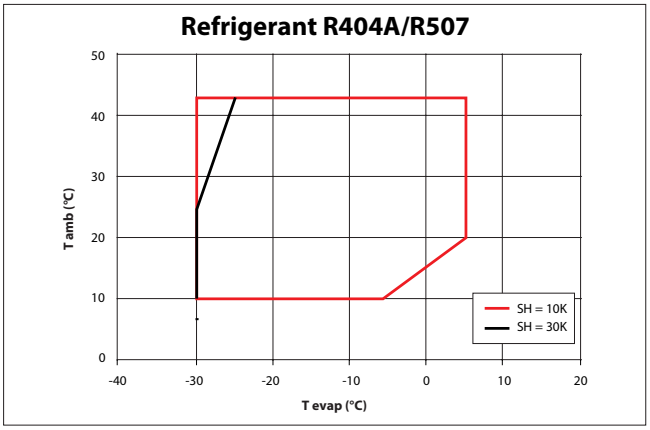


LBP

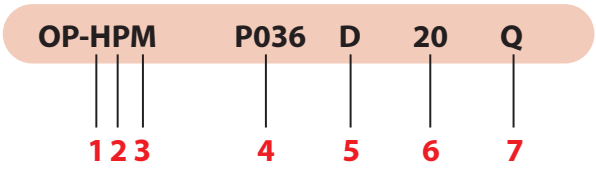




FBP (INVERTER)



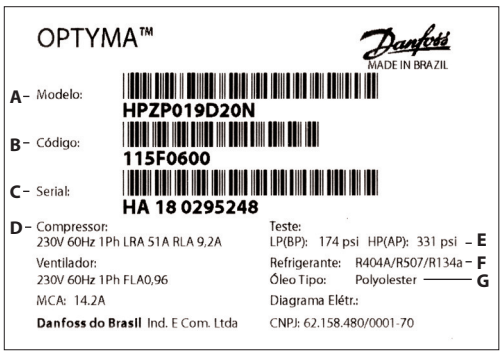
Designation system for the Optyma™ Slim Pack range and Optyma™ INVERTER



1 Application	H = HBP/MBP L = LBP F = LBP/MBP/HBP
2 Design	P = Packaged unit
3 Compressor oil	M = Mineral oil (MT Reciprocating compressor) Z = POE (MTZ/NTZ/VLZ Reciprocating) U = PVE (LLZ and MLZ Scroll compressor)
4 Compressor type & size	P = Piston S = Scroll
5 Condenser technology	D = Microchannel
6 Equipment level	Version 20 Version 100
7 Voltage code	N = 230V-1ph-60Hz Comp & Fan Q = 230V-3ph-60Hz Comp & 230V-1ph Fan V = 380V-3ph-60Hz Comp & 230V-1ph Fan

Note:
For Optyma Inverter unites Voltage code Q and V works with 60Hz and 50Hz. See electrical diagram on page 38

Label - Designation



A: Model
B: Code number
C: Serial number and bar code
D: Supply voltage, Locked Rotor Ampere
E: Housing service pressure
F: Refrigerant
G: Oil

Machine Configuration	D20	D100
Danfoss Compressor	Scroll, Recip.(fixed speed)	Recip.(Variable speed)
Fan	Fixed speed	Electronic (Variable speed)
Rotalock suction & discharge valves	X	X
Danfoss filter dryer	X	X
Danfoss sight glass	X	X
High pressure switch - Cartridge	X	
Danfoss low pressure switch - KP1	X	
Danfoss dual (high and low) pressure switch - KP15		X
Receiver	X	X
Crankcase heater	X	X
E-box standard (contactor, sequence phase relay, capacitors, relay, terminals and connectors)	X	
E-box full (circuit breaker, contactor, power supply etc) -IP 54		X
Oil separator		X
Suction accumulator		X
Danfoss controller		X
Danfoss Drive (CD 320)		X
Temperature and pressure sensors		X
Insulation (low pressure side)		X

Main Components

C.U. With compressor	Pressure switch		Receiver	Contactor electrical	Sequence phase relay	Sight glass	Filter drier	Crankcase heater
	KP1 (LP)	Cartridge (HP)						
Piston	✓	✓	✓	✓		✓	✓	✓
Scroll	✓	✓	✓	✓	✓	✓	✓	✓

Mechanical data

Model	Commercial reference	Compressor			Condenser		Fan motor			Receiver	Connection		Weight	
		Model	Displ.	Oil charge	Type	Internal volume	No.	Diameter	Airflow		Suction line	Liquid line	Net	Gross
	(HP)		(m^3/h)	(L)		(L)		(mm)	(m^3/h)	(L)	(in)	(in)	(kg)	(kg)
MBP (Recip)														
HPM(Z)P019	1.5	MT(Z)019	6.3	0.95	C2	0.46	1	450	3000	3.7	1/2"	3/8"	57	67
HPM(Z)P022	2.0	MT(Z)022	8.0	0.95	C2	0.46	1	450	3000	3.7	1/2"	3/8"	58	67
HPM(Z)P028	2.5	MT(Z)028	10.1	0.95	C2	0.46	1	450	3000	3.7	1/2"	3/8"	60	69
HPM(Z)P036	3.0	MT(Z)036	12.7	0.95	C3	1.04	1	450	3300	5.8	5/8"	1/2"	70	80
HPM(Z)P040	3.5	MT(Z)040	14.3	0.95	C3	1.04	1	450	3300	5.8	5/8"	1/2"	70	80
HPM(Z)P050	4.5	MT(Z)050	18.0	1.80	C4	1.51	2	450	7200	7.5	7/8"	5/8"	112	124
HPM(Z)P064	5.5	MT(Z)064	22.6	1.80	C4	1.51	2	450	7200	7.5	7/8"	5/8"	114	126
MBP (Scroll)														
HPUS015	2.0	MLZ015	7.1	1,06	C2	0.46	1	450	3000	3.7	3/4"	3/8"	65	74
HPUS019	2.5	MLZ019	9.1	1,06	C3	1.04	1	450	3300	3.7	3/4"	1/2"	75	85
HPUS021	3.0	MLZ021	9.7	1,06	C3	1.04	1	450	3300	5.8	3/4"	1/2"	75	85
HPUS026	3.5	MLZ026	12.0	1,06	C4	1.51	2	450	7200	5.8	3/4"	5/8"	110	120
HPUS030	4.0	MLZ030	14.5	1.57	C4	1.51	2	450	7200	7.5	7/8"	5/8"	117	127
HPUS038	5.0	MLZ038	17.0	1.57	C4	1.51	2	450	7200	7.5	7/8"	5/8"	117	127
LBP (Recip)														
LPZP048	1.5	NTZ048	10.1	0.95	C2	0.46	1	450	3000	3.7	5/8"	3/8"	60	69
LPZP068	2.0	NTZ068	14.3	0.95	C2	0.46	1	450	3000	3.7	5/8"	3/8"	60	69
LBP (Scroll)														
LPUS013	4.0	LLZ013	14.2	1.62	C4	1.51	2	450	7200	7.5	3/4"	5/8"	121	131
LPUS015	5.0	LLZ015	17.6	1.62	C4	1.51	2	450	7200	7.5	3/4"	5/8"	121	131
LPUS018	6.0	LLZ018	20.5	1.62	C4	1.51	2	450	7200	7.5	3/4"	5/8"	122	132

Electrical data

Condensing unit										Compressor									Fan motor		
60Hz	230V 1Ph (N)			230V 3Ph (Q)			380V 3Ph (V)			230V 1Ph			230V 3Ph			380V 3Ph			No.	220V 1Ph	Power consumption
Model	LRA	RLA	MCA	LRA	RLA	MCA	LRA	RLA	MCA	LRA	RLA	MCC	LRA	RLA	MCC	LRA	RLA	MCC		FLA	W
MBP (Recip)																					
HPM(Z)P019	57	11	16	44	8	12	29	6	9	53	10	14	39	7	10	24	5	5	1	0.96	230
HPM(Z)P022	55	14	20	44	10	14	28	6	9	53	13	18	39	9	12	24	5	7	1	0.96	230
HPM(Z)P028	87	20	28	63	13	19	38	8	11	82	19	26	58	12	17	33	7	10	1	0.96	230
HPM(Z)P036	90	23	33	80	14	20	41	9	12	85	22	31	75	13	18	36	8	11	1	0.96	230
HPM(Z)P040	106	27	38	105	19	26	66	10	15	101	26	36	100	18	24	61	9	12	1	0.96	230
HPM(Z)P050	121	29	40	122	21	29	85	13	18	116	28	38	117	20	27	80	12	15	2	0.96	230
HPM(Z)P064	150	36	50	144	24	33	79	15	22	145	35	48	139	23	31	74	14	19	2	0.96	230
MBP (Scroll)																					
HPUS015	75	16	22	66	12	17	46	8	11	70	15	20	61	11	16	41	7	9	1	0.96	230
HPUS019	103	22	31	101	15	21	58	10	14	98	21	26	96	14	19	53	9	13	1	0.96	230
HPUS021	103	23	33	101	16	22	58	10	14	98	22	26	96	15	19	53	9	13	1	0.96	230
HPUS026	122	30	42	102	19	27	59	13	18	117	29	33	97	19	24	54	12	14	2	0.96	230
HPUS030	157	35	49	127	23	32	88	15	21	152	34	40	122	22	28	83	14	16	2	0.96	230
HPUS038	167	40	56	130	26	37	88	17	24	162	39	47	125	25	28	83	16	19	2	0.96	230
LBP (Recip)																					
LPZP048	50	11	16	38	9	13	28	5	8	52	10	14	33	8	11	23	5	6	1	0.96	230
LPZP068	78	17	24	54	12	17	35	8	11	76	16	22	50	12	16	30	7	10	1	0.96	230
LBP (Scroll)																					
LPUS013	-	-	-	129	20	28	87	11	15	-	-	-	124	19	26	82	10	15	2	0.96	230
LPUS015	-	-	-	187	21	30	88	14	19	-	-	-	182	20	31	83	13	19	2	0.96	230
LPUS018	-	-	-	191	23	32	113	16	22	-	-	-	186	22	33	108	15	22	2	0.96	230

LRA: Locked Rotor Amperage, **RLA:** Full Load Amperage, **MCC:** Maximum Continuous Current, **FLA:** Full Load Amperage

MBP R22

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPMP019	115F0627 115F0628 115F0629	N Q V	MT019	1	32	1098	1104	1535	1237	2068	1364	2707	1484	3456	1595	4322	1695	5304	1783	57
					35	1030	1122	1451	1259	1964	1392	2578	1519	3299	1637	4132	1745	5079	1843	
					38	964	1138	1367	1280	1859	1419	2448	1552	3140	1679	3940	1796	4850	1904	
					43	**861**	**1162**	**1233**	**1312**	1684	1462	2228	1608	2869	1748	3612	1881	4461	2006	
HPMP022	115F0630 115F0631 115F0632	N Q V	MT022	1	32	1626	1330	2244	1529	2953	1723	3756	1907	4656	2078	5653	2235	6746	2374	58
					35	1505	1349	2107	1554	2796	1754	3576	1947	4448	2128	5414	2296	6472	2448	
					38	1385	1365	1969	1575	2638	1783	3393	1984	4236	2175	5169	2355	6192	2520	
					43	**1188**	**1381**	**1742**	**1602**	2372	1822	3084	2039	3879	2248	4757	2448	5718	2635	
HPMP028	115F0633 115F0634 115F0635	N Q V	MT028	1	32	2477	1925	3251	2153	4113	2379	5067	2599	6109	2815	7238	3025	8447	3232	55
					35	2335	1939	3091	2178	3932	2417	4859	2655	5870	2890	6963	3124	8134	3357	
					38	2191	1949	2927	2199	3746	2453	4646	2708	5626	2965	6683	3222	7814	3482	
					43	**1950**	**1956**	**2653**	**2228**	3430	2508	4282	2794	5208	3086	6204	3384	7266	3689	
HPMP036	115F0636 115F0637 115F0638	N Q V	MT036	1	32	3275	2433	4246	2709	5323	2994	6506	3287	7793	3587	9181	3895	10662	4215	57
					35	3083	2474	4033	2761	5085	3059	6238	3367	7491	3686	8839	4016	10277	4360	
					38	2890	2514	3818	2812	4844	3124	5968	3449	7184	3787	8493	4139	9886	4507	
					43	**2567**	**2576**	**3457**	**2895**	4437	3231	5506	3585	6662	3957	7900	4347	9217	4757	
HPMP040	115F0639 115F0640 115F0641	N Q V	MT040	1	32	3487	2871	4523	3251	5685	3630	6977	4007	8404	4380	9965	4749	11662	5117	57
					35	3267	2927	4290	3318	5436	3713	6711	4110	8114	4506	9650	4903	11318	5303	
					38	3046	2976	4056	3379	5188	3790	6441	4207	7823	4627	9333	5053	10970	5486	
					43	**2682**	**3038**	**3668**	**3464**	4770	3903	5992	4355	7334	4817	8799	5291	10385	5779	
HPMP050	115F0642 115F0643 115F0644	N Q V	MT050	2	32	4070	3181	5407	3497	6962	3799	8742	4092	10751	4385	12987	4684	15446	4995	63
					35	3877	3245	5169	3588	6670	3915	8388	4232	10325	4546	12483	4866	14857	5196	
					38	3684	3299	4932	3670	6381	4024	8036	4366	9903	4705	11982	5046	14272	5396	
					43	**3371**	**3362**	**4549**	**3786**	5905	4188	7457	4576	9207	4957	11157	5338	13305	5726	
HPMP064	115F0645 115F0646 115F0647	N Q V	MT064	2	32	5281	3922	6876	4309	8740	4710	10877	5130	13284	5575	15955	6048	18877	6557	60
					35	5070	4008	6605	4416	8399	4838	10457	5279	12777	5744	15353	6238	18173	6767	
					38	4861	4091	6332	4521	8056	4965	10034	5427	12265	5913	14745	6428	17462	6978	
					43	**4528**	**4215**	**5892**	**4684**	7488	5166	9328	5666	11410	6189	13726	6740	16271	7324	

Superheat: 18K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R404A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																		Sound pressure level at 3m (dB)
						-30°C		-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	605	1163	984	1366	1434	1539	1962	1687	2570	1815	3261	1925	4037	2023	4896	2114	5836	2200	60
					35	529	1134	895	1353	1329	1542	1835	1704	2419	1844	3082	1967	3826	2076	4650	2175	5554	2270	
					38	454	1098	806	1334	1222	1539	1706	1716	2264	1870	2899	2005	3610	2125	4400	2235	5267	2339	
					43	**319**	**1024**	**656**	**1289**	1041	1522	1488	1725	2002	1903	2586	2061	3244	2201	3975	2329	4779	2449	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	1052	1330	1493	1513	2024	1691	2648	1864	3369	2035	4186	2207	5097	2383	6098	2563	7183	2752	61
					35	972	1333	1398	1528	1908	1716	2505	1901	3192	2083	3971	2266	4840	2451	5795	2642	6830	2840	
					38	888	1330	1298	1536	1785	1737	2354	1933	3008	2126	3748	2320	4573	2516	5481	2718	6467	2926	
					43	**720**	**1310**	**1089**	**1537**	1569	1758	2088	1975	2684	2188	3358	2402	4111	2617	4941	2836	5846	3062	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	1488	1677	2035	1927	2668	2171	3389	2411	4199	2651	5094	2893	6069	3141	7119	3396	8236	3662	58
					35	1380	1677	1908	1941	2516	2199	3207	2453	3980	2707	4833	2962	5763	3223	6764	3490	7830	3768	
					38	1269	1672	1778	1950	2362	2222	3020	2491	3756	2759	4567	3028	5452	3301	6404	3582	7419	3872	
					43	**1048**	**1649**	**1509**	**1952**	2094	2249	2699	2542	3371	2834	4113	3127	4920	3423	5791	3726	6725	4038	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	1778	1926	2490	2230	3324	2546	4285	2874	5369	3218	6575	3581	7895	3965	9319	4376	10838	4816	60
					35	1628	1924	2313	2239	3111	2568	4029	2910	5065	3270	6215	3648	7475	4049	8836	4476	10289	4934	
					38	1480	1919	2136	2246	2901	2587	3775	2944	4760	3318	5856	3713	7055	4130	8352	4575	9741	5050	
					43	**1199**	**1906**	**1791**	**2251**	2550	2613	3351	2993	4254	3393	5256	3815	6356	4260	7550	4734	8833	5239	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	2020	2421	2816	2760	3739	3109	4791	3475	5966	3863	7258	4280	8655	4730	10145	5221	11716	5759	60
					35	1859	2422	2623	2776	3506	3142	4509	3524	5629	3929	6859	4361	8191	4828	9612	5334	11112	5886	
					38	1701	2420	2432	2791	3275	3173	4229	3572	5292	3992	6461	4441	7726	4923	9080	5444	10511	6010	
					43	**1401**	**2405**	**2057**	**2804**	2893	3214	3763	3641	4733	4089	5799	4564	6955	5072	8197	5617	9518	6207	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	2684	2901	3732	3298	4966	3672	6401	4026	8048	4366	9912	4698	11959	5028	14304	5362	16827	5706	66
					35	2444	2881	3458	3307	4647	3710	6028	4092	7610	4460	9402	4819	11405	5176	13622	5535	16048	5904	
					38	2202	2847	3179	3304	4322	3736	5646	4148	7161	4545	8878	4933	10799	5316	12926	5702	15257	6097	
					43	**1748**	**2756**	**2633**	**3267**	3769	3752	4993	4216	6394	4664	7982	5101	9763	5532	11740	5965	13912	6404	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	3398	3483	4672	4038	6164	4565	7881	5076	9826	5580	11997	6088	14384	6611	16976	7156	19758	7733	63
					35	3107	3450	4334	4040	5763	4600	7405	5141	9264	5672	11337	6205	13617	6748	16097	7313	18762	7907	
					38	2817	3399	3993	4027	5360	4622	6926	5194	8695	5754	10670	6313	12845	6879	15212	7464	17761	8076	
					43	**2268**	**3275**	**3327**	**3969**	4684	4624	6119	5253	7739	5865	9549	6471	11546	7080	13727	7702	16086	8348	

Superheat: 18K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R134a

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)										Sound pressure level at 3m (dB)
						-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	1504	1014	1949	1084	2493	1150	3146	1210	3915	1267	60
					35	1416	1034	1849	1112	2379	1185	3013	1256	3763	1324	
					38	1327	1049	1748	1134	2262	1217	2879	1297	3607	1378	
					43	1179	1062	1577	1160	2064	1258	2650	1357	3341	1458	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	1905	1216	2491	1326	3188	1431	4001	1529	4933	1621	61
					35	1815	1238	2384	1355	3059	1467	3846	1575	4747	1679	
					38	1724	1256	2275	1380	2926	1501	3685	1619	4556	1734	
					43	1570	1275	2085	1412	2695	1548	3407	1684	4224	1820	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	2494	1522	3223	1688	4051	1849	4980	2005	6010	2156	58
					35	2373	1541	3083	1715	3889	1887	4792	2057	5790	2224	
					38	2250	1556	2941	1740	3723	1924	4598	2107	5565	2290	
					43	2041	1574	2698	1775	3438	1980	4266	2187	5179	2398	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	3303	1985	4192	2225	5212	2457	6369	2679	7663	2888	60
					35	3136	2007	4002	2256	4997	2499	6121	2733	7379	2956	
					38	2969	2025	3813	2282	4779	2536	5871	2783	7091	3022	
					43	2695	2043	3498	2317	4414	2590	5447	2860	6601	3125	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	3946	2452	4866	2737	5924	3019	7127	3294	8480	3562	60
					35	3700	2463	4607	2757	5648	3049	6833	3337	8163	3621	
					38	3461	2468	4354	2771	5379	3074	6543	3377	7851	3677	
					43	3080	2462	3949	2781	4947	3105	6077	3431	7346	3759	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	4207	2578	5584	2781	7209	2970	9096	3152	11256	3329	66
					35	4047	2632	5395	2853	6980	3061	8817	3260	10917	3454	
					38	3872	2682	5188	2923	6730	3149	8516	3366	10554	3579	
					43	3549	2752	4807	3027	6275	3287	7970	3537	9903	3781	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	5431	3170	7172	3471	9199	3761	11514	4046	14113	4333	63
					35	5204	3222	6899	3547	8867	3859	11111	4164	13628	4470	
					38	4963	3268	6613	3618	8522	3952	10694	4279	13128	4606	
					43	4534	3322	6106	3718	7915	4095	9968	4461	12264	4824	

Superheat: 18K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R448A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																Sound pressure level at 3m (dB)
						-30°C		-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	**511**	**912**	**842**	**1076**	1262	1232	1727	1380	2258	1519	2855	1649	3518	1769	4244	1878	5032	1978	60
					35			**762**	**1069**	**1140**	**1234**	1614	1392	2123	1542	2696	1683	3330	1814	4026	1936	4781	2047	
					38			**686**	**1062**	**1047**	**1235**	1504	1402	1992	1562	2539	1714	3147	1857	3812	1990	4535	2114	
					43					**899**	**1233**	**1288**	**1415**	1780	1591	2286	1761	2848	1922	3464	2075	4132	2219	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	**1033**	**1222**	**1381**	**1362**	1847	1510	2360	1664	2962	1827	3656	2001	4438	2189	5305	2394	6249	2621	61
					35			**1306**	**1383**	**1710**	**1537**	2246	1702	2818	1875	3477	2060	4221	2260	5046	2477	5944	2716	
					38			**1232**	**1401**	**1617**	**1565**	2133	1739	2675	1922	3300	2119	4005	2330	4789	2560	5642	2811	
					43					**1462**	**1607**	**1882**	**1796**	2441	1999	3009	2214	3652	2446	4366	2697	5146	2970	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	**1262**	**1459**	**1680**	**1637**	2239	1828	2844	2031	3544	2249	4339	2486	5222	2746	6185	3035	7213	3357	58
					35			**1589**	**1661**	**2070**	**1859**	2706	2075	3370	2305	4124	2555	4963	2830	5876	3133	6853	3470	
					38			**1498**	**1682**	**1957**	**1891**	**2496**	**2115**	3199	2360	3912	2624	4705	2913	5571	3231	6497	3584	
					43					**1768**	**1940**	**2260**	**2183**	2916	2450	3563	2737	4282	3051	5068	3394	5909	3774	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	**1536**	**1727**	**2132**	**2000**	2915	2286	3757	2584	4712	2897	5773	3231	6931	3590	8171	3979	9479	4403	60
					35			**2010**	**2025**	**2692**	**2323**	3574	2637	4485	2967	5497	3319	6600	3696	7781	4104	9025	4547	
					38			**1889**	**2047**	**2539**	**2359**	3391	2689	4258	3035	5221	3405	6269	3800	7391	4228	8572	4691	
					43					**2286**	**2414**	**2979**	**2767**	3881	3146	4760	3545	5717	3973	6741	4433	7818	490	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	**1713**	**2175**	**2389**	**2482**	3274	2810	4211	3160	5263	3533	6416	3936	7657	4373	8966	4850	10320	5372	60
					35			**2249**	**2509**	**3015**	**2849**	4001	3216	5003	3608	6101	4030	7281	4488	8526	4986	9816	5531	
					38			**2113**	**2534**	**2840**	**2888**	3791	3271	4743	3681	5786	4122	6906	4601	8086	5122	9308	5689	
					43					**2555**	**2950**	**3319**	**3356**	4310	3800	5262	4275	6281	4789	7354	5347	8464	5962	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	**1867**	**2212**	**2734**	**2596**	3872	2989	5134	3387	6592	3791	8245	4202	10080	4622	12100	5052	14260	5495	66
					35			**2551**	**2608**	**3562**	**3019**	4867	3440	6263	3867	7844	4302	9603	4746	11530	5201	13600	5668	
					38			**2366**	**2611**	**3334**	**3042**	4597	3484	5931	3934	7441	4393	9119	4861	10950	5339	12930	5830	
					43					**2951**	**3060**	**4006**	**3535**	5372	4024	6763	4522	8309	5030	10000	5549	11820	6079	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	**2451**	**2779**	**3510**	**3266**	4886	3767	6363	4283	8032	4817	9880	5375	11890	5962	14040	6586	16300	7254	63
					35			**3260**	**3275**	**4465**	**3799**	6009	4343	7608	4907	9377	5496	11300	6116	13360	6775	15530	7477	
					38			**3016**	**3280**	**4167**	**3828**	5659	4399	7187	4992	8878	5613	10720	6267	12680	6960	14750	7697	
					43					**3681**	**3866**	**4909**	**4479**	6495	5126	8056	5800	9753	6510	11570	7261	13480	8059	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R449A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																		Sound pressure level at 3m (dB)
						-30°C		-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	**513**	**913**	**845**	**1076**	1269	1232	1737	1380	2271	1518	2871	1647	3538	1765	4270	1873	5064	1970	60
					35			**765**	**1070**	**1144**	**1235**	1623	1392	2135	1541	2711	1681	3350	1811	4051	1931	4812	2040	
					38			**688**	**1062**	**1051**	**1235**	1513	1402	2003	1562	2554	1712	3165	1854	3836	1986	4564	2107	
					43					**902**	**1233**	**1293**	**1415**	1790	1591	2300	1760	2865	1920	3486	2071	4159	2213	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	**1036**	**1221**	**1385**	**1361**	1857	1508	2373	1661	2979	1823	3678	1995	4468	2181	5344	2383	6298	2606	61
					35			**1310**	**1381**	**1716**	**1535**	2258	1699	2835	1871	3499	2054	4249	2252	5083	2466	5991	2701	
					38			**1236**	**1400**	**1623**	**1563**	2145	1736	2692	1918	3321	2113	4033	2322	4824	2549	5688	2797	
					43					**1468**	**1605**	**1890**	**1793**	2457	1995	3029	2209	3678	2438	4399	2686	5188	2956	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	**1266**	**1458**	**1686**	**1636**	2253	1826	2862	2027	3568	2244	4370	2478	5264	2735	6238	3020	7281	3337	58
					35			**1595**	**1659**	**2079**	**1857**	2723	2072	3394	2300	4155	2548	5003	2819	5928	3118	6919	3451	
					38			**1504**	**1681**	**1965**	**1899**	**2509**	**2112**	3221	2356	3942	2617	4744	2903	5620	3217	6560	3565	
					43					**1776**	**1938**	**2272**	**2180**	2937	2446	3591	2731	4319	3041	5115	3381	5969	3755	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	**1536**	**1727**	**2132**	**2000**	2915	2286	3757	2584	4712	2897	5773	3231	6931	3590	8171	3979	9479	4403	60
					35			**2010**	**2025**	**2692**	**2323**	3574	2637	4485	2967	5497	3319	6600	3696	7781	4104	9025	4547	
					38			**1889**	**2047**	**2539**	**2359**	3391	2689	4258	3035	5221	3405	6269	3800	7391	4228	8572	4691	
					43					**2286**	**2414**	**2979**	**2767**	3881	3146	4760	3545	5717	3973	6741	4433	7818	490	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	**1713**	**2175**	**2389**	**2482**	3274	2810	4211	3160	5263	3533	6416	3936	7657	4373	8966	4850	10320	5372	60
					35			**2249**	**2509**	**3015**	**2849**	4001	3216	5003	3608	6101	4030	7281	4488	8526	4986	9816	5531	
					38			**2113**	**2534**	**2840**	**2888**	3791	3271	4743	3681	5786	4122	6906	4601	8086	5122	9308	5689	
					43					**2555**	**2950**	**3319**	**3356**	4310	3800	5262	4275	6281	4789	7354	5347	8464	5962	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	**1867**	**2212**	**2734**	**2596**	3872	2989	5134	3387	6592	3791	8245	4202	10080	4622	12100	5052	14260	5495	66
					35			**2551**	**2608**	**3562**	**3019**	4867	3440	6263	3867	7844	4302	9603	4746	11530	5201	13600	5668	
					38			**2366**	**2611**	**3334**	**3042**	4597	3484	5931	3934	7441	4393	9119	4861	10950	5339	12930	5830	
					43					**2951**	**3060**	**4006**	**3535**	5372	4024	6763	4522	8309	5030	10000	5549	11820	6079	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	**2451**	**2779**	**3510**	**3266**	4886	3767	6363	4283	8032	4817	9880	5375	11890	5962	14040	6586	16300	7254	63
					35			**3260**	**3275**	**4465**	**3799**	6009	4343	7608	4907	9377	5496	11300	6116	13360	6775	15530	7477	
					38			**3016**	**3280**	**4167**	**3828**	5659	4399	7187	4992	8878	5613	10720	6267	12680	6960	14750	7697	
					43					**3681**	**3866**	**4909**	**4479**	6495	5126	8056	5800	9753	6510	11570	7261	13480	8059	

Superheat: 18K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R452A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																		Sound pressure level at 3m (dB)
						-30°C		-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	**718**	**1067**	**1048**	**1243**	1531	1405	2006	1553	2548	1688	3157	1811	3832	1921	4570	2018	5368	2105	60
					35	**640**	**1047**	**957**	**1234**	**1424**	**1408**	1878	1568	2395	1716	2975	1850	3617	1972	4318	2082	5076	2180	
					38	**564**	**1021**	**866.5**	**1220**	**1318**	**1406**	1751	1579	2242	1739	2793	1886	3402	2020	4068	2142	4787	2251	
					43			718	1186	**1048**	**1392**	**1539**	**1586**	1989	1767	2492	1935	3047	2090	3654	2232	4309	2362	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	**1120**	**1328**	**1529**	**1496**	2138	1667	2703	1836	3337	2005	4036	2174	4797	2345	5614	2517	6480	2692	61
					35	**1028**	**1331**	**1419**	**1507**	**2010**	**1687**	2549	1867	3153	2049	3818	2231	4541	2415	5317	2603	6139	2793	
					38	**939**	**1332**	**1312**	**1517**	**1884**	**1707**	2398	1898	2971	2091	3603	2287	4288	2486	5023	2688	5801	2894	
					43			1139	1531	**1537**	**1735**	**2150**	**1947**	2674	2161	3248	2379	3872	2602	4539	2830	5244	3063	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	**1585**	**1694**	**1982**	**1864**	2629	2049	3211	2243	3889	2451	4664	2677	5528	2924	6471	3195	7481	3495	58
					35	**1495**	**1708**	**1872**	**1886**	**2499**	**2080**	3046	2286	3683	2506	4410	2744	5222	3003	6110	3287	7061	3599	
					38	**1404**	**1718**	**1761**	**1904**	**2366**	**2108**	**2878**	**2324**	3473	2556	4153	2807	4913	3079	5747	3375	6641	3699	
					43			1573	1925	**1951**	**2141**	**2593**	**2378**	3118	2629	3719	2900	4395	3193	5139	3510	5942	3856	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	**1908**	**1947**	**2467**	**2214**	3341	2492	4132	2774	5030	3066	6030	3371	7124	3691	8299	4032	9541	4395	60
					35	**1788**	**1956**	**2322**	**2237**	**3173**	**2528**	3923	2826	4772	3135	5717	3457	6749	3796	7858	4154	9029	4535	
					38	**1667**	**1957**	**2175**	**2251**	**3000**	**2557**	3708	2872	4509	3198	5397	3537	6368	3894	7411	4270	8512	4669	
					43			**1925**	**2258**	**2464**	**2586**	**3339**	**2931**	4056	3286	4852	3656	5722	4043	6657	4451	7645	4881	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	**2145**	**2453**	**2793**	**2776**	3803	3110	4702	3450	5706	3806	6804	4181	7980	4581	9215	5011	10490	5477	60
					35	**2014**	**2460**	**2633**	**2797**	**3614**	**3146**	4463	3505	5408	3879	6439	4273	7542	4693	8700	5143	9893	5629	
					38	**1878**	**2455**	**2468**	**2809**	**3417**	**3174**	4217	3551	5103	3945	6067	4359	7098	4799	8180	5270	9294	5776	
					43			**2183**	**2805**	**2799**	**3198**	**3790**	**3609**	4578	4036	5432	4485	6345	4961	7303	5467	8292	6009	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	**2237**	**2527**	**3158**	**2956**	4529	3371	5840	3770	7322	4160	8964	4546	10750	4932	12670	5321	14700	5718	66
					35	**2057**	**2513**	**2944**	**2969**	**4277**	**3408**	5531	3832	6943	4246	8505	4654	10210	5060	12030	5470	13950	5884	
					38	**1876**	**2490**	**2725**	**2975**	**4019**	**3441**	5214	3890	6556	4329	8038	4760	9649	5189	11370	5619	13200	6053	
					43			**2355**	**2967**	**3275**	**3478**	**4671**	**3976**	5894	4459	7242	4933	8705	5401	10270	5867	11920	6335	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	**2965**	**3168**	**4087**	**3708**	5749	4230	7269	4737	8949	5242	10770	5754	12720	6285	14760	6841	16870	7433	63
					35	**2719**	**3145**	**3794**	**3721**	**5408**	**4276**	6860	4816	8459	5353	10190	5896	12040	6456	13980	7040	15980	7657	
					38	**2477**	**3117**	**3503**	**3730**	**5067**	**4322**	6449	4898	7967	5469	9610	6044	11360	6634	13190	7247	15090	7892	
					43			**3026**	**3738**	**4108**	**4390**	**5762**	**5036**	7144	5668	8635	6302	10220	6947	11880	7612	13600	8305	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R513A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																Sound pressure level at 3m (dB)
						-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPZP019	115F0600 115F0601 115F0602	N Q V	MTZ019	1	32	**555**	**797**	**834**	**904**	1226	1001	1635	1086	2108	1162	2648	1227	3256	1283	3932	1330	60
					35	**503**	**786**	**770**	**901**	**1096**	**1004**	1542	1098	1997	1181	2516	1254	3100	1317	3750	1372	
					38	**454**	**772**	**709**	**895**	**1020**	**1006**	1451	1107	1888	1197	2385	1278	2945	1349	3569	1411	
					43					**898**	**1003**	**1242**	**1116**	1708	1220	2169	1313	2690	1397	3269	1472	
HPZP022	115F0603 115F0604 115F0605	N Q V	MTZ022	1	32	**793**	**953**	**1138**	**1088**	1624	1213	2116	1329	2681	1434	3319	1529	4032	1615	4819	1690	61
					35	**727**	**938**	**1060**	**1081**	**1458**	**1214**	2006	1339	2549	1454	3163	1559	3848	1655	4604	1741	
					38	**662**	**922**	**983**	**1072**	**1366**	**1214**	1897	1347	2419	1472	3008	1587	3666	1693	4391	1790	
					43					**1216**	**1210**	**1637**	**1358**	2206	1498	2754	1629	3366	1752	4040	1867	
HPZP028	115F0606 115F0607 115F0608	N Q V	MTZ028	1	32	**1026**	**1167**	**1452**	**1314**	2047	1457	2636	1598	3303	1735	4048	1871	4869	2006	5762	2139	58
					35	**946**	**1162**	**1358**	**1320**	**1844**	**1474**	2509	1627	3152	1775	3869	1922	4657	2066	5515	2209	
					38	**866**	**1150**	**1265**	**1321**	**1734**	**1488**	**2381**	**1652**	2999	1812	3688	1969	4444	2124	5267	2277	
					43					**1549**	**1497**	**2058**	**1681**	2743	1862	3384	2039	4087	2212	4851	2383	
HPZP036	115F0609 115F0610 115F0611	N Q V	MTZ036	1	32	**1256**	**1427**	**1777**	**1610**	2516	1781	3260	1944	4118	2106	5090	2272	6177	2447	7373	2636	60
					35	**1166**	**1421**	**1674**	**1626**	**2281**	**1815**	3120	1997	3947	2174	4883	2352	5927	2538	7076	2735	
					38	**1072**	**1403**	**1567**	**1631**	**2154**	**1841**	2973	2042	3769	2235	4668	2428	5669	2626	6770	2833	
					43					**1932**	**1862**	**2579**	**2096**	3456	2322	4292	2543	5222	2764	6242	2991	
HPZP040	115F0612 115F0613 115F0614	N Q V	MTZ040	1	32	**1574**	**1904**	**2153**	**2110**	2990	2310	3820	2508	4768	2715	5834	2936	7011	3180	8292	3454	60
					35	**1467**	**1901**	**2021**	**2122**	**2692**	**2332**	3631	2544	4543	2761	5569	2991	6702	3243	7935	3523	
					38	**1365**	**1893**	**1894**	**2129**	**2534**	**2354**	3445	2578	4320	2806	5304	3046	6392	3306	7577	3594	
					43					**2279**	**2383**	**2981**	**2627**	3951	2878	4865	3136	5877	3413	6980	3715	
HPZP050	115F0615 115F0616 115F0617	N Q V	MTZ050	2	32	**1853**	**2057**	**2544**	**2283**	3552	2512	4582	2739	5786	2960	7169	3174	8729	3380	10470	3575	66
					35	**1733**	**2065**	**2395**	**2306**	**3208**	**2550**	4357	2796	5508	3035	6830	3267	8324	3491	9987	3704	
					38	**1616**	**2065**	**2251**	**2323**	**3027**	**2584**	4137	2847	5235	3105	6497	3356	7923	3599	9513	3831	
					43					**2733**	**2624**	**3594**	**2916**	4791	3208	5953	3492	7269	3768	8737	4033	
HPZP064	115F0618 115F0619 115F0620	N Q V	MTZ064	2	32	**2127**	**2361**	**3092**	**2727**	4374	3070	5708	3399	7210	3719	8875	4038	10690	4363	12660	4699	63
					35	**1948**	**2330**	**2883**	**2723**	**3966**	**3091**	5416	3445	6862	3788	8463	4128	10210	4471	12100	4824	
					38	**1775**	**2289**	**2679**	**2711**	**3720**	**3106**	5127	3485	6517	3851	8054	4213	9731	4576	11540	4947	
					43					**3322**	**3111**	**4421**	**3532**	5949	3943	7379	4343	8937	4742	10610	5146	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R404A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)																Sound pressure level at 3m (dB)
						-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	1975	2033	2506	2076	3099	2123	3761	2174	4500	2228	5319	2283	6224	2339	7219	2394	57
					35	1842	2154	2357	2201	2928	2252	3565	2306	4272	2362	5058	2420	5927	2478	6885	2535	
					38	**1660**	**2278**	2202	2333	2753	2388	3363	2445	4039	2504	4791	2565	5624	2625	6547	2685	
					43	-	-	1932	2573	2446	2634	3012	2697	3638	2761	4334	2825	5109	2889	5974	2953	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	2783	2373	3440	2474	4187	2554	5033	2621	5983	2685	7041	2753	8213	2830	9502	2922	58
					35	2636	2499	3265	2615	3980	2706	4790	2779	5702	2845	6722	2911	7855	2983	9108	3067	
					38	**2446**	**2714**	3085	2758	3769	2860	4543	2941	5417	3009	6398	3074	7494	3141	8714	3219	
					43	-	-	2773	2993	3403	3117	4119	3213	4932	3288	5851	3353	6886	3415	8051	3482	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	2939	2453	3634	2616	4426	2726	5322	2804	6323	2870	7431	2944	8649	3046	9976	3194	58
					35	2782	2605	3449	2775	4208	2890	5066	2971	6029	3038	7098	3111	8278	3211	9568	3357	
					38	**2543**	**2979**	3258	2948	3984	3067	4807	3150	5731	3218	6761	3290	7902	3388	9157	3532	
					43	-	-	2926	3270	3597	3395	4360	3480	5221	3548	6188	3618	7266	3713	8469	3852	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	2	32	3824	3582	4723	3744	5773	3861	6981	3947	8350	4016	9881	4080	11578	4152	13436	4244	58
					35	3634	3758	4494	3929	5501	4053	6661	4143	7977	4214	9455	4278	11096	4348	12900	4436	
					38	**3357**	**4202**	4260	4127	5223	4257	6333	4352	7598	4424	9021	4488	10607	4555	12359	4639	
					43	-	-	3854	4488	4743	4628	5772	4729	6951	4803	8284	4866	9780	4928	11447	5005	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	2	32	4427	4175	5473	4241	6686	4329	8072	4430	9635	4538	11380	4649	13307	4758	15419	4859	60
					35	4206	4405	5205	4465	6365	4549	7695	4648	9199	4758	10882	4873	12748	4987	14801	5096	
					38	**3878**	**4649**	4929	4708	6037	4786	7310	4884	8754	4994	10375	5111	12179	5230	14175	5346	
					43	-	-	4451	5161	5470	5228	6648	5318	7991	5426	9510	5545	11214	5670	13118	5797	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	5178	4974	6447	5031	7870	5136	9466	5273	11247	5425	13227	5578	15417	5715	17829	5823	61
					35	4903	5244	6126	5303	7495	5410	9027	5549	10736	5704	12639	5861	14749	6003	17082	6117	
					38	**4264**	**5451**	5792	5591	7106	5699	8574	5840	10213	5999	12039	6159	14071	6306	16328	6426	
					43	-	-	5200	6106	6424	6218	7787	6362	9310	6525	11011	6692	12916	6846	15052	6976	

Superheat: 18K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R134a

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)												Sound pressure level at 3m (dB)
						-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	1871	1235	2381	1273	2979	1315	3664	1360	4432	1411	5280	1469	57
					35	1802	1293	2302	1334	2889	1378	3560	1426	4312	1479	5143	1538	
					38	**1713**	**1352**	2222	1397	2796	1444	3452	1495	4189	1550	5002	1612	
					43	-	-	2084	1509	2635	1562	3266	1617	3975	1678	4756	1744	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	2404	1506	3068	1573	3842	1634	4727	1692	5717	1754	6811	1823	58
					35	2315	1577	2966	1650	3726	1716	4592	1778	5562	1842	6635	1912	
					38	**2201**	**1650**	2863	1731	3606	1802	4453	1868	5403	1934	6453	2007	
					43	-	-	2685	1874	3399	1955	4214	2028	5128	2101	6139	2177	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	2522	1542	3256	1625	4082	1692	5008	1751	6042	1812	7189	1882	58
					35	2420	1612	3146	1704	3959	1778	4868	1842	5880	1905	7001	1977	
					38	**2290**	**1683**	3032	1786	3832	1867	4723	1937	5713	2004	6809	2077	
					43	-	-	2835	1926	3612	2023	4473	2104	5426	2180	6477	2258	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	2	32	3232	2514	4113	2567	5157	2625	6358	2686	7712	2752	9211	2822	58
					35	3114	2598	3980	2661	5004	2725	6183	2792	7511	2859	8983	2928	
					38	**2962**	**2685**	3843	2759	4848	2831	6004	2902	7306	2973	8747	3042	
					43	-	-	3608	2931	4578	3018	5693	3100	6950	3178	8340	3250	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	2	32	3857	2884	4917	2961	6158	3031	7579	3103	9178	3183	10949	3276	60
					35	3715	2996	4756	3079	5974	3155	7368	3231	8935	3313	10671	3408	
					38	**3532**	**3110**	4592	3202	5786	3285	7152	3365	8687	3451	10385	3548	
					43	-	-	4308	3417	5461	3513	6778	3604	8257	3698	9893	3802	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	4526	3283	5716	3354	7149	3445	8809	3554	10676	3677	12733	3809	61
					35	4374	3430	5533	3502	6934	3597	8559	3708	10390	3833	12408	3969	
					38	**4178**	**3583**	5349	3660	6714	3757	8302	3871	10095	4000	12073	4138	
					43	-	-	5036	3942	6338	4044	7860	4164	9583	4298	11488	4442	

Superheat: 18K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R448A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	**2227**	**1990**	**2775**	**2059**	3453	2150	4142	2246	4903	2353	5738	2470	6645	2595	57
					35			**2656**	**2118**	3320	2278	3981	2375	4712	2484	5514	2603	6387	2732	
					38			**2537**	**2331**	**3108**	**2411**	3819	2517	4519	2626	5289	2748	6127	2881	
					43					**2866**	**2681**	**3461**	**2774**	4195	2896	4910	3020	5691	3158	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	**3010**	**2419**	**3719**	**2515**	4601	2628	5497	2744	6491	2872	7583	3015	8772	3173	58
					35			**3564**	**2676**	4423	2793	5281	2911	6233	3041	7280	3185	8420	3345	
					38			**3407**	**2852**	**4143**	**2960**	5062	3091	5971	3223	6971	3368	8063	3530	
					43					**3817**	**3288**	**4580**	**3410**	5523	3557	6446	3425	7458	3557	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	**3200**	**2584**	**3934**	**2690**	4847	2811	5789	2934	6835	3069	7984	3217	9234	3382	58
					35			**3770**	**2865**	4657	2990	5559	3115	6560	3251	7662	3401	8863	3566	
					38			**3605**	**3054**	**4355**	**3170**	5324	3310	6281	3447	7335	3597	8486	3763	
					43					**4006**	**3521**	**4769**	**3644**	5804	3805	6778	3956	7847	4122	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	1	32	**4158**	**3701**	**5121**	**3795**	6308	3908	7547	4028	8926	4166	10450	4325	12110	4507	58
					35			**4913**	**4015**	6064	4130	7248	4250	8567	4388	10020	4546	11620	4727	
					38			**4700**	**4255**	**5686**	**4359**	6941	4492	8198	4629	9588	4786	11110	4966	
					43					**5227**	**4809**	**6231**	**4923**	7561	5079	8838	5232	10240	5410	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	1	32	**4931**	**4275**	**6055**	**4387**	7448	4545	8887	4724	10480	4931	12240	5164	14150	5422	60
					35			**5809**	**4633**	7163	4787	8544	4961	10070	5166	11760	5399	13600	5659	
					38			**5556**	**4905**	**6709**	**5034**	8190	5220	9655	5421	11270	5652	13030	5913	
					43					**6174**	**5530**	**7351**	**5677**	8931	5896	10420	6120	12060	6377	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	**5596**	**5006**	**6826**	**5193**	8368	5431	9951	5693	11710	5999	13630	6355	15720	6765	61
					35			**6523**	**5493**	8017	5742	9531	6012	11210	6326	13050	6690	15060	7110	
					38			**6216**	**5815**	**7469**	**6047**	9103	6352	10710	6674	12470	7047	14390	7476	
					43					**6832**	**6644**	**8104**	**6925**	9847	7306	11470	7692	13250	8137	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R449A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	**2230**	**1981**	**2780**	**2049**	3467	2139	4160	2233	4928	2339	5771	2452	6689	2574	57
					35			**2662**	**2177**	3333	2266	3999	2361	4737	2468	5547	2584	6430	2710	
					38			**2542**	**2318**	**3117**	**2397**	3837	2501	4544	2609	5322	2728	6170	2858	
					43					**2875**	**2664**	**3476**	**2755**	4220	2876	4942	2997	5732	3132	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	**2974**	**2455**	**3671**	**2558**	4546	2680	5420	2804	6385	2942	7441	3096	8584	3266	58
					35			**3516**	**2723**	4367	2849	5203	2976	6126	3116	7137	3271	8233	3443	
					38			**3358**	**2902**	**4077**	**3018**	4983	3161	5863	3302	6828	3459	7877	3632	
					43					**3750**	**3354**	**4492**	**3484**	5415	3645	6303	3803	7273	3979	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	**3134**	**2622**	**3863**	**2737**	4784	2871	5702	3004	6715	3149	7824	3309	9025	3487	58
					35			**3697**	**2916**	4593	3055	5470	3189	6440	3336	7502	3498	8654	3676	
					38			**3527**	**3108**	**4280**	**3236**	5234	3389	6159	3537	7174	3699	8278	3879	
					43					**3930**	**3595**	**4708**	**3735**	5682	3905	6617	4068	7640	4247	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	1	32	**4128**	**3689**	**5107**	**3782**	6325	3895	7571	4014	8958	4149	10490	4306	12170	4485	58
					35			**4895**	**4000**	6081	4116	7272	4234	8600	4370	10070	4525	11670	4704	
					38			**4678**	**4239**	**5695**	**4344**	6965	4475	8231	4609	9631	4764	11170	4942	
					43					**5237**	**4791**	**6292**	**4909**	7594	5057	8881	5208	10300	5382	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	1	32	**4894**	**4257**	**6037**	**4370**	7471	4529	8919	4705	10530	4910	12300	5139	14220	5394	60
					35			**5788**	**4614**	7187	4769	8576	4941	10120	5143	11820	5373	13670	5630	
					38			**5531**	**4883**	**6723**	**5014**	8223	5198	9698	5396	11320	5625	13100	5882	
					43					**6188**	**5507**	**7431**	**5659**	8974	5868	10480	6090	12130	6344	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	**5554**	**4982**	**6808**	**5167**	8401	5406	9995	5664	11760	5965	13710	6315	15820	6718	61
					35			**6501**	**5466**	8050	5716	9575	5981	11270	6290	13130	6648	15160	7061	
					38			**6189**	**5785**	**7490**	**6018**	9148	6319	10760	6636	12540	7003	14490	7425	
					43					**6854**	**6612**	**8206**	**6900**	9906	7264	11550	7645	13350	8082	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R452A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-20°C		-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	2577	2054	3120	2143	3733	2226	4419	2306	5177	2384	6008	2462	6908	2542	57
					35	**2303**	**2152**	2994	2260	3575	2346	4225	2428	4946	2508	5737	2588	6598	2668	
					38	**2194**	**2272**	2866	2386	3415	2475	4030	2559	4712	2641	5464	2721	6285	2802	
					43					3145	2710	3699	2797	4318	2880	5004	2961	5760	3043	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	3331	2522	4035	2612	4823	2708	5699	2812	6662	2927	7713	3056	8847	3200	58
					35	**2974**	**2659**	3870	2770	4620	2867	5452	2972	6369	3089	7370	3219	8453	3366	
					38	**2827**	**2828**	3702	2942	4413	3038	5202	3144	6072	3262	7023	3394	8055	3543	
					43					4061	3357	4776	3461	5567	3579	6437	3712	7386	3863	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	3458	2660	4211	2756	5054	2860	5991	2972	7022	3093	8146	3222	9364	3360	58
					35	**3067**	**2802**	4018	2922	4823	3026	5717	3140	6701	3261	7777	3392	8945	3533	
					38	**2892**	**2980**	3820	3102	4586	3207	5436	3320	6374	3443	7402	3575	8519	3717	
					43					4178	3542	4955	3654	5815	3776	6762	3908	7800	4052	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	1	32	4482	3775	5429	3901	6514	4016	7742	4128	9118	4241	10640	4363	12320	4498	58
					35	**4018**	**3940**	5207	4096	6237	4220	7405	4337	8716	4455	10170	4580	11770	4716	
					38	**3825**	**4135**	4982	4305	5955	4438	7061	4562	8306	4684	9692	4812	11220	4950	
					43					5476	4835	6476	4971	7607	5102	8874	5235	10280	5376	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	1	32	5353	4386	6499	4556	7793	4721	9242	4886	10850	5056	12610	5235	14530	5426	60
					35	**4773**	**4563**	6221	4772	7455	4948	8837	5121	10370	5296	12060	5478	13900	5671	
					38	**4525**	**4770**	5939	4997	7111	5185	8425	5366	9885	5548	11500	5734	13260	5929	
					43					6526	5601	7724	5800	9062	5994	10550	6188	12180	6389	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	6144	4952	7412	5215	8835	5451	10420	5678	12150	5916	14040	6181	16070	6486	61
					35	**5479**	**5145**	7103	5472	8451	5728	9950	5969	11600	6212	13400	6476	15330	6776	
					38	**5210**	**5372**	6791	5735	8061	6016	9476	6272	11040	6523	12740	6789	14590	7085	
					43					7402	6514	8673	6803	10080	7074	11640	7347	13340	7642	

Superheat: 20K
Subcooling: 3K

Superheat: 10K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

MBP R513A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)												Sound pressure level at 3m (dB)
						-15°C		-10°C		-5°C		0°C		5°C		10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
HPUS015	115F0660 115F0661 115F0662	N Q V	MLZ015	1	32	**1891**	**1365**	2419	1431	2933	1478	3530	1515	4209	1547	4972	1578	57
					35	**1818**	**1418**	2334	1493	2830	1546	3403	1589	4058	1623	4793	1655	
					38	**1745**	**1472**	2334	1493	2725	1618	3275	1665	3904	1703	4611	1736	
					43			**2000**	**1663**	2547	1744	3057	1801	3641	1846	4300	1882	
HPUS019	115F0663 115F0664 115F0665	N Q V	MLZ019	1	32	**2468**	**1662**	3160	1712	3828	1759	4594	1810	5461	1868	6430	1933	58
					35	**2368**	**1745**	3048	1798	3692	1848	4430	1902	5265	1962	6199	2028	
					38	**2267**	**1833**	3048	1798	3555	1943	4264	1999	5067	2061	5964	2128	
					43			**2604**	**2047**	3322	2113	3983	2173	4730	2238	5566	2387	
HPUS021	115F0666 115F0667 115F0668	N Q V	MLZ021	1	32	**2612**	**1749**	3348	1803	4052	1855	4855	1913	5760	1980	6769	2057	58
					35	**2505**	**1840**	3228	1897	3907	1951	4680	2012	5552	2080	6523	2158	
					38	**2398**	**1935**	3348	1803	3761	2053	4504	2116	5341	2186	6273	2266	
					43			**2755**	**2166**	3513	2236	4205	2303	4983	2376	5851	2459	
HPUS026	115F0669 115F0670 115F0671	N Q V	MLZ026	1	32	**3300**	**2754**	4232	2792	5131	2840	6159	2906	7321	2988	8620	3088	58
					35	**3165**	**2871**	4082	2909	4950	2957	5941	3022	7061	3105	8313	3207	
					38	**3030**	**2997**	4232	2792	4768	3081	5722	3146	6798	3230	8002	3333	
					43			**3493**	**3252**	4460	3307	5350	3371	6354	3456	7478	3560	
HPUS030	115F0672 115F0673 115F0674	N Q V	MLZ030	1	32	**3948**	**3056**	5015	3169	6049	3265	7249	3359	8620	3455	10160	3561	60
					35	**3810**	**3171**	4855	3295	5848	3397	7001	3495	8318	3594	9800	3700	
					38	**3670**	**3292**	5015	3169	5642	3537	6746	3639	8008	3741	9431	3847	
					43			**4188**	**3653**	5289	3789	6308	3900	7476	4007	8796	4115	
HPUS038	115F0675 115F0676 115F0677	N Q V	MLZ038	2	32	**4643**	**3467**	5868	3592	7042	3704	8400	3825	9944	3964	11670	4128	61
					35	**4478**	**3617**	5675	3751	6798	3869	8100	3993	9583	4132	11240	4295	
					38	**4316**	**3774**	5868	3592	6554	4042	7798	4169	9217	4311	10810	4473	
					43			**4892**	**4198**	6146	4351	7290	4487	8601	4632	10080	4795	

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

LBP R404A (Recip)

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-40°C		-35°C		-30°C		-25°C		-20°C		-15°C		-10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
LPZP048	115F0621 115F0622 115F0623	N Q V	NTZ048	1	32	736	1050	1097	1313	1524	1576	2022	1831	2593	2075	3239	2300	3960	2503	57
					35	664	1028	1006	1303	1412	1578	1884	1847	2426	2105	3039	2347	3726	2567	
					38	593	1002	917	1288	1300	1575	1748	1858	2259	2131	2840	2388	3492	2624	
					43	476	947	770	1250	1117	1557	1520	1862	1983	2158	2509	2441	3101	2705	
LPZP068	115F0624 115F0625 115F0626	N Q V	NTZ068	1	32	1269	1733	1763	2012	2337	2311	2992	2635	3726	2992	4535	3390	5417	3839	51
					35	1163	1741	1631	2032	2176	2344	2797	2682	3493	3054	4264	3468	5104	3933	
					38	1061	1746	1506	2050	2021	2376	2608	2728	3267	3116	3998	3546	4797	4028	
					43	903	1748	1306	2076	1773	2426	2305	2805	2903	3219	3567	3678	4297	4189	

Superheat: 18K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

LBP R404A (Scroll)

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Sound pressure level at 3m (dB)
						-40°C		-35°C		-30°C		-25°C		-20°C		-15°C		-10°C		
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	
LPUS013	115F0680 115F0681	Q V	LLZ013	2	32	2231	3369	2884	3589	3644	3813	4523	4035	5530	4248	6674	4446	7962	4623	64
					35	2125	3460	2755	3684	3486	3918	4327	4153	5289	4383	6381	4602	7611	4804	
					38	2015	3556	2623	3785	3323	4027	4125	4275	5042	4521	6082	4760	7253	4985	
					43			2393	3967	3040	4221	3779	4487	4618	4759	5569	5028	6643	5290	
LPUS015	115F0682 115F0683	Q V	LLZ015	2	32	2738	3902	3494	4165	4401	4461	5471	4778	6720	5103	8158	5428	9795	5743	64
					35	2611	4008	3338	4272	4205	4574	5228	4903	6420	5245	7793	5592	9359	5934	
					38	2481	4126	3178	4388	4005	4696	4979	5034	6115	5393	7424	5760	8918	6127	
					43			2900	4610	3661	4921	4554	5273	5593	5654	6793	6052	8169	6458	
LPUS018	115F0684 115F0685	Q V	LLZ018	2	32	3229	4328	4115	4633	5172	4978	6415	5349	7856	5736	9507	6128	11376	6518	64
					35	3078	4451	3929	4756	4940	5108	6125	5493	7500	5898	9075	6314	10861	6733	
					38	2922	4588	3738	4891	4702	5248	5830	5644	7137	6067	8637	6506	10340	6951	
					43			3406	5148	4291	5509	5323	5920	6517	6367	7890	6840	9455	7328	

Superheat: 18K
Subcooling: 3K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

For more information, please refer to Coolselector® at **coolselector.danfoss.com** or contact Danfoss

Mechanical components

Reciprocating compressor

Condensing unit		HPM(Z)P019	HPM(Z)P022	HPM(Z)P028	HPM(Z)P036	HPM(Z)P040	HPM(Z)P050	HPM(Z)P064	LPZP048	LPZP068
Compressor 220V/1F/60Hz		MT(Z)19-1VI	MT(Z)22-1VI	MT(Z)28-1VI	MT(Z)36-1VI	MT(Z)40-1VI	MT(Z)50-1VI	MT(Z)64-1VI	120F0077	120F0073
Compressor 220V/3F/60Hz		MT(Z)19-3VI	MT(Z)22-3VI	MT(Z)28-3VI	MT(Z)36-3VI	MT(Z)40-3VI	MT(Z)50-3VI	MT(Z)64-3VI	120F0033	120F0034
Compressor 380V/3F/60Hz		MT(Z)19-9VI	MT(Z)22-9VI	MT(Z)28-9VI	MT(Z)36-9VI	MT(Z)40-9VI	MT(Z)50-9VI	MT(Z)64-9VI	120F0168	120F0169
Oil compressor	R22	7754001	7754001	7754001	7754001	7754001	7754001	7754001	-	-
	R404A / R507 / R134a / R448A/ R449A / R452A / R513A	7754019	7754019	7754019	7754019	7754019	7754019	7754019	7754025	7754025
Condenser		193U0590E	193U0590E	193U0590E	193U0591E	193U0591E	193U0592E	193U0592E	193U0590E	193U0590E
Fan motor		119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E
Fan blade		191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E
Fan grill		118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E
Filter drier	Code	023Z5040	023Z5040	023Z5040	023Z5041	023Z5041	023Z5045	023Z5045	023Z5040	023Z5040
	Model	DML083	DML083	DML083	DML084	DML084	DML165	DML165	DML083	DML083
Sight glass	Code	014L0172	014L0172	014L0172	014L0173	014L0173	014L0174	014L0174	014L0172	014L0172
	Model	SGP 10	SGP 10	SGP 10	SGP 12	SGP 12	SGP 16	SGP 16	SGP 10	SGP 10
Pressure switch codes	HP - Cartridge	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067
	LP - KP1	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166
Crankcase heater		7303292P01A	7303292P01A	7303292P01A	7303292P01A	7303292P01A	7303292P01A	7303292P01A	7303292P01A	7303292P01A

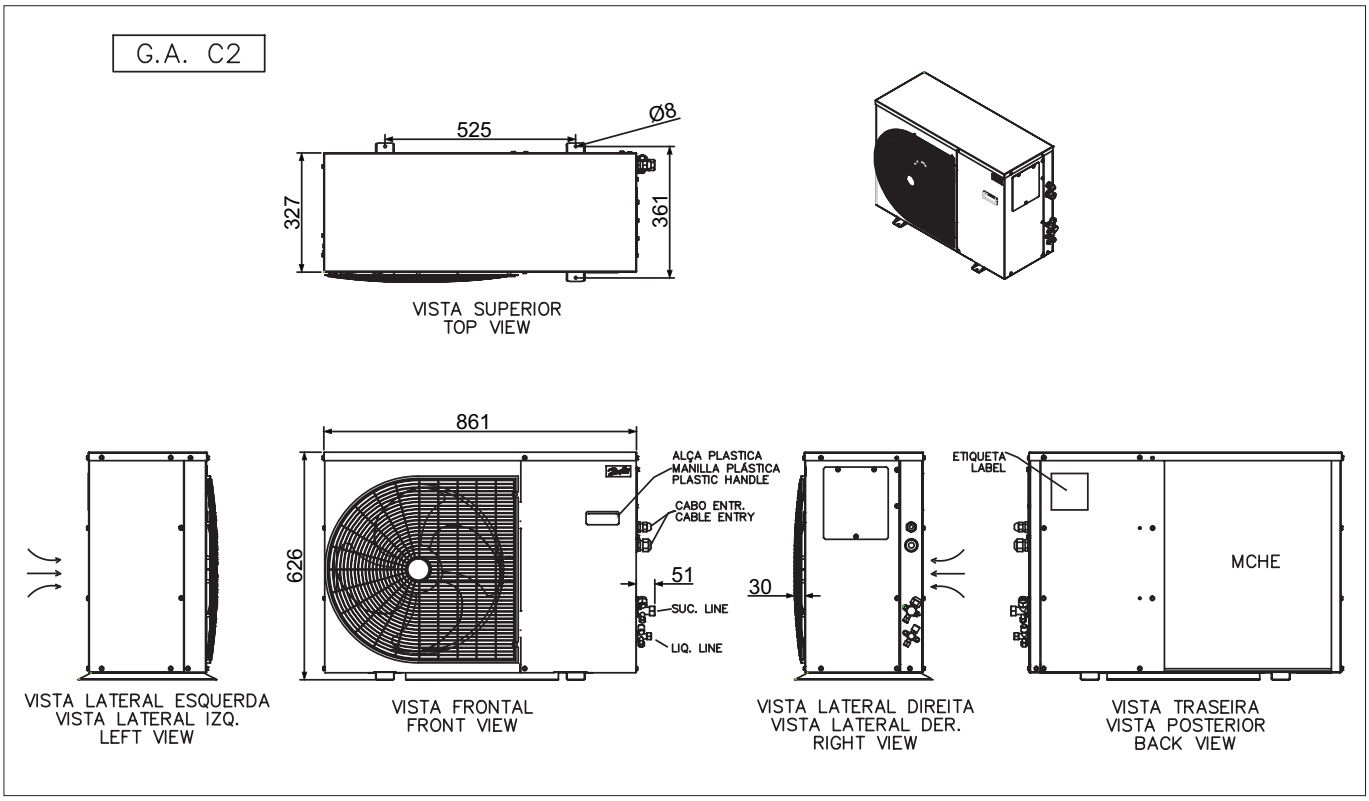
Scroll compressor

Condensing unit		HPUS015	HPUS019	HPUS021	HPUS026	HPUS030	HPUS038	LPZS013	LPZS015	LPZS018
Compressor 220V/1F/60Hz		121U8708	121U8718	121U8736	121U8750	121U8762	121U8774	-	-	-
Compressor 220V/3F/60Hz		121U8710	121U8722	121U8738	121U8752	121U8794	121U8776	121L9519	121L9515	121L9511
Compressor 380V/3F/60Hz		121U8688	121U8734	121U8748	121U8692	121U8694	121U8786	121L9531	121L9529	121L9527
Oil compressor	R404A / R507 / R134a / R22 / R448A / R449A / R452A / R513A	120Z0628	120Z0648	120Z0648	120Z0648	120Z0648	120Z0648	120Z5034	120Z5034	120Z5034
Condenser		193U0590E	193U0591E	193U0591E	193U0592E	193U0592E	193U0592E	193U0592E	193U0592E	193U0592E
Fan motor		119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E	119-7401E
Fan blade		191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E	191U13942E
Fan grill		118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E	118U3985E
Filter drier	Code	023Z5040	023Z5041	023Z5041	023Z5045	023Z5045	023Z5045	023Z5045	023Z5045	023Z5045
	Model	DML083	DML084	DML084	DML165	DML165	DML165	DML165	DML165	DML165
Sight glass	Code	014L0172	014L0173	014L0173	014L0174	014L0174	014L0174	014L0174	014L0174	014L0174
	Model	SGP 10	SGP 12	SGP 12	SGP 16	SGP 16	SGP 16	SGP 16	SGP 16	SGP 16
Pressure switch codes	HP - Cartridge	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067	061F6067
	LP - KP1	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166	060-110166
Crankcase heater		120Z0895	120Z0895	120Z0895	120Z0895	120Z0892	120Z0892	120Z0892	120Z0892	120Z0892

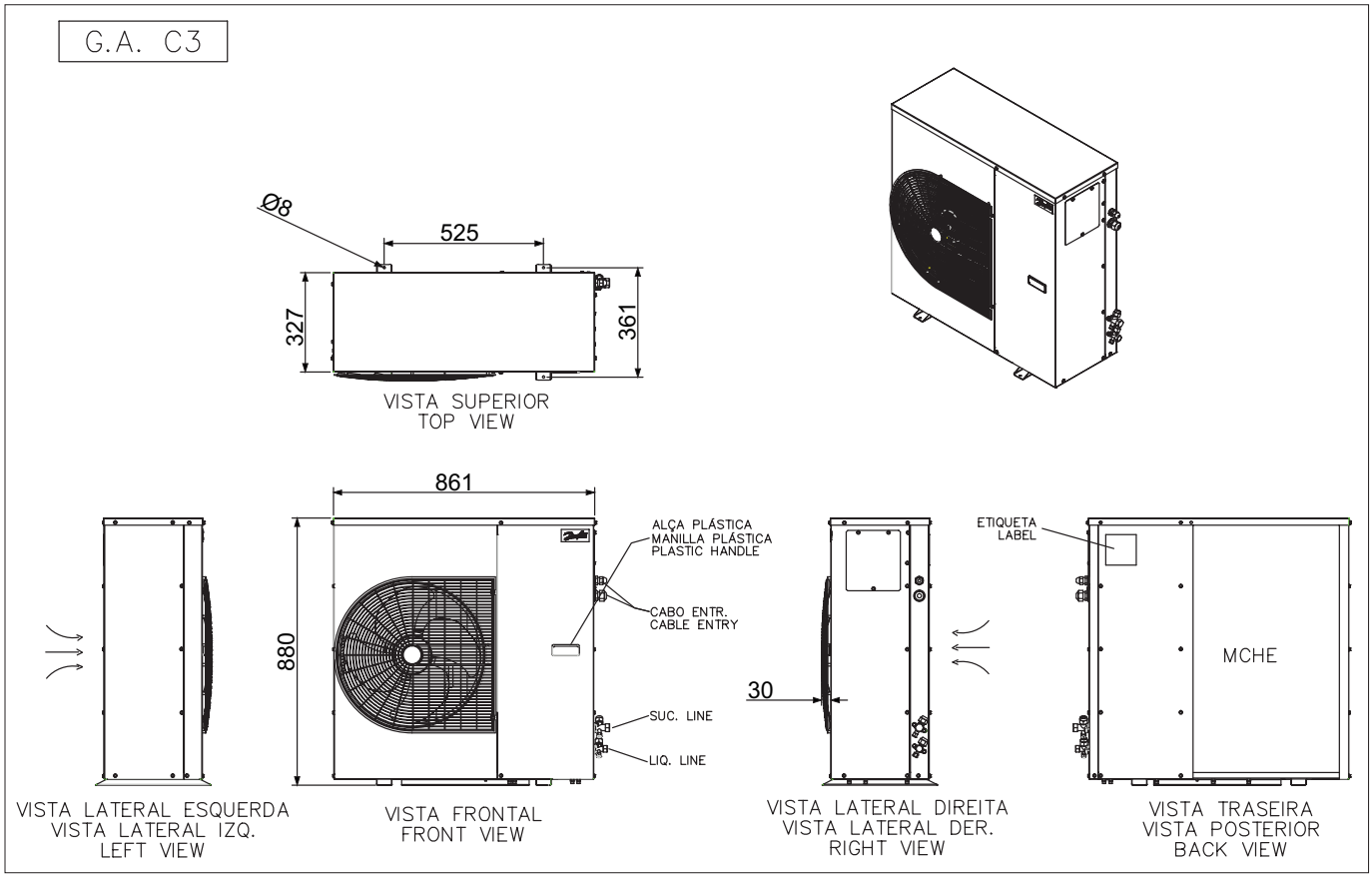
Electrical components

Condensing unit	230V 1Ph (N)					230V 3Ph (Q)		380V 3Ph (V)		Fan capacitor 220V 1Ph	
	Starting relay (options)		Capacitor		Contactor	Relay phase inversion	Contactor	Relay phase inversion	Contactor		
			Run - 440Vac	Start - 330V							
Model	Code	Model	Model	Model						Code	Model
HPM(Z)P019			25µFD	135 µFD	25A	-	18A	-	9A	119-7394	5µFD
HPM(Z)P022			45µFD	135 µFD	25A	-	18A	-	9A	119-7394	5µFD
HPM(Z)P028	119-8453	HF8565T	50µFD	135 µFD	25A	-	18A	-	9A	119-7394	5µFD
HPM(Z)P036			45µFD	135 µFD	25A	-	18A	-	12A	119-7394	5µFD
HPM(Z)PO40		38-S112C4999	55µFD	135 µFD	32A	-	18A	-	12A	119-7394	5µFD
HPM(Z)P050			45µFD	135 µFD	38A	-	32A	-	18A	119-7394	5µFD
HPM(Z)P064	8173024	3ARR3J4A4	55µFD	235 µFD	45A	-	32A	-	18A	119-7394	5µFD
LPZPO48			25µFD	161-193 µFD	25A	-	18A	-	9A	119-7394	5µFD
LPZP068			50µFD	235µFD	25A	-	18A	-	9A	119-7394	5µFD
HPUS015			40µFD	145-175 µFD	25A	120Z0585	18A	120Z0585	9A	119-7394	5µFD
HPUS019	120Z0396	RVA2ACKL	70µFD	145-175 µFD	25A	120Z0585	18A	120Z0585	18A	119-7394	5µFD
HPUS021			70µFD	145-175 µFD	25A	120Z0585	18A	120Z0585	18A	119-7394	5µFD
HPUS026	120Z0397	RVA2ABKL	70µFD	145-175 µFD	32A	120Z0585	25A	120Z0585	18A	119-7394	5µFD
HPUS030			50µFD	161-193 µFD	50A	120Z0585	25A	120Z0585	18A	119-7394	5µFD
HPUS038	120Z0398	RVA4AIKL	55µFD	88-108 µFD	50A	120Z0585	25A	120Z0585	18A	119-7394	5µFD
LPUS013	-	-	-	-	-	120Z0585	25A	120Z0585	18A	119-7394	5µFD
LPUSO15	-	-	-	-	-	120Z0585	32A	120Z0585	18A	119-7394	5µFD
LPUS018	-	-	-	-	-	120Z0585	32A	120Z0585	18A	119-7394	5µFD

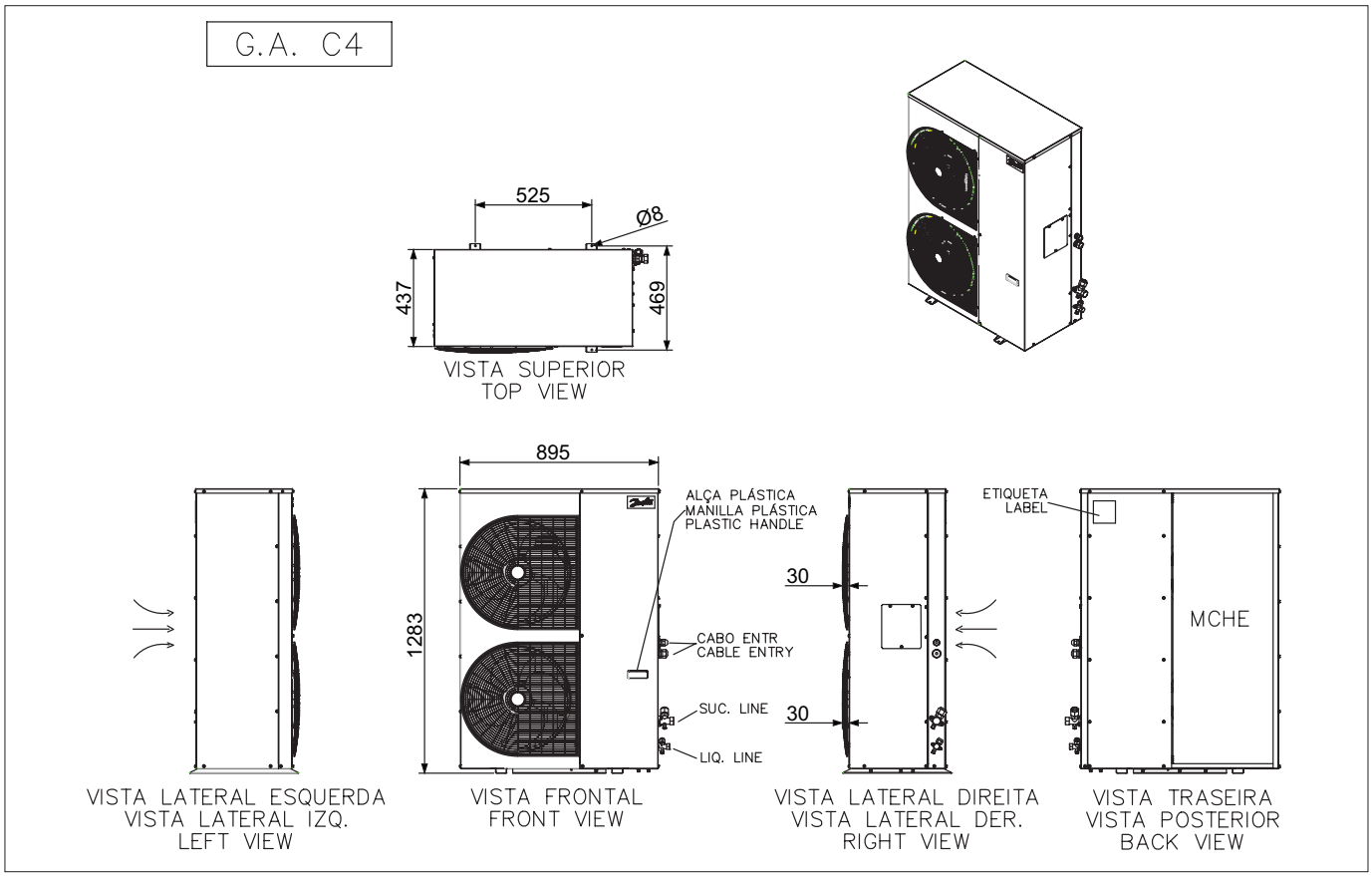
OP-HPMP019-28, OP-HPZP019-28, OP-HPUS015, LPZP048-68



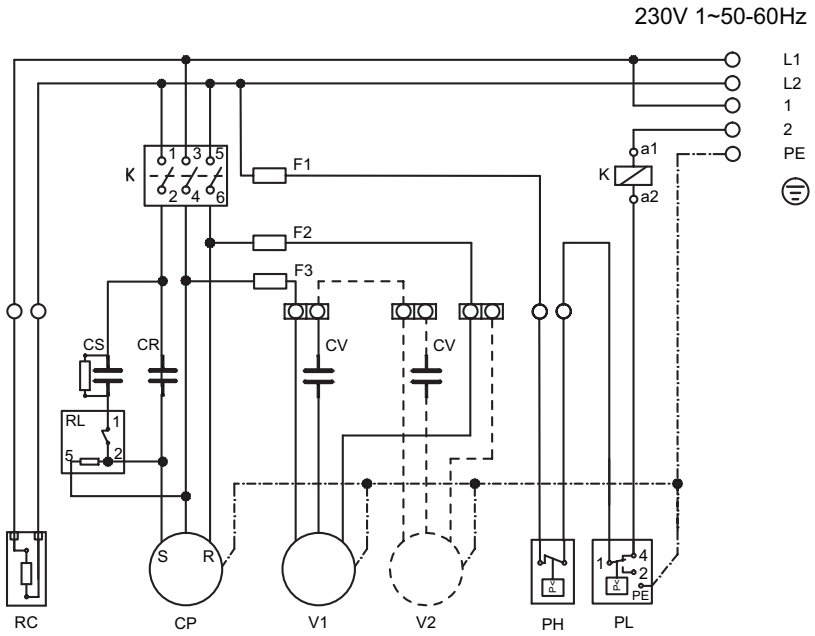
OP-HPMP036-40, OP- HPZP036-40, OP-HPUS019-21



OP-HPMP050-064, OP-HPZP050-064, OP-HPUS026-038,LPZP013-018



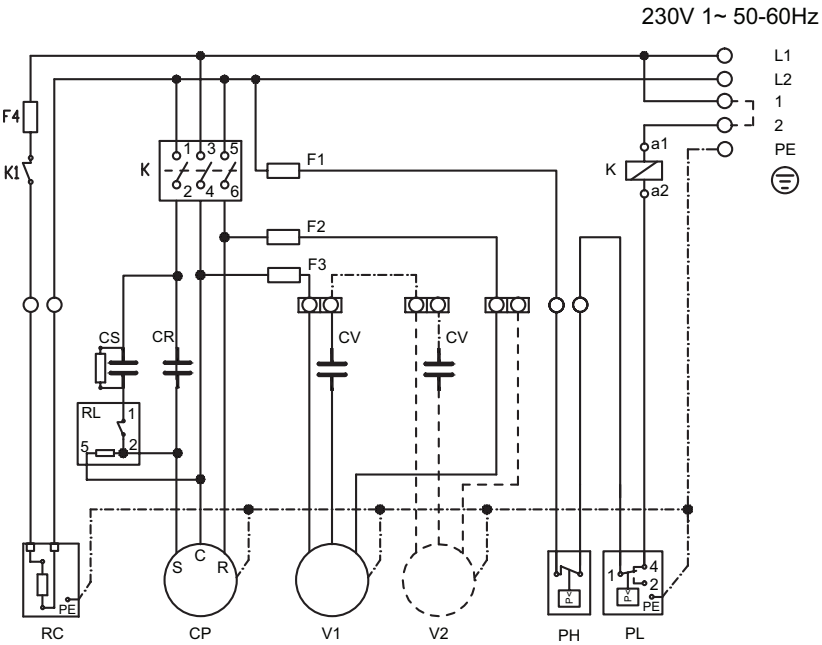
Code N: HPMP, HPZP, LPZP



CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

Nº1

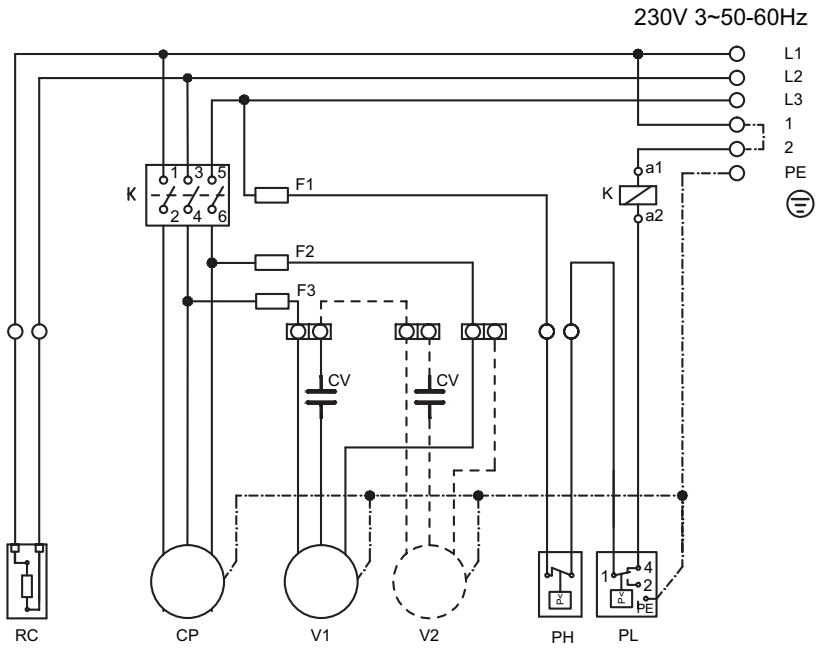
Code N: HPUS



CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

Nº2

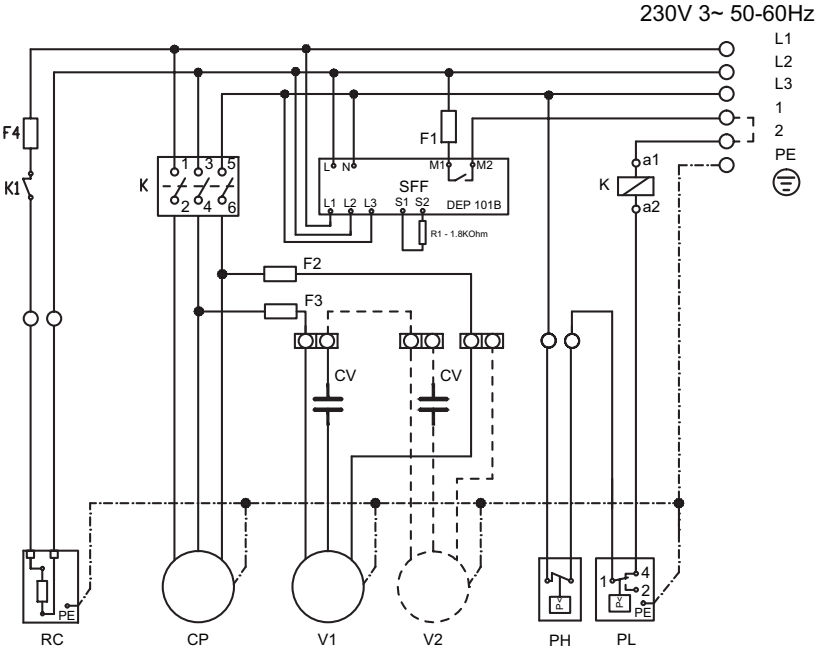
Code Q: HPMP, HPZP, LPZP



CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

№3

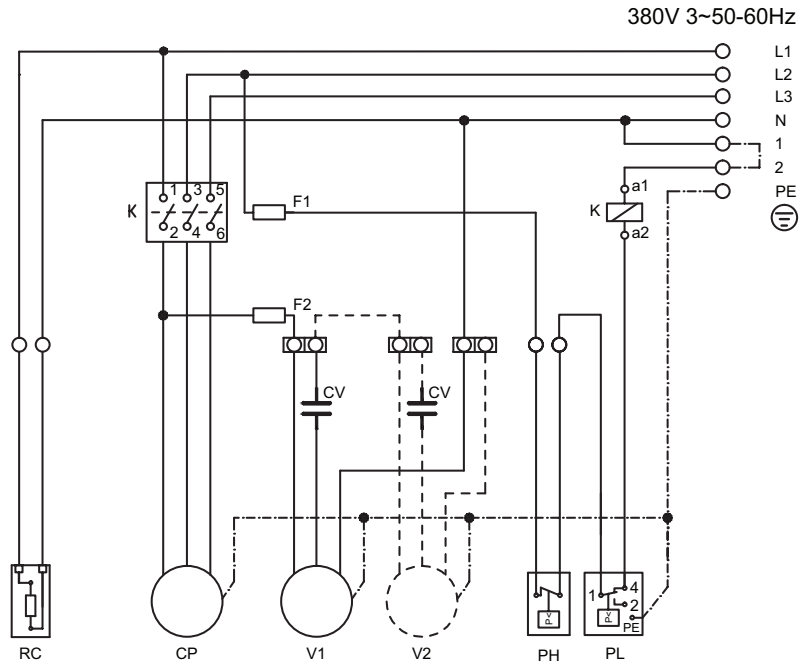
Code Q: HPUS, LPZS



CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

№4

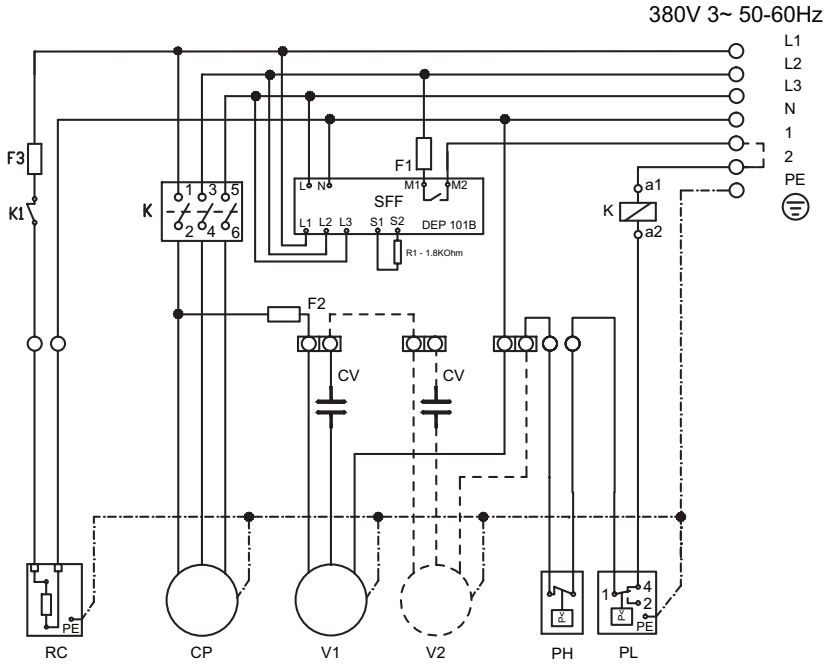
Code V: HPMP, HPZP, LPZP



CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

Nº5

Code V: HPUS, LPZS

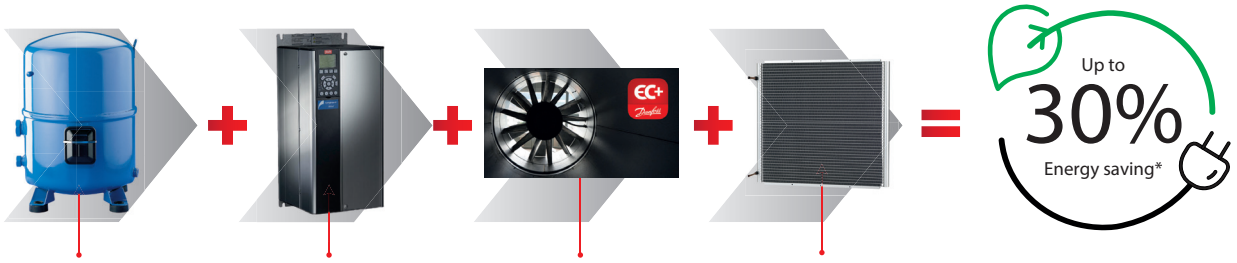


CP - COMPRESSOR / COMPRESOR
CR - CAPACITOR MARCHA / RUN
CS - CAPACITOR ARRANQUE / START
CV - CAPACITOR VENTILADOR / FAN
F - FUSÍVEL / FUSIBLE / FUSE
K - CONTATOR / CONTACTOR
PH - PRESSOSTATO ALTA
PRESOSTATO ALTA
PRESSURE SWITCH - HBP
PL - PRESSOSTATO BAIXA
PRESOSTATO BAJA
PRESSURE SWITCH - LBP
RC - RESISTÊNCIA CARTER
CALENTADOR CARTER
CRANKCASE HEATER
RL - RELE / RELAY
V - VENTILADOR / FAN

Nº6

The complete unit that takes full aim at energy consumption.

In addition to reducing energy consumption by up to 30%, the INVERTER unit delivers low noise, installation flexibility supporting medium and low temperature applications and combines all Danfoss components with extremely high durability and technology.



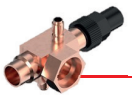
Variable speed Maneurop compressor

Drive CD302 Danfoss

Variable speed AC fan

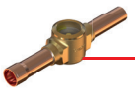
Danfoss' microchannel heat exchanger

Electronic controller



Rotalock Valves

Filter Drier



Sight glass with external visual access

Crankcase heater

80% of components are Danfoss

IP54 Index of Protection

Complete electrical panel

Pressure switch KP15

Pressure and temperature sensors

Oil separator and Suction accumulator

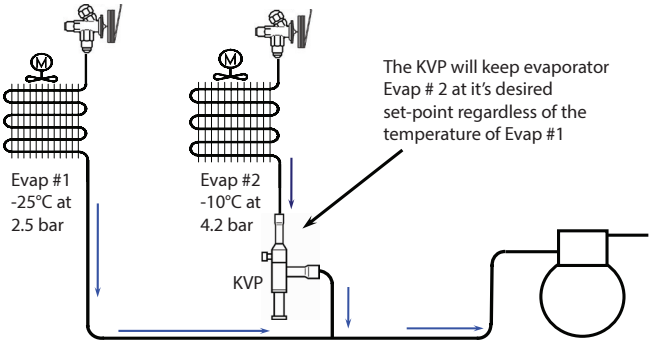
Liquid receiver

*30% energy savings when compared to a Condenser Unit of fixed speed and similar capacity.

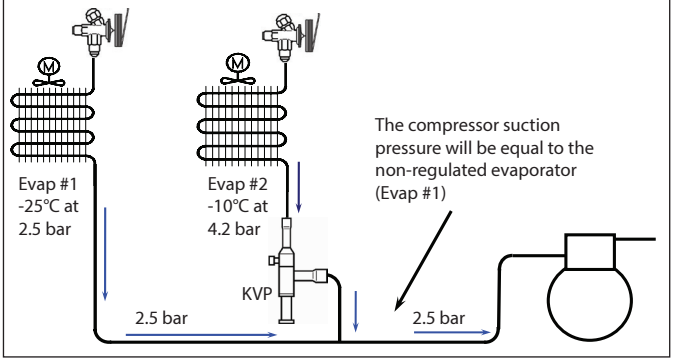
Danfoss Optyma™ **INVERTER** can work with **more than one cold room**, once these conditions are met:

- If the chambers have different operating set-points (different evaporation temperatures, such as, for example, a cooling chamber and a freezing chamber), it is mandatory to use a KVP valve according to the diagram below.
  In case of any doubts please refer to KVP application guide available in Danfoss Product Store.
- The maximum value of the sum of the volumes of the evaporators operating with the same Inverter condensing unit must not exceed 25 liters, to obtain the maximum cooling capacity mentioned in the catalogue.
- Total refrigerant charge must not exceed 9.0 kg due to system pump down. The unit was designed to guarantee 40 meters of line for a total evaporator volume of 16.5 liters when operating at a evaporating temperature of -10°C.
- To obtain the maximum performance of the unit in relation to energy consumption, it is recommended to use electronic expansion valves in the refrigeration system.

KVP with Multiple Evaporators



KVP Pipe Diagram



Mechanical data

Model	Commercial reference	Compressor			Condenser		Fan motor			Receiver	Connection		Weight	
		Model	Displ.	Oil charge	Type	Internal volume	No.	Diameter	Airflow		Suction line	Liquid line	Net	Gross
	(HP)		(m^3/h)	(L)		(L)		(mm)	(m^3/h)	(L)	(in)	(in)	(kg)	(kg)
FBP (Recip)														
FPZP086	5 3/4	VTZ086	27.23	0.95	C4	1.51	2	450	7200	7.5	5/8"	7/8"	170	150

Electrical data

Model	Condensing unit						Compressor						Fan motor		
	230V 3Ph (Q)			380V 3Ph (V)			230V 3Ph (J)			380V 3Ph (G)			No.	220V 1Ph	Power consumption (m^3/h)
50/60HZ	LRA	RLA	MCA	LRA	RLA	MCA	LRA	RLA	MCC	LRA	RLA	MCC		FLA	W
FBP (Recip)															
FPZP086	93	34	44	79	17	19	88	33	41	74	16	16	2	0.96	230

LRA: Locked Rotor Amperage, **RLA:** Full Load Amperage, **MCC:** Maximum Continuous Current, **FLA:** Full Load Amperage

FBP R404A

Model number	Code number	Electrical code	Compressor model	Fans	Ambient temperature (°C)	Cooling capacity range in (Kcal/h) at evaporating temperature (°C)														Compressor Speed (RPM)	Sound Pressure Level at 3m (dB)
						-30°C		-25°C		-20°C		-15°C		-10°C		-5°C		0°C		5°C			
						CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC	CC	PC		
FPZP086	115F0805 115F0806	Q V	VTZ086	2	32	1026	2639	1496	2857	2075	3049	2775	3216	3602	3363	4564	3492	5669	3606	6921	3706	1800	66
					35	922	2626	1364	2864	1909	3075	2566	3261	3345	3425	4252	3571	5296	3701	6483	3818		
					38	824	2607	1239	2865	1749	3096	2365	3302	3096	3485	3950	3649	4934	3796	6055	3929		
					43	672	2560	1044	2855	1498	3121	2046	3361	2699	3578	3466	3773	4352	3952	5365	4115		
					32	2383	3954	3349	4401	4490	4822	5821	5218	7352	5593	9089	5949	11040	6289	13190	6618	3600	
					35	2151	3929	3073	4407	4160	4857	5427	5282	6884	5685	8540	6067	10400	6434	12450	6788		
					38	1923	3893	2802	4401	3834	4881	5035	5336	6418	5768	7991	6178	9758	6572	11720	6952		
					43	1555	3803	2360	4366	3298	4898	4389	5405	5647	5886	7080	6346	8695	6786	10490	7211		
					32	3522	5406	4883	6102	6468	6787	8279	7467	10310	8147	12550	8832	14980	9528	17580	10240	5400	
					35	3204	5366	4507	6098	6018	6819	7740	7533	9668	8245	11800	8961	14110	9686	16580	10430		
					38	2885	5308	4128	6077	5563	6834	7196	7583	9021	8330	11040	9077	13230	9832	15570	10600		
					43	2350	5172	3492	6004	4798	6823	6278	7633	7931	8438	9757	9241	11740	10050	13870	10860		

Superheat: 10K
Subcooling: 0K

CC: Cooling capacity (Kcal/h)
PC: Power input (W)

* Sound Pressure was calculated under following specs: Fan Speed 1250 RPM / Compressor Speed 3600 RPM

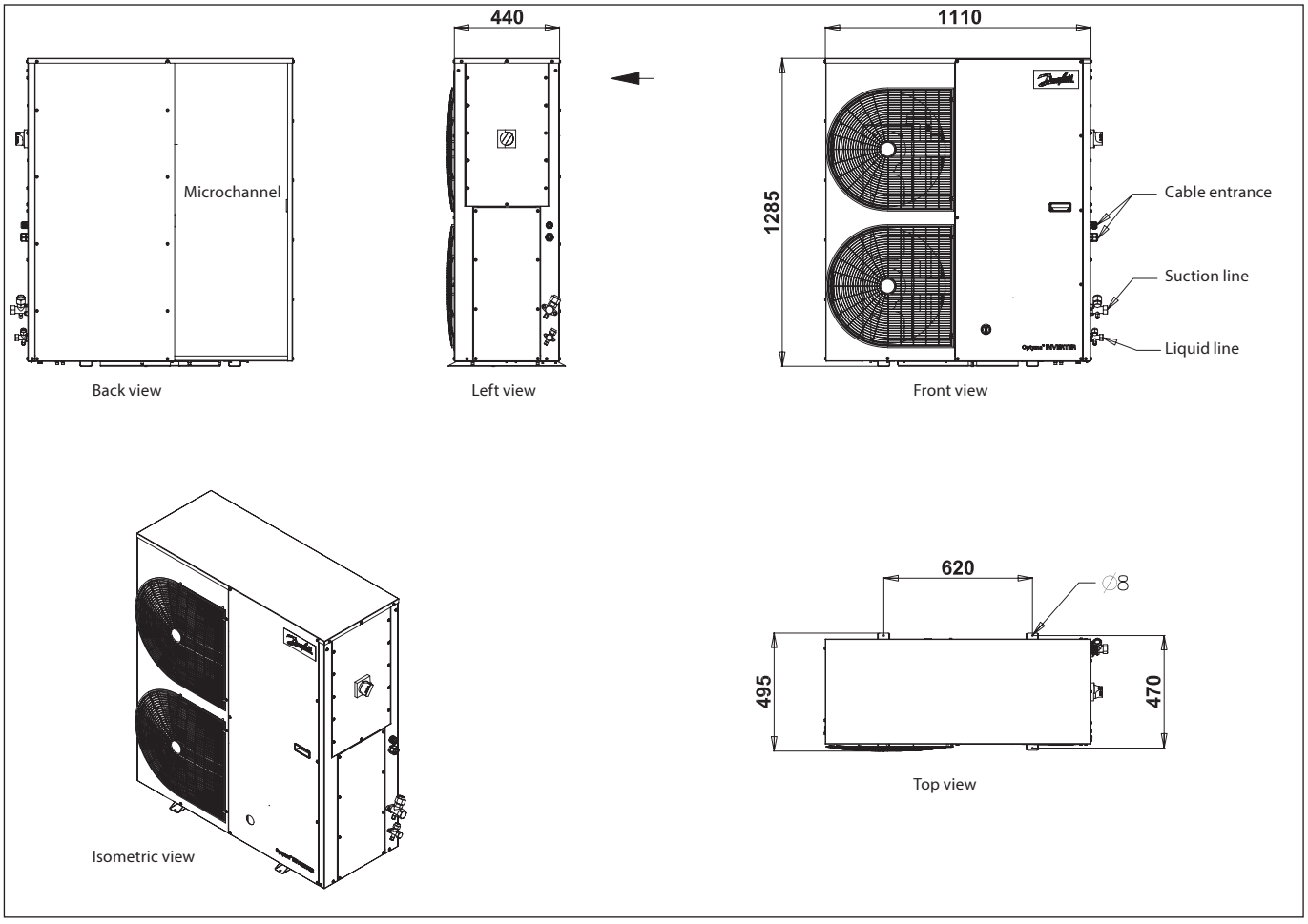
Mechanical components

Condensing unit		FPZP086
Compressor 220V/3Ph/50-60Hz		VTZ086-JNR1
Compressor 380V/3Ph/50-60Hz		VTZ086-GNR1
Oil compressor	R404A / R507	120Z0638
Condenser		021U0592
Fan motor		119-7484
Fan Grill		118U3985E
Filter drier	Code	023Z8045
	Model	DML165
Sight glass	Code	014L0174
	Model	SGP 16N
Pressure switch	HP/LP - KP15	060-126491
Crankcase heater		193U7118

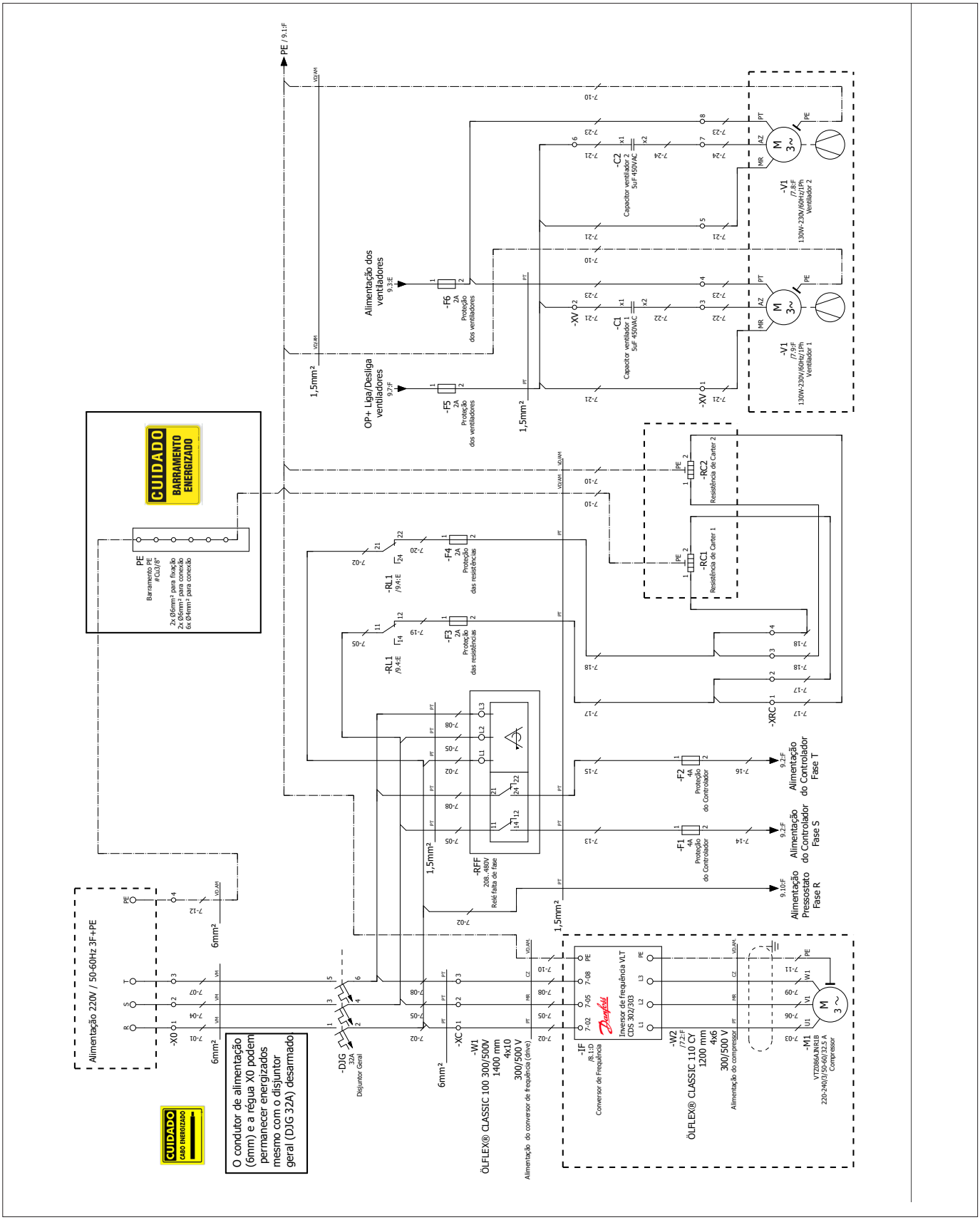
Electrical components

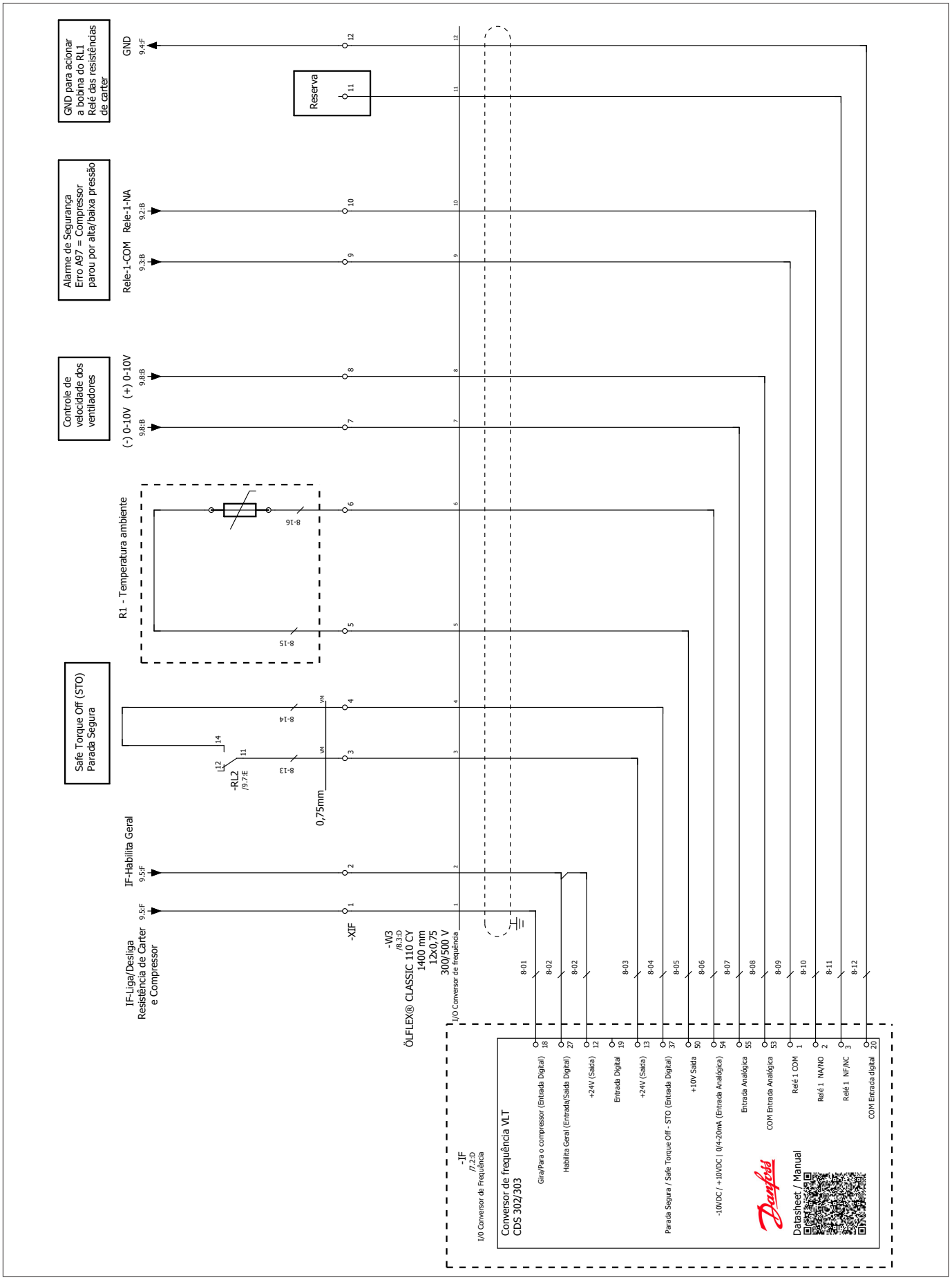
Condensing unit	220V/3Ph/50-60Hz	380V/3Ph/50-60Hz
Optyma Plus Controller	084B8180	084B8180
Frequence Inverter	131B5009	131B3560
Circuit Breaker	40A	20A
Glass Fuse	5A	5A

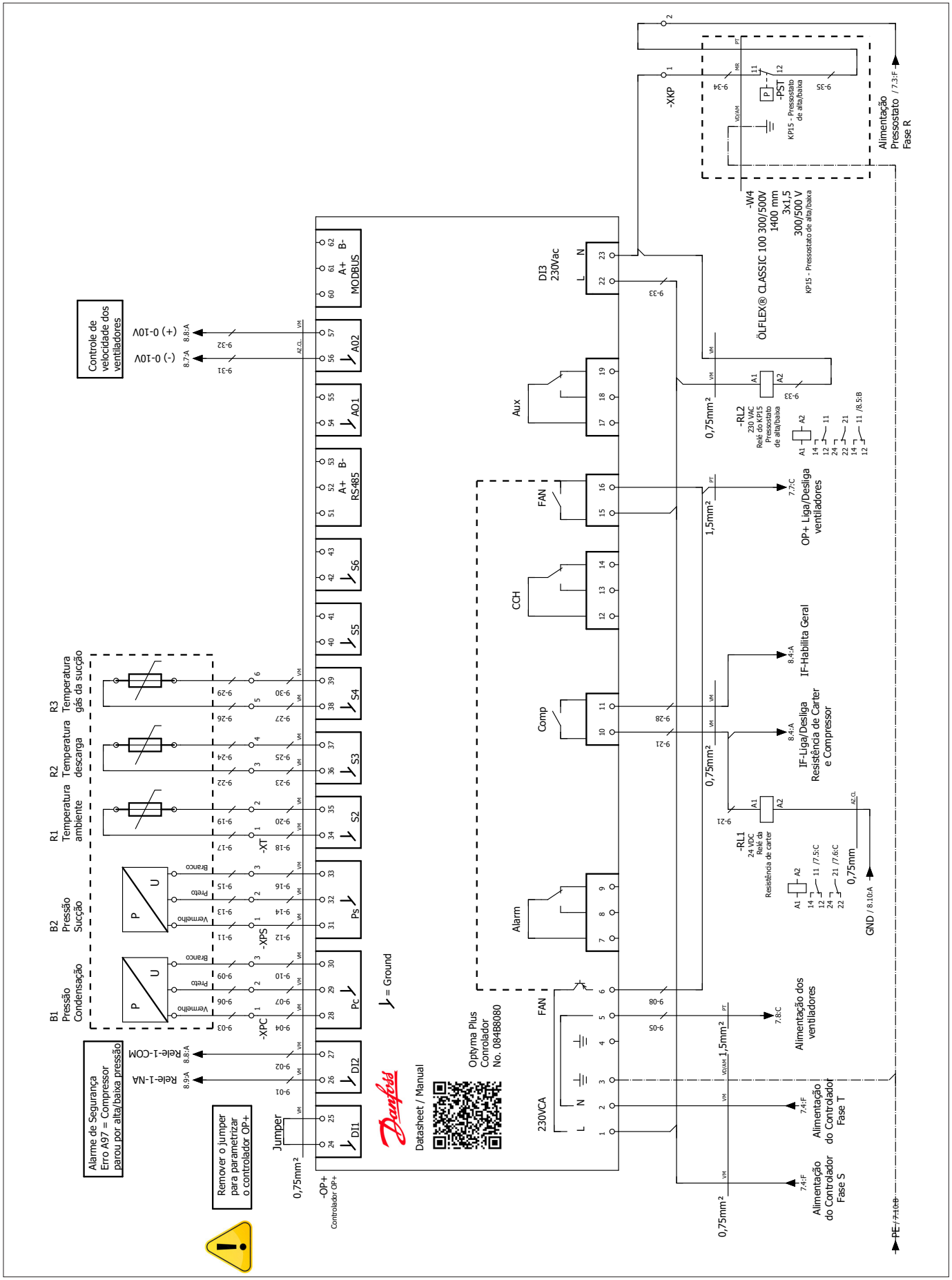
OP - FPZP086


440
1110
Microchannel
1285
Cable entrance
Suction line
Liquid line
Back view
Left view
Front view
620
∅8
495
470
Top view
Isometric view

Electrical Code: 230V / 3Ph / 50-60Hz



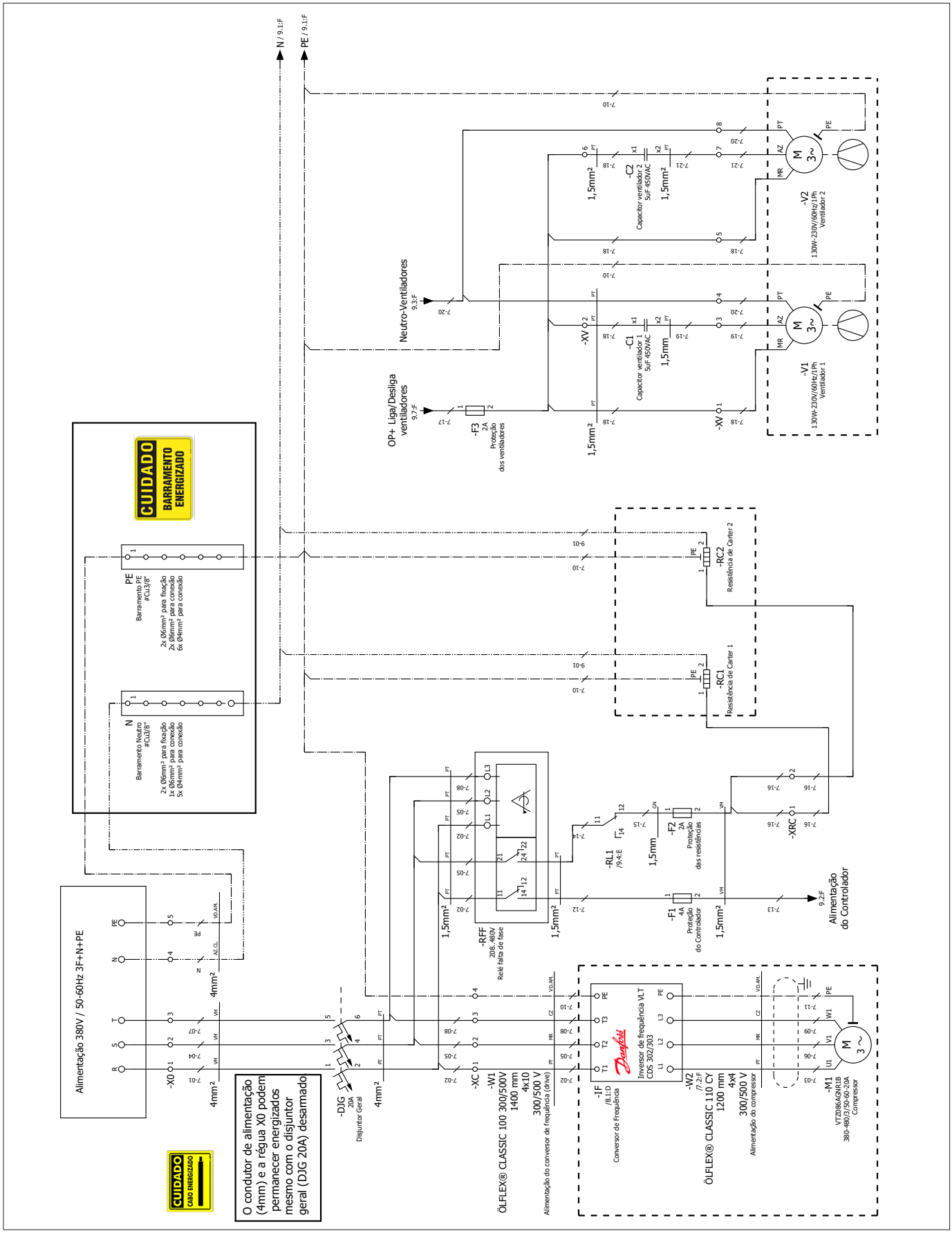

GND para acionar a bobina do RL1 Relé das resistências de carter
GND
9.4:F
Reserva
Alarme de Segurança Erro A97 = Compressor parou por alta/baixa pressão
Rele-1-NA
9.2:B
Rele-1-COM
9.3:B
Controle de velocidade dos ventiladores
(+) 0-10V
9.8:B
(-) 0-10V
9.8:B
R1 - Temperatura ambiente
8-16
8-15
Safe Torque Off (STO) Parada Segura
8-14
8-13
-RL2
/9.7:E
0,75mm
IF-Habilita Geral
9.5:F
IF-Liga/Desliga Resistência de Carter e Compressor
9.5:F
-XIF
-W3
/8.3:D
ÖLFLEX® CLASSIC 110 CY
1400 mm
12x0,75
300/500 V
I/O Conversor de frequência
8-01
8-02
8-02
8-03
8-04
8-05
8-06
8-07
8-08
8-09
8-10
8-11
8-12
-1F
/7.2:D
I/O Conversor de Frequência
Conversor de frequência VLT
CDS 302/303
Gira/Para o compressor (Entrada Digital)
Habilita Geral (Entrada/Saída Digital)
+24V (Saída)
Entrada Digital
+24V (Saída)
Parada Segura / Safe Torque Off - STO (Entrada Digital)
+10V Saída
-10VDC / +10VDC | 0/4-20mA (Entrada Analógica)
Entrada Analógica
COM Entrada Analógica
Relé 1 COM
Relé 1 NA/NO
Relé 1 NF/NC
COM Entrada digital
Datasheet / Manual

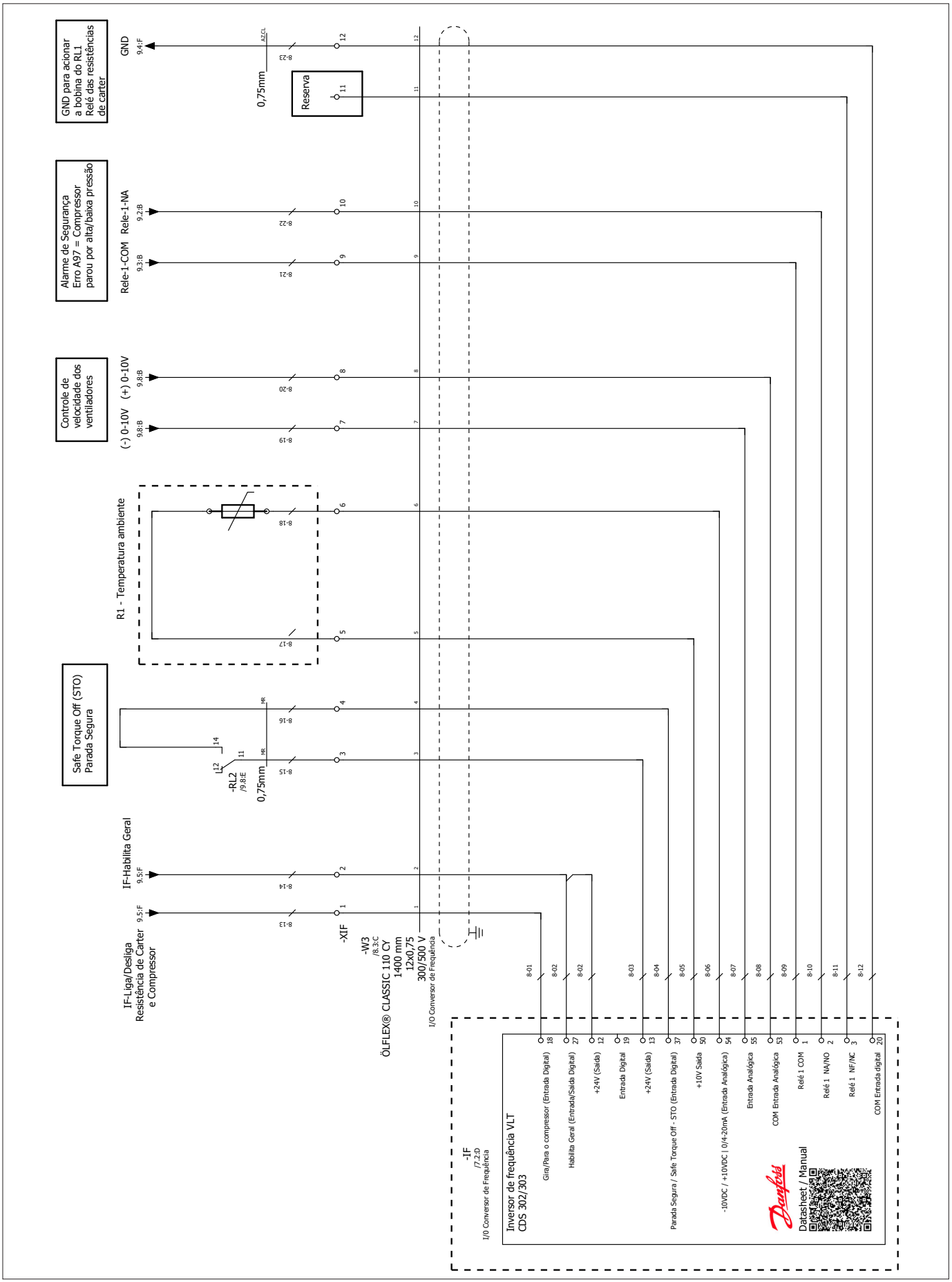


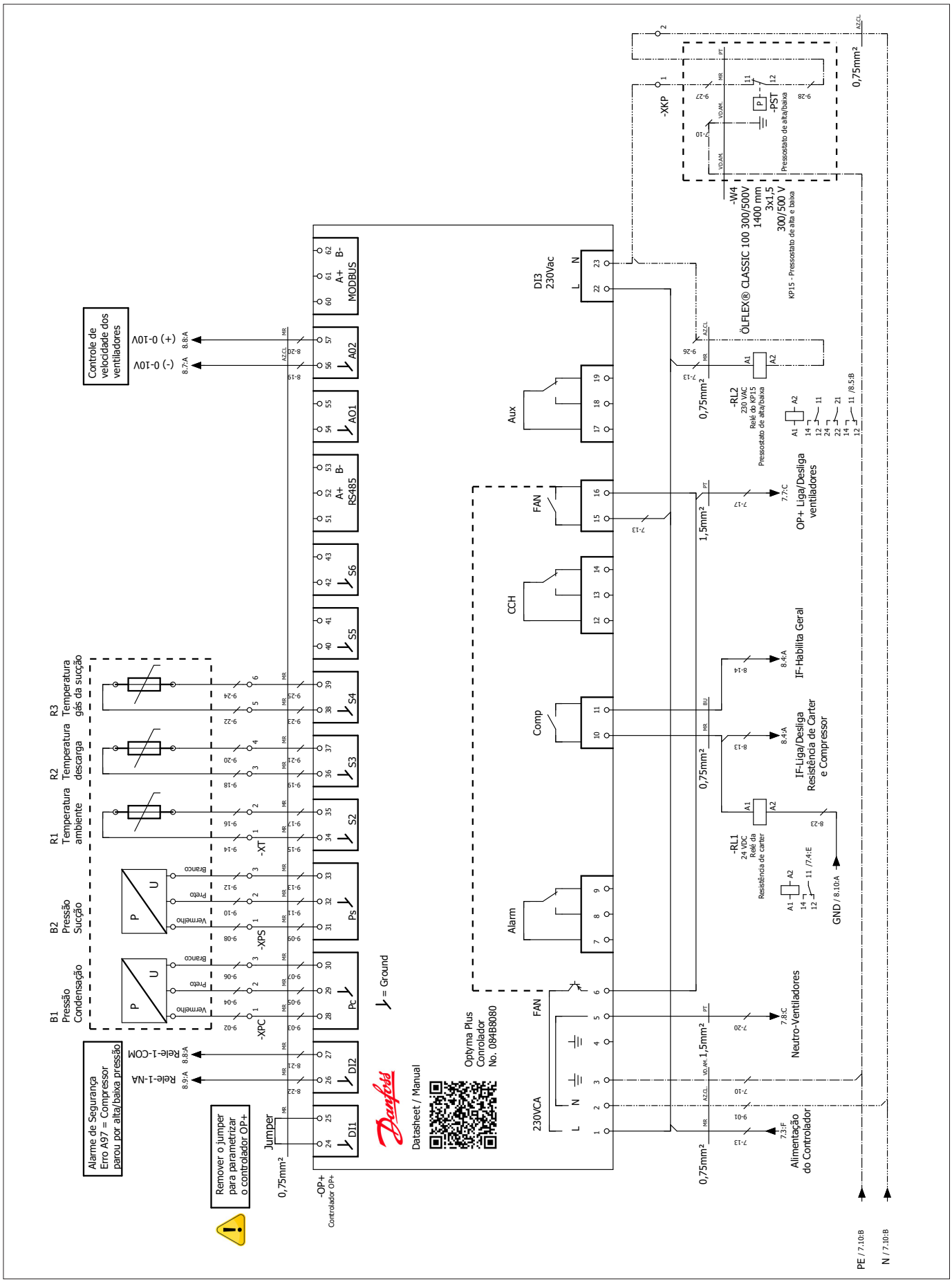
Legend

Label	Description
OP+	Optyma Plus EVO3 Controller
C1 e C2	Capacitor 5µF 450VAC
F1, F2, F3, F4, F5 and F6	Fuse terminal block
DJG	3-pole Circuit Breaker, Type C, 32A
RFF	Phase failure relay, 208–480VAC, 8A, 2 NO/NC contacts
RL1	Relay 24 VDC 8 A
RL2	Relay 230 VAC 8 A
X0, XC, XRC, XV, XIF, XPC, XT and XKP	Terminal blocks
PE	Copper busbar #Cu 3/8"
B1	Pressure transducer DST P110, 0.00 bar – 32.00 bar
B2	Pressure transducer DST P110, -1.00 bar – 12.00 bar
IF	Frequency inverter CD302 11.0kW
PS	High and low pressure switch – KP15
M1	Reciprocating compressor VTZ086JANR1B
M2 and M3	Fan 130W, 6 poles, 230V/60Hz/1Ph
R1	Temperature sensor AKS 11, 3,500 mm, Pt, 1000 Ohm
R2	Temperature sensor AKS 21 2,500 mm
R3	Temperature sensor AKS 11, 3,500 mm, Pt, 1000 Ohm
RC1 and RC2	Crankcase heater 1200 mm

Electrical Code: 380V / 3Ph / 50-60Hz




GND para acionar a bobina do RL1 Relé das resistências de carter
Alarme de Segurança Erro A97 = Compressor parou por alta/baixa pressão
Controle de velocidade dos ventiladores
Safe Torque Off (STO) Parada Segura
GND 9.4:F
Reserva
0,75mm
Rele-1-NA 9.2:B
Rele-1-COM 9.3:B
(+) 0-10V 9.8:B
(-) 0-10V 9.8:B
R1 - Temperatura ambiente
-RL2 /9.8:E
IF-Habilita Geral 9.5:F
IF-Liga/Desliga Resistência de Cárter e Compressor 9.5:F
-XIF
-W3 /8.3:C
ÖLFLEX® CLASSIC 110 CY 1400 mm 12x0,75 300/500 V
I/O Conversor de Frequência
-IF /7.2:D
I/O Conversor de Frequência
Inversor de frequência VLT CDS 302/303
Gira/Para o compressor (Entrada Digital)
Habilita Geral (Entrada/Saída Digital)
+24V (Saída)
Entrada Digital
+24V (Saída)
Parada Segura / Safe Torque Off - STO (Entrada Digital)
+10V Saída
-10VDC / +10VDC | 0/4-20mA (Entrada Analógica)
Entrada Analógica
COM Entrada Analógica
Relé 1 COM
Relé 1 NA/NO
Relé 1 NF/NC
COM Entrada digital
Datasheet / Manual



Legend

Label	Description
OP+	Optyma Plus EVO3 Controller
C1 e C2	Capacitor 5µF 450VAC
F1, F2, F3, F4, F5 and F6	Fuse terminal block
DJG	3-pole Circuit Breaker, Type C, 32A
RFF	Phase failure relay, 208–480VAC, 8A, 2 NO/NC contacts
RL1	Relay 24 VDC 8 A
RL2	Relay 230 VAC 8 A
X0, XC, XRC, XV, XIF, XPC, XT and XKP	Terminal blocks
PE	Copper busbar #Cu 3/8"
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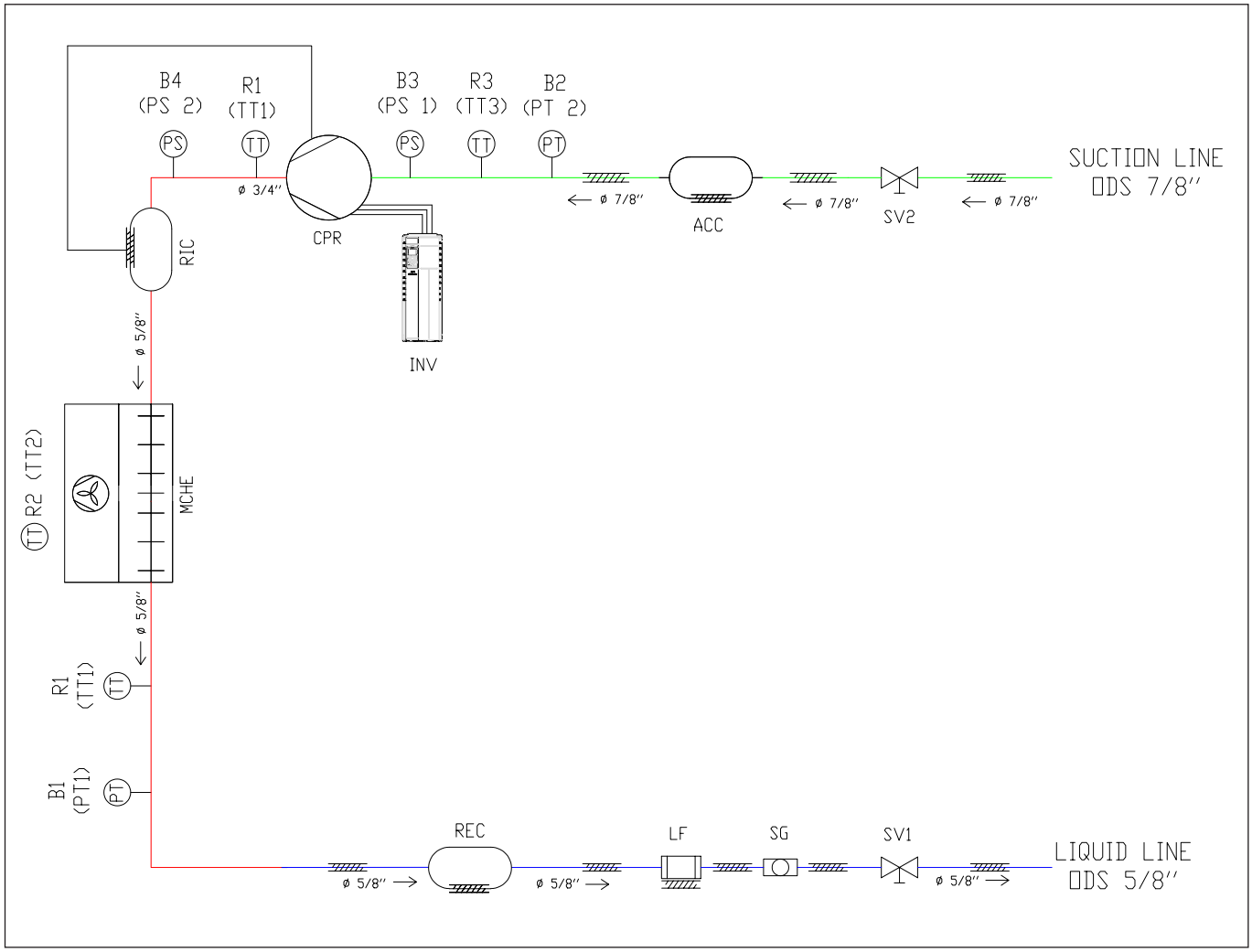
OP - FPZP086



Components Table	
ACC	Suction Accumulator
B1	High Pressure Sensor
B2	Low Pressure Sensor
B3	Low Pressure Switch
B4	High Pressure Switch
CPR	Compressor VTZ086
INV	Frequence Inversor
LF	Liquid Filter with Drier
MCHE	Microchannel Condenser
R1	Discharge Temperature Sensor
R2	Ambient Temperature Sensor
R3	Suction Temperature Sensor
REC	Receiver
RIC	Oil Separator
SG	Sight Glass with Moisture Indicator
SV1	Liquid Line Service Valve
SV2	Suction Line Service Valve

Line Color Table
Red Line - High Pressure Line
Blue Line - Liquid Line
Green Line - Suction Line
Black Line - Oil Line

Notes:

ENGINEERING
TOMORROW

Danfoss Commercial Compressors

is a worldwide manufacturer of compressors and condensing units for refrigeration and HVAC applications. With a wide range of high quality and innovative products we help your company to find the best possible energy efficient solution that respects the environment and reduces total life cycle costs.

We have 40 years of experience within the development of hermetic compressors which has brought us amongst the global leaders in our business, and positioned us as distinct variable speed technology specialists. Today we operate from engineering and manufacturing facilities spanning across three continents.

Danfoss Turbocor Compressors

Danfoss Inverter Scrolls

Danfoss Scrolls

Danfoss Optyma Condensing Units

Danfoss Maneurop Reciprocating Compressors

Danfoss Light Commercial Refrigeration Compressors

Our products can be found in a variety of applications such as rooftops, chillers, residential air conditioners, heatpumps, coldrooms, supermarkets, milk tank cooling and industrial cooling processes.

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