MAKING MODERN LIVING POSSIBLE

Catalogue

Optyma Plus™ New Generation

Plug and play solution

R404A/R507, R134a



www.danfoss.com

OPTYMA PLUS™

DANFOSS CONDENSING UNIT

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Silent and outstanding performance

The Optyma Plus™ New Generation can be located even in residential areas. Smart compressor design, acoustic insulation and fan speed reduction during low capacity operation periods make the Optyma Plus™ so smooth and quiet it will not disturb the peace in your local environment.

Effortless installation

Featuring a more compact design, reduced weight and simplified wiring, the Optyma Plus™ Plug & Play unit is among the fastest to install and easiest to service. All parameters are already set up, switch on the power, and the cooling process is up and running!

Increased efficiency and sustainable solutions

With the Optyma Plus™ New Generation substantial energy savings can be achieved thanks to the energy efficient components inside such as: micro channel heat exchanger, high efficiency fan motors, fan speed and crank case heater control. You are going to reduce the energy consumption significantly and therefore, cut the energy bills.

The highest standard and quality

We provide 100% factory tested units to our customers with premium quality. We at Danfoss do not accept any compromise regarding reliability of our products. The Optyma Plus™ New Generation includes all the best of our condensing units.

Stock and logistics optimization

Multirefrigerant condensing units with optimized packaging cover a wide variety of applications and reduce your stock. Most of the Danfoss condensing units can be used with R404A/R507, R134a, pick what best fits your application.

Increase business opportunity with complete range of condensing units

With new Housing 4 your cooling capacity almost has no limits. Danfoss Optyma Plus™ meets all your needs in low and medium temperature applications.

Environmental friendly

Danfoss Optyma Plus™ condensing units meet Energy related Product (ErP) directive thanks to high efficiency fan motors.



Main product features

Electronic controller

Micro channel heat exchanger

3 access doors







Parameter monitoring and control

Electrical box IP54

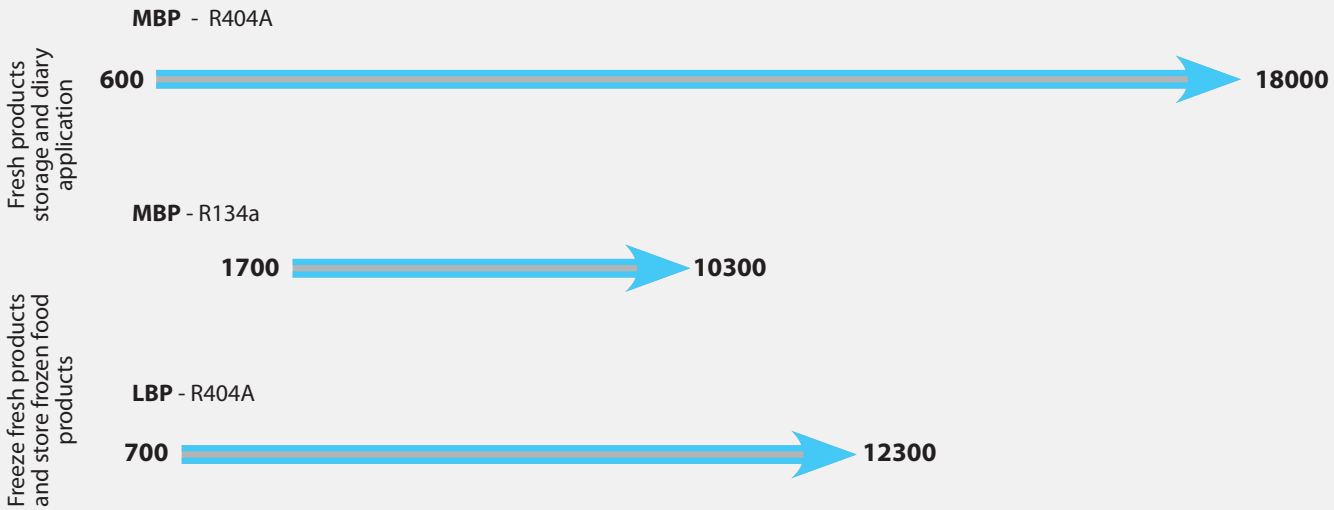
On site stack mounting

Fully weather resistant

Plug and play

Compact design

Capacity range (W)



Conditions:	**LBP**	**MBP**
• Ambient temperature:	32°C	32°C
• Evaporating temperature:	-25°C	-10°C

Optyma Plus™ units can work in the following evaporating temperature range:

LBP R404A	-40°C to -10°C
MBP R404A	-20°C to +10°C
MBP R134a	-15°C to +15°C

For further detailed information, please contact Danfoss.

Fan	Test conditions	Unit	Code	Electrical code	Compressor	Amb. temp. °C	Capacity range in (W) at evaporating temperature (°C) -40°C	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	Sound power level dB(A)	Sound pressure level full sphere 10m dB(A)
	SH 10K	OP-LPHM018	114X3109	G	SC18CLX.2	27	330	460	619	810	1037	1304	1617	60	29
						32	275	395	540	716	926	1175	1467		
						38	209	316	445	603	792	1017	1283		
						43		250	366	507	678				
		OP-LPHM026	114X3217	G	GS26CLX	27	471	668	909	1200	1547	1956	2434	67	36
						32	389	568	788	1053	1371	1747	2189		
						38	296	454	646	881	1163	1500	1898		
						43		363	534	742	995				
		OP-LPHM048	114X3225	G	NTZ048	27	893	1295	1762	2296	2898	3564	4294	69	38
						32	788	1161	1595	2090	2645	3258	3929		
			114X3233	E		38	654	997	1393	1841	2340	2889	3488		
						43	541	860	1224	1633	2086				
		OP-LPHM068	114X3241	G	NTZ068	27	1567	2121	2757	3471	4258	5111	6022	70	39
						32	1388	1907	2498	3160	3891	4680	5523		
			114X3249	E		38	1193	1669	2208	2809	3471	4185	4947		
						43	1044	1486	1982	2533	3136				
		OP-LPHM096	114X3357	E	NTZ096	27	1901	2643	3542	4630	5916	7406	9101	72	41
						32	1695	2373	3215	4232	5435	6830	8419		
						38	1410	2028	2797	3727	4827	6107	7569		
						43	1167	1732	2435	3289	4304				
		OP-LPHM136	114X3365	E	NTZ136	27	2950	3984	5212	6639	8264	10088	12095	73	42
						32	2631	3602	4750	6081	7593	9291	11155		
						38	2248	3143	4195	5408	6786	8330	10027		
						43	1931	2762	3732	4847	6111				
		OP-LPHM215	114X3475	E	NTZ215	27	4538	6166	8074	10270	12747	15504	18522	77	46
						32	4020	5572	7376	9439	11756	14328	17135		
						38	3340	4792	6464	8363	10486	12836	15393		
						43	2740	4102	5658	7417	9374	11530	13886		
		OP-LPHM271	114X3481	E	NTZ271	27	6076	8167	10599	13362	16415	19736	23285	77	46
						32	5492	7460	9729	12287	15117	18177	21443		
						38	4753	6566	8637	10952	13501	16251	19179		
						43	4115	5794	7694	9806	12122	14615	17262		

Test condition **Superheat 10K**
EN13215
Subcooling within the limits of the condensing unit

Electrical code
E - Compressor 400V/3phase/50Hz, fan 230V/1phase/50 Hz
G - Compressor 230V/1phase/50Hz, fan 230V/1phase/50 Hz

Sound measurement done in accordance with ISO 9614-1
LBP measured in accordance to EN 13215 @ - 25 suction, +32 ambient, SH10K
Units can operate down to -45 evaporating temperature. Refer to dedicated Software or contact Danfoss for more details

Cooling capacity is given for units with 3-phase compressor. Capacity of single-phase versions is within +/- 1% of this value

Unit	Condenser coil			Condenser fan	Receiver volume (L)	Power consumption (W) at evap. temp. -25°C	Dimensions(mm)						Weight(kg)	
	Type	Airflow (m^3/h)	Int. volume (dm^3)	Fan blade Ø (mm)			Fig.	Height H (mm)	Width W (mm)	Length D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-LPHM018	A7	2200	0.4	1x356	1.3	732	1	652	906	356	3/8"	3/8"	63	51
OP-LPHM026	D7	3700	0.6	1x457	3.4	1009	2	815	1055	430	1/2"	3/8"	93	79
OP-LPHM048	D7	3700	0.6	1x457	3.4	1445(1~) 1430(3~)	2	815	1055	430	5/8"	3/8"	95	81
OP-LPHM068	D7	3700	0.6	1x457	3.4	2191(1~) 2144(3~)	2	815	1055	430	5/8"	3/8"	97	83
OP-LPHM096	G7	6700	1.8	1x609	6.2	2714	3	967	1406	481	7/8"	1/2"	135	119
OP-LPHM136	G7	6700	1.8	1x609	6.2	4232	3	967	1406	481	1-1/8"	1/2"	135	119
OP-LPHM215	J7	9500	2,5	2x609	10.0	6678	4	966	1800	600	1-1/8"	3/4"	205	161
OP-LPHM271	J7	9500	2,5	2x609	10.0	8567	4	966	1800	600	1-1/8"	3/4"	207	163

Power consumption referred at 32°C ambient temp.

Fan	Test conditions	Unit	Code	Electrical code	Compressor	Amb. temp. °C	Capacity range in (W) at evaporating temperature (°C)							Sound power level dB(A)	Sound pressure level full sphere 10m dB(A)
							-20°C	-15°C	-10°C	-5°C	0°C	+5°C	+10°C		
		OP-MPHM007	114X4101	G	NF 7MLX	27		540	676	835	1021	1236		60	29
						32		484	610	757	930	1130			
						38		416	530	663	820	1001			
						43		360	463	584	727	893			
		OP-MPHM010	114X4102	G	SC10MLX	27	574	729	917	1141	1405	1713		60	29
						32	510	652	824	1029	1270	1552			
						38	431	558	711	893	1107	1359			
						43		478	614	777	970				
		OP-MPHM012	114X4104	G	SC12MLX	27	701	886	1110	1378	1693	2060		60	29
						32	624	794	999	1244	1532	1869			
						38	530	681	864	1081	1338	1638			
						43		585	748	943	1173				
		OP-MPHM015	114X4105	G	SC15MLX	27	867	1096	1370	1694	2073	2513		60	29
						32	772	982	1235	1535	1889	2301			
						38	660	846	1072	1342	1663	2040			
						43		734	936	1180	1471				
		OP-MPHM018	114X4109	G	SC18MLX	27	1012	1277	1595	1970	2410	2920		60	29
						32	901	1145	1438	1787	2197	2674			
						38	772	987	1249	1563	1935	2371			
						43		858	1092	1374	1712				
		OP-MPHM026	114X4214	G	GS26MLX	27		1985	2496	3096	3797	4610		67	36
						32		1779	2249	2802	3448	4201			
						38		1534	1954	2450	3031	3710			
						43		1332	1710	2156	2682				
		OP-MPHM034	114X4229	G	GS34MLX	27		2616	3238	3962	4802	5771		67	36
						32		2360	2939	3613	4395	5300			
						38		2044	2564	3171	3878	4699			
						43		1778	2245	2792	3430	4176			
		OP-MPUM034	114X4261	G	MLZ015	27	2731	3323	3979	4702	5488	6339	7250	68	37
						32	2501	3059	3669	4338	5064	5845	6682		
			114X4264	E		38	2195	2714	3274	3880	4532	5233	5984		
						43	1912	2402	2921	3475	4071	4707	5386		
		OP-MPUM046	114X4281	G	MLZ021	27	3744	4482	5291	6176	7139	8181	9300	68	37
						32	3484	4169	4916	5732	6619	7581	8619		
			114X4284	E		38	3145	3766	4439	5170	5966	6833	7774		
						43	2840	3407	4016	4677	5399	6188			
		OP-MPUM057	114X4290	G	MLZ026	27	4523	5380	6318	7332	8416	9560	10753	68	37
						32	4184	4976	5839	6769	7764	8816	9913		
			114X4293	E		38	3744	4456	5228	6060	6949	7889	8875		
						43	3345	3991	4688	5438	6240	7092	7988		
		OP-MPUM068	114X4308	G	MLZ030	27	5878	7088	8455	9977	11657	13484	15454	69	38
						32	5503	6630	7902	9318	10883	12587	14426		
			114X4311	E		38	5023	6044	7199	8485	9909	11463	13145		
						43	4595	5527	6579	7755	9056	10488	12041		
		OP-MPUM080	114X4321	G	MLZ038	27	6909	8306	9877	11612	13515	15583	17810	69	38
						32	6451	7751	9206	10818	12582	14500	16569		
			114X4324	E		38	5863	7047	8364	9823	11420	13157	15037		
						43	5342	6425	7625	8956	10413	12002	13727		
		OP-MPUM107	114X4344	E	MLZ048	27	8806	10537	12431	14500	16757	19202	21834	75	44
						32	8185	9793	11543	13454	15534	17793	20232		
						38	7390	8847	10423	12140	14010	16047	18261		
						43	6685	8015	9445	10999	12697	14550			
		OP-MPUM125	114X4414	E	MLZ058	27	10638	12820	15372	18204	21247	24429	27672	75	44
						32	9703	11745	14126	16780	19620	22585	25599		
						38	8461	10339	12531	14969	17573	20278	23024		
						43	7317	9067	11100	13366	15776	18275	20803		
		OP-MPUM162	114X4434	E	MLZ076	27	14044	16679	19518	22583	25902	29489	33349	75	44
						32	13063	15415	17940	20675	23650	26883	30387		
						38	11867	13829	15944	18256	20798	23597	26677		
						43	10873	12466	14210	16140	18306	20739	23447		

Test condition **Superheat 10K**
EN13215
Subcooling within the limits of the condensing unit

Electrical code
E - Compressor 400V/3phase/50Hz, fan 230V/1phase/50 Hz
G - Compressor 230V/1phase/50Hz, fan 230V/1phase/50 Hz

Sound measurement done in accordance with ISO 9614-1
MBP measured in accordance to EN 13215 @ - 10°C suction, +32°C ambient, SH10K
MLZ type compressor models are scroll compressors

Units can operate down to -45°C evaporating temperature. Refer to dedicated Software or contact Danfoss for more details.
Cooling capacity is given for units with 3-phase compressor. Capacity of single-phase versions is within +/- 1% of this value.

Unit	Condenser coil			Condenser fan	Receiver volume (L)	Power consumption (W) at evap. temp.		Dimensions (mm)					Weight (kg)	
	Type	Air flow (m^3/h)	Int. volume (dm^3)	Fan blade Ø (mm)		-10°C	+5°C	Fig.	Height H (mm)	Width W (mm)	Length D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-MPHM007	A7	2200	0.4	1x356	1.3	457	534	1	652	906	356	3/8"	1/4"	60	48
OP-MPHM010	A7	2200	0.4	1x356	1.3	566	676	1	652	906	356	3/8"	1/4"	63	51
OP-MPHM012	A7	2200	0.4	1x356	1.3	664	801	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM015	A7	2200	0.4	1x356	1.3	829	1021	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM018	A7	2200	0.4	1x356	1.3	908	1120	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM026	D7	3700	0.6	1x457	3.4	1295	1597	2	815	1055	430	5/8"	3/8"	93	79
OP-MPHM034	D7	3700	0.6	1x457	3.4	1800	2293	2	815	1055	430	5/8"	3/8"	96	82
OP-MPUM034	D7	3700	0.6	1x457	3.4	1769(1~) 1700(3~)	1942(1~) 1779(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM046	D7	3700	0.6	1x457	3.4	2448(1~) 2363(3~)	2718(1~) 2584(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM057	D7	3700	0.6	1x457	3.4	3384(1~) 3103(3~)	3602(1~) 3515(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM068	G7	6700	1.8	1x609	6.2	3351(1~) 3222(3~)	3698(1~) 3459(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM080	G7	6700	1.8	1x609	6.2	3967(1~) 3917(3~)	4477(1~) 4299(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM107	G7	6700	1.8	1x609	6.2	5347	5949	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM125	J7	9500	2.5	2x609	10.0	6684	7322	4	966	1800	600	1-1/8"	3/4"	187	143
OP-MPUM162	J7	9500	2.5	2x609	10.0	8793	9865	4	966	1800	600	1-1/8"	3/4"	189	144

Power consumption referred at 32°C ambient temp

Fan	Test conditions	Unit	Code	Electrical code	Compressor	Amb. temp. °C	Capacity range in (W) at evaporating temperature (°C)							Sound power level dB(A)	Sound pressure level full sphere 10m dB(A)
							-15°C	-10°C	-5°C	0°C	+5°C	+10°C	+15°C		
	SH 10K	OP-MPGM034	114X4210	G	GS34MFX	27	1418	1802	2259	2799	3431			67	36
						32	1307	1671	2104	2616	3217				
						38	1173	1512	1916	2396	2960				
						43	1060	1379	1759	2211	2744				
		OP-MPUM034	114X4261	G	MLZ015	27	1821	2293	2844	3481	4207	5027	5942	68	37
						32	1721	2168	2695	3303	3999	4788	5668		
			114X4264	E		38	1602	2019	2511	3084	3742	4488	5327		
						43		1892	2356	2897	3521	4231	5031		
		OP-MPUM046	114X4281	G	MLZ021	27	2469	3077	3799	4635	5584	6645	7813	68	37
						32	2329	2909	3596	4392	5299	6311	7428		
			114X4284	E		38	2158	2700	3344	4091	4944	5898	6952		
						43		2521	3128	3833	4640	5544	6544		
		OP-MPUM057	114X4290	G	MLZ026	27	2974	3729	4602	5594	6710	7950	9312	68	37
						32	2796	3516	4348	5294	6357	7540	8839		
			114X4293	E		38	2581	3256	4035	4921	5920	7031	8254		
						43	2402	3035	3768	4602	5544	6593	7750		
		OP-MPUM068	114X4308	G	MLZ030	27	3736	4703	5842	7163	8673	10381	12294	69	38
						32	3533	4454	5542	6805	8253	9893	11734		
			114X4311	E		38	3290	4150	5171	6362	7731	9285	11034		
						43	3086	3893	4855	5981	7281	8761	10428		
		OP-MPUM080	114X4321	G	MLZ038	27	4356	5492	6814	8335	10067	12020	14194	69	38
						32	4102	5191	6456	7911	9569	11439	13523		
			114X4324	E		38	3792	4820	6013	7386	8950	10719	12692		
						43	3529	4503	5633	6934	8419	10096	11978		
		OP-MPUM107	114X4344	E	MLZ048	27	5684	7116	8801	10735	12901	15296	17906	75	44
						32	5344	6709	8318	10164	12246	14543	17048		
						38	4935	6207	7717	9457	11422	13596	15971		
						43	4593	5781	7201	8844	10707	12773	15036		
		OP-MPUM125	114X4414	E	MLZ058	27	6912	8660	10676	12978	15582	18506	21751	75	44
						32	6482	8165	10101	12308	14804	17606	20717		
						38	5952	7553	9389	11479	13841	16494	19442		
						43	5501	7030	8780	10769	13016	15538	18350		
		OP-MPUM162	114X4434	E	MLZ076	27	8770	10986	13535	16435	19684	23298	27278	75	44
						32	8239	10347	12780	15555	18671	22140	25967		
						38	7612	9576	11856	14462	17410	20695	24330		
						43	7101	8933	11073	13532	16325	19449	22919		

Test condition **Superheat 10K**
EN13215
Subcooling within the limits of the condensing unit

Electrical code
E - Compressor 400V/3phase/50Hz, fan 230V/1phase/50 Hz
G - Compressor 230V/1phase/50Hz, fan 230V/1phase/50 Hz

Sound measurement done in accordance with ISO 9614-1
MBP measured in accordance to EN 13215 @ - 10°C suction, +32°C ambient, SH10K
MLZ type compressor models are scroll compressors

Cooling capacity is given for units with 3-phase compressor. Capacity of single-phase versions is within +/- 1% of this value

Unit	Condenser coil			Condenser fan	Receiver volume (L)	Power consumption (W) at evap. temp.		Dimensions (mm)						Weight (kg)	
	Type	Air flow (m^3/h)	Int. volume (dm^3)	Fan blade Ø (mm)		-10°C	+5°C	Fig.	Height H (mm)	Width W (mm)	Length D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-MPGM034	D7	3700	0.6	1x457	3.4	1000	1318	2	815	1055	430	5/8"	3/8"	96	82
OP-MPUM034	D7	3700	0.6	1x457	3.4	1027(1~) 977(3~)	1135(1~) 1062(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM046	D7	3700	0.6	1x457	3.4	1457(1~) 1294(3~)	1654(1~) 1452(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM057	D7	3700	0.6	1x457	3.4	1923(1~) 1600(3~)	2219(1~) 1837(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM068	G7	6700	1.8	1x609	6.2	2127(1~) 1845(3~)	2334(1~) 2003(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM080	G7	6700	1.8	1x609	6.2	2373(1~) 2232(3~)	2634(1~) 2465(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM107	G7	6700	1.8	1x609	6.2	2788	3150	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM125	J7	9500	2.5	2x609	10.0	3988	4404	4	966	1800	600	1-1/8"	3/4"	187	143
OP-MPUM162	J7	9500	2.5	2x609	10.0	5040	5662	4	966	1800	600	1-1/8"	3/4"	189	144

Power consumption referred at 32°C ambient temp

Electrical characteristics - 230V/1phase/50Hz

Unit	Wiring diagram	LRA compressor (A) 230 V/ 1 phase	MCC compressor (A) 230 V/ 1 phase	Max cont. power consumption (kW)	MCC Fan (A) 230 V/ 1 phase	Fan Power (W)
OP-LPHM018	WD1	23.5	5.3	1.07	0.32	1x25
OP-LPHM026	WD2	25.7	5.4	1.47	0.47	1x68
OP-LPHM048		37	11	2.19		
OP-LPHM068		53	17	3.62		

LRA (Locked Rotor Amps)
MCC (Maximum Continuous Current)

Electrical characteristics - 400V/3phase/50Hz

Unit	Wiring diagram	LRA compressor (A) 400 V/ 3phase	MCC compressor (A) 400 V/ 3phase	Max cont. power consumption (kW)	MCC Fan (A) 230 V/ 1 phase	Fan Power (W)
OP-LPHM048	WD4	16	4.8	2.28	0.47	1x68
OP-LPHM068		25	8.4	3.57		
OP-LPHM096		32	10.1	4.53	0.96	1x120
OP-LPHM136		51	14.3	6.87		
OP-LPHM215	WD5	74	22.3	10.09	2x0.96	2x120
OP-LPHM271		96	27	12.85		

LRA (Locked Rotor Amps)
MCC (Maximum Continuous Current)

Spare parts (Automatic controls)

Unit	Filter drier		Sight glass		Suction valve		Liquid valve		High Pressure switch		Low Pressure switch	
OP-LPHM018	DML083 DCL083	023Z5040 023Z5005	SGN+10s	014F0182	GBC 10s	009G7051	GBC10s	009G7051	ACB-2UB463W	061F8492	ACB-2UA418W	061F7283
OP-LPHM026	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC 12s	009G7052	GBC10s	009G7051				
OP-LPHM048	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC 16s	009G7053	GBC10s	009G7051				
OP-LPHM068	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC 16s	009G7053	GBC10s	009G7051				
OP-LPHM096	DML164 DCL164	023Z5044 023Z5009	SGN+12	014F0173	GBC 22s	009G7055	GBC 12s	009G7052				
OP-LPHM136	DML164 DCL164	023Z5044 023Z5009	SGN+12	014F0173	GBC 28s	009G7056	GBC 12s	009G7052				
OP-LPHM215	DML166 DCL166	023Z5046 023Z5011	SGN+19	014F0175	GBC 28s	009G7056	GBC 18s	009G7054				
OP-LPHM271	DML166 DCL166	023Z5046 023Z5011	SGN+19	014F0175	GBC 28s	009G7056	GBC 18s	009G7054				

Spare parts (Components)

Unit	Fan capacitor (µF)		Receiver (L)		Fan motor (W) (capacitor not included)		Fan blade		Fan grill		Condenser	Optyma Plus™ Controller
OP-LPHM018	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	118U3465
OP-LPHM026	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-LPHM048	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-LPHM068	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-LPHM096	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H3	118U3485	118U3494	
OP-LPHM136	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H3	118U3485	118U3494	
OP-LPHM215	6	118U3298	10	118U3716	120	118U3479	f24"	118U3482	H4	118U3485	118U3717	
OP-LPHM271	6	118U3298	10	118U3716	120	118U3479	f24"	118U3482	H4	118U3485	118U3717	

* fan motor should be replaced with the old one 118U3478 (75 W) for the unit with serial number up to xxxxxxCG4812 produced before December 2012.

Spare parts

Unit designation	Crankcase heater	Code number	Temperature sensor (suction & ambient)	Code number	Discharge temperature sensor	Code number	Discharge pressure transmitter	Code number	Suction pressure transmitter	Code number
OP-LPHM018	Belt 50 W	120Z0057	AKS11	084N0003	AKS21A	084N2007	AKS 32R 0...32 bar	118U3722	AKS 32R -1...12 bar	118U3721
OP-LPHM026										
OP-LPHM048	PTC 35 W	120Z0459								
OP-LPHM068										
OP-LPHM096										
OP-LPHM136										
OP-LPHM215										
OP-LPHM271										

Electrical characteristics - 230V/1phase/50Hz

Unit	Wiring diagram	LRA compressor (A) 230 V/ 1 phase	MCC compressor (A) 230 V/ 1 phase	Max cont. power consumption (kW)	MCC Fan (A) 230 V/ 1 phase	Fan Power (W)
OP-MPHM007	WD1	20	3.6	0.60	0.32	1x25
OP-MPHM010		18.4	4.8	0.78		
OP-MPHM012		23.4	5.7	0.93		
OP-MPHM015		23.5	6.2	1.17		
OP-MPHM018	WD2	23.6	6.1	1.28		
OP-MPHM026		34.6	8.5	1.78	0.47	1x68
OP-MPHM034		45	12.6	2.52		
OP-MPGM034		25.7	6.8	1.60		
OP-MPUM034	WD3	60	19	2.53		
OP-MPUM046		97	25	3.38		
OP-MPUM057		97	26	4.42		
OP-MPUM068		127	32	4.89	0.96	1x120
OP-MPUM080		130	38	5.77		

LRA (Locked Rotor Amps) MCC (Maximum Continuous Current)

Electrical characteristics - 400V/3phase/50Hz

Unit	Wiring diagram	LRA compressor (A) 400 V/ 3phase	MCC compressor (A) 400 V/ 3phase	Max cont. power consumption (kW)	MCC Fan (A) 230 V/ 1 phase	Fan Power (W)
OP-MPUM034	WD4	30	7	2.73	0.47	1x68
OP-MPUM046		45	9,5	3.33		
OP-MPUM057		45	10	4.14		
OP-MPUM068		60	13	4.88	0.96	1x120
OP-MPUM080		70	15	5.78		
OP-MPUM107		87	16	7.55		
OP-MPUM125	WD5	95	20	9.39	2x0.96	2x120
OP-MPUM162		140	25	11.41		

LRA (Locked Rotor Amps) MCC (Maximum Continuous Current)

Spare parts (Automatic controls)

Unit	Filter drier		Sight glass		Suction valve		Liquid valve		High Pressure switch		Low Pressure switch	
OP-MPHM007	DML082 DCL082	023Z5039 023Z5004	SGN+6s	014F0181	GBC10s	009G7051	GBC6s	009G7050	ACB-2UB463W	061F8492	ACB-2UA418W	061F7283
OP-MPHM010	DML082 DCL082	023Z5039 023Z5004	SGN+6s	014F0181	GBC10s	009G7051	GBC6s	009G7050				
OP-MPHM012	DML083 DCL083	023Z5040 023Z5005	SGN+10s	014F0182	GBC10s	009G7051	GBC10s	009G7051				
OP-MPHM015	DML083 DCL083	023Z5040 023Z5005	SGN+10s	014F0182	GBC10s	009G7051	GBC10s	009G7051				
OP-MPHM018	DML083 DCL083	023Z5040 023Z5005	SGN+10s	014F0182	GBC10s	009G7051	GBC10s	009G7051				
OP-MPHM026	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC 16s	009G7053	GBC10s	009G7051				
OP-MPHM034	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC 16s	009G7053	GBC10s	009G7051				
OP-MPGM034	DML083 DCL083	023Z5040 023Z5005	SGN+10	014F0172	GBC12s	009G7052	GBC10s	009G7051				
OP-MPUM034	DML084 DCL084	023Z5041 023Z5006	SGN+12	014F0173	GBC18s	009G7054	GBC12s	009G7052			ACB-2UA520W	061F7520
OP-MPUM046	DML084 DCL084	023Z5041 023Z5006	SGN+12	014F0173	GBC18s	009G7054	GBC12s	009G7052				
OP-MPUM057	DML084 DCL084	023Z5041 023Z5006	SGN+12	014F0173	GBC 18s	009G7054	GBC 12s	009G7052				
OP-MPUM068	DML165 DCL165	023Z5045 023Z5010	SGN+16	014F0174	GBC22s	009G7055	GBC16s	009G7053				
OP-MPUM080	DML165 DCL165	023Z5045 023Z5010	SGN+16	014F0174	GBC22s	009G7055	GBC16s	009G7053				
OP-MPUM107	DML165 DCL165	023Z5045 023Z5010	SGN+16	014F0174	GBC22s	009G7055	GBC16s	009G7053				
OP-MPUM125	DML166 DCL166	023Z5046 023Z5011	SGN+19	014F0175	GBC 28s	009G7056	GBC 18s	009G7054				
OP-MPUM162	DML166 DCL166	023Z5046 023Z5011	SGN+19	014F0175	GBC 28s	009G7056	GBC 18s	009G7054				

Spare parts (components)

Unit	Fan capacitor (µF)		Receiver (L)		Fan motor (W) (capacitor not included)		Fan blade		Fan grill		Condenser	Optyma Plus™ controller
OP-MPHM007	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	118U3465
OP-MPHM010	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	
OP-MPHM012	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	
OP-MPHM015	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	
OP-MPHM018	1.8	118U3296	1.3	118U3474	25	118U3477	f14"	118U3480	H1	118U3483	118U3492	
OP-MPHM026	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPHM034	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPGM034	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPUM034	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPUM046	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPUM057	3.5	118U3297	3.4	118U3475	68	118U3823 *	f18"	118U3481	H2	118U3484	118U3493	
OP-MPUM068	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H3	118U3485	118U3494	
OP-MPUM080	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H3	118U3485	118U3494	
OP-MPUM107	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H3	118U3485	118U3494	
OP-MPUM125	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H4	118U3485	118U3717	
OP-MPUM162	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3482	H4	118U3485	118U3717	

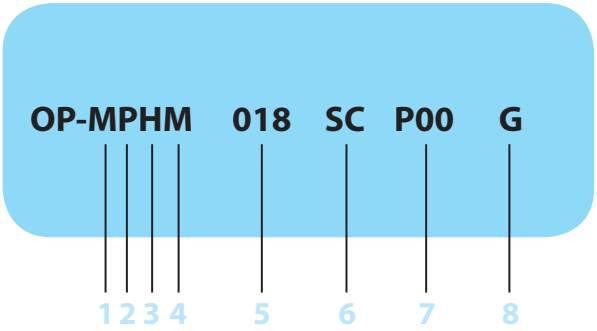
* fan motor should be replaced with the old one 118U3478 (75 W) for the unit with serial number up to xxxxxxCG4812 produced before December 2012.

Spare parts

Unit designation	Crankase heater	Code number	Temperature sensor (suction & ambient)	Code number	Discharge temperature sensor	Code number	Discharge pressure transmitter	Code number	Suction pressure transmitter	Code number
OP-MPHM007	Belt 50 W	120Z0057	AKS11	084N0003	AKS21A	084N2007	AKS 32R 0...32 bar	118U3722	AKS 32R -1...12 bar	118U3721
OP-MPHM010										
OP-MPHM012										
OP-MPHM015										
OP-MPHM018										
OP-MPHM026										
OP-MPHM034										
OP-MPGM034										
OP-MPUM034	Belt 70 W	120Z5040								
OP-MPUM046										
OP-MPUM057										
OP-MPUM068										
OP-MPUM080										
OP-MPUM107										
OP-MPUM125										
OP-MPUM162										

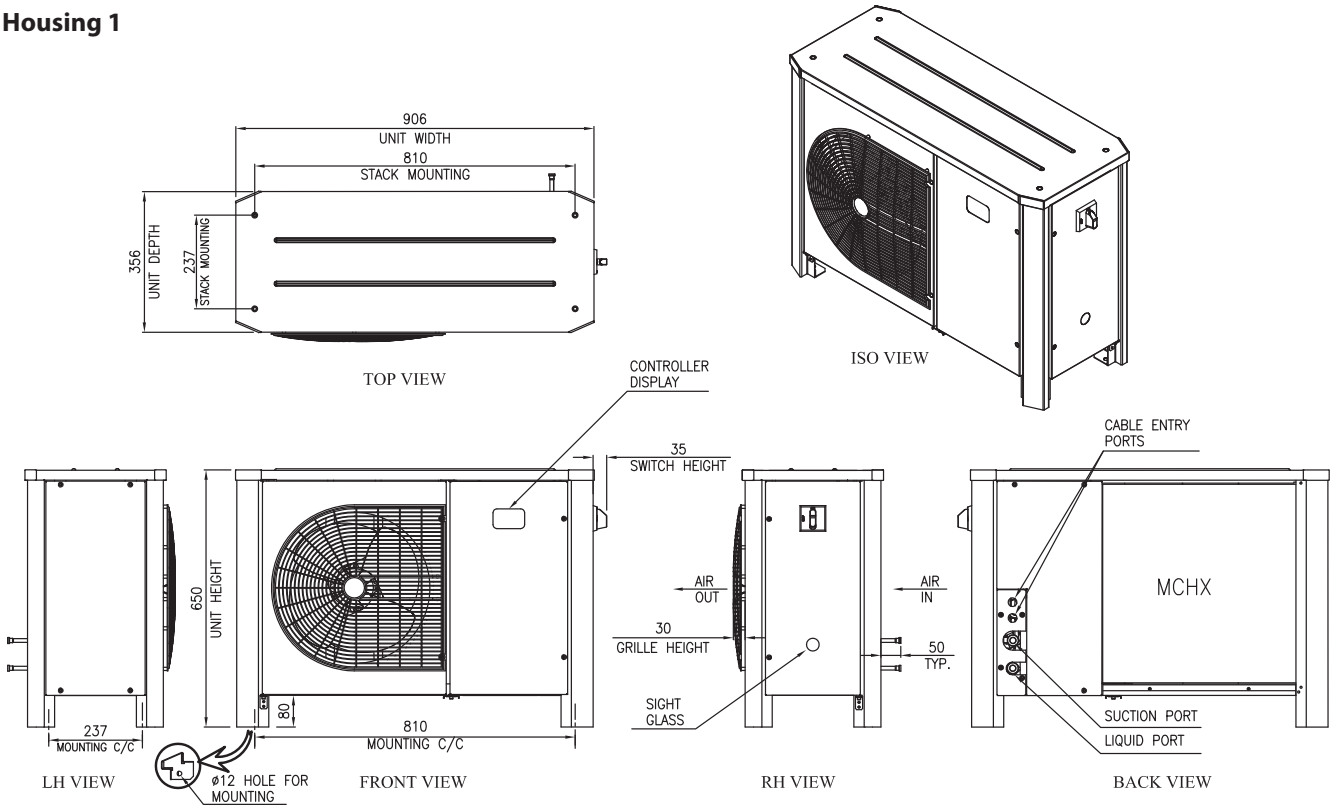
Designation system for the Optyma Plus™ program

(additional program frequency etc.: please contact your local wholesaler)

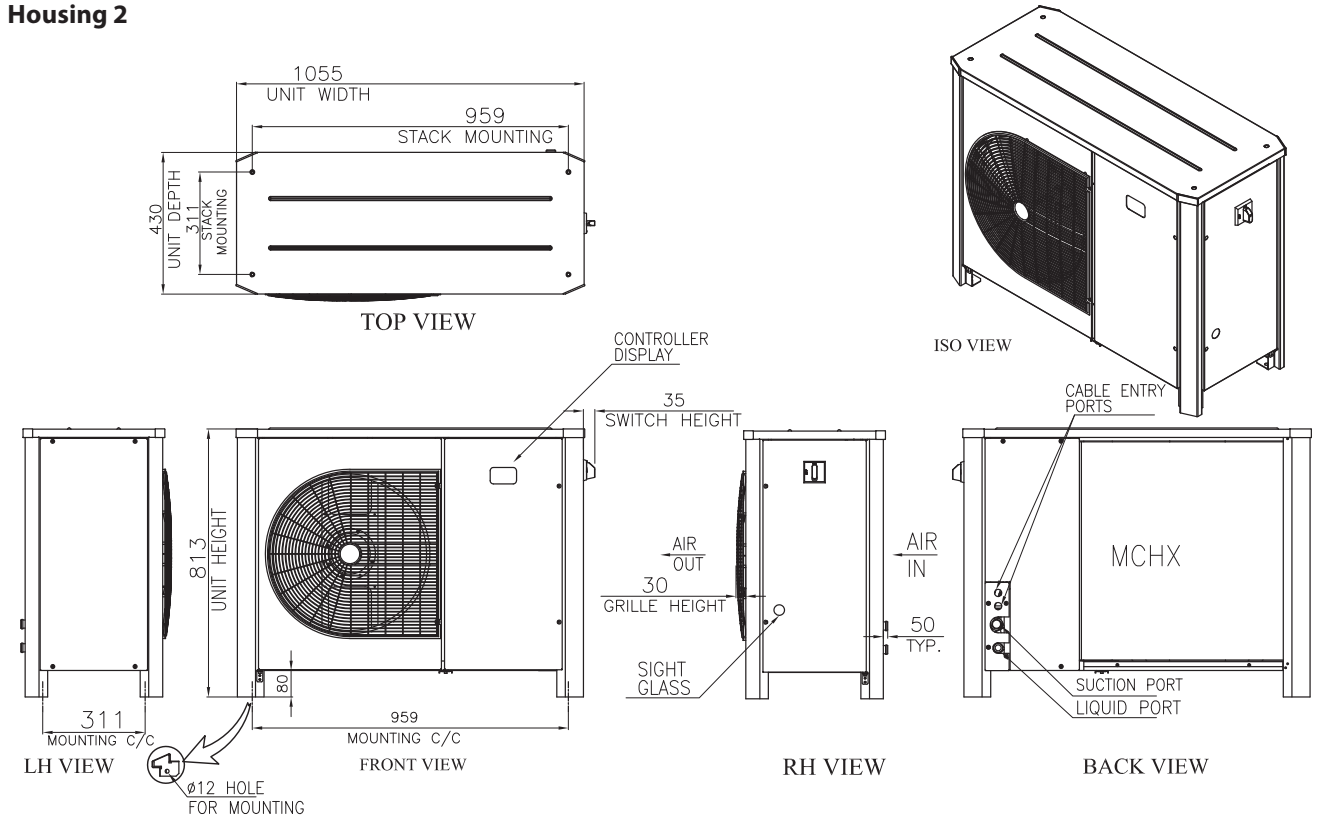


1 Application	L = LBP M = MBP
2 Design	P = Packaged units
3 Refrigerant	H = R404A/R507 G = R134a U = R404A, R134a, R507
4 Condenser option	M = Standard with micro channel heat exchanger
5 Displacement	026 = 26 cm^3 171 = 171 cm^3
6 Compressor platform	GS= GS (reciprocating) NF= NF (reciprocating) NT= NTZ (reciprocating) SC= SC (reciprocating) ML= MLZ (scroll)
7 Version	P00
8 Electrical code	G = Compressor 230 V/1 phase/50 Hz, fan 230 V/1 phase/50 Hz E = Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz

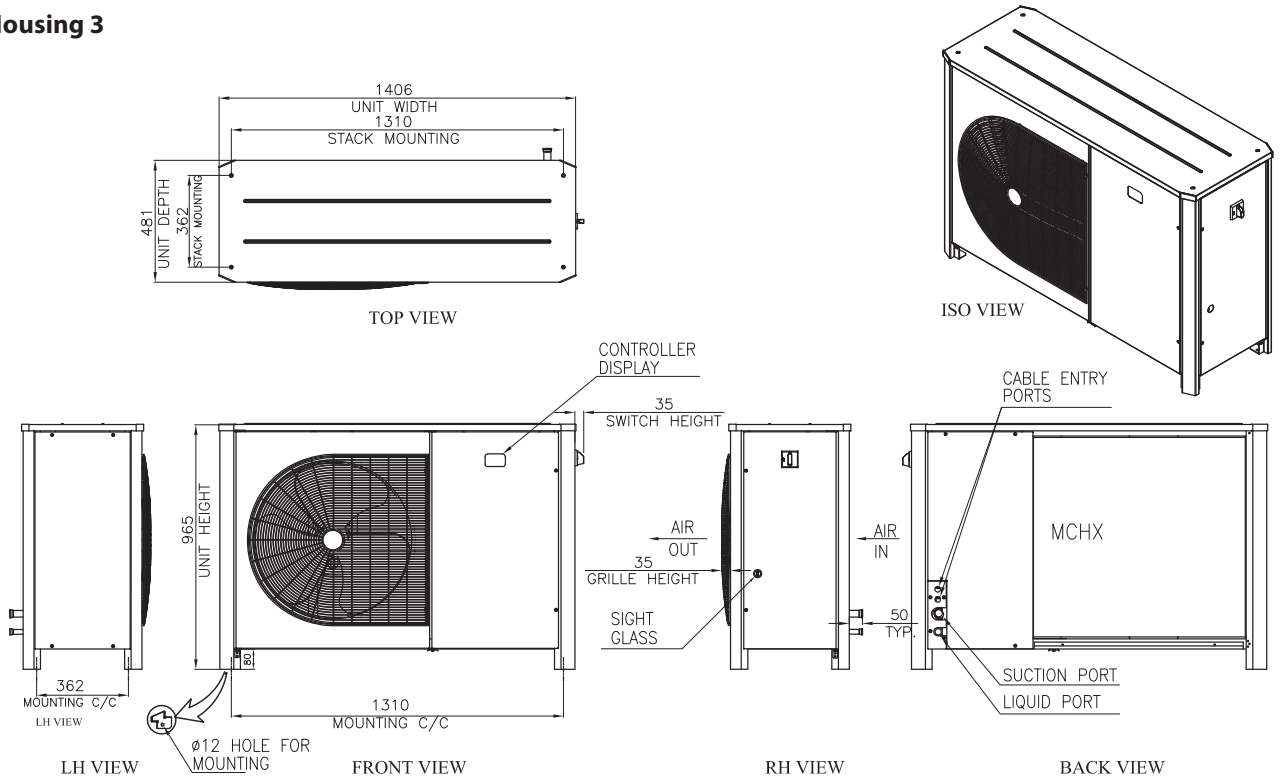
Housing 1



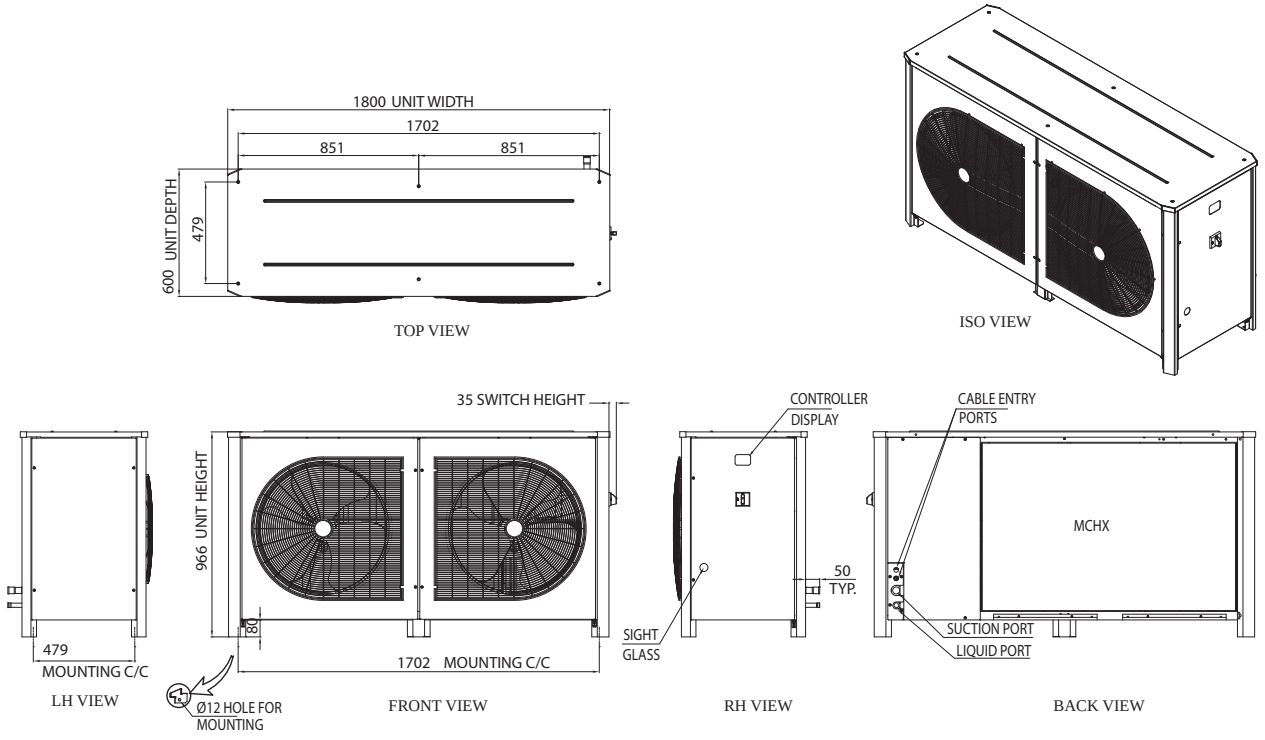
Housing 2



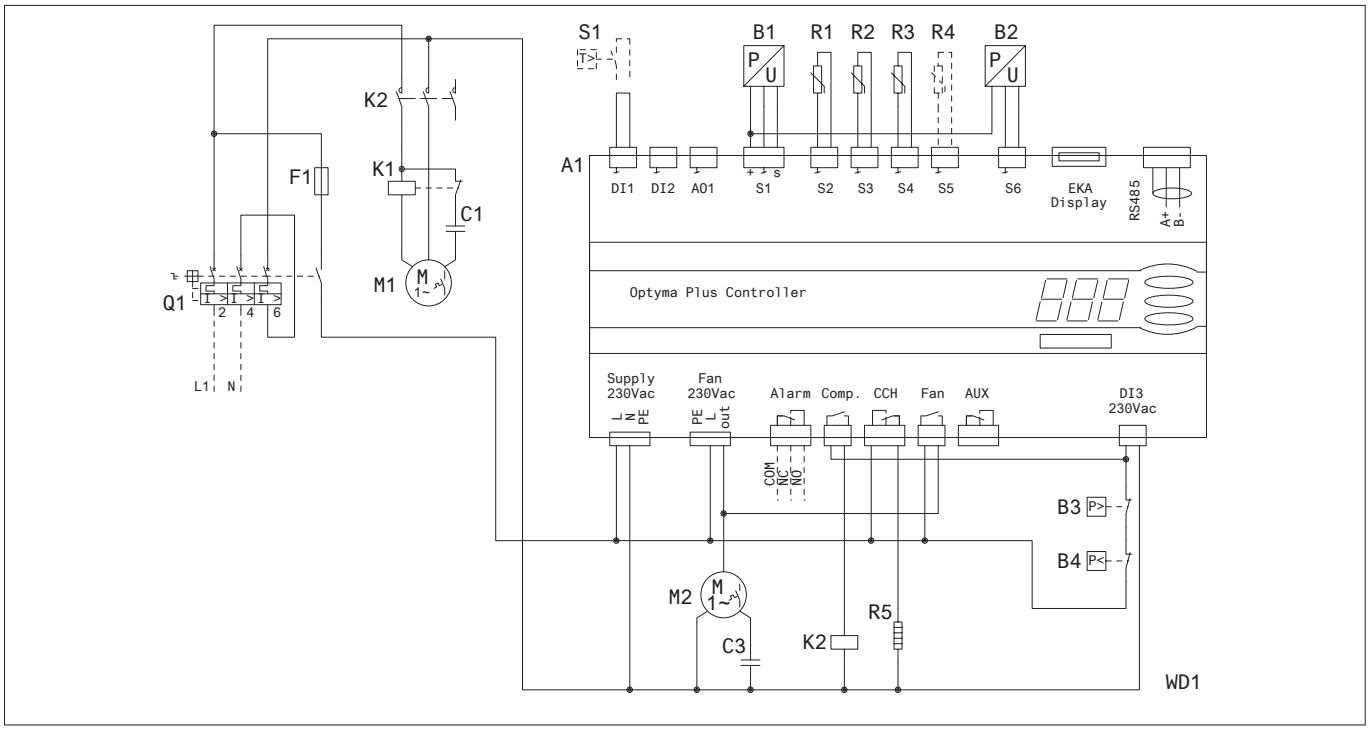
Housing 3



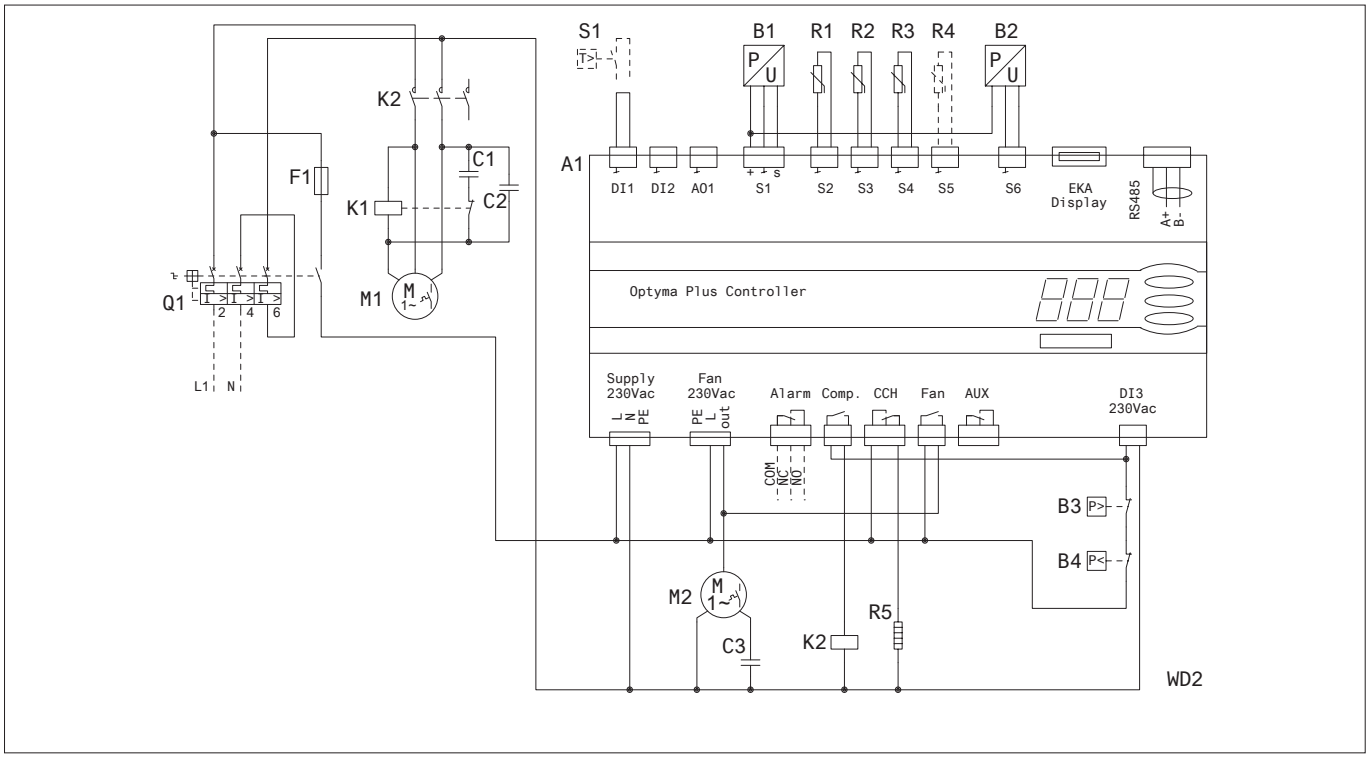
Housing 4



Code G : OP-LPHM018 & OP-MPHM007-010-012-015



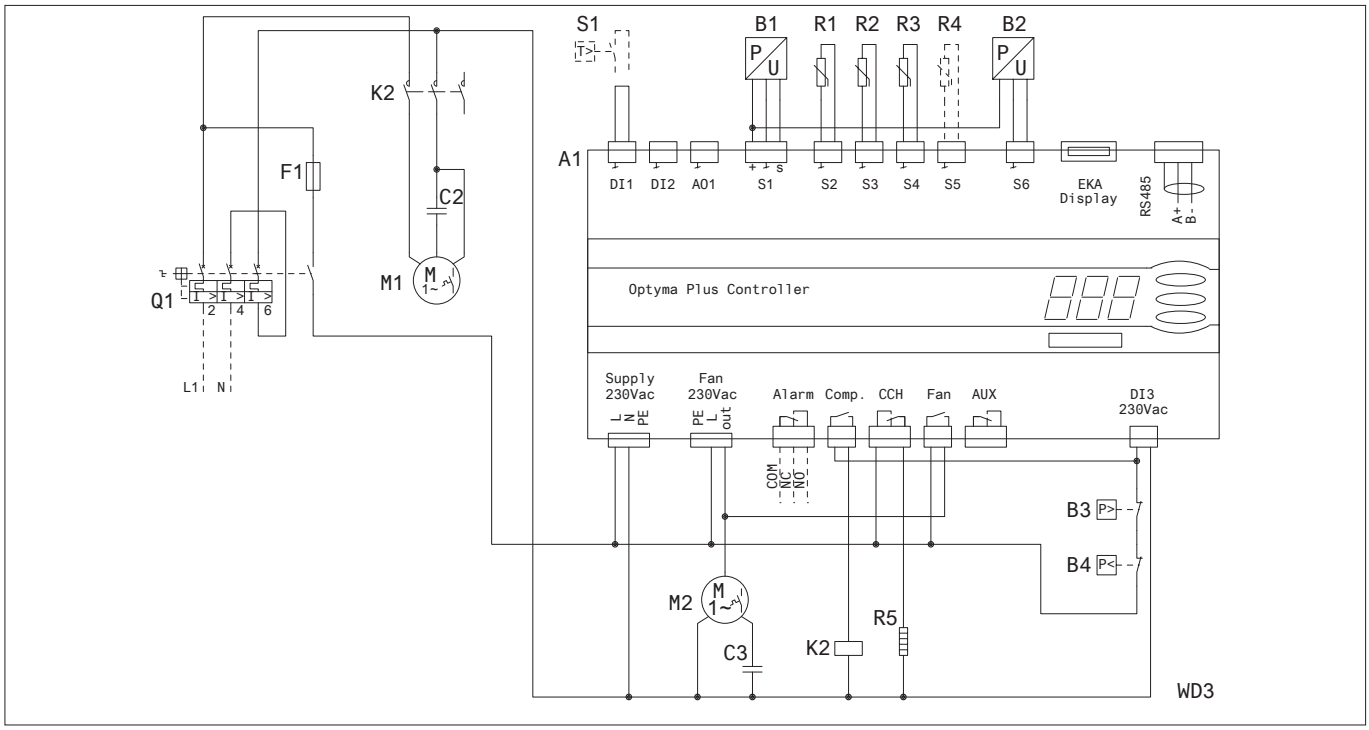
Code G : OP-LPHM026-048-068 & OP-MPHM018-026-034 & OP-MPGM034



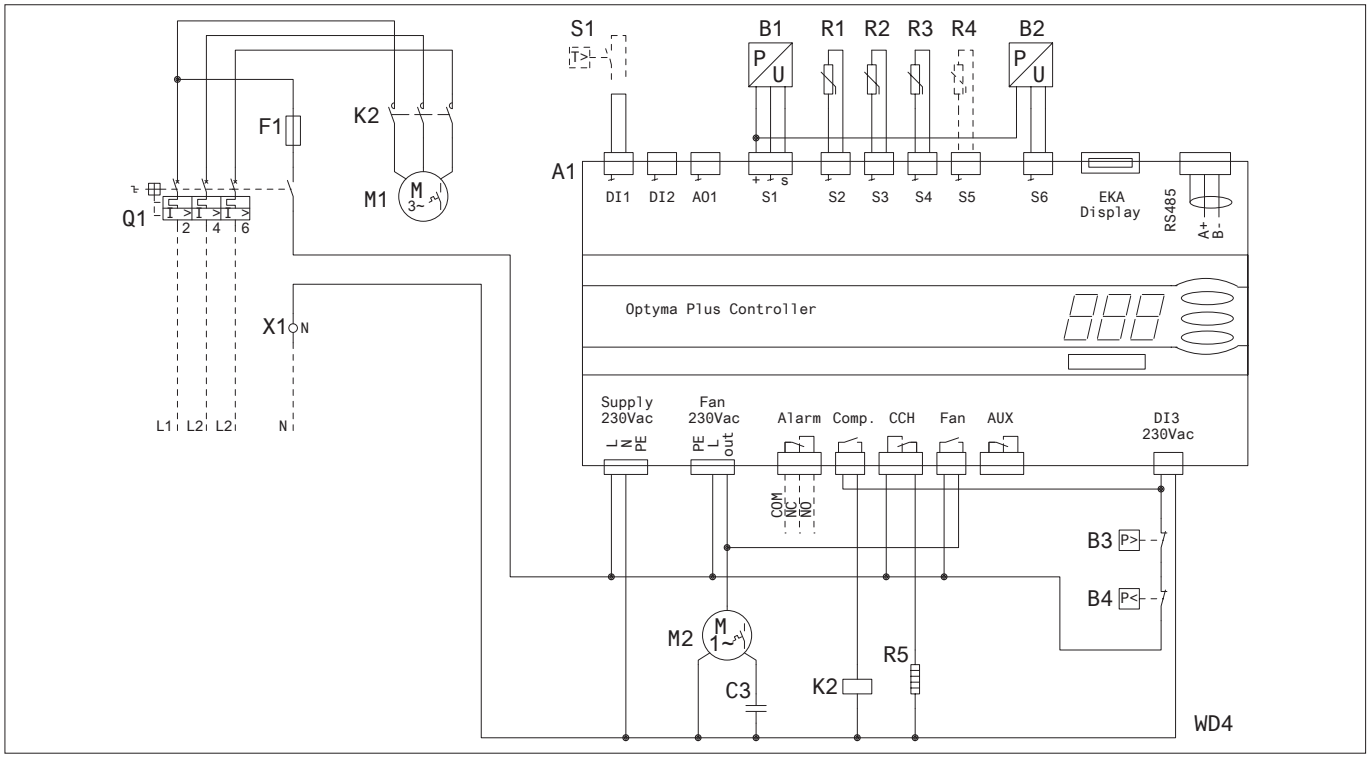
***Legend*:**

A1 : Optyma Plus™ Controller
B1 : Condensing Pressure Transducer
B2 : Suction Pressure Transducer
B3 : High Pressure Switch
B4 : Low Pressure Switch
C1 : Start Capacitor (Compressor)
C2 : Run Capacitor (Compressor)
C3 : Run Capacitor (Fan)
F1 : Fuse (Control Circuit)
K1 : Start Relay
K2 : Contactor
M1 : Compressor
M2 : Fan Motor
Q1 : Main Switch
R1 : Ambient Temp. Sensor
R2 : Discharge Temp. Sensor
R3 : Suction Temp. Sensor
R4 : Auxiliary Temp. Sensor (optional)
R5 : Crankcase Heater
S1 : Room Thermostat (optional)
X1 : Terminal
Supply : Supply
Fan : Fan
Alarm : Alarm
Comp. : Compressor
CCH : Crankcase Heater
Aux : Auxiliary

Code G : OP-MPUM034-046-057-068-080



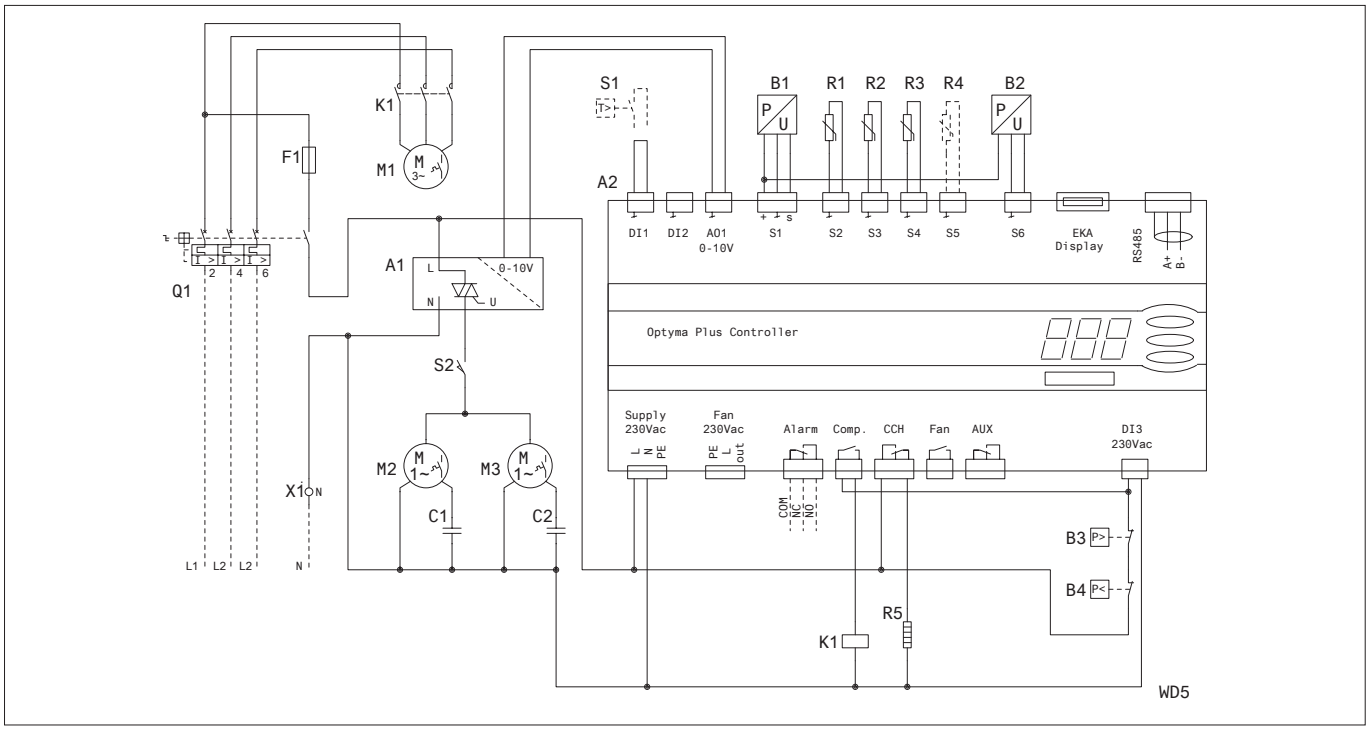
Code E : OP-LPHM048-068-096-136 & OP-MPUM034-046-057-068-080-107



Legend:

A1 : Optyma Plus™ Controller
B1 : Condensing Pressure Transducer
B2 : Suction Pressure Transducer
B3 : High Pressure Switch
B4 : Low Pressure Switch
C2 : Run Capacitor (Compressor)
C3 : Run Capacitor (Fan)
F1 : Fuse (Control Circuit)
K2 : Contactor
M1 : Compressor
M2 : Fan Motor
Q1 : Main Switch
R1 : Ambient Temp. Sensor
R2 : Discharge Temp. Sensor
R3 : Suction Temp. Sensor
R4 : Auxiliary Temp. Sensor (optional)
R5 : Crankcase Heater
S1 : Room Thermostat (optional)
X1 : Terminal
Supply : Supply
Fan : Fan
Alarm : Alarm
Comp. : Compressor
CCH : Crankcase Heater
Aux : Auxiliary

Code E : OP-LPHM215-271 & OP-MPUM125-162



***Legend*:**

A1 : Fan speed Controller
A2: Optyma Plus™ Controller
B1 : Condensing Pressure Transducer
B2 : Suction Pressure Transducer
B3 : High Pressure Switch
B4 : Low Pressure Switch
C1 : Run Capacitor (fan 1)
C2 : Run Capacitor (fan 2)
F1 : Fuse (Control Circuit)
K1 : Contactor
M1 : Compressor
M2 : Fan Motor 1
M3: Fan motor 2
Q1 : Main Switch
R1 : Ambient Temp. Sensor
R2 : Discharge Temp. Sensor
R3 : Suction Temp. Sensor
R4 : Auxiliary Temp. Sensor (optional)
R5 : Crankcase Heater
S1 : Room Thermostat (optional)
S2: Door limit switch
X1 : Terminal
Comp. : Compressor
CCH : Crankcase Heater
Aux : Auxiliary

Select the right Danfoss Optyma Plus™ condensing unit according to your needs

	Meat +1°C - 18h		Fish +1°C - 18h		Laboratory +12°C - 18h		Food & vegetables +8°C - 18h		Food & vegetables 0°C - 18h		Butter, eggs & cheese +5°C - 18h		Freezer -18°C - 16h	
	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]	Cap.* (W)	CR ** [m³]
MPHM007	670	4	670	4	930	6	930	11	670	4	760	5		
MPHM010	900	7	900	6	1270	8	1270	17	900	7	1030	9		
MPHM012	1090	10	1090	8	1530	10	1530	25	1090	8	1240	12		
MPHM015	1350	13	1350	11	1890	13	1890	32	1350	12	1530	16		
MPHM018	1570	15	1570	13	2200	15	2200	40	1570	14	1790	20		
MPHM026	2460	30	2460	25	3450	25	3450	75	2460	27	2800	35		
MPHM034	3200	45	3200	35	4400	35	4400	100	3200	38	3610	50		
MPUM034	3930	60	3930	47	5060	40	5060	130	3930	50	4340	65		
MPUM046	5230	85	5230	70	6620	65	6620	180	5230	70	5730	95		
MPUM057	6200	105	6200	85	7760	90	7760	220	6200	90	6770	115		
MPUM068	8450	155	8450	125	10880	160	10880	330	8450	130	9320	170		
MPUM080	9840	185	9840	150	12580	190	12580	390	9840	150	10820	210		
MPUM107	12290	240	12290	190	15530	230	15530	500	12290	200	13450	260		
MPUM125	15160	310	15160	250	19620	300	19620	640	15160	250	16780	340		
MPUM162	19000	400	19000	320	23650	360	23650	780	19000	320	20670	420		
LPHM018													720	3
LPHM026													1050	5
LPHM048													2090	16
LPHM068													3160	32
LPHM096													4230	47
LPHM136													6080	70
LPHM215													9440	110
LPHM271													12290	145

Data refers to +32°C ambient temperature
Refer to Danfoss for different working conditions
Application - Cold Room Temperature - Daily working hours
* Cooling capacity at 32°C amb temp.
** Volume of cold room

Data are given as approximate guidelines to select and quote units. Precise selection must be carried out according to specific local conditions.
Danfoss cannot be held responsible for any mistakes.

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 spread across three continents.



Performer® Variable Speed scroll compressors



Performer® Air Conditioning scroll compressors



Performer® Heat Pump scroll compressors



Maneurop® Variable Speed reciprocating compressors





Performer® Refrigeration scroll compressors



Maneurop® Reciprocating Compressors



Optyma™ & Optyma Plus™ Condensing Units



Refrigeration compressors (manufactured by Secop)

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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