MAKING MODERN LIVING POSSIBLE

Catalogue

Optyma Plus™ New Generation

Plug and play solution

R404A/R507, R134a



www.danfoss.com

OPTYMA PLUS™

DANFOSS CONDENSING UNIT

The new generation of quiet Plug & Play solution **4**

Features and cooling capacity **5**
Main product features 5

R404A/R507 LBP **6**

R404A/R507 MBP **8**

R134a MBP **10**

Spare parts & accessories R404A/R507 LBP **12**
Electrical characteristics - 230V/1phase/50Hz 12
Electrical characteristics - 400V/3phase/50Hz 12
Spare parts 13
Adap-Kool accessories 13

Spare parts & accessories R404A/R507, R134a MBP **14**
Electrical characteristics - 230V/1phase/50Hz 14
Electrical characteristics - 400V/3phase/50Hz 14
Spare parts 15
Adap-Kool accessories 15

Designation system **16**

Dimensions **17**
Housing 1 17
Housing 2 17
Housing 3 18
Housing 4 18

Electrical wiring diagrams **19**

Select your Optyma Plus™ condensing unit **22**

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

Danfoss Optyma Plus™ extend your possibilities with new models for low and medium temperatures. Your cooling capacity has almost no limits.

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

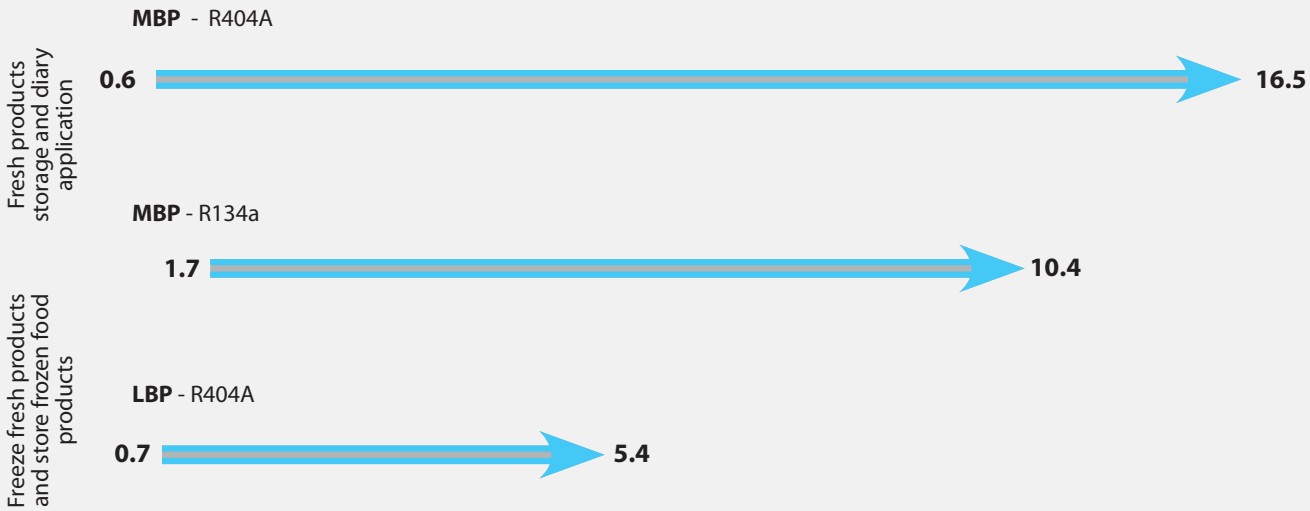
On site stack mounting

Fully weather resistant

Plug and play

Compact design

Capacity range (kW)



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	Cooling 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	620	810	1040	1300	1620	60	29
						32	270	390	540	720	930	1170	1470		
						38	210	320	450	600	790	1020	1280		
						43		250	370	510	680				
		OP-LPHM026	114X3217	G	GS26CLX	27	470	670	910	1200	1550	1960	2430	67	36
						32	390	570	790	1050	1370	1750	2190		
						38	300	450	650	880	1160	1500	1900		
						43		360	530	740	990				
		OP-LPHM048	114X3225	G	NTZ048	27	750	1150	1550	2050	2650	3300	4000	69	38
						32	650	1000	1400	1850	2350	2950	3600		
			114X3233	E		38	550	850	1200	1600	2050	2550	3150		
						43	450	700	1000	1350	1750				
		OP-LPHM068	114X3241	G	NTZ068	27	1350	1850	2450	3100	3850	4650	5550	70	39
						32	1150	1650	2150	2750	3450	4200	5050		
			114X3249	E		38	950	1350	1850	2400	3000	3650	4400		
						43	800	1200	1600	2100	2600				
		OP-LPHM096	114X3357	E	NTZ096	27	1650	2350	3150	4200	5400	6850	8500	72	41
						32	1450	2050	2800	3750	4900	6200	7750		
						38	1150	1700	2350	3200	4250	5450	6850		
						43	900	1400	2000	2750	3650				
		OP-LPHM136	114X3365	E	NTZ136	27	2550	3500	4650	5950	7500	9250	11200	73	42
						32	2250	3100	4100	5350	6750	8400	10200		
						38	1850	2600	3550	4600	5900	7350	8950		
						43	1500	2200	3050	4000	5150				

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

LBP measured in accordance to EN 13215 @ - 25 suction, +32 ambient, SH 10K
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)	Depth D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-LPHM018	A7	2200	0.4	1x356	1.3	730	1	652	906	356	3/8"	3/8"	63	51
OP-LPHM026	D7	3700	0.6	1x457	3.4	1010	2	815	1055	430	1/2"	3/8"	93	79
OP-LPHM048	D7	3700	0.6	1x457	3.4	1450(1~) 1450(3~)	2	815	1055	430	5/8"	3/8"	95	81
OP-LPHM068	D7	3700	0.6	1x457	3.4	2200(1~) 2150(3~)	2	815	1055	430	5/8"	3/8"	97	83
OP-LPHM096	G7	6700	1.8	1x609	6.2	2700	3	967	1406	481	7/8"	1/2"	135	119
OP-LPHM136	G7	6700	1.8	1x609	6.2	4200	3	967	1406	481	1-1/8"	1/2"	135	119

Power consumption referred at 32°C ambient temp.

Fan	Test conditions	Unit	Code	Electrical code	Compressor	Amb. temp. °C	Cooling capacity range in (W) at evaporating temperature (°C) -20°C	-15°C	-10°C	-5°C	0°C	+5°C	+10°C	Sound power level dB(A)	Sound pressure level full sphere 10m dB(A)
		OP-MPHM007	114X4101	G	NF 7MLX	27		540	680	840	1020	1240		60	29
						32		480	610	760	930	1130			
						38		420	530	660	820	1000			
						43		360	460	580	730	890			
		OP-MPHM010	114X4102	G	SC10MLX	27	570	730	920	1140	1410	1710		60	29
						32	510	650	820	1030	1270	1550			
						38	430	560	710	890	1110	1360			
						43		480	610	780	970				
		OP-MPHM012	114X4104	G	SC12MLX	27	700	890	1110	1380	1690	2060		60	29
						32	620	790	1000	1240	1530	1870			
						38	530	680	860	1080	1340	1640			
						43		590	750	940	1170				
		OP-MPHM015	114X4105	G	SC15MLX	27	870	1100	1370	1690	2070	2510		60	29
						32	770	980	1230	1540	1890	2300			
						38	660	850	1070	1340	1660	2040			
						43		730	940	1180	1470				
		OP-MPHM018	114X4109	G	SC18MLX	27	1010	1280	1590	1970	2410	2920		60	29
						32	900	1140	1440	1790	2200	2670			
						38	770	990	1250	1560	1930	2370			
						43		860	1090	1370	1710				
		OP-MPHM026	114X4214	G	GS26MLX	27		1990	2500	3100	3800	4610		67	36
						32		1780	2250	2800	3450	4200			
						38		1530	1950	2450	3030	3710			
						43		1330	1710	2160	2680				
		OP-MPHM034	114X4229	G	GS34MLX	27		2620	3240	3960	4800	5770		67	36
						32		2360	2940	3610	4400	5300			
						38		2040	2560	3170	3880	4700			
						43		1780	2250	2790	3430	4180			
		OP-MPUM034	114X4261	G	MLZ015	27	2500	3100	3750	4450	5250	6150	7100	68	37
						32	2250	2800	3400	4050	4800	5650	6550		
			114X4264	E		38	1950	2400	2950	3600	4250	5000	5800		
						43	1650	2100	2600	3150	3750	4450	5200		
		OP-MPUM046	114X4281	G	MLZ021	27	3400	4100	4950	5850	6800	7900	9100	68	37
						32	3100	3750	4500	5350	6250	7250	8400		
			114X4284	E		38	2750	3350	4000	4750	5550	6500	7500		
						43	2400	2950	3550	4200	4950	5800			
		OP-MPUM057	114X4290	G	MLZ026	27	4100	4900	5850	6900	8000	9200	10500	68	37
						32	3700	4500	5350	6250	7300	8400	9600		
			114X4293	E		38	3200	3900	4650	5500	6450	7450	8550		
						43	2800	3400	4100	4850	5700	6600	7600		
		OP-MPUM068	114X4308	G	MLZ030	27	5400	6600	7950	9500	11200	13100	15200	69	38
						32	4950	6050	7300	8750	10350	12150	14100		
			114X4311	E		38	4400	5400	6550	7850	9300	10950	12800		
						43	3900	4800	5850	7050	8400	9900	11600		
		OP-MPUM080	114X4321	G	MLZ038	27	6300	7700	9250	11000	12950	15100	17500	69	38
						32	5800	7050	8500	10150	11950	13950	16200		
			114X4324	E		38	5100	6250	7550	9050	10700	12550	14600		
						43	4550	5600	6750	8100	9600	11300	13200		
		OP-MPUM107	114X4344	E	MLZ048	27	8000	9700	11600	13700	16000	18550	21350	75	44
						32	7300	8850	10600	12550	14700	17050	19700		
						38	6400	7800	9350	11100	13050	15200	17650		
						43	5600	6900	8300	9850	11650	13650			
		OP-MPUM125	114X4414	E	MLZ058	27	9750	11850	14400	17250	20400	23700	27150	75	44
						32	8750	10700	13050	15750	18650	21750	25000		
						38	7450	9250	11400	13800	16500	19350	22350		
						43	6250	7900	9900	12150	14600	17250	20050		
		OP-MPUM162	114X4434	E	MLZ076	27	12750	15350	18200	21300	24750	28550	32650	75	44
						32	11650	13950	16500	19300	22400	25850	29650		
						38	10250	12200	14400	16800	19450	22500	25850		
						43	9100	10750	12550	14600	16900	19550	22600		

Test condition **EN13215**
Subcooling within the limits of the condensing unit

Superheat 10K

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

MBP measured in accordance to EN 13215 @ - 10°C suction, +32°C ambient, SH 10K
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)	Depth D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-MPHM007	A7	2200	0.4	1x356	1.3	460	530	1	652	906	356	3/8"	1/4"	60	48
OP-MPHM010	A7	2200	0.4	1x356	1.3	570	680	1	652	906	356	3/8"	1/4"	63	51
OP-MPHM012	A7	2200	0.4	1x356	1.3	660	800	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM015	A7	2200	0.4	1x356	1.3	830	1020	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM018	A7	2200	0.4	1x356	1.3	910	1120	1	652	906	356	3/8"	3/8"	63	51
OP-MPHM026	D7	3700	0.6	1x457	3.4	1300	1600	2	815	1055	430	5/8"	3/8"	93	79
OP-MPHM034	D7	3700	0.6	1x457	3.4	1800	2290	2	815	1055	430	5/8"	3/8"	96	82
OP-MPUM034	D7	3700	0.6	1x457	3.4	1750(1~) 1700(3~)	1900(1~) 1750(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM046	D7	3700	0.6	1x457	3.4	2400(1~) 2300(3~)	2700(1~) 2550(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM057	D7	3700	0.6	1x457	3.4	3300(1~) 3050(3~)	3550(1~) 3450(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM068	G7	6700	1.8	1x609	6.2	3350(1~) 3200(3~)	3700(1~) 3450(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM080	G7	6700	1.8	1x609	6.2	3950(1~) 3850(3~)	4450(1~) 4250(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM107	G7	6700	1.8	1x609	6.2	5250	5850	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM125	J7	9500	2.5	2x609	10.0	6600	7250	4	966	1800	600	1-1/8"	3/4"	187	143
OP-MPUM162	J7	9500	2.5	2x609	10.0	8650	9750	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	Cooling 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		
		OP-MPGM034	114X4210	G	GS34MFX	27	1420	1800	2260	2800	3430			67	36
						32	1310	1670	2100	2620	3220				
						38	1170	1510	1920	2400	2960				
						43	1060	1380	1760	2210	2740				
		OP-MPUM034	114X4261	G	MLZ015	27	1800	2300	2850	3500	4200	5050	5950	68	37
						32	1700	2150	2700	3300	4000	4800	5650		
			114X4264	E		38	1600	2000	2500	3100	3750	4500	5350		
						43		1900	2350	2900	3500	4250	5050		
		OP-MPUM046	114X4281	G	MLZ021	27	2450	3100	3800	4650	5600	6650	7800	68	37
						32	2350	2900	3600	4400	5300	6300	7450		
			114X4284	E		38	2150	2700	3350	4100	4950	5900	6950		
						43		2500	3150	3850	4650	5550	6550		
		OP-MPUM057	114X4290	G	MLZ026	27	2950	3750	4600	5600	6700	7950	9300	68	37
						32	2800	3500	4350	5300	6350	7550	8850		
			114X4293	E		38	2600	3250	4050	4900	5900	7050	8250		
						43	2400	3050	3750	4600	5550	6600	7750		
	SH 10K	OP-MPUM068	114X4308	G	MLZ030	27	3750	4700	5850	7150	8650	10400	12300	69	38
						32	3550	4450	5550	6800	8250	9900	11750		
			114X4311	E		38	3300	4150	5150	6350	7750	9300	11050		
						43	3100	3900	4850	6000	7300	8750	10450		
		OP-MPUM080	114X4321	G	MLZ038	27	4350	5500	6800	8350	10050	12000	14200	69	38
						32	4100	5200	6450	7900	9550	11450	13500		
			114X4324	E		38	3800	4800	6000	7400	8950	10700	12700		
						43	3550	4500	5650	6950	8400	10100	12000		
		OP-MPUM107	114X4344	E	MLZ048	27	5700	7100	8800	10750	12900	15300	17900	75	44
						32	5350	6700	8300	10150	12250	14550	17050		
						38	4950	6200	7700	9450	11400	13600	15950		
						43	4600	5800	7200	8850	10700	12750	15050		
		OP-MPUM125	114X4414	E	MLZ058	27	6900	8650	10700	13000	15600	18500	21750	75	44
						32	6500	8150	10100	12300	14800	17600	20700		
						38	5950	7550	9400	11500	13850	16500	19450		
						43	5500	7050	8800	10750	13000	15550	18350		
		OP-MPUM162	114X4434	E	MLZ076	27	8750	11000	13550	16450	19700	23300	27300	75	44
						32	8250	10350	12800	15550	18650	22150	25950		
						38	7600	9600	11850	14450	17400	20700	24350		
						43	7100	8950	11050	13550	16300	19450	22900		

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

MBP measured in accordance to EN 13215 @ - 10°C suction, +32°C ambient, SH 10K
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)	Depth D (mm)	Suction line (in)	Liquid line (in)	Gross	Net
OP-MPGM034	D7	3700	0.6	1x457	3.4	1000	1320	2	815	1055	430	5/8"	3/8"	96	82
OP-MPUM034	D7	3700	0.6	1x457	3.4	1050(1~) 1000(3~)	1150(1~) 1050(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM046	D7	3700	0.6	1x457	3.4	1450(1~) 1300(3~)	1650(1~) 1450(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM057	D7	3700	0.6	1x457	3.4	1900(1~) 1600(3~)	2200(1~) 1850(3~)	2	815	1055	430	3/4"	1/2"	104	90
OP-MPUM068	G7	6700	1.8	1x609	6.2	2150(1~) 1850(3~)	2350(1~) 2000(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM080	G7	6700	1.8	1x609	6.2	2350(1~) 2250(3~)	2650(1~) 2450(3~)	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM107	G7	6700	1.8	1x609	6.2	2800	3150	3	967	1406	481	7/8"	5/8"	135	119
OP-MPUM125	J7	9500	2.5	2x609	10.0	4000	4400	4	966	1800	600	1-1/8"	3/4"	187	143
OP-MPUM162	J7	9500	2.5	2x609	10.0	5050	5650	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	1.0	1x120
OP-LPHM136		51	14.3	6.87		

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

Spare parts

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				

Spare parts

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"	118U3833**	H3	118U3485	118U3494	
OP-LPHM136	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3833**	H3	118U3485	118U3494	

* fan motor should be replaced with the old one 118U3478 (75 W) for the unit with serial number up to xxxxxxCG5212 produced before December 2012
**fan blade should be replaced with the old one 118U3482 (130W) for the unit with serial number up to xxxxxxCG5212 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										

Adap-Kool accessories

External Display & Setting	EKA164B	084B8575
Cable for EKA Displays 6m	EKA Accessory	084B7299
Mounting Kit for EKA Display	EKA Accessory	084B8584
MODBUS Communication Module	EKA178B	084B8571
LON-Bus Communication Module	EKA175	084B8579
Programming Key	EKA183A	084B8582

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	1.0	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	1.0	1x120
OP-MPUM080		70	15	5.78		
OP-MPUM107		87	16	7.55		
OP-MPUM125	WD5	95	20	9.39	2x1.0	2x120
OP-MPUM162		140	25	11.41		

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

Spare parts

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

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"	118U3833**	H3	118U3485	118U3494	
OP-MPUM080	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3833**	H3	118U3485	118U3494	
OP-MPUM107	6	118U3298	6.2	118U3476	120	118U3479	f24"	118U3833**	H3	118U3485	118U3494	
OP-MPUM125	6	118U3298	10	118U3716	120	118U3479	f24"	118U3833**	H4	118U3485	118U3717	
OP-MPUM162	6	118U3298	10	118U3716	120	118U3479	f24"	118U3833**	H4	118U3485	118U3717	

* fan motor should be replaced with the old one 118U3478 (75 W) for the unit with serial number up to xxxxxxCG5212 produced before December 2012.
**fan blade should be replaced with the old one 118U3482 (130W) for the unit with serial number up to xxxxxxCG5212 produced before December 2012.

Spare parts

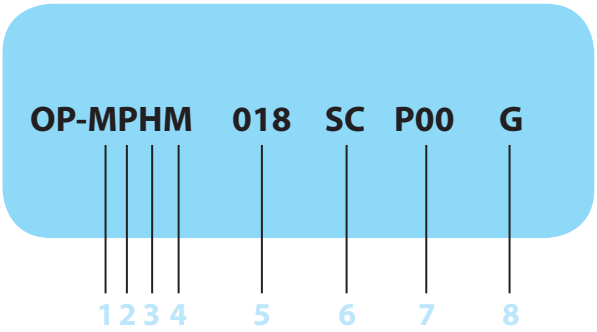
Unit designation	Crankase heater	Code number	Temperature sensor (suction & ambient)	Code number	Discharge temperature sensor	Code number	Discharge pressure transmitter	Code number	Suction pressure transmitter	Code number
OP-MPHM007	Belt 50 W	120Z0057	AKS11	084N0003	AKS21A	084N2007	AKS 32R 0...32 bar	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										

Adap-Kool accessories

External Display & Setting	EKA164B	084B8575
Cable for EKA Displays 6m	EKA Accessory	084B7299
Mounting Kit for EKA Display	EKA Accessory	084B8584
MODBUS Communication Module	EKA178B	084B8571
LON-Bus Communication Module	EKA175	084B8579
Programming Key	EKA183A	084B8582

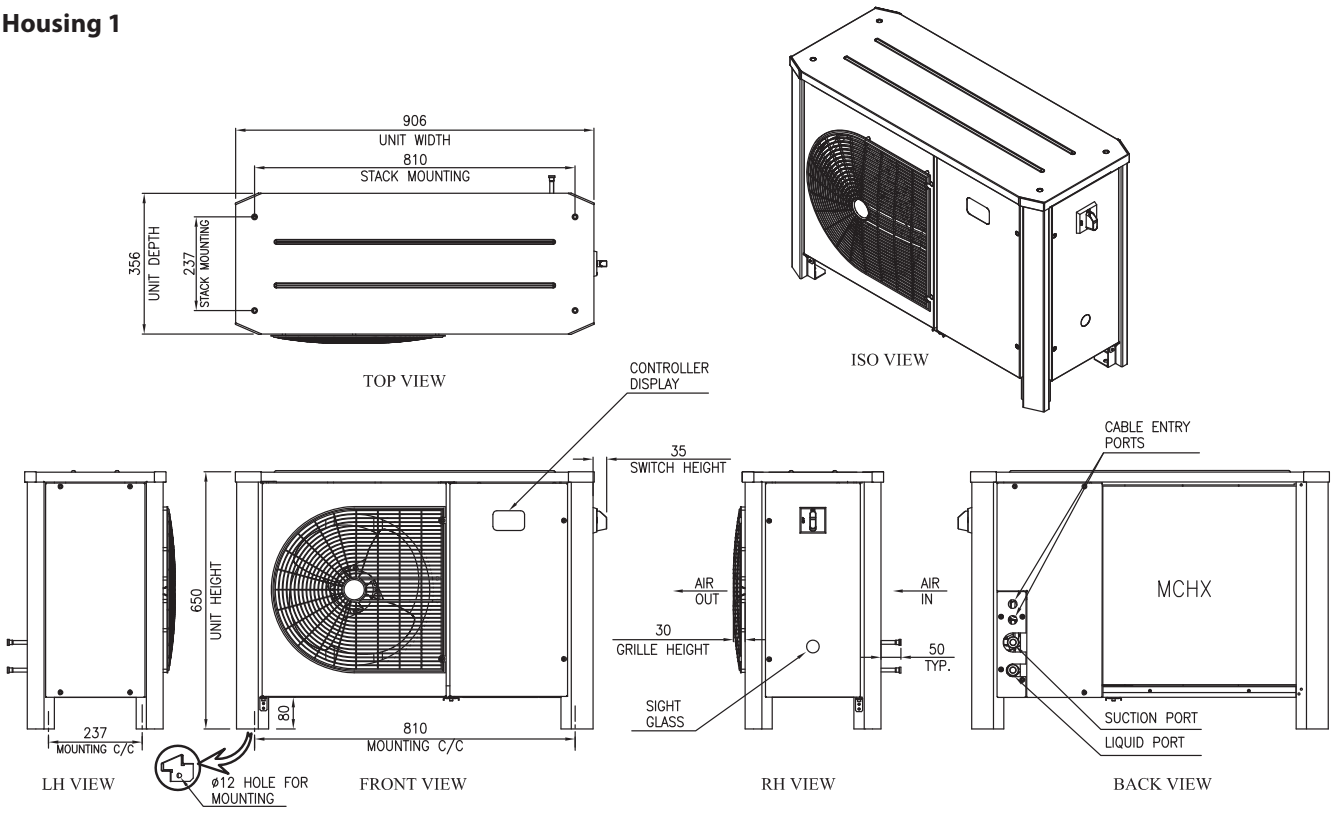
Designation system for the Optyma Plus™ program

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

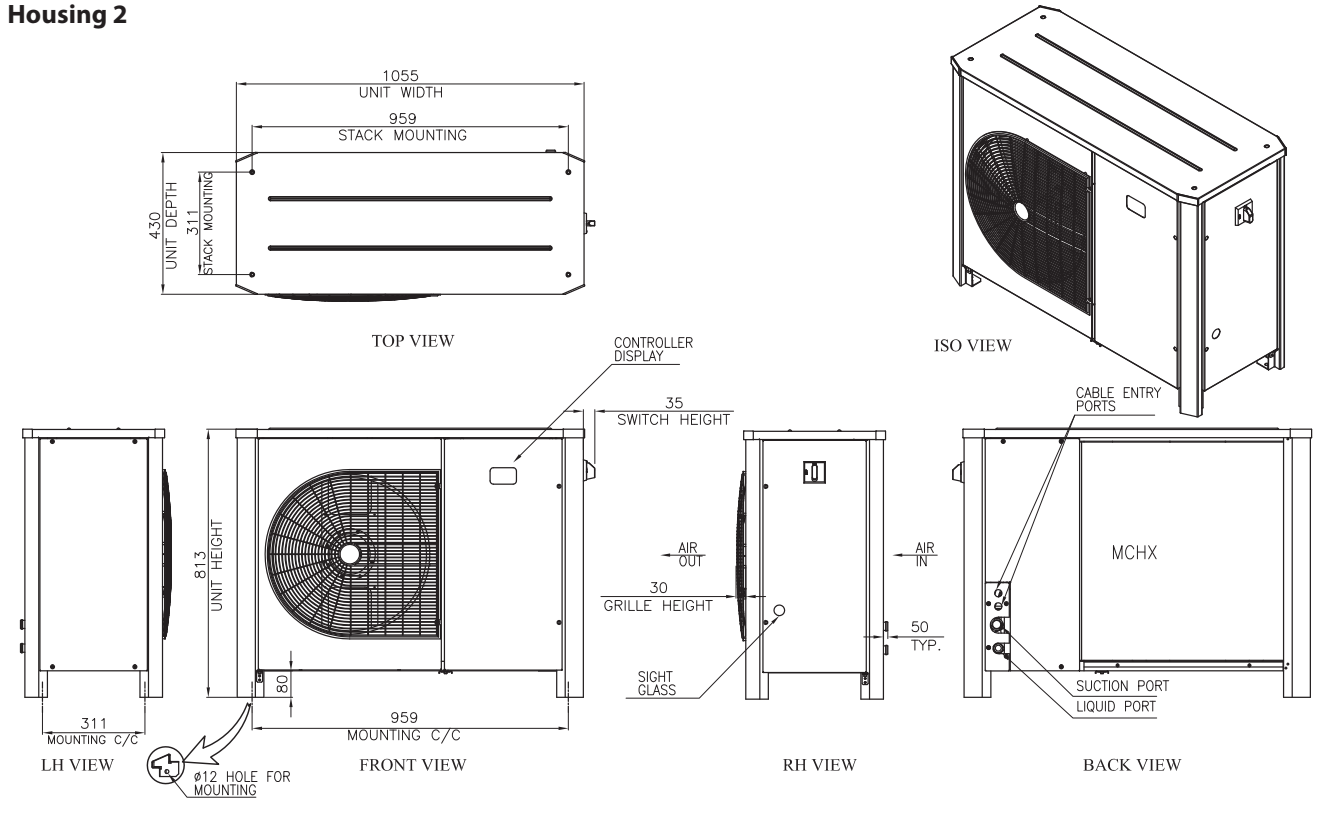


1 Application	L = LBP M = MBP
2 Design	P = Packaged units
3 Refrigerant	H = R404A/R507 G = R134a U = R404A, R134a, R507
4 Condenser option	M = Standard with micro channel heat exchanger
5 Displacement	026 = 26 cm^3 171 = 171 cm^3
6 Compressor platform	GS = GS (reciprocating) NF = NF (reciprocating) NT = 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

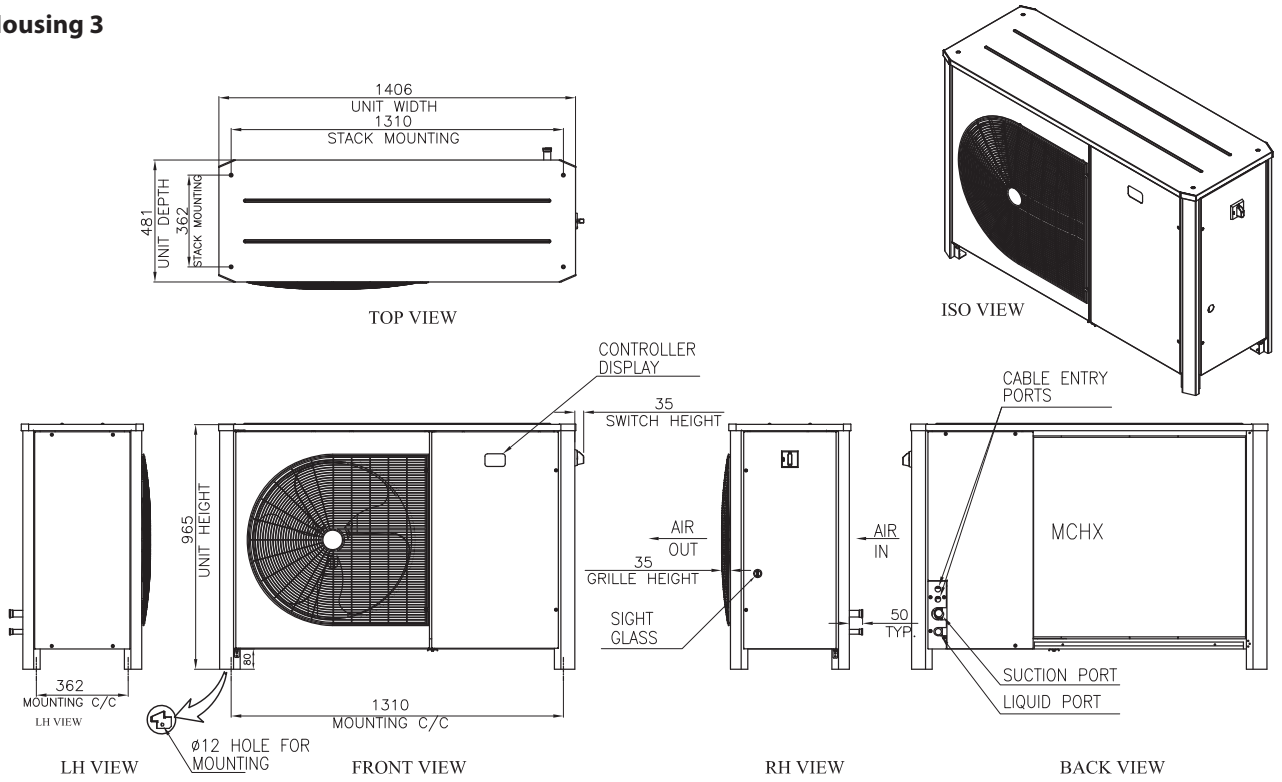
Housing 1



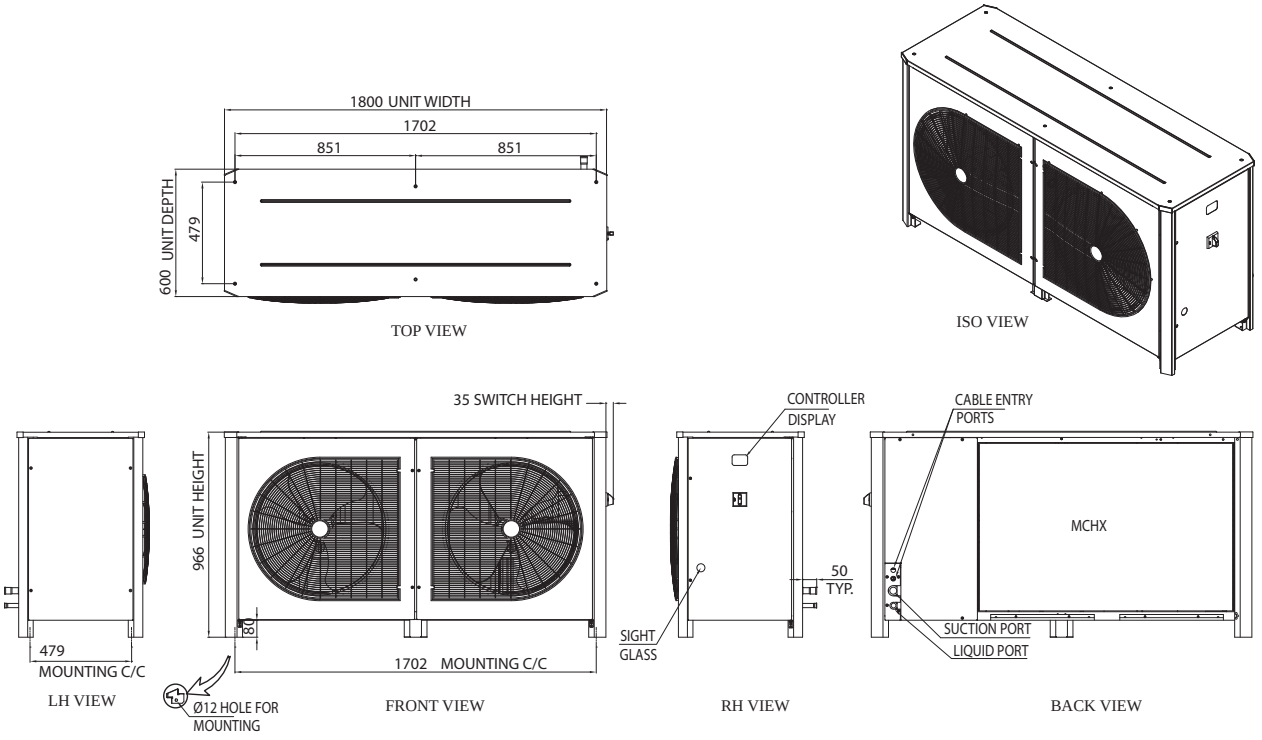
Housing 2



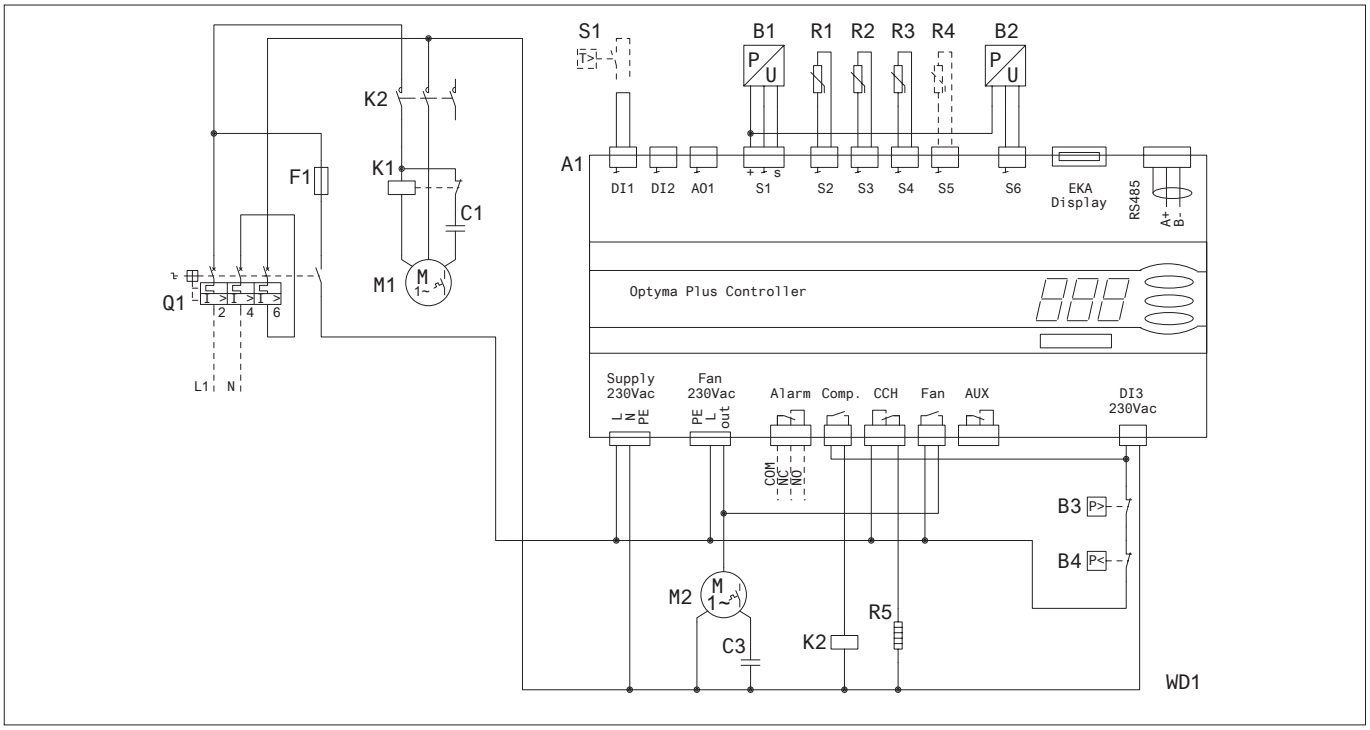
Housing 3



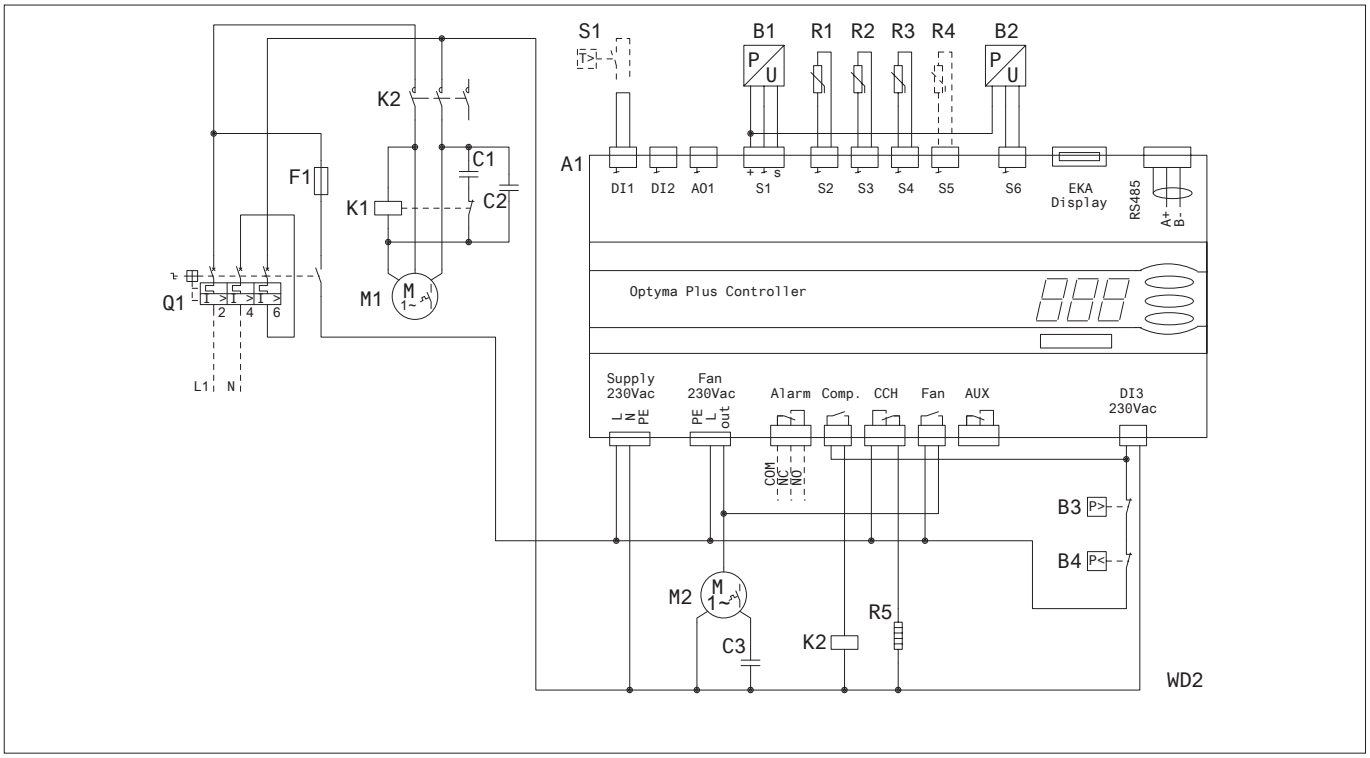
Housing 4



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



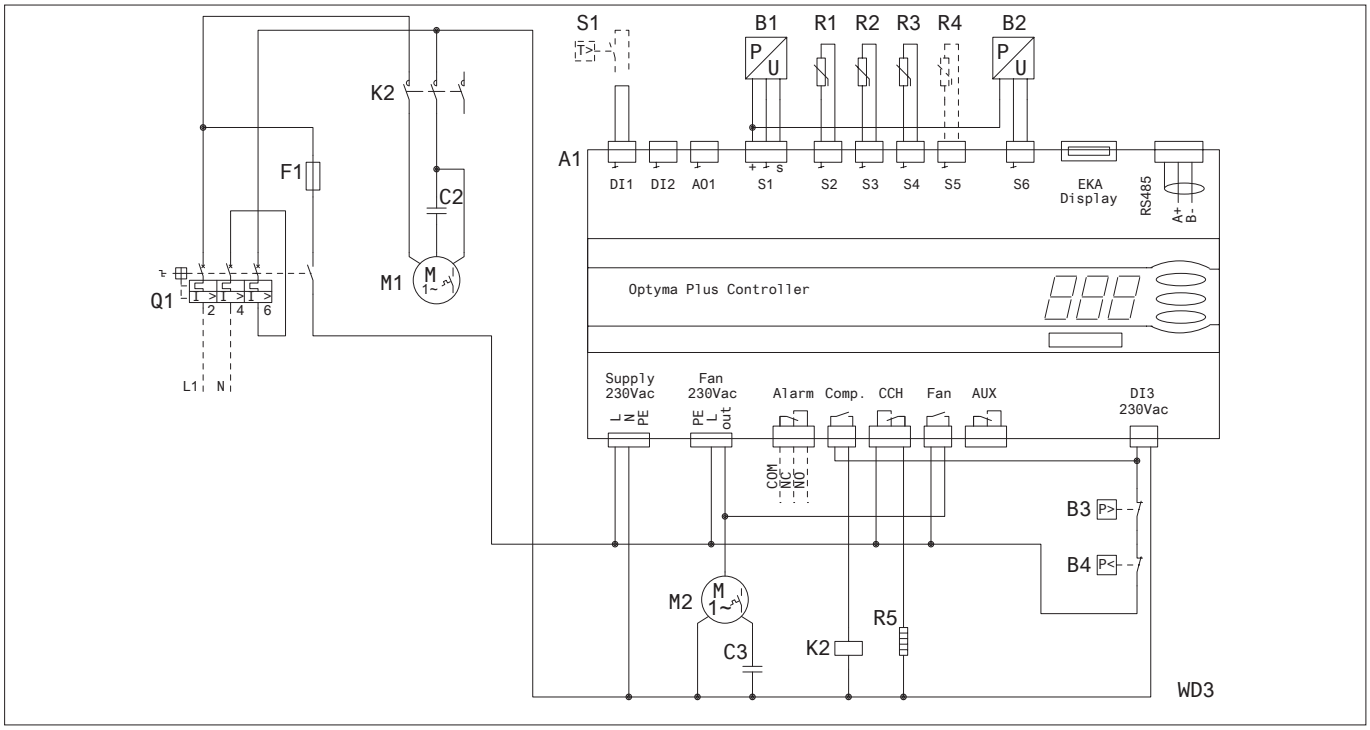
Code G: OP-LPHM026-048-068 & OP-MPHM018-026-034 & OP-MPGM034



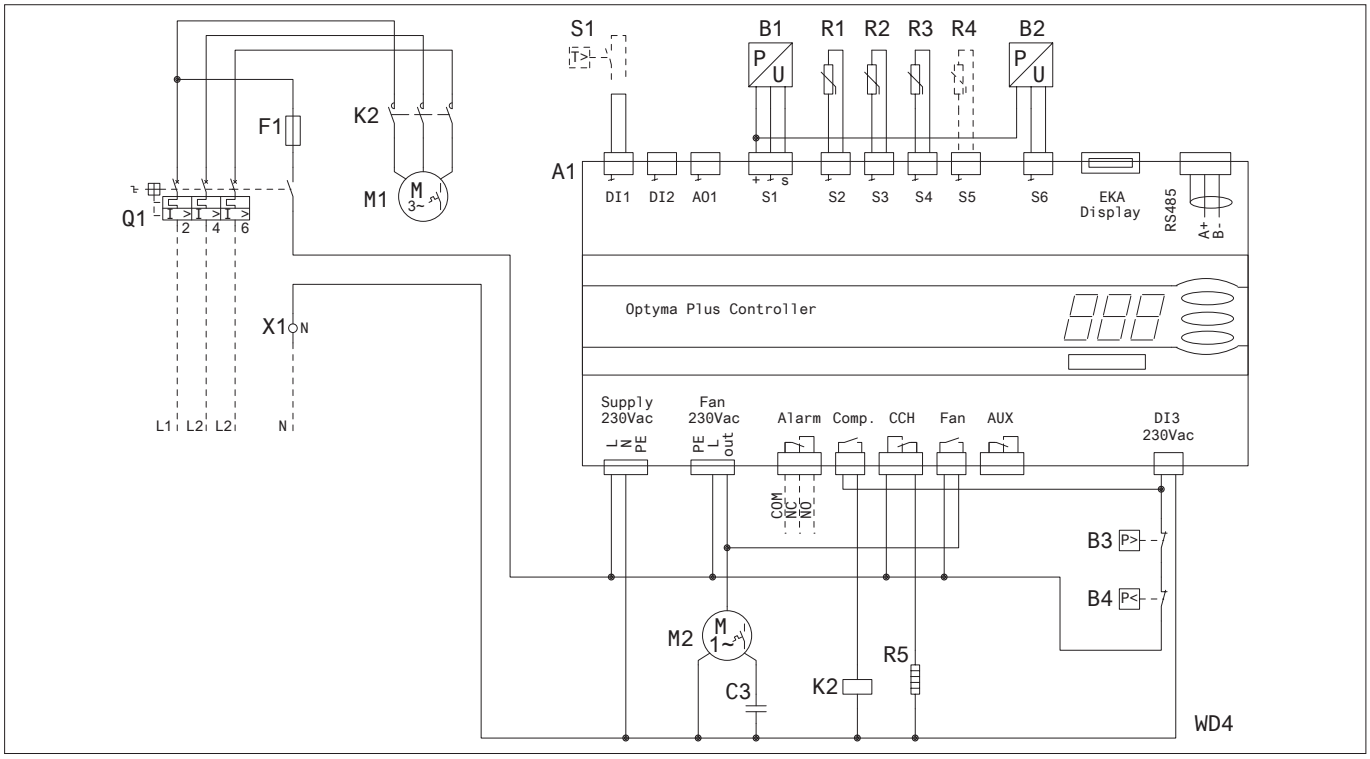
***Legend*:**

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



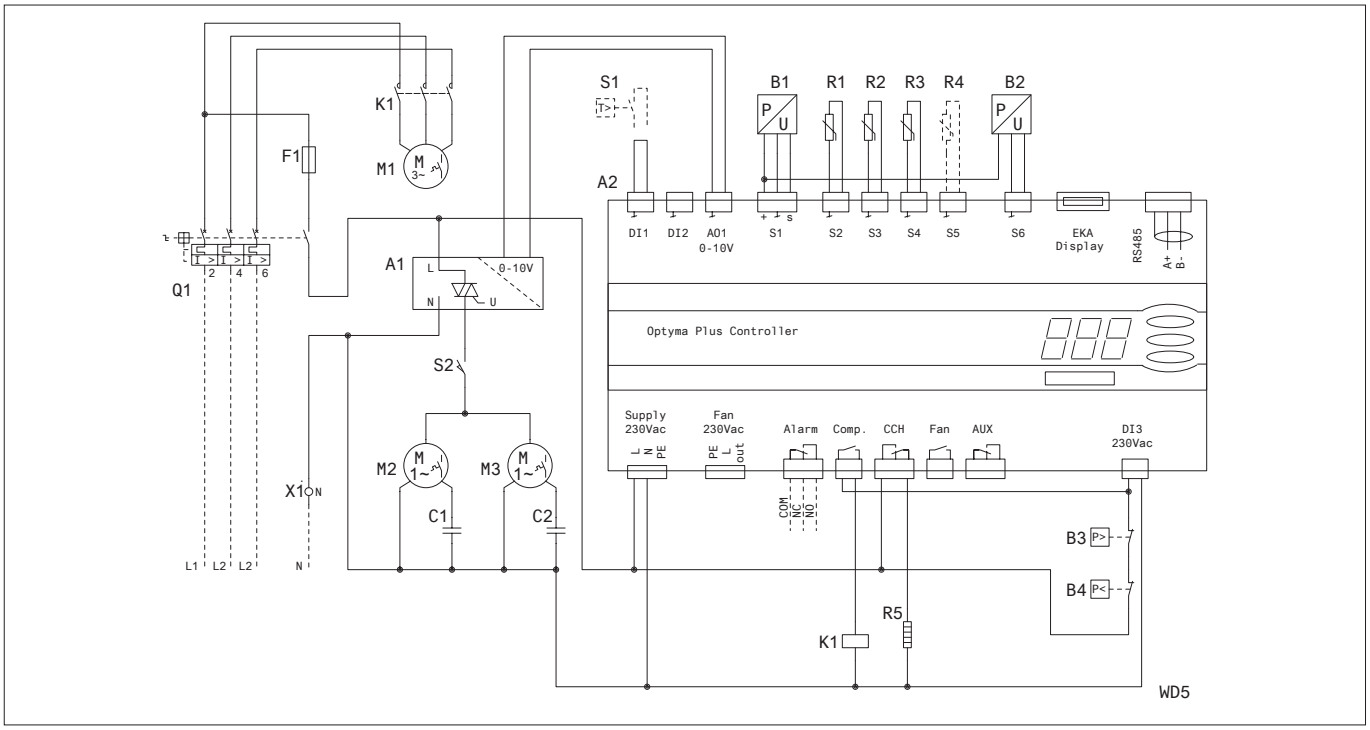
Code E: OP-LPHM048-068-096-136 & OP-MPUM034-046-057-068-080-107



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-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	680	4	680	4	930	6	930	11	680	4	760	5		
MPHM010	900	6	900	6	1 270	8	1 270	17	900	7	1 030	9		
MPHM012	1 090	8	1 090	8	1 530	10	1 530	25	1 090	8	1 240	12		
MPHM015	1 350	11	1 350	11	1 890	13	1 890	30	1 350	12	1 530	16		
MPHM018	1 570	14	1 570	14	2 200	15	2 200	40	1 570	14	1 790	20		
MPHM026	2 460	25	2 460	25	3 450	25	3 450	75	2 460	27	2 800	35		
MPHM034	3 200	35	3 200	35	4 400	35	4 400	100	3 200	38	3 610	50		
MPUM034	3 700	45	3 700	45	4 800	40	4 800	120	3 700	45	4 050	65		
MPUM046	4 850	60	4 850	60	6 250	60	6 250	180	4 850	65	5 350	85		
MPUM057	5 500	75	5 500	75	7 300	75	7 300	210	5 500	75	6 250	110		
MPUM068	7 850	110	7 850	110	10 350	150	10 350	280	7 850	120	8 750	160		
MPUM080	9 100	140	9 100	140	11 950	180	11 950	350	9 100	140	10 150	200		
MPUM107	11 350	180	11 350	180	14 700	220	14 700	450	11 350	180	12 550	260		
MPUM125	14 200	240	14 200	240	18 650	280	18 650	580	14 200	230	15 750	340		
MPUM162	17 800	340	17 800	340	22 400	360	22 400	750	17 800	300	19 300	450		
LPHM018													720	3
LPHM026													1 050	5
LPHM048													1 850	16
LPHM068													2 750	30
LPHM096													3 750	45
LPHM136													5 350	70

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

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.



Danfoss Inverter scroll compressors



Danfoss Air Conditioning scroll compressors



Danfoss Heat Pump scroll compressors



Maneurop® Inverter reciprocating compressors





Danfoss Refrigeration scroll compressors



Maneurop® Reciprocating Compressors



Optyma™ & Optyma Plus™ Condensing Units



Light commercial reciprocating 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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ASERCOM

www.asercom.org

Danfoss Commercial Compressors http://cc.danfoss.com

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FRCC.PK.024.A5.02 - February 2013 - Replaces FRCC.PK.024.A4.02 December 2012

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