

ENGINEERING
TOMORROW

Danfoss

Catalogue

Optyma™ Slim Pack

Just mount, braze and plug

R404A/R507, R134a, R407A, R407F - 50Hz



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OPTYMA™
DANFOSS CONDENSING UNITS

The cost effective outdoor solution 4

Features and cooling capacity 5
 Main product features 5

R404A/R507 LBP 6

R404A/R507 MBP 8

R134a MBP 10

R407A MBP 12

R407F MBP 14

Spare parts & accessories MBP 16
 Electrical characteristics - 230V/1phase/50Hz 16
 Electrical characteristics - 400V/3phase/50Hz 16
 Spare parts 16

Spare parts & accessories LBP 18
 Electrical characteristics - 230V/1 phase/50Hz 18
 Electrical characteristics - 400V/3phase/50Hz 18
 Spare parts 18

Dimensions 20
 Housing B1 20
 Housing B2 20
 Housing B3 21

Electrical wiring diagrams 22

Designation system 26
 Select the right Danfoss Optyima™ Slim Pack condensing unit according to your needs 26

R404A/R507

R134a

R407A

R407F



Compact and light for easy handling and transportation

System designed to perfectly fit into a compact and light housing. The Optyma™ Slim Pack weights up to 87 kg, which makes it the lightest solution in the market.



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 is among the fastest & easiest to install. Easy-to-clean MCHE saves your time & efforts, ensuring longer lifetime & optimized efficiency.



Increase business opportunity with extended range of condensing units

Danfoss Optyma™ Slim Pack extends your possibilities with models for low and medium temperatures.



Tailored for outdoor use

Thanks to the weatherproof housing and corrosion resistant micro-channel heat exchanger the Optyma™ Slim Pack meets outdoor application requirements and completes the Optyma™ range.



Environmental friendly

Danfoss Optyma™ Slim Pack condensing units meet the Energy related Product (ErP) directive applicable for fan motors.

MBP and LBP applications:

- Mini-markets/supermarkets
- Restaurants
- Wine cellars
- Fish markets
- Butchers' shops
- Bakeries
- Laboratories
- Florists
- Petrol stations
- Industrial processes
- Milk cooling
- Dairy and general food storage
- Cold rooms
- Freezers



Main product features

Outdoor application



- Weatherproof housing IP54
- Robust and resistant to corrosion
- Compact design

Micro channel heat exchanger

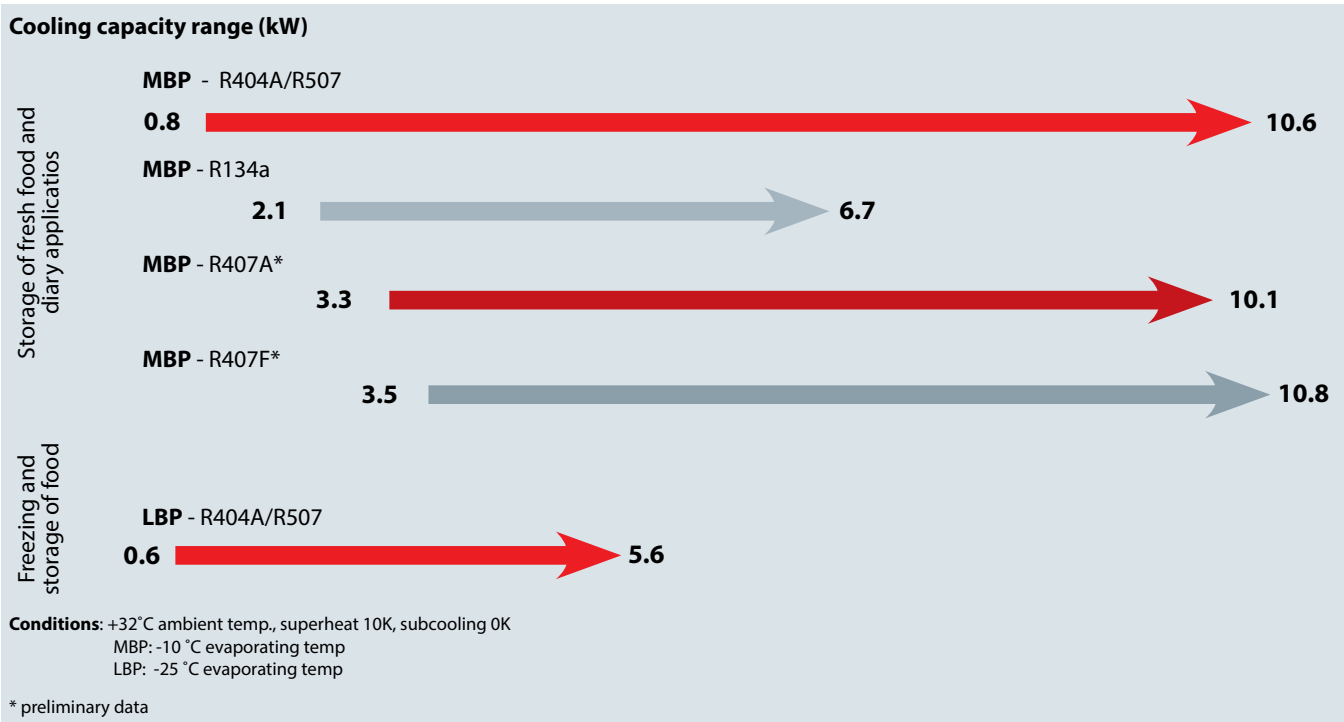


- Easy & fast cleaning
- Less refrigerant charge
- Longer life time

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



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

- MBP R404A/R507 -20°C to +10°C
- MBP R407A/R407F -20°C to +10°C
- MBP R134a -15°C to +15°C
- LBP R404A/R507 -40°C to -10°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)							Sound power level dB(A)	Sound pressure level full sphere 10m dB(A)
							-40°C	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C		
							27	32	38	43	27	32	38		
	SH 10K	OP-LSHM015	114X7081	G	SC15CLX.2	27	340	460	590	760	950	1170	1420	63	32
						32	300	400	530	680	860	1070	1300		
						38	240	340	460	600	760	950	1160		
						43	200	290	390	520	670	840	1040		
		OP-LSHM018	114X7082	G	SC18CLX.2	27	370	500	650	830	1030	1270	1540	63	32
						32	320	440	580	750	940	1160	1410		
						38	270	370	500	650	820	1030	1260		
						43	220	310	430	570	730	910	1120		
		OP-LSHM026	114X7085	G	CAJ2446Z	27	500	700	1000	1250	1600	2000	2450	67	36
						32	450	650	850	1150	1450	1800	2200		
						38		550	750	1000	1250	1600	1950		
						43		450	650	850	1100	1400	1750		
		OP-LSHM034	114X7086	G	CAJ2464Z	27	700	950	1250	1650	2100	2600	3150	68	37
						32	600	850	1150	1500	1900	2350	2900		
						38	500	750	1000	1300	1650	2100	2600		
						43		650	850	1150	1500	1850	2300		
		OP-LSHM048	114X7087	G	NTZ048	27	800	1150	1550	2050	2650	3300	4000	71	40
						32	650	1000	1400	1850	2350	2950	3600		
			114X7088	E		38	550	850	1200	1600	2050	2550	3150		
						43	450	700	1000	1350	1750				
		OP-LSHM074	114X7095	G	FH2511Z	27	1200	1650	2250	2950	3700	4550	5450	71	40
						32	1000	1450	1950	2600	3300	4050	4950		
			114X7096	E		38		1150	1650	2200	2800	3550	4300		
						43		950	1400	1900	2450	3100	3800		
		OP-LSHM068	114X7089	G	NTZ068	27	1350	1850	2450	3100	3850	4650	5550	71	40
						32	1150	1650	2150	2750	3450	4200	5050		
			114X7090	E		38	950	1350	1850	2400	3000	3650	4400		
						43	800	1200	1600	2100	2600				
OP-LSHM067	114X7091	E	LLZ013	27	2200	2850	3550	4450	5400	6550	7850	71	40		
				32	2050	2600	3300	4100	5000	6050	7250				
				38	1800	2350	2950	3700	4500	5450	6550				
				43	1600	2100	2650	3300	4100	4950	5950				
OP-LSHM084	114X7092	E	LLZ015	27	2650	3400	4300	5300	6550	7900	9500	73	42		
				32	2450	3150	3950	4900	6000	7300	8750				
				38	2200	2800	3550	4400	5400	6550	7850				
				43	1950	2500	3150	3950	4850	5850	7050				
OP-LSHM098	114X7075	E	LLZ018	27	3100	3950	4950	6150	7550	9100	10900	74	43		
				32	2850	3650	4600	5650	6950	8400	10000				
				38	2550	3250	4100	5050	6200	7500	8950				
				43	2250	2900	3650	4550	5550	6700	8050				

Test condition
Superheat 10K
Subcooling 0K

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

LLZ 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 blade Ø (mm)	Receiver volume (L)	Power consumption (W) at evap. temp. -25°C	Dimensions (mm)				Suction line (in)	Liquid line (in)	Weight (kg)	
	Type	Air flow (m³/h)	Int. volume (dm³)				Housing	Height H (mm)	Width W (mm)	Depth D (mm)			Gross	Net
OP-LSHM015	A7	2200	0.4	365	1.3	600	B1	680	950	443	3/8"	3/8"	53	41
OP-LSHM018	A7	2200	0.4	365	1.3	720	B1	680	950	443	3/8"	3/8"	53	41
OP-LSHM026	D7	3300	0.6	450	3.4	900	B2	695	1106	464	1/2"	1/2"	78	63
OP-LSHM034	D7	3300	0.6	450	3.4	1100	B2	695	1106	464	1/2"	1/2"	79	64
OP-LSHM048	D7	3300	0.6	450	3.4	1450	B2	695	1106	464	5/8"	1/2"	74	60
OP-LSHM074	D7	3300	0.6	450	3.4	2100	B2	695	1106	464	5/8"	1/2"	92	77
													88	73
OP-LSHM068	D7	3300	0.6	450	3.4	2150	B2	695	1106	464	5/8"	1/2"	74	60
OP-LSHM067	G7	5200	1.8	500	6.2	2850	B3	830	1106	464	3/4"	1/2"	90	73
OP-LSHM084	G7	5200	1.8	500	6.2	3400	B3	830	1106	464	3/4"	1/2"	90	73
OP-LSHM098	G7	5200	1.8	500	6.2	3850	B3	830	1106	464	3/4"	1/2"	90	73

Power consumption referred at 32°C ambient temperature, SH 10K.

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)
							-20°C	-15°C	-10°C	-5°C	0°C	+5°C	+10°C		
	SH 10K	OP-MSHM010	114X7077	G	SC10MLX	27	570	730	920	1140	1410	1710		62	31
						32	510	650	820	1030	1270	1550			
						38	430	560	710	890	1110	1360			
						43		480	610	780	970				
		OP-MSHM012	114X7078	G	SC12MLX	27	700	890	1110	1380	1690	2060		62	31
						32	620	790	1000	1240	1530	1870			
						38	530	680	860	1080	1340	1640			
						43		590	750	940	1170				
		OP-MSHM015	114X7079	G	SC15MLX	27	870	1100	1370	1690	2070	2510		63	32
						32	770	980	1230	1540	1890	2300			
						38	660	850	1070	1340	1660	2040			
						43		730	940	1180	1470				
		OP-MSHM018	114X7080	G	SC18MLX	27	1010	1280	1590	1970	2410	2920		63	32
						32	900	1140	1440	1790	2200	2670			
						38	770	990	1250	1560	1930	2370			
						43		860	1090	1370	1710				
		OP-MSHM024	114X7097	G	CAJ9513Z	27	1400	1800	2300	2800	3400	4100	4800	67	36
						32	1250	1650	2050	2550	3100	3700	4400		
						38	1100	1400	1800	2250	2750	3300	3900		
						43		1250	1600	2000	2450	2950	3500		
		OP-MSHM026	114X7083	G	CAJ4517Z	27	1600	2050	2500	3100	3700	4400	5150	67	36
						32	1400	1800	2300	2800	3400	4000	4700		
			114X7093	E	TAJ4517Z	38	1200	1550	2000	2450	3000	3550	4200		
						43		1350	1750	2200	2650	3200	3750		
		OP-MSHM034	114X7084	G	CAJ4519Z	27	2000	2550	3100	3750	4450	5250	6100	68	37
						32	1800	2300	2800	3400	4100	4800	5600		
			114X7094	E	TAJ4519Z	38	1550	2000	2500	3000	3600	4250	4950		
						43		1750	2200	2700	3250	3800	4450		
OP-MSUM034	114X7061	G	MLZ015	27	2500	3100	3750	4450	5250	6150	7100	69	38		
				32	2250	2800	3400	4050	4800	5650	6550				
	114X7062	E	MLZ015	38	1950	2400	2950	3600	4250	5000	5800				
				43	1650	2100	2600	3150	3750	4450	5200				
OP-MSUM046	114X7063	G	MLZ021	27	3400	4100	4950	5850	6800	7900	9100	69	38		
				32	3100	3750	4500	5350	6250	7250	8400				
	114X7064	E	MLZ021	38	2750	3350	4000	4750	5550	6500	7500				
				43	2400	2950	3550	4200	4950	5800					
OP-MSUM057	114X7065	G	MLZ026	27	4100	4900	5850	6900	8000	9200	10500	69	38		
				32	3700	4500	5350	6250	7300	8400	9600				
	114X7066	E	MLZ026	38	3200	3900	4650	5500	6450	7450	8550				
				43	2800	3400	4100	4850	5700	6600					
OP-MSUM068	114X7067	G	MLZ030	27	5400	6600	7950	9500	11200	13100	15200	70	39		
				32	4950	6050	7300	8750	10350	12150	14100				
	114X7068	E	MLZ030	38	4400	5400	6550	7850	9300	10950	12800				
				43	3900	4800	5850	7050	8400	9900	11600				
OP-MSUM080	114X7069	G	MLZ038	27	6300	7700	9250	11000	12950	15100	17500	70	39		
				32	5800	7050	8500	10150	11950	13950	16200				
	114X7070	E	MLZ038	38	5100	6250	7550	9050	10700	12550	14600				
				43	4550	5600	6750	8100	9600	11300	13200				
OP-MSUM099	114X7071	E	MLZ045	27	7400	9000	10800	12800	15000	17400	20000	70	39		
				32	6750	8250	9900	11750	13800	16050	18500				
				38	5950	7250	8750	10450	12300	14350	16650				
				43	5250	6400	7750	9300	11000	12900	15000				
OP-MSUM108	114X7072	E	MLZ048	27	8000	9700	11600	13700	16000	18550	21350	70	39		
				32	7300	8850	10600	12550	14700	17050	19700				
				38	6400	7800	9350	11100	13050	15200	17650				
				43	5600	6900	8300	9850	11650	13650					

Test condition
Superheat 10K
Subcooling 0K

Electrical code

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

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 blade Ø (mm)	Receiver volume (L)	Power consumption (W) at evap. temp.		Dimensions (mm)				Suction line (in)	Liquid line (in)	Weight (kg)	
	Type	Air flow (m ³ /h)	Int. volume (dm ³)			-10°C	+5°C	Housing	Height H (mm)	Width W (mm)	Depth D (mm)			Gross	Net
OP-MSHM010	A7	2200	0.4	365	1.3	570	680	B1	680	950	443	3/8"	1/4"	53	41
OP-MSHM012	A7	2200	0.4	365	1.3	660	800	B1	680	950	443	3/8"	3/8"	53	41
OP-MSHM015	A7	2200	0.4	365	1.3	830	1020	B1	680	950	443	3/8"	3/8"	53	41
OP-MSHM018	A7	2200	0.4	365	1.3	910	1120	B1	680	950	443	3/8"	3/8"	53	41
OP-MSHM024	D7	3300	0.6	450	3.4	1050	1300	B2	695	1106	464	1/2"	1/2"	78	63
OP-MSHM026	D7	3300	0.6	450	3.4	1250	1550	B2	695	1106	464	1/2"	1/2"	78	63
														76	61
OP-MSHM034	D7	3300	0.6	450	3.4	1550	2000	B2	695	1106	464	1/2"	1/2"	79	64
														78	63
OP-MSUM034	D7	3300	0.6	450	3.4	1700	1750	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM046	D7	3300	0.6	450	3.4	2300	2550	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM057	D7	3300	0.6	450	3.4	3050	3450	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM068	G7	5200	1.8	500	6.2	3200	3450	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM080	G7	5200	1.8	500	6.2	3850	4250	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM099	G7	5200	1.8	500	6.2	4800	5400	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM108	G7	5200	1.8	500	6.2	5250	5850	B3	830	1106	464	7/8"	1/2"	96	87

Power consumption referred at 32°C ambient temperature, SH 10K.

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						
	SH 10K	OP-MSUM034	114X7061	G	MLZ015	27	1800	2300	2850	3500	4200	5050	69	38				
						32	1700	2150	2700	3300	4000	4800						
			114X7062	E		38	1600	2000	2500	3100	3750	4500						
						43	1900	2350	2900	3500	4250							
			OP-MSUM046	114X7063		G	MLZ021	27	2450	3100	3800	4650			5600	6650	69	38
								32	2350	2900	3600	4400			5300	6300		
		114X7064		E	38	2150		2700	3350	4100	4950	5900						
					43	2500		3150	3850	4650	5550							
		OP-MSUM057		114X7065	G	MLZ026		27	2950	3750	4600	5600	6700	7950	69	38		
								32	2800	3500	4350	5300	6350	7550				
			114X7066	E	38		2600	3250	4050	4900	5900	7050						
					43		2400	3050	3750	4600	5550	6600						
			OP-MSUM068	114X7067	G		MLZ030	27	3750	4700	5850	7150	8650	10400			70	39
								32	3550	4450	5550	6800	8250	9900				
		114X7068		E	38	3300		4150	5150	6350	7750	9300						
					43	3100		3900	4850	6000	7300	8750						
		OP-MSUM080		114X7069	G	MLZ038		27	4350	5500	6800	8350	10050	12000	70	39		
								32	4100	5200	6450	7900	9550	11450				
			114X7070	E	38		3800	4800	6000	7400	8950	10700						
					43		3550	4500	5650	6950	8400	10100						
			OP-MSUM099	114X7071	E		MLZ045	27	5350	6750	8350	10200	12300	14600			70	39
								32	5050	6350	7900	9650	11700	13900				
						38		4700	5900	7300	9000	10900	13000					
						43		4400	5500	6850	8400	10200	12200					
OP-MSUM108	114X7072	E		MLZ048	27	5700		7100	8800	10750	12900	15300	70	39				
					32	5350		6700	8300	10150	12250	14550						
					38	4950	6200	7700	9450	11400	13600							
					43	4600	5800	7200	8850	10700	12750							

Test condition
Superheat 10K
Subcooling 0K

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

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)				Suction line (in)	Liquid line (in)	Weight (kg)	
	Type	Air flow (m ³ /h)	Int. volume (dm ³)	Fan blade Ø (mm)		-10°C	+5°C	Housing	Height H (mm)	Width W (mm)	Depth D (mm)			Gross	Net
OP-MSUM034	D7	3300	0.6	450	3.4	1000	1050	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM046	D7	3300	0.6	450	3.4	1300	1450	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM057	D7	3300	0.6	450	3.4	1600	1850	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM068	G7	5200	1.8	500	6.2	1850	2000	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM080	G7	5200	1.8	500	6.2	2250	2450	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM099	G7	5200	1.8	500	6.2	2600	2900	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM108	G7	5200	1.8	500	6.2	2800	3150	B3	830	1106	464	7/8"	1/2"	96	87

Power consumption referred at 32°C ambient temperature, SH 10K.

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)	
							-20°C	-15°C	-10°C	-5°C	0°C	+5°C	+10°C			
	SH 10K	OP-MSUM034	114X7061	G	MLZ015	27	2300	2850	3550	4300	5200	6200	7350	69	38	
						32	2100	2650	3300	4000	4850	5800	6900			
			114X7062	E		38	1850	2350	2950	3650	4450	5300	6350			
							43		2150	2700	3300	4050	4900	5850		
		OP-MSUM046	114X7063	G	MLZ021	27	2950	3700	4550	5550	6600	7850	9150	69	38	
						32	2700	3400	4250	5150	6200	7300	8550			
			114X7064	E		38	2400	3100	3850	4700	5650	6700	7850			
							43		2750	3450	4250	5150	6150			
		OP-MSUM057	114X7065	G	MLZ026	27	3600	4500	5500	6650	7900	9300	10800	69	38	
						32	3300	4150	5100	6150	7350	8650	10050			
			114X7066	E		38	2900	3700	4600	5550	6650	7850	9150			
							43		3300	4150	5050	6050	7150			
		OP-MSUM068	114X7067	G	MLZ030	27	4800	5950	7350	8950	10800	12850	15200	70	39	
						32	4500	5550	6850	8350	10100	12050	14300			
			114X7068	E		38	4150	5100	6300	7650	9250	11100	13200			
							43		4750	5850	7100	8600	10300	12250		
		OP-MSUM080	114X7069	G	MLZ038	27	5500	6800	8350	10150	12250	14550	17150	70	39	
						32	5150	6350	7800	9500	11450	13650	16100			
			114X7070	E		38	4750	5850	7150	8700	10500	12550	14850			
							43		5450	6650	8050	9700	11600	13800		
		OP-MSUM099	114X7071	E	MLZ045	27	6500	8200	10150	12350	14850	17600	20650	70	39	
						32	5900	7500	9350	11450	13800	16400	19300			
						38	5150	6650	8350	10300	12500	14950	17650			
						43		5900	7500	9350	11400	13700	16250			
OP-MSUM108	114X7072	E	MLZ048	27	7050	8900	11000	13350	16000	18900	22100	70	39			
				32	6400	8100	10100	12350	14850	17600	20650					
				38	5600	7200	9000	11100	13450	16000	18900					
				43		6350	8100	10050	12200	14650						

Test condition
Superheat 10K
Subcooling 0K

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

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.
 *preliminary data.

Unit	Condenser coil			Condenser fan	Receiver volume (L)	Power consumption (W) at evap. temp.		Dimensions (mm)				Suction line (in)	Liquid line (in)	Weight (kg)	
	Type	Air flow (m ³ /h)	Int. volume (dm ³)	Fan blade Ø (mm)		-10°C	+5°C	Housing	Height H (mm)	Width W (mm)	Depth D (mm)			Gross	Net
OP-MSUM034	D7	3300	0.6	450	3.4	1500	1700	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM046	D7	3300	0.6	450	3.4	2200	2650	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM057	D7	3300	0.6	450	3.4	2850	3550	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM068	G7	5200	1.8	500	6.2	2850	3150	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM080	G7	5200	1.8	500	6.2	3350	3750	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM099	G7	5200	1.8	500	6.2	4500	5150	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM108	G7	5200	1.8	500	6.2	5050	5800	B3	830	1106	464	7/8"	1/2"	96	87

Power consumption referred at 32°C ambient temperature, SH 10K.

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)		
							-20°C	-15°C	-10°C	-5°C	0°C	+5°C	+10°C				
	SH 10K	OP-MSUM034	114X7061	G	MLZ015	27	2450	3050	3750	4600	5500	6600	7750	69	38		
						32	2250	2850	3500	4300	5150	6200	7300				
						38		2550	3200	3900	4750	5650	6700				
				OP-MSUM046	114X7063	G	MLZ021	27	3150	3950	4850	5900	7050	8300	9650	69	38
		32	2900					3650	4550	5500	6550	7750	9050				
		38						3300	4100	5000	6000						
				OP-MSUM057	114X7065	G	MLZ026	27	3850	4800	5850	7050	8400	9800	11350	69	38
		32	3550					4450	5450	6550	7800	9150	10600				
		38							4900	5950	7050						
				OP-MSUM068	114X7067	G	MLZ030	27	5150	6400	7850	9500	11400	13600	16000	70	39
		32	4850					6000	7350	8900	10750	12800	15100				
		38						5550	6800	8250	9900	11800	14000				
				OP-MSUM080	114X7069	G	MLZ038	27	5900	7300	8900	10800	12950	15350	18050	70	39
		32	5550					6850	8350	10150	12150	14450	17000				
		38						6350	7700	9350	11200	13350	15750				
				OP-MSUM099	114X7071	E	MLZ045	27	7000	8750	10800	13100	15700	18550	21700	70	39
		32	6350					8050	10000	12200	14650	17350	20350				
		38						7150	9000	11050	13300	15850	18700				
		OP-MSUM108	114X7072	E	MLZ048	27	7550	9500	11700	14150	16900	19950	23250	70	39		
32	6900					8700	10800	13100	15750	18600	21750						
38						7750	9650	11850	14300								

Test condition
Superheat 10K
Subcooling 0K

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

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.

*preliminary data

Unit	Condenser coil			Condenser fan	Receiver volume (L)	Power consumption (W) at evap. temp.		Dimensions (mm)				Suction line (in)	Liquid line (in)	Weight (kg)	
	Type	Air flow (m ³ /h)	Int. volume (dm ³)	Fan blade Ø (mm)		-10°C	+5°C	Housing	Height H (mm)	Width W (mm)	Depth D (mm)			Gross	Net
OP-MSUM034	D7	3300	0.6	450	3.4	1600	1850	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM046	D7	3300	0.6	450	3.4	2400	2900	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM057	D7	3300	0.6	450	3.4	3150	3900	B2	695	1106	464	3/4"	1/2"	74	66
OP-MSUM068	G7	5200	1.8	500	6.2	3050	3400	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM080	G7	5200	1.8	500	6.2	3600	4050	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM099	G7	5200	1.8	500	6.2	4900	5650	B3	830	1106	464	7/8"	1/2"	96	87
OP-MSUM108	G7	5200	1.8	500	6.2	5500	6400	B3	830	1106	464	7/8"	1/2"	96	87

Power consumption referred at 32°C ambient temperature, SH 10K

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-MSHM010	WD 1	18.4	4.8	0.78	0.32	1x25
OP-MSHM012		23.4	5.7	0.93		
OP-MSHM015		23.5	6.2	1.17		
OP-MSHM018	WD 2	23.6	6.1	1.28	0.47	1x68
OP-MSHM024		33.5	10.2	1.75		
OP-MSHM026		38.5	12.7	2		
OP-MSHM034		45.0	15.2	2.74		
OP-MSUM034	WD 3	60	19	2.53	0.97	1x130
OP-MSUM046		97	25	3.38		
OP-MSUM057		97	26	4.42		
OP-MSUM068	WD 4	127	32	4.89	0.97	1x130
OP-MSUM080		130	38	5.77		

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-MSHM026	WD 7	18	4	2.09	0.47	1x68
OP-MSHM034	WD 6	22	4.8	2.7		
OP-MSUM034		30	7	2.73		
OP-MSUM046		45	9.5	3.33		
OP-MSUM057	WD 5	45	10	4.14	0.97	1x130
OP-MSUM068		60	13	4.88		
OP-MSUM080		70	15	5.78		
OP-MSUM099		82	15	7.01		
OP-MSUM108		87	16	7.55		

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

Spare parts

Unit	Compressor			Filter drier*		Sight glass		Receiver (L)		Condenser	Dual Pressure switch	
	Model	1 phase	3 phases									
OP-MSHM010	SC10MLX	195B0345	-	DML083	023Z5040	SGP 10s N	014L0182	1.3	118U3474	118U3492	KP 17 WB	060-539766
OP-MSHM012	SC12MLX	195B0323										
OP-MSHM015	SC15MLX	195B0391										
OP-MSHM018	SC18MLX	195B0624										
OP-MSHM024	CAJ9513Z	118U3912										
OP-MSHM026	CAJ4517Z /TAJ4517Z	118U3810	118U3770	DML084	023Z5041	SGP 12 N	014L0163	3.4	118U3475	118U3493	KP 17 WB	060-539766
OP-MSHM034	CAJ4519Z /TAJ4519Z	118U3811	118U3751									
OP-MSUM034	MLZ015	121U8024	121U8002									
OP-MSUM046	MLZ021	121U8028	121U8006									
OP-MSUM057	MLZ026	121U8030	121U8008									
OP-MSUM068	MLZ030	121U8032	121U8010	DML164	023Z5044	SGP 12s N	014L0183	6.2	118U3476	118U3494	KP 17 WB	060-539766
OP-MSUM080	MLZ038	121U8034	121U8012									
OP-MSUM099	MLZ045	-	121U8014									
OP-MSUM108	MLZ048	-	121U8016									

*Filter drier DCL (appropriate model and size) can be used as a service replacement of DML

Spare parts

Unit	Fan capacitor (µF)		Fan motor (W) (capacitor not included)		Fan blade (mm)		Fan grill		Crankcase heater		Suction valve		Liquid valve					
OP-MSHM010	1.8	118U3296	25	118U3477	365	118U3480	B1	118U3483	Belt 50 W 120Z0057		3/8" brazed	118U3414	1/4" brazed	118U3413				
OP-MSHM012													3/8" brazed	118U3414	3/8" brazed	118U3414		
OP-MSHM015																		
OP-MSHM018																		
OP-MSHM024											1/2" brazed	118U3761						
OP-MSHM026																		
OP-MSHM034	3.5	118U3297	68	118U3823	450	118U3481	B2	118U3484			3/4" brazed	118U3762	1/2" brazed	118U3761				
OP-MSUM034																		
OP-MSUM046																		
OP-MSUM057																		
OP-MSUM068									Belt 70 W 120Z5040									
OP-MSUM080	5	included	130	Full fan assembly*		B3	118U3485				7/8" brazed	118U3763						
OP-MSUM099				118U3829 (500 mm)														
OP-MSUM108																		

*For B3 models produced before the 26th week of 2014 fan parts are the following:

Fan capacitor - 118U3298 (6 µF)

Fan motor - 118U3479 (130 W)

Fan blade - 118U3833 (f24")

Accessories

Unit	Acoustic hood	Fan speed control	Oil
OP-MSHM010	N/A	061H3142	N/A
OP-MSHM012			
OP-MSHM015			
OP-MSHM018			
OP-MSHM024			
OP-MSHM026			
OP-MSHM034	120Z5043		
OP-MSUM034			
OP-MSUM046			
OP-MSUM057	120Z5044		120Z5034
OP-MSUM068			
OP-MSUM080			
OP-MSUM099			
OP-MSUM108			

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-LSHM015	WD 1	19.6	4.7	0.95	0.32	1x25
OP-LSHM018		23.5	5.3	1.07		
OP-LSHM026	WD 2	29	7.9	1.4	0.47	1x68
OP-LSHM034		40	10	1.87		
OP-LSHM048		37	11	2.19		
OP-LSHM074		81	24	3.45		
OP-LSHM068		53	17	3.62		

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-LSHM048	WD 7	16	4.8	2.28	0.47	1x68
OP-LSHM074		28	7.2	3.34		
OP-LSHM068		25	8.4	3.57		
OP-LSHM067	WD 5	62	12	4.59	0.97	1x130
OP-LSHM084		88.5	15	5.49		
OP-LSHM098		90	14.4	6.2		

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

Spare parts

Unit	Compressor			Filter drier*		Sight glass		Receiver (L)		Condenser	Dual Pressure switch	
	Model	1 phase	3 phases									
OP-LSHM015	SC15CLX.2	195B0399	-	DML083	023Z5040	SGP 10s N	014L0182	1.3	118U3474	118U3492	KP 17 WB	060-539766
OP-LSHM018	SC18CLX.2	195B0332										
OP-LSHM026	CAJ2446Z	118U3779										
OP-LSHM034	CAJ2464Z	118U3769										
OP-LSHM048	NTZ048	120F0087	120F0001	DML084	023Z5041	SGP 12 N	014L0163	3.4	118U3475	118U3493		
OP-LSHM074	FH2511Z	118U3914	-									
	TFH2511Z	-	118U3915									
OP-LSHM068	NTZ068	120F0088	120F0002									
OP-LSHM067	LLZ013		121L9517									
OP-LSHM084	LLZ015	-	121L9513	DML164	023Z5044	SGP 12s N	014L0183	6.2	118U3476	118U3494		
OP-LSHM098	LLZ018		121L9509									

*Filter drier DCL (appropriate model and size) can be used as a service replacement of DML

Spare parts

Unit	Fan capacitor (µF)		Fan motor (W) (capacitor not included)		Fan blade (mm)		Fan grill		Crankcase heater		Suction valve		Liquid valve		
OP-LSHM015	1.8	118U3296	25	118U3477	365	118U3480	B1	118U3483				3/8" brazed	118U3414	3/8" brazed	118U3414
OP-LSHM018															
OP-LSHM026	3.5	118U3297	68	118U3823	450	118U3481	B2	118U3484	Belt 50 W 120Z0057		1/2" brazed	118U3761	1/2" brazed	118U3761	
OP-LSHM034															
OP-LSHM048									PTC 35 W 120Z0459		5/8" brazed	118U3764			
OP-LSHM074															
OP-LSHM068															
OP-LSHM067	5	included	130	Full fan assembly*				B3	118U3485	Belt 70 W 120Z5040		3/4" brazed	118U3762		
OP-LSHM084				118U3829 (500 mm)											
OP-LSHM098															

*For B3 models produced before the 26th week of 2014 fan parts are the following:

Fan capacitor - 118U3298 (6 µF)

Fan motor - 118U3479 (130 W)

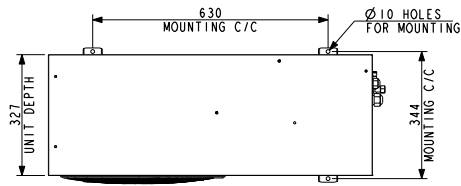
Fan blade - 118U3833 (f24")

Accessories

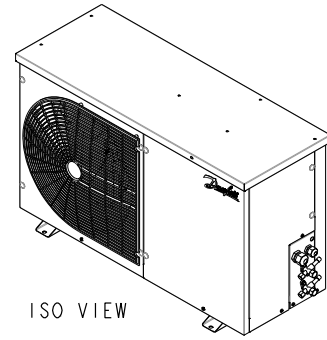
Unit	Acoustic hood	Fan speed control	Oil
OP-LSHM015	N/A		N/A
OP-LSHM018			
OP-LSHM026			
OP-LSHM034			
OP-LSHM048	120Z0471	061H3142	7754019
OP-LSHM074	-		-
OP-LSHM068	120Z0471		7754019
OP-LSHM067			
OP-LSHM084	120Z5052**		120Z5034
OP-LSHM098			

**Acoustic hood is included

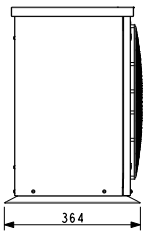
Housing B1



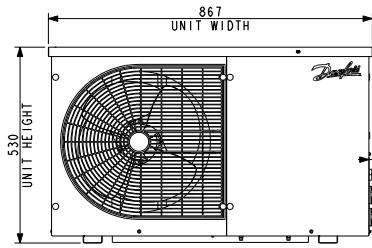
TOP VIEW



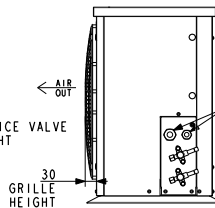
ISO VIEW



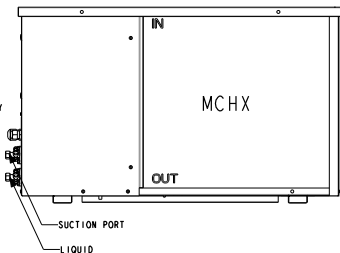
LH VIEW



FRONT VIEW

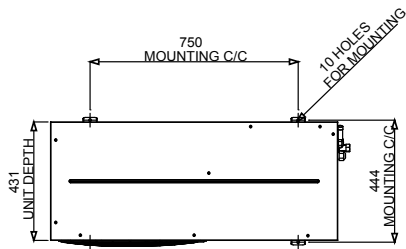


RH VIEW

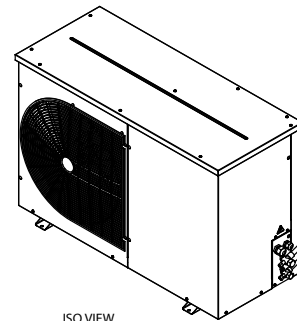


BACK VIEW

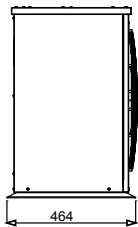
Housing B2



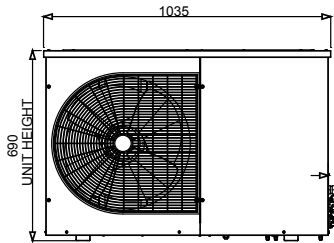
TOP VIEW



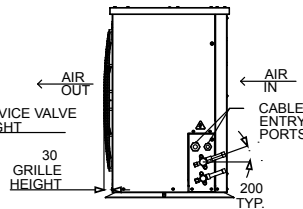
ISO VIEW



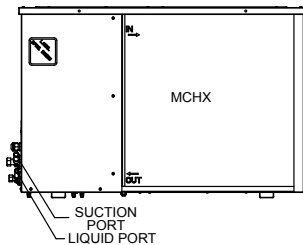
LH VIEW



FRONT VIEW

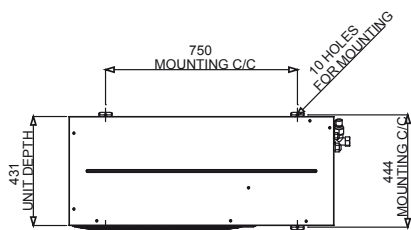


RH VIEW

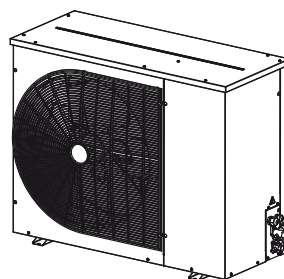


BACK VIEW

Housing B3



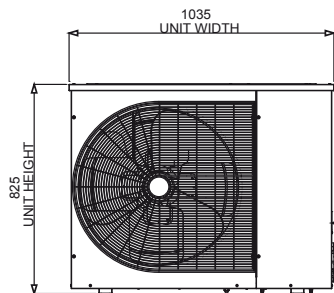
TOP VIEW



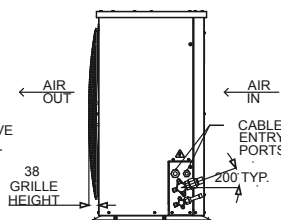
ISO VIEW



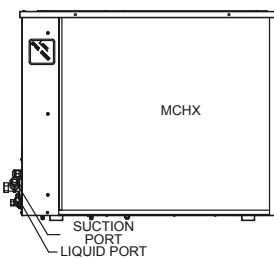
LH VIEW



FRONT VIEW



RH VIEW



BACK VIEW

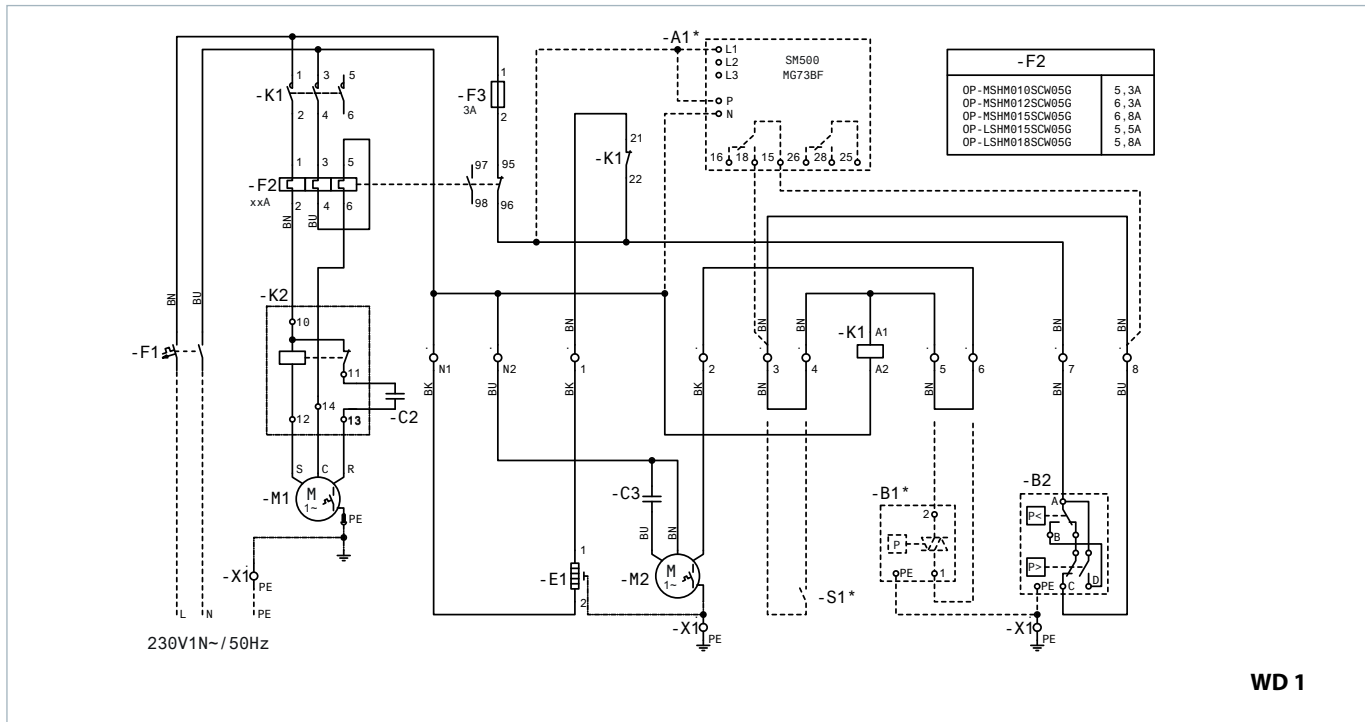
R404A/R507

R134a

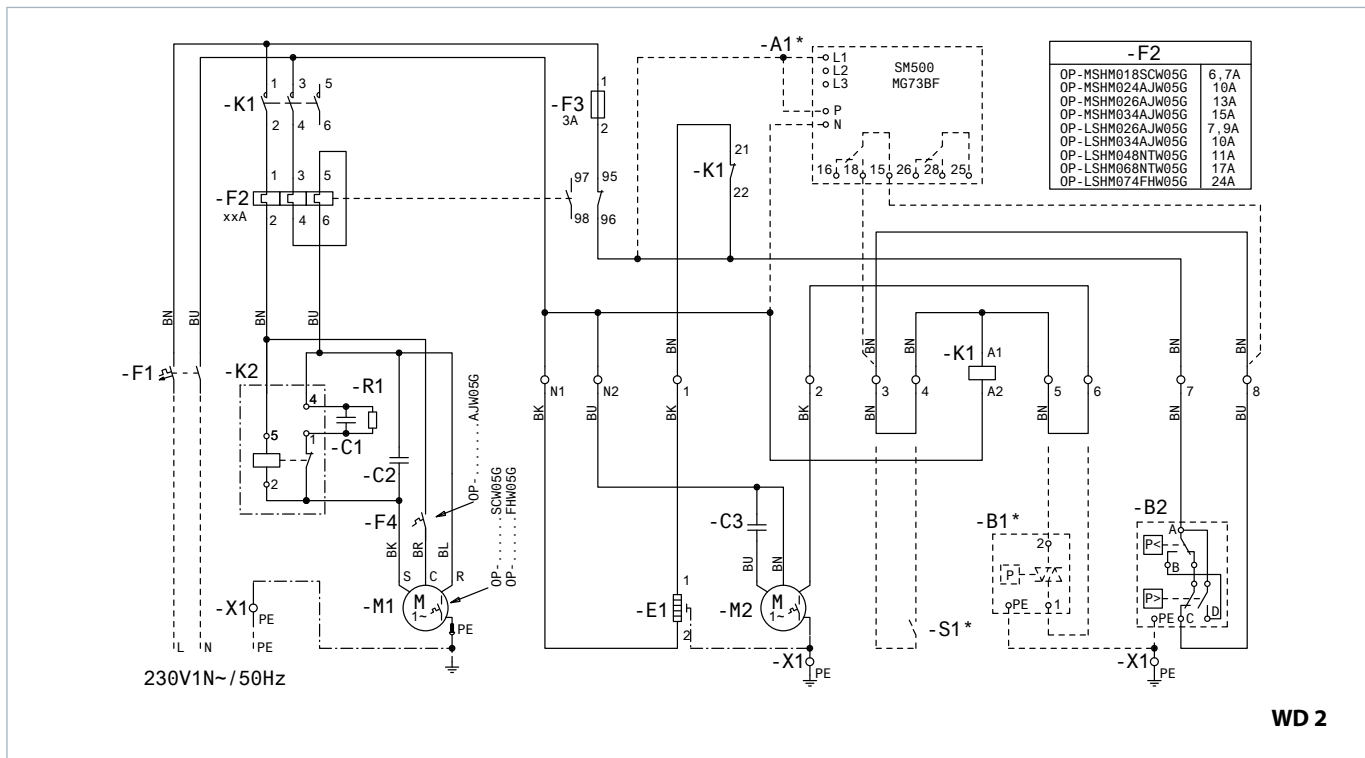
R407A

R407F

Code G : OP-MSHM010- 012 - 015, OP-LSHM015 - 018



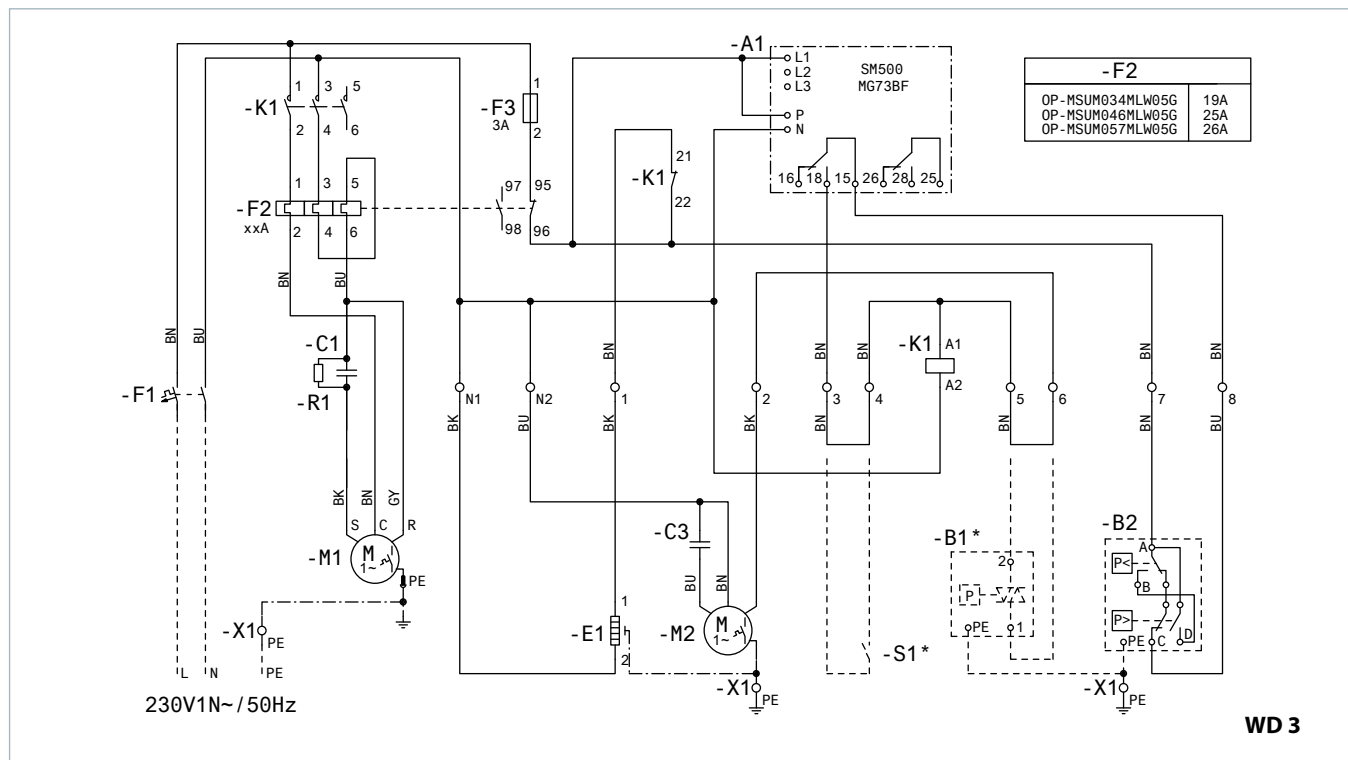
Code G : OP-LSHM026 - 034 - 048 - 074 - 068, OP-MSHM018 - 024 - 026 - 034



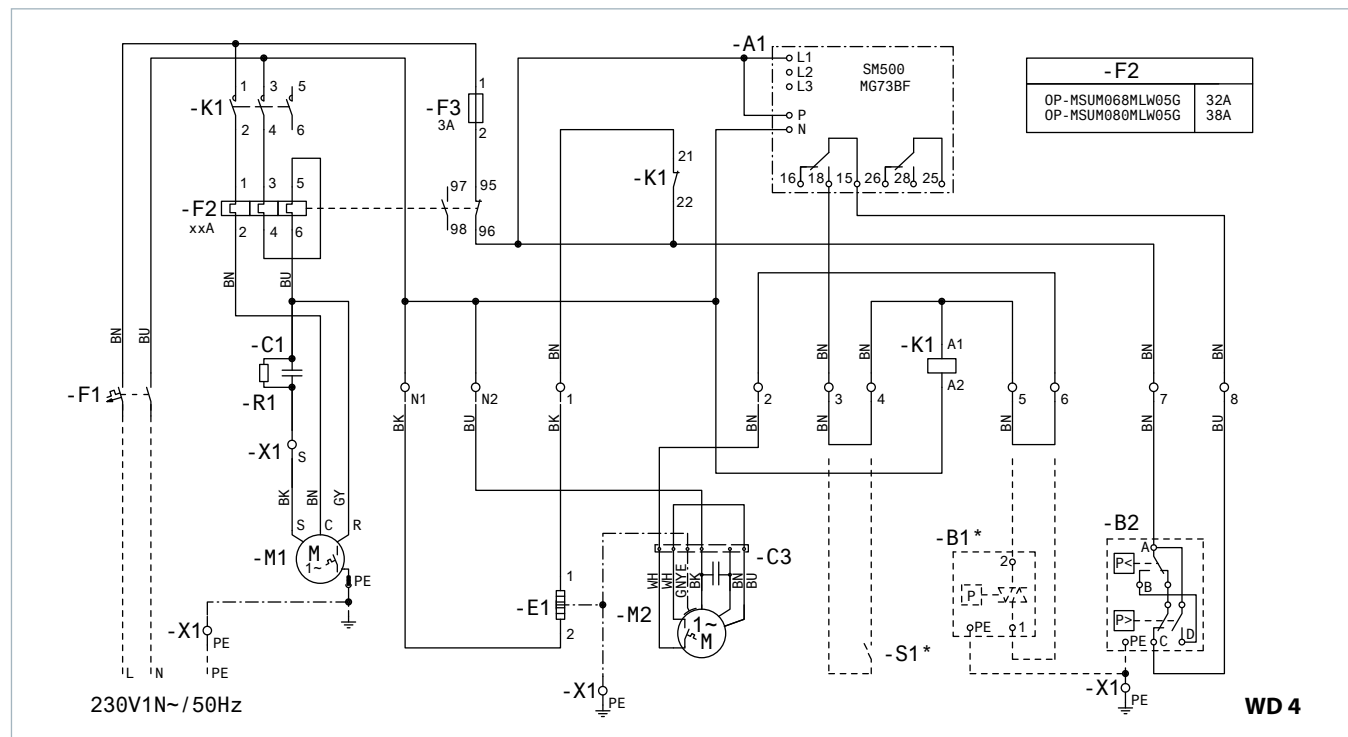
Legend/Legende/légende

- | | | | | | |
|----|--------------------|--------|-------------------------------|-----|------------------------------|
| BK | black/schwarz/noir | A1* | Voltage relay (option) | F4 | Compressor thermal protector |
| BU | blue/blau/bleu | B1* | Fan speed controller (option) | M1 | Compressor |
| BN | brown/braun/marron | B2 | High and Low pressure switch | M2 | Fan motor |
| GY | grey/grey/gris | C1 | Run capacitor compressor | K1 | Contacteur |
| RD | red/rot/rouge | C2 | Start capacitor compressor | K2 | Start relay |
| WH | white/weiss/blanc | C3 | Run capacitor fan | R1 | Bleeder resistor |
| | | E1 | Crankcase heater | S1* | Room thermostat (option) |
| | | F1, F3 | Fuse (control circuit) | X1 | Terminals |
| | | F2 | Overload relay | * | Option (remove bridge) |

Code G : OP-MSUM034 - 046 - 057



Code G : OP-MSUM068 - 080

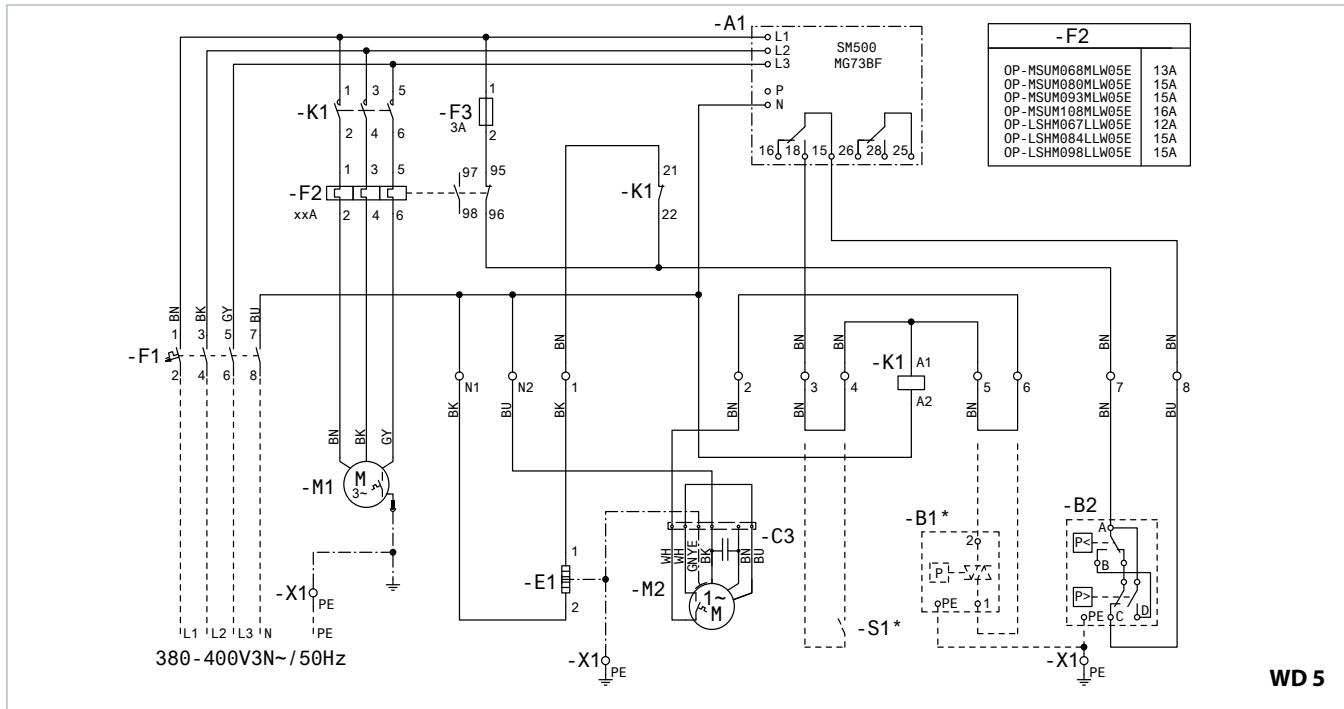


Legend/Legende/légende
 BK black/schwarz/noir
 BU blue/blau/bleu
 BN brown/braun/marron
 GY grey/grey/gris
 RD red/rot/rouge
 WH white/weiss/blanc

A1 Voltage relay
 B1* Fan speed controller (option)
 B2 High and Low pressure switch
 C1 Run capacitor compressor
 C3 Run capacitor fan
 E1 Crankcase heater
 F1, F3 Fuse (control circuit)
 F2 Overload relay

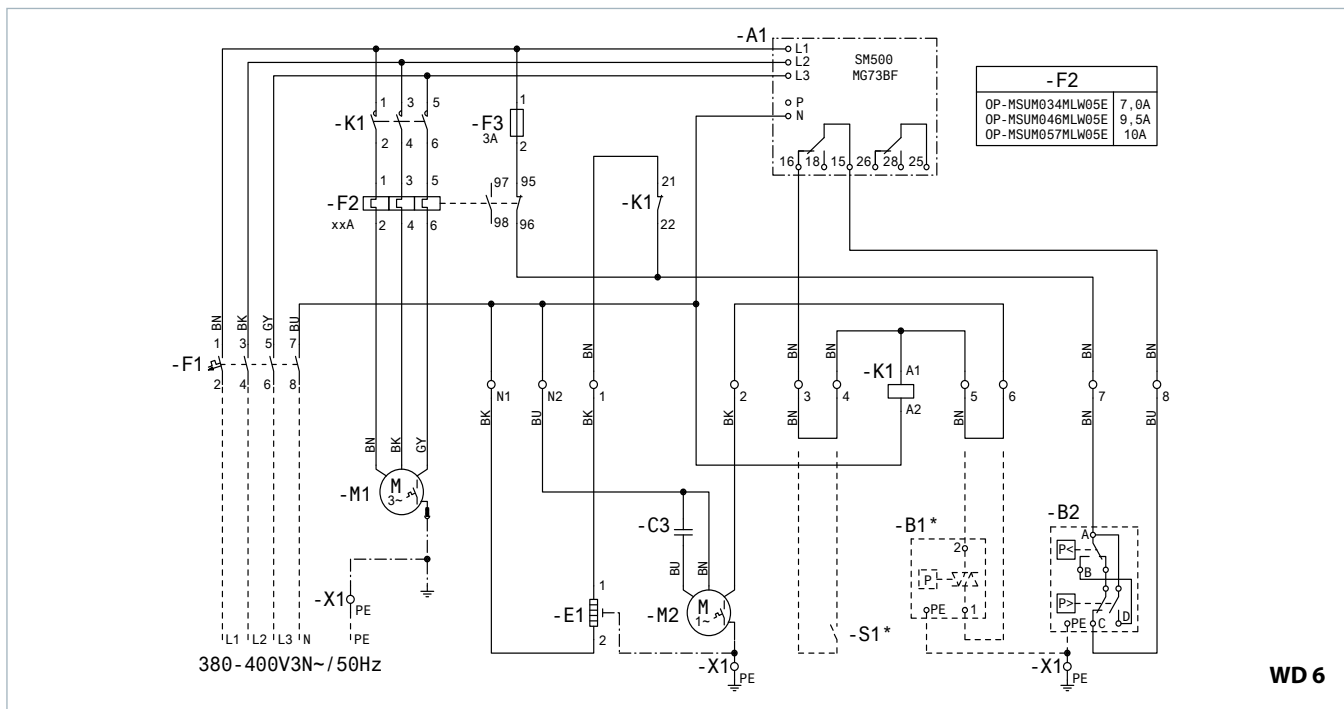
F4 Compressor thermal protector
 M1 Compressor
 M2 Fan motor
 K1 Contactor
 K2 Start relay
 R1 Bleeder resistor
 S1* Room thermostat (option)
 X1 Terminals
 * Option (remove bridge)

Code E : OP-MSUM068 - 080 - 099 - 108, OP-LSHM067 - 084 - 098



WD 5

Code E : OP-MSUM034 - 046 - 057



WD 6

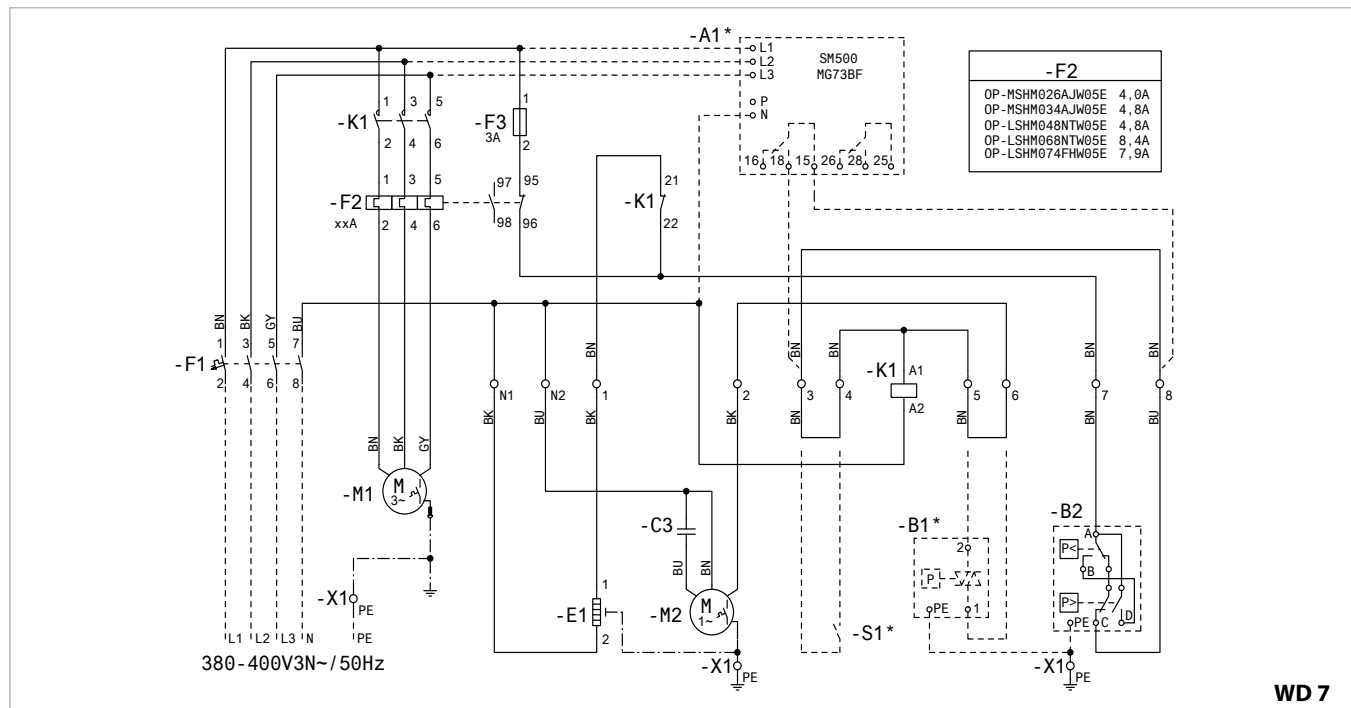
Legend/Legende/légende

BK black/schwarz/noir
 BU blue/blau/bleu
 BN brown/braun/marron
 GY grey/grey/gris
 RD red/rot/rouge
 WH white/weiss/blanc

A1 Voltage relay
 B1* Fan speed controller (option)
 B2 High and Low pressure switch
 C3 Run capacitor fan
 E1 Crankcase heater
 F1, F3 Fuse (control circuit)
 F2 Overload relay
 F4 Compressor thermal protector

M1 Compressor
 M2 Fan motor
 K1 Contactor
 K2 Start relay
 R1 Bleeder resistor
 S1* Room thermostat (option)
 X1 Terminals
 * Option (remove bridge)

Code E : OP-LSHM048 - 074 - 068, OP-MSHM026 - 034



WD 7

Legend/Legende/légende

BK black/schwarz/noir
 BU blue/blau/bleu
 BN brown/braun/marron
 GY grey/grey/gris
 RD red/rot/rouge
 WH white/weiss/blanc

A1* Voltage relay (option)
 B1* Fan speed controller (option)
 B2 High and Low pressure switch
 C3 Run capacitor fan
 E1 Crankcase heater
 F1, F3 Fuse (control circuit)
 F2 Overload relay
 F4 Compressor thermal protector

M1 Compressor
 M2 Fan motor
 K1 Contactor
 K2 Start relay
 R1 Bleeder resistor
 S1* Room thermostat (option)
 X1 Terminals
 * Option (remove bridge)

Designation system for the Optyma™ Slim Pack range

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

OP- MSUM034 ML W05 E



1	Application: M = MBP L = LBP	5	Displacement in cm ³
2	Condensing unit family: S = Optyma™ Slim Pack	6	Compressor platform
3	Refrigerant U = R134a/R404A/R507/R22/R407A/R407F H = R404A/R507	7	Version W05
4	Condenser type M = Standard with micro channel heat exchanger	8	Voltage code: G = 230V/1ph compressor & fan E = 400V/3ph compressor & 230V/1ph fan

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

Model and cooling capacity by cold room type	Meat +1°C - 18h		Fish +1°C - 18h		Laboratory +12°C - 18h		Fruit & vegetables +8°C - 18h		Fruit & vegetables 0°C - 18h		Butter, eggs & cheese +5°C - 18h		Freezers -18°C - 16h	
	Cap.* (W)	CR** (m ³)	Cap.* (W)	CR** (m ³)	Cap.* (W)	CR** (m ³)	Cap.* (W)	CR** (m ³)	Cap.* (W)	CR** (m ³)	Cap.* (W)	CR** (m ³)		
OP-MSHM010	900	6	900	6	1 270	8	1 270	17	900	7	1 030	9		
OP-MSHM012	1 090	8	1 090	8	1 530	10	1 530	25	1 090	8	1 240	12		
OP-MSHM015	1 350	11	1 350	11	1 890	13	1 890	30	1 350	12	1 530	16		
OP-MSHM018	1 570	14	1 570	14	2 200	15	2 200	40	1 570	14	1 790	20		
OP-MSHM024	2 280	20	2 280	20	3 100	20	3 100	60	2 280	20	2 250	25		
OP-MSHM026	2 600	22	2 600	22	3 500	22	3 500	70	2 600	22	2 900	35		
OP-MSHM034	3 200	30	3 200	30	4 300	30	4 300	90	3 200	30	3 600	45		
OP-MSUM034	3 700	45	3 700	45	4 800	40	4 800	120	3 700	45	4 050	65		
OP-MSUM046	4 850	60	4 850	60	6 250	60	6 250	180	4 850	65	5 350	85		
OP-MSUM057	5 500	75	5 500	75	7 300	75	7 300	210	5 500	75	6 250	110		
OP-MSUM068	7 850	110	7 850	110	10 350	150	10 350	280	7 850	120	8 750	160		
OP-MSUM080	9 100	140	9 100	140	11 950	180	11 950	350	9 100	140	10 150	200		
OP-MSUM099	10 800	170	10 800	170	13 800	210	13 800	430	10 800	170	11 750	245		
OP-MSUM108	11 350	180	11 350	180	14 700	220	14 700	450	11 350	180	12 550	260		
OP-LSHM015													680	2
OP-LSHM018													750	3
OP-LSHM026													1 200	6
OP-LSHM034													1 500	9
OP-LSHM048													1 850	16
OP-LSHM074													2 600	25
OP-LSHM068													2 750	30
OP-LSHM067													4 100	50
OP-LSHM084													4 900	60
OP-LSHM098													5 650	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 Scrolls



Danfoss Inverter Scrolls



Danfoss Turbocor Compressors



Danfoss Optyma Condensing Units



Secop Compressors for Danfoss



Danfoss Maneurop Reciprocating 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.

<http://cc.danfoss.com>

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