



Minimum Evaporating Temp. With:

- 20 °C Suction Gas Return
- 0 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Additional restrictions, please see application guidelines

50 Hz

4MFD-13X

R513A

Cond °C	Cooling Capacity, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	15.35								
20.0	14.65	18.45							
25.0	13.70	17.35	21.80	27.10					
30.0	12.80	16.30	20.50	25.50	31.40	38.20			
35.0	11.85	15.20	19.20	23.90	29.50	35.90	43.20	46.40	51.60
40.0	10.90	14.05	17.85	22.30	27.50	33.50	40.40	43.40	48.20
45.0	9.99	12.95	16.50	20.70	25.50	31.10	37.60	40.40	44.90
50.0	9.06	11.80	15.10	19.00	23.50	28.70	34.60	37.20	41.40
55.0		10.70	13.75	17.30	21.40	26.20	31.70	34.10	37.90
60.0		9.59	12.35	15.60	19.35	23.70	28.70	30.90	34.30
65.0			10.95	13.90	17.25	21.20	25.60	27.60	30.70
70.0			9.60	12.15	15.15	18.60	22.60	24.30	27.10
75.0				10.45	13.05	16.05	19.50	21.00	23.40
80.0				8.76	10.95	13.45	16.40	17.65	19.70
85.0					8.84	10.90	13.30	14.35	16.00

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	4.77								
20.0	4.97	5.36							
25.0	5.18	5.67	6.09	6.43					
30.0	5.36	5.94	6.47	6.93	7.29	7.54			
35.0	5.51	6.18	6.81	7.39	7.89	8.28	8.56	8.63	8.69
40.0	5.63	6.37	7.10	7.79	8.42	8.97	9.41	9.55	9.72
45.0	5.72	6.53	7.35	8.15	8.91	9.59	10.20	10.40	10.70
50.0	5.77	6.66	7.56	8.46	9.34	10.15	10.90	11.20	11.55
55.0		6.75	7.73	8.72	9.71	10.65	11.55	11.90	12.40
60.0		6.80	7.86	8.94	10.05	11.10	12.15	12.55	13.15
65.0			7.95	9.11	10.30	11.50	12.70	13.15	13.80
70.0			8.00	9.24	10.55	11.85	13.15	13.65	14.45
75.0				9.33	10.70	12.10	13.55	14.10	15.00
80.0				9.37	10.85	12.35	13.90	14.50	15.45
85.0					10.90	12.50	14.20	14.85	15.85

Additional restrictions, please see application guidelines

50 Hz

4MFD-13X

R513A

Cond °C	Current at 400 V, A								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	10.20								
20.0	10.40	10.83							
25.0	10.62	11.20	11.72	12.16					
30.0	10.82	11.52	12.20	12.82	13.32	13.67			
35.0	11.00	11.81	12.64	13.43	14.14	14.71	15.10	15.19	15.26
40.0	11.14	12.07	13.03	13.98	14.88	15.68	16.32	16.52	16.76
45.0	11.26	12.28	13.37	14.48	15.57	16.57	17.46	17.76	18.17
50.0	11.34	12.45	13.66	14.92	16.18	17.40	18.51	18.92	19.48
55.0		12.58	13.90	15.30	16.73	18.14	19.48	19.99	20.71
60.0		12.66	14.09	15.62	17.21	18.81	20.36	20.97	21.83
65.0			14.22	15.87	17.61	19.39	21.16	21.85	22.86
70.0			14.29	16.06	17.94	19.89	21.86	22.64	23.79
75.0				16.18	18.20	20.31	22.47	23.33	24.62
80.0				16.23	18.37	20.64	22.98	23.93	25.35
85.0					18.47	20.88	23.40	24.42	25.97

Cond °C	Suction Mass Flow, g/s								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	85.30								
20.0	83.90	106.00							
25.0	82.00	104.00	131.00	163.50					
30.0	80.00	102.00	129.00	161.00	198.50	243.00			
35.0	77.70	99.80	126.50	158.50	196.00	240.00	290.00	313.00	349.00
40.0	75.30	97.30	124.00	155.50	192.50	236.00	286.00	308.00	344.00
45.0	72.80	94.60	121.00	152.00	188.50	232.00	281.00	303.00	339.00
50.0	70.10	91.80	117.50	148.50	184.50	227.00	276.00	298.00	333.00
55.0		88.80	114.50	144.50	180.00	222.00	270.00	291.00	326.00
60.0		85.50	110.50	140.50	175.00	216.00	264.00	285.00	319.00
65.0			106.50	135.50	170.00	210.00	256.00	277.00	310.00
70.0			102.50	130.50	164.00	203.00	249.00	269.00	302.00
75.0				125.50	157.50	195.50	240.00	260.00	292.00
80.0				120.00	151.00	188.00	232.00	251.00	283.00
85.0					145.50	181.50	225.00	244.00	276.00

Additional restrictions, please see application guidelines

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m³/h	61.7
Bore/Stroke, mm	63.5/56.0
Length/Width, mm	638/501
Height, mm	452
Net Weight, kg	183
Suction, inch	1 5/8
Discharge, inch	1 1/8
Oil Quantity, l	3.3
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	381 x 305 (18)
Sound Pressure @ 1m (MT), dBA	67
Sound Power (MT), dBA	78
Sound Power with Sound Shell (MT), dBA	64
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
High Side PS gauge, bar	32.5
Low Side PS gauge, bar	22.5
Digital Modulation	50-100%
Refrigerant's GWP	631
Refrigerant's classification	A1

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	30.8
Locked Rotor Current, A	105
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Oil Pressure Switch (-P)	OPS2 Sensor
CoreSense Protection (-P)	Motor protection
Mounting Parts	Spring
Copeland Compressor Electronic (-N)	Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement

Additional restrictions, please see application guidelines

ACCESSORIES OPTIONAL

Adapter Kit	For Parallel Operation
Check Valve	For unloaded start operation
Digital Driver	EC3-D23
Mounting Parts	Rubber
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Oil Pressure Switch	OPS2 Electronic Switch
Sound Attenuation	Sound Shell
Digital Modulation	50-100 %
Copeland Compressor Electronic module	Modbus extension module

MOTOR OPTIONS

<i>Motor Code</i>	<i>Power Supply</i>	<i>Nominal Voltage, V</i>	<i>Start Connection</i>	<i>DOL Connection</i>	<i>Amps Factor</i>
AWM	380-420 V / 3~ / 50 Hz	400	YY/Y	Y	1.00
EWL	220-240 V / 3~ / 50 Hz	230	Y/DELTA	DELTA	1.73
EWL	380-420 V / 3~ / 50 Hz	400		Y	1.00
EWM	380-420 V / 3~ / 50 Hz	400	Y/DELTA	DELTA	1.00
AWR	220-240 V / 3~ / 50 Hz	230	YY/Y	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YY/Y	Y	0.76
EWK	220-240 V / 3~ / 60 Hz	230	Y/DELTA	DELTA	2.10
EWK	380-420 V / 3~ / 60 Hz	380		Y	1.20
EWD	440-480 V / 3~ / 60 Hz	460	Y/DELTA	DELTA	1.00
AWC	208-230 V / 3~ / 60 Hz	230	YY/Y	Y	2.19
AWX	380 V / 3~ / 60 Hz	380	YY/Y	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YY/Y	Y	1.00

Additional restrictions, please see application guidelines