



Minimum Evaporating Temp. With:

— 20 °C Suction Gas Return

— Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MFD-13X 100% Loaded

R134a

Cond °C	Cooling Capacity, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	17.10	21.90	27.80					
15.0	16.15	20.70	26.40	33.30				
20.0	15.10	19.55	25.00	31.60	39.30			
25.0	14.05	18.30	23.60	29.80	37.20	45.80	49.60	
30.0	13.00	17.05	22.10	28.00	35.10	43.30	46.90	52.80
35.0	11.90	15.80	20.50	26.20	32.90	40.70	44.20	49.70
40.0	10.85	14.55	19.00	24.40	30.70	38.10	41.40	46.60
45.0	9.82	13.25	17.45	22.50	28.50	35.40	38.50	43.50
50.0	8.81	12.00	15.95	20.60	26.20	32.70	35.70	40.40
55.0	7.85	10.80	14.45	18.75	23.90	30.10	32.80	37.20
60.0		9.66	12.95	16.95	21.70	27.40	29.90	34.00
65.0			11.55	15.15	19.50	24.70	27.00	30.80
70.0			10.20	13.40	17.30	22.00	24.10	27.60
75.0				11.70	15.20	19.40	21.30	24.50
80.0				10.10	13.10	16.80	18.50	21.30

Cond °C	Power, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	4.16	4.40	4.48					
15.0	4.49	4.81	4.99	5.00				
20.0	4.79	5.21	5.48	5.61	5.58			
25.0	5.08	5.58	5.95	6.19	6.29	6.23	6.17	
30.0	5.34	5.93	6.40	6.76	6.98	7.07	7.06	7.01
35.0	5.58	6.25	6.83	7.30	7.65	7.88	7.93	7.97
40.0	5.80	6.55	7.23	7.81	8.29	8.66	8.78	8.91
45.0	5.99	6.83	7.60	8.30	8.90	9.42	9.59	9.82
50.0	6.15	7.08	7.95	8.76	9.49	10.15	10.40	10.70
55.0	6.29	7.30	8.27	9.19	10.05	10.85	11.15	11.55
60.0		7.49	8.56	9.59	10.60	11.50	11.85	12.40
65.0			8.82	9.96	11.10	12.15	12.55	13.20
70.0			9.05	10.30	11.55	12.75	13.25	13.95
75.0				10.60	12.00	13.35	13.85	14.65
80.0				10.90	12.40	13.85	14.45	15.35

50 Hz

4MFD-13X 100% Loaded

R134a

Cond °C	Current at 400 V, A							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	9.54	9.78	9.82					
15.0	9.86	10.21	10.40	10.39				
20.0	10.18	10.65	10.98	11.12	11.07			
25.0	10.50	11.09	11.55	11.86	11.99	11.90	11.79	
30.0	10.80	11.51	12.12	12.59	12.90	13.02	13.01	12.91
35.0	11.09	11.92	12.67	13.31	13.81	14.13	14.21	14.26
40.0	11.36	12.31	13.21	14.01	14.70	15.23	15.40	15.59
45.0	11.60	12.68	13.72	14.69	15.57	16.32	16.57	16.90
50.0	11.81	13.02	14.20	15.35	16.41	17.37	17.72	18.19
55.0	11.99	13.32	14.66	15.97	17.23	18.40	18.84	19.46
60.0		13.59	15.07	16.56	18.01	19.40	19.93	20.69
65.0			15.45	17.11	18.75	20.36	20.98	21.89
70.0			15.78	17.61	19.45	21.27	21.99	23.04
75.0				18.06	20.10	22.14	22.95	24.15
80.0				18.46	20.69	22.95	23.86	25.21

Cond °C	Suction Mass Flow, g/s							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	94.60	118.50	148.00					
15.0	92.80	117.00	146.50	181.00				
20.0	90.70	115.00	144.50	179.00	219.00			
25.0	88.20	112.50	142.00	176.00	216.00	261.00	281.00	
30.0	85.40	109.50	139.00	173.00	212.00	257.00	277.00	308.00
35.0	82.30	106.50	135.50	169.50	208.00	253.00	272.00	303.00
40.0	79.10	103.50	132.00	165.50	204.00	248.00	267.00	298.00
45.0	75.70	99.70	128.00	161.00	199.00	243.00	262.00	292.00
50.0	72.20	95.90	124.00	156.50	194.00	237.00	256.00	286.00
55.0	68.80	92.10	119.50	151.50	188.00	230.00	249.00	279.00
60.0		88.30	115.00	146.00	182.00	224.00	242.00	271.00
65.0			110.50	140.50	176.00	216.00	234.00	263.00
70.0			106.50	135.50	169.00	209.00	226.00	254.00
75.0				130.00	162.50	201.00	218.00	246.00
80.0				125.00	156.00	193.00	210.00	236.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /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	1430
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

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