



Minimum Evaporating Temp. With:

- 20 °C Suction Gas Return
- 0 °C Suction Gas Return
- 0 °C Suction Gas Return with add cooling
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW									
	-50.0	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0
5.0	9.64	13.25	17.85	23.50	30.30	38.50	48.00			
10.0	8.72	12.20	16.60	22.00	28.40	36.10	45.20	55.70	67.80	
15.0	7.79	11.15	15.30	20.40	26.50	33.80	42.30	52.20	63.70	76.80
20.0		10.05	14.00	18.80	24.50	31.40	39.40	48.70	59.60	72.00
25.0		8.95	12.70	17.15	22.50	28.90	36.40	45.20	55.40	67.10
30.0			11.35	15.50	20.50	26.40	33.40	41.60	51.20	62.20
35.0			9.96	13.85	18.45	23.90	30.40	38.00	46.90	57.20
40.0				12.15	16.35	21.40	27.30	34.40	42.60	52.20
45.0				10.45	14.30	18.85	24.30	30.70	38.30	47.10
50.0					12.20	16.30	21.20	27.00	33.90	42.10
55.0						13.75	18.05	23.30	29.50	36.90
60.0							11.20	14.95	19.55	25.10
62.0							10.20	13.75	18.05	23.30

50 Hz

4MMD-20X 100% Loaded

R404A Dew Point

Cond °C	Power, kW									
	-50.0	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0
5.0	5.20	6.02	6.78	7.47	8.05	8.49	8.76			
10.0	5.39	6.29	7.15	7.94	8.65	9.23	9.65	9.91	9.95	
15.0	5.56	6.53	7.49	8.40	9.23	9.95	10.55	10.95	11.20	11.20
20.0		6.75	7.80	8.83	9.79	10.65	11.40	12.00	12.40	12.65
25.0		6.91	8.08	9.22	10.30	11.35	12.25	13.00	13.65	14.05
30.0			8.30	9.57	10.80	11.95	13.05	14.00	14.80	15.45
35.0			8.47	9.87	11.25	12.55	13.80	14.95	16.00	16.80
40.0				10.10	11.60	13.10	14.55	15.85	17.10	18.15
45.0				10.25	11.95	13.60	15.20	16.70	18.15	19.45
50.0					12.20	14.00	15.80	17.50	19.15	20.70
55.0						14.35	16.30	18.25	20.10	21.80
60.0						14.60	16.75	18.85	20.90	
62.0						14.65	16.90	19.10	21.30	

Cond °C	Current at 400 V, A									
	-50.0	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0
5.0	14.73	15.51	16.31	17.07	17.74	18.27	18.58			
10.0	14.91	15.77	16.68	17.57	18.40	19.11	19.65	19.95	19.96	
15.0	15.08	16.02	17.04	18.08	19.07	19.98	20.74	21.29	21.59	21.56
20.0		16.25	17.38	18.57	19.74	20.85	21.84	22.66	23.24	23.54
25.0		16.43	17.69	19.03	20.39	21.72	22.95	24.03	24.91	25.53
30.0			17.96	19.46	21.01	22.55	24.03	25.39	26.58	27.53
35.0			18.16	19.83	21.58	23.35	25.08	26.73	28.23	29.52
40.0				20.13	22.08	24.09	26.09	28.02	29.84	31.49
45.0				20.34	22.51	24.76	27.03	29.26	31.41	33.41
50.0					22.84	25.34	27.89	30.43	32.91	35.28
55.0						25.82	28.66	31.52	34.34	37.08
60.0						26.19	29.32	32.50	35.67	
62.0						26.30	29.55	32.86	36.18	

50 Hz

4MMD-20X 100% Loaded

R404A Dew Point

Cond °C	Suction Mass Flow, g/s									
	-50.0	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0
5.0	69.60	93.60	123.00	159.00	201.00	249.00	305.00			
10.0	66.40	90.80	120.50	156.00	197.50	246.00	301.00	364.00	434.00	
15.0	62.70	87.60	117.50	152.50	194.00	241.00	296.00	358.00	428.00	506.00
20.0		83.90	114.00	149.00	189.50	237.00	291.00	352.00	421.00	499.00
25.0		79.70	110.00	144.50	185.00	231.00	285.00	345.00	414.00	490.00
30.0			105.00	140.00	179.50	226.00	278.00	338.00	405.00	482.00
35.0			99.80	134.50	174.00	219.00	271.00	330.00	397.00	472.00
40.0				128.00	167.00	212.00	263.00	321.00	387.00	462.00
45.0				121.00	160.00	204.00	254.00	311.00	377.00	451.00
50.0					151.50	195.00	244.00	301.00	366.00	440.00
55.0						185.00	234.00	290.00	355.00	429.00
60.0						175.00	223.00	279.00	344.00	
62.0						171.00	219.00	275.00	341.00	

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /h	78.2
Bore/Stroke, mm	71.5/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	188
Suction, inch	2 1/8
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 (LT), dBA	71
Sound Power (LT), dBA	82
Sound Power with Sound Shell (LT), dBA	70
Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed)	-35 / 40 / 20 °C at 50 Hz
Sound Pressure @ 1m (MT), dBA	70
Sound Power (MT), dBA	81
Sound Power with Sound Shell (MT), dBA	69
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	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	39
Locked Rotor Current, A	175
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

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

ACCESSORIES OPTIONAL

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

MOTOR OPTIONS

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
AWM	380-420 V / 3~ / 50 Hz	400	YYY	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	YYY	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YYY	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	YYY	Y	2.19
AWX	380 V / 3~ / 60 Hz	380	YYY	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YYY	Y	1.00