



Minimum Evaporating Temp. With:

- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
10.0	23.50	29.60	37.00	45.90	56.20					
15.0	22.20	28.10	35.20	43.70	53.70	65.30				
20.0	20.90	26.60	33.40	41.50	51.00	62.10	75.00			
25.0	19.50	25.00	31.50	39.30	48.30	58.90	71.20	76.60	85.20	93.00
30.0		23.40	29.60	37.00	45.60	55.60	67.30	72.40	80.70	88.00
35.0		21.70	27.70	34.60	42.80	52.30	63.30	68.20	76.00	83.00
40.0		20.10	25.70	32.20	39.90	48.90	59.30	63.90	71.30	77.90
45.0			23.60	29.80	37.00	45.40	55.20	59.50	66.50	72.80
50.0			21.60	27.30	34.10	41.90	51.10	55.10	61.70	67.50
55.0				24.90	31.10	38.40	46.90	50.60	56.70	62.20
60.0				22.30	28.10	34.80	42.60			
62.0				21.30	26.80	33.30				

50 Hz

4MAD-22X 100% Loaded

R407A Dew Point

Cond °C	Power, kW									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
10.0	6.21	6.49	6.61	6.52	6.19					
15.0	6.70	7.13	7.42	7.53	7.43	7.05				
20.0	7.14	7.72	8.18	8.49	8.60	8.47	8.07			
25.0	7.53	8.25	8.88	9.38	9.70	9.81	9.67	9.53	9.23	8.89
30.0		8.74	9.53	10.20	10.75	11.10	11.20	11.15	11.05	10.85
35.0		9.16	10.10	10.95	11.70	12.25	12.65	12.70	12.75	12.70
40.0		9.52	10.60	11.65	12.60	13.40	14.00	14.15	14.40	14.50
45.0			11.05	12.25	13.40	14.40	15.25	15.55	15.90	16.15
50.0			11.45	12.80	14.10	15.35	16.45	16.80	17.35	17.70
55.0				13.25	14.75	16.20	17.50	18.00	18.70	19.20
60.0				13.65	15.35	16.95	18.50			
62.0				13.80	15.55	17.25				

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	12.5
10.0	16.00	16.28	16.42	16.35	16.01					
15.0	16.44	16.87	17.19	17.33	17.22	16.82				
20.0	16.89	17.47	17.96	18.32	18.46	18.33	17.87			
25.0	17.31	18.05	18.73	19.31	19.71	19.86	19.71	19.55	19.19	18.76
30.0		18.59	19.48	20.28	20.94	21.38	21.55	21.53	21.38	21.15
35.0		19.09	20.18	21.21	22.14	22.88	23.38	23.50	23.57	23.53
40.0		19.52	20.82	22.09	23.29	24.34	25.17	25.43	25.73	25.88
45.0			21.38	22.91	24.38	25.74	26.91	27.32	27.84	28.19
50.0			21.85	23.63	25.39	27.06	28.58	29.14	29.89	30.45
55.0				24.25	26.30	28.29	30.17	30.87	31.87	32.63
60.0				24.74	27.09	29.42	31.66			
62.0				24.90	27.37	29.83				

50 Hz

4MAD-22X 100% Loaded

R407A Dew Point

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	12.5
10.0	110.00	139.50	175.00	218.00	269.00					
15.0	108.00	137.00	172.50	215.00	266.00	326.00				
20.0	105.00	134.50	170.00	212.00	263.00	322.00	393.00			
25.0	102.00	131.50	166.50	209.00	259.00	318.00	388.00	420.00	470.00	517.00
30.0		128.00	163.00	205.00	255.00	314.00	383.00	414.00	465.00	511.00
35.0		124.50	159.50	201.00	250.00	308.00	378.00	409.00	459.00	505.00
40.0		120.50	155.00	196.00	245.00	303.00	372.00	402.00	453.00	499.00
45.0			150.50	191.00	239.00	297.00	365.00	396.00	446.00	492.00
50.0			145.50	185.50	233.00	290.00	358.00	388.00	439.00	485.00
55.0				179.50	227.00	283.00	350.00	381.00	431.00	477.00
60.0				173.00	220.00	275.00	343.00			
62.0				170.50	217.00	272.00				

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	69
Sound Power (MT), dBA	80
Sound Power with Sound Shell (MT), dBA	68
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
Sound Pressure @ 1m (HT), dBA	69
Sound Power (HT), dBA	80
Sound Power with Sound Shell (HT), dBA	68
Sound Conditions (HT, Temperatures: Evap./Cond./Suction at freq./speed)	5 / 55 / 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	2107
Refrigerant's classification	A1

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

Maximum Operating Current, A	36.3
Locked Rotor Current, A	175
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

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