



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 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

4MJD-33X

R513A

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	15.0	20.0	25.0
16.0	21.50												
20.0	20.40	25.60											
25.0	19.05	24.10	30.20	37.50									
30.0	17.70	22.50	28.40	35.40	43.70	53.50							
35.0	16.30	21.00	26.60	33.20	41.10	50.30	61.10	65.90	73.50	80.40			
40.0	14.90	19.40	24.70	31.00	38.40	47.10	57.20	61.70	68.90	75.40	82.30		
45.0	13.50	17.80	22.80	28.70	35.70	43.80	53.30	57.40	64.20	70.20	76.70		
50.0	12.10	16.15	20.90	26.40	32.90	40.40	49.20	53.10	59.30	65.00	71.00		
55.0		14.50	18.95	24.10	30.00	37.00	45.10	48.70	54.40	59.60	65.10		
60.0		12.90	16.95	21.70	27.20	33.50	40.90	44.10	49.40	54.10	59.20		
65.0			15.00	19.25	24.20	30.00	36.60	39.60	44.30	48.60	53.10		
70.0			12.95	16.80	21.20	26.40	32.30	34.90	39.10	42.90	47.00		
75.0				14.35	18.25	22.70	27.90	30.20	33.90	37.20	40.80		
80.0				11.85	15.20	19.00	23.50	25.40	28.60	31.40	34.50		
85.0					12.10	15.30	19.00	20.60	23.20	25.60	28.10		

Cond °C	Power, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	7.00												
20.0	7.33	7.88											
25.0	7.67	8.35	8.93	9.40									
30.0	7.95	8.76	9.48	10.10	10.60	10.90							
35.0	8.17	9.10	9.96	10.70	11.35	11.90	12.25	12.35	12.45	12.45			
40.0	8.33	9.38	10.35	11.30	12.10	12.80	13.35	13.50	13.75	13.85	13.95		
45.0	8.42	9.59	10.70	11.80	12.75	13.65	14.35	14.60	14.95	15.20	15.35		
50.0	8.45	9.75	11.00	12.20	13.35	14.40	15.35	15.65	16.10	16.45	16.75		
55.0		9.84	11.25	12.60	13.90	15.10	16.20	16.65	17.20	17.65	18.05		
60.0		9.87	11.40	12.90	14.35	15.75	17.05	17.55	18.25	18.80	19.30		
65.0			11.50	13.15	14.80	16.35	17.80	18.40	19.20	19.85	20.50		
70.0			11.55	13.35	15.10	16.85	18.55	19.15	20.10	20.90	21.60		
75.0				13.50	15.40	17.30	19.15	19.90	21.00	21.80	22.60		
80.0				13.55	15.65	17.70	19.75	20.50	21.70	22.70	23.60		
85.0					15.80	18.05	20.30	21.10	22.40	23.50	24.60		

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50 Hz

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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	15.0	20.0	25.0
16.0	19.20												
20.0	19.47	19.97											
25.0	19.78	20.41	21.00	21.49									
30.0	20.04	20.81	21.56	22.24	22.81	23.22							
35.0	20.26	21.16	22.07	22.94	23.72	24.36	24.82	24.94	25.04	25.05			
40.0	20.42	21.46	22.53	23.59	24.58	25.46	26.17	26.40	26.68	26.84	26.93		
45.0	20.52	21.70	22.94	24.18	25.39	26.50	27.48	27.82	28.27	28.58	28.83		
50.0	20.56	21.88	23.29	24.72	26.14	27.49	28.73	29.18	29.81	30.27	30.68		
55.0		22.00	23.57	25.19	26.83	28.42	29.92	30.48	31.28	31.90	32.46		
60.0		22.04	23.78	25.60	27.45	29.28	31.05	31.72	32.70	33.47	34.19		
65.0			23.92	25.93	28.00	30.07	32.10	32.89	34.05	34.97	35.85		
70.0			23.98	26.19	28.47	30.79	33.09	33.99	35.32	36.40	37.44		
75.0				26.36	28.86	31.42	33.99	35.01	36.52	37.75	38.96		
80.0				26.45	29.17	31.98	34.81	35.95	37.63	39.02	40.39		
85.0					29.39	32.44	35.55	36.80	38.66	40.21	41.74		

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	15.0	20.0	25.0
16.0	119.50												
20.0	117.00	147.00											
25.0	114.00	144.50	181.50	226.00									
30.0	110.50	141.50	178.50	223.00	277.00	340.00							
35.0	107.00	138.00	175.00	220.00	273.00	336.00	410.00	443.00	497.00	546.00			
40.0	103.00	134.00	171.50	216.00	269.00	331.00	405.00	438.00	491.00	540.00	592.00		
45.0	98.40	130.00	167.50	212.00	264.00	326.00	399.00	431.00	484.00	532.00	584.00		
50.0	93.60	125.50	162.50	207.00	259.00	320.00	392.00	424.00	477.00	524.00	576.00		
55.0		120.50	157.50	201.00	253.00	313.00	384.00	416.00	468.00	515.00	566.00		
60.0		115.00	152.00	195.00	246.00	306.00	376.00	407.00	458.00	505.00	555.00		
65.0			145.50	188.50	238.00	297.00	366.00	397.00	448.00	494.00	544.00		
70.0			138.50	181.00	230.00	287.00	355.00	386.00	436.00	481.00	531.00		
75.0				172.00	220.00	277.00	344.00	374.00	423.00	468.00	517.00		
80.0				162.00	210.00	266.00	332.00	361.00	410.00	455.00	504.00		
85.0					199.00	255.00	321.00	351.00	400.00	445.00	495.00		

Additional restrictions, please see application guidelines

### **COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Number of cylinders	4
Displacement @ 50 Hz, m³/h	87.7
Bore/Stroke, mm	75.7/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	196
Suction, inch	2 1/8
Discharge, inch	1 3/8
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	70
Sound Power (MT), dBA	81
Sound Power with Sound Shell (MT), dBA	67
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	52.9
Locked Rotor Current, A	221
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
Digital Driver	EC3-D23
Check Valve	For unloaded start operation
Mounting Parts	Rubber
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	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