



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

4MI-30X

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
10.0	21.00	26.10	32.40	40.20									
15.0	19.95	24.80	30.90	38.40	47.40								
20.0	18.90	23.60	29.40	36.50	45.10	55.20							
25.0	17.80	22.30	27.90	34.60	42.80	52.30	63.60						
30.0	16.65	21.00	26.30	32.70	40.40	49.50	60.10	64.80	72.30	79.10			
35.0	15.55	19.65	24.70	30.80	38.00	46.60	56.50	61.00	68.10	74.50	81.40		
40.0	14.35	18.30	23.10	28.80	35.60	43.60	52.90	57.10	63.80	69.80	76.20		
45.0	13.15	16.90	21.40	26.70	33.10	40.60	49.30	53.20	59.40	65.00	71.00		
50.0	11.95	15.45	19.70	24.70	30.60	37.50	45.60	49.20	55.00	60.20	65.80		
55.0		14.00	17.95	22.60	28.00	34.40	41.90	45.20	50.50	55.30	60.40		
60.0		12.50	16.15	20.40	25.40	31.20	38.10	41.10	46.00	50.30	55.00		
65.0			14.30	18.15	22.70	28.00	34.20	36.90	41.40	45.30	49.60		
70.0			12.40	15.90	20.00	24.80	30.30	32.70	36.70	40.30	44.10		
75.0				13.55	17.20	21.40	26.30	28.50	32.00	35.10	38.50		
80.0				11.15	14.35	18.00	22.30	24.20	27.20	29.90	32.80		
85.0					11.40	14.55	18.20	19.80	22.30	24.60	27.10		

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
10.0	5.93	6.29	6.48	6.49									
15.0	6.25	6.72	7.04	7.19	7.15								
20.0	6.54	7.11	7.56	7.86	7.98	7.89							
25.0	6.78	7.46	8.04	8.48	8.77	8.86	8.75						
30.0	6.98	7.77	8.47	9.06	9.51	9.79	9.87	9.84	9.73	9.57			
35.0	7.13	8.03	8.85	9.59	10.20	10.65	10.95	11.00	11.05	11.00	10.90		
40.0	7.23	8.23	9.19	10.05	10.85	11.50	12.00	12.10	12.30	12.35	12.35		
45.0	7.27	8.38	9.46	10.50	11.45	12.25	12.95	13.20	13.45	13.65	13.80		
50.0	7.25	8.47	9.68	10.85	11.95	13.00	13.85	14.20	14.60	14.90	15.20		
55.0		8.50	9.84	11.15	12.45	13.65	14.70	15.15	15.70	16.10	16.50		
60.0		8.46	9.93	11.40	12.85	14.20	15.50	16.00	16.70	17.25	17.75		
65.0			9.95	11.55	13.15	14.75	16.25	16.80	17.65	18.30	18.95		
70.0			9.90	11.65	13.45	15.20	16.90	17.55	18.50	19.30	20.00		
75.0				11.70	13.60	15.55	17.45	18.20	19.30	20.20	21.10		
80.0				11.60	13.70	15.85	17.95	18.80	20.00	21.00	22.00		
85.0					13.75	16.05	18.35	19.30	20.70	21.80	22.90		

Additional restrictions, please see application guidelines

50 Hz

4MI-30X

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	12.5	15.0	20.0	25.0
10.0	25.40	25.82	26.09	26.16									
15.0	25.68	26.14	26.48	26.65	26.62								
20.0	25.93	26.44	26.86	27.14	27.25	27.13							
25.0	26.16	26.72	27.22	27.61	27.86	27.92	27.76						
30.0	26.35	26.97	27.56	28.07	28.47	28.71	28.75	28.70	28.55	28.35			
35.0	26.50	27.19	27.87	28.50	29.05	29.48	29.73	29.78	29.78	29.71	29.57		
40.0	26.62	27.37	28.14	28.91	29.62	30.23	30.70	30.84	30.99	31.06	31.06		
45.0	26.68	27.50	28.38	29.28	30.15	30.95	31.65	31.89	32.19	32.40	32.55		
50.0	26.68	27.58	28.57	29.60	30.64	31.64	32.57	32.91	33.37	33.72	34.02		
55.0		27.60	28.70	29.88	31.09	32.30	33.46	33.90	34.52	35.01	35.46		
60.0		27.56	28.78	30.11	31.50	32.91	34.31	34.85	35.64	36.28	36.88		
65.0			28.80	30.27	31.85	33.47	35.11	35.76	36.72	37.50	38.26		
70.0			28.74	30.37	32.13	33.98	35.86	36.62	37.75	38.68	39.60		
75.0				30.40	32.35	34.42	36.56	37.43	38.73	39.82	40.89		
80.0				30.35	32.50	34.80	37.19	38.17	39.65	40.89	42.13		
85.0					32.57	35.10	37.76	38.85	40.51	41.91	43.31		

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
10.0	112.00	139.00	173.00	215.00									
15.0	110.00	137.50	171.50	213.00	264.00								
20.0	108.50	135.50	169.50	211.00	262.00	322.00							
25.0	106.50	133.50	167.50	209.00	259.00	318.00	389.00						
30.0	104.00	131.50	165.50	206.00	256.00	315.00	384.00	415.00	466.00	512.00			
35.0	102.00	129.00	163.00	204.00	252.00	311.00	380.00	410.00	460.00	506.00	555.00		
40.0	99.00	126.50	160.00	200.00	249.00	307.00	375.00	405.00	455.00	500.00	548.00		
45.0	96.00	123.50	157.00	197.00	245.00	302.00	369.00	399.00	448.00	493.00	541.00		
50.0	92.40	120.00	153.50	193.00	240.00	297.00	363.00	393.00	442.00	486.00	533.00		
55.0		116.00	149.00	188.50	235.00	291.00	357.00	386.00	434.00	478.00	525.00		
60.0		111.50	144.50	183.50	230.00	285.00	350.00	379.00	426.00	470.00	517.00		
65.0			139.00	177.50	224.00	278.00	342.00	371.00	418.00	461.00	507.00		
70.0			132.50	171.00	216.00	270.00	334.00	362.00	409.00	451.00	498.00		
75.0				162.50	208.00	261.00	324.00	353.00	399.00	442.00	488.00		
80.0				152.50	198.00	252.00	315.00	343.00	390.00	433.00	479.00		
85.0					188.00	243.00	308.00	337.00	385.00	429.00	477.00		

Additional restrictions, please see application guidelines

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

Number of cylinders	4
Displacement @ 50 Hz, m³/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 (MT), dBA	69
Sound Power (MT), dBA	80
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
Refrigerant's GWP	631
Refrigerant's classification	A1

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

Maximum Operating Current, A	46.6
Locked Rotor Current, A	230
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

Additional restrictions, please see application guidelines

## ACCESSORIES OPTIONAL

Adapter Kit	For Parallel Operation
Oil Pressure Switch	OPS2 Electronic Switch
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Sound Attenuation	Sound Shell
Capacity Control	Capacity Steps 50%
Check Valve	For unloaded start operation
Mounting Parts	Rubber
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