



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

50 Hz

4MI-30X

R450A Dew Point

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	15.30	19.45	24.60	31.00									
15.0	14.55	18.60	23.60	29.80	37.10								
20.0	13.75	17.65	22.60	28.50	35.50	43.80							
25.0	12.85	16.70	21.40	27.10	33.90	41.80	51.10						
30.0	11.95	15.65	20.20	25.60	32.10	39.70	48.50	52.40	58.70	64.30			
35.0	11.00	14.55	18.85	24.10	30.30	37.50	45.90	49.60	55.60	60.90	66.60		
40.0	10.05	13.40	17.55	22.50	28.30	35.20	43.20	46.70	52.30	57.40	62.70		
45.0	9.04	12.25	16.15	20.90	26.40	32.90	40.40	43.70	49.00	53.70	58.80		
50.0	8.05	11.10	14.80	19.20	24.40	30.50	37.50	40.60	45.60	50.00	54.80		
55.0		9.94	13.40	17.50	22.40	28.00	34.60	37.50	42.10	46.20	50.70		
60.0		8.78	12.00	15.80	20.30	25.50	31.60	34.30	38.60	42.40	46.50		
65.0			10.60	14.10	18.25	23.00	28.60	31.10	35.00	38.50	42.30		
70.0			9.23	12.40	16.15	20.50	25.60	27.80	31.40	34.60	38.10		
75.0				10.75	14.10	18.05	22.60	24.60	27.80	30.70	33.80		
80.0				9.09	12.10	15.55	19.60	21.40	24.30	26.80	29.50		
85.0					10.05	13.10	16.60	18.20	20.70	22.90	25.30		

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	4.71	4.96	5.09	5.08									
15.0	5.08	5.43	5.66	5.77	5.74								
20.0	5.39	5.83	6.18	6.41	6.51	6.45							
25.0	5.64	6.19	6.64	6.99	7.22	7.31	7.25						
30.0	5.84	6.48	7.05	7.52	7.89	8.12	8.21	8.21	8.15	8.05			
35.0	5.98	6.73	7.40	8.00	8.49	8.87	9.12	9.18	9.22	9.21	9.16		
40.0	6.06	6.91	7.70	8.42	9.05	9.57	9.97	10.10	10.25	10.30	10.35		
45.0	6.09	7.04	7.94	8.78	9.55	10.20	10.75	10.95	11.20	11.35	11.50		
50.0	6.06	7.11	8.13	9.09	9.99	10.80	11.50	11.75	12.10	12.35	12.60		
55.0		7.13	8.26	9.35	10.40	11.35	12.20	12.55	13.00	13.30	13.60		
60.0		7.08	8.33	9.55	10.70	11.80	12.85	13.25	13.80	14.20	14.60		
65.0			8.35	9.69	11.00	12.25	13.45	13.90	14.55	15.05	15.55		
70.0			8.31	9.78	11.20	12.60	13.95	14.50	15.25	15.85	16.40		
75.0				9.81	11.40	12.95	14.45	15.05	15.90	16.60	17.25		
80.0				9.78	11.50	13.20	14.85	15.50	16.50	17.25	18.00		
85.0					11.55	13.40	15.25	15.95	17.00	17.90	18.75		

50 Hz

4MI-30X

R450A Dew Point

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	17.16	17.40	17.54	17.53									
15.0	17.44	17.74	17.96	18.06	18.00								
20.0	17.68	18.05	18.36	18.57	18.64	18.55							
25.0	17.90	18.33	18.73	19.06	19.27	19.33	19.21						
30.0	18.07	18.58	19.08	19.52	19.87	20.10	20.16	20.13	20.03	19.87			
35.0	18.20	18.79	19.38	19.95	20.44	20.84	21.09	21.15	21.17	21.13	21.04		
40.0	18.29	18.96	19.65	20.34	20.99	21.55	22.00	22.14	22.30	22.38	22.40		
45.0	18.33	19.08	19.88	20.70	21.50	22.24	22.88	23.11	23.40	23.60	23.75		
50.0	18.32	19.15	20.06	21.01	21.97	22.88	23.73	24.04	24.47	24.79	25.07		
55.0		19.17	20.20	21.28	22.39	23.49	24.55	24.95	25.51	25.95	26.36		
60.0		19.13	20.28	21.50	22.78	24.06	25.32	25.81	26.52	27.09	27.62		
65.0			20.30	21.67	23.11	24.58	26.06	26.64	27.49	28.18	28.85		
70.0			20.26	21.78	23.39	25.06	26.75	27.42	28.42	29.24	30.04		
75.0				21.83	23.61	25.48	27.38	28.15	29.30	30.25	31.18		
80.0				21.81	23.78	25.84	27.97	28.83	30.13	31.21	32.28		
85.0					23.87	26.14	28.50	29.46	30.91	32.12	33.33		

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	77.60	98.90	125.50	158.50									
15.0	76.40	98.00	125.00	158.00	197.50								
20.0	74.90	96.60	123.50	156.50	196.00	243.00							
25.0	72.90	94.80	122.00	155.00	194.50	242.00	297.00						
30.0	70.50	92.50	119.50	152.50	192.00	239.00	294.00	319.00	358.00	394.00			
35.0	67.80	89.90	117.00	150.00	189.50	236.00	291.00	315.00	355.00	391.00	429.00		
40.0	64.70	86.80	114.00	146.50	186.00	232.00	287.00	311.00	350.00	386.00	424.00		
45.0	61.30	83.40	110.50	143.00	182.00	228.00	282.00	306.00	345.00	380.00	419.00		
50.0	57.50	79.60	106.50	138.50	177.00	223.00	276.00	300.00	339.00	374.00	412.00		
55.0		75.40	102.00	134.00	172.00	217.00	270.00	294.00	332.00	367.00	404.00		
60.0		70.80	97.10	128.50	166.00	211.00	263.00	286.00	324.00	359.00	396.00		
65.0			91.70	122.50	159.50	203.00	255.00	278.00	315.00	349.00	386.00		
70.0			85.80	116.00	152.50	195.50	246.00	269.00	305.00	339.00	375.00		
75.0				109.00	144.50	186.50	236.00	258.00	295.00	328.00	363.00		
80.0				101.50	136.00	176.50	225.00	247.00	283.00	315.00	351.00		
85.0					126.50	166.50	214.00	235.00	270.00	303.00	337.00		

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 (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	605
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

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