



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MA-22X

R134a

Cond °C	Cooling Capacity, kW											
	-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	18.65	23.20	28.80									
15.0	17.85	22.30	27.80	34.30								
20.0	17.00	21.40	26.60	32.90	40.30							
25.0	16.10	20.30	25.40	31.40	38.60	47.00	50.70					
30.0	15.15	19.20	24.10	29.90	36.80	44.80	48.30	54.10	59.30			
35.0	14.15	18.05	22.70	28.30	34.80	42.50	45.90	51.40	56.30	61.60		
40.0	13.10	16.85	21.30	26.60	32.80	40.10	43.30	48.50	53.20	58.20		
45.0	12.05	15.60	19.85	24.90	30.70	37.60	40.70	45.60	50.00	54.70		
50.0	11.00	14.35	18.35	23.10	28.60	35.10	37.90	42.50	46.70	51.20		
55.0	9.92	13.10	16.80	21.20	26.40	32.40	35.10	39.40	43.30	47.50		
60.0		11.80	15.25	19.35	24.10	29.70	32.20	36.20	39.90	43.70		
65.0			13.70	17.45	21.90	27.00	29.30	33.00	36.30	39.90		
70.0			12.10	15.50	19.55	24.20	26.30	29.70	32.70	36.00		
75.0				13.55	17.20	21.40	23.30	26.30	29.10	32.00		
80.0				11.60	14.80	18.55	20.20	23.00	25.40	28.00		

Cond °C	Power, kW											
	-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	4.39	4.48	4.40									
15.0	4.75	4.95	5.01	4.88								
20.0	5.07	5.39	5.57	5.60	5.42							
25.0	5.35	5.77	6.09	6.26	6.25	6.02	5.86					
30.0	5.58	6.12	6.55	6.87	7.01	6.97	6.88	6.69	6.45			
35.0	5.77	6.41	6.97	7.42	7.72	7.85	7.84	7.76	7.63	7.43		
40.0	5.91	6.65	7.33	7.92	8.38	8.68	8.74	8.78	8.74	8.65		
45.0	6.01	6.85	7.64	8.36	8.97	9.44	9.57	9.72	9.79	9.80		
50.0	6.06	6.99	7.89	8.74	9.50	10.15	10.35	10.60	10.75	10.90		
55.0	6.06	7.08	8.09	9.07	9.97	10.75	11.05	11.40	11.65	11.90		
60.0		7.11	8.23	9.33	10.40	11.35	11.65	12.15	12.50	12.80		
65.0			8.32	9.54	10.70	11.80	12.25	12.80	13.25	13.70		
70.0			8.34	9.68	11.00	12.25	12.75	13.40	13.95	14.45		
75.0				9.75	11.20	12.60	13.15	13.95	14.55	15.15		
80.0				9.77	11.35	12.90	13.50	14.40	15.10	15.80		

Cond °C	Current at 400 V, A											
	-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	14.57	14.70	14.69									
15.0	14.85	15.05	15.14	15.06								
20.0	15.12	15.41	15.60	15.65	15.49							
25.0	15.37	15.75	16.06	16.24	16.24	16.01	15.84					
30.0	15.61	16.08	16.50	16.82	16.98	16.93	16.85	16.63	16.37			
35.0	15.80	16.37	16.91	17.37	17.70	17.85	17.85	17.76	17.61	17.38		
40.0	15.95	16.63	17.29	17.90	18.41	18.75	18.83	18.88	18.85	18.74		
45.0	16.05	16.83	17.63	18.40	19.08	19.62	19.79	19.97	20.06	20.08		
50.0	16.09	16.98	17.92	18.84	19.70	20.45	20.71	21.03	21.24	21.39		
55.0	16.05	17.06	18.14	19.23	20.28	21.24	21.58	22.05	22.39	22.67		
60.0		17.06	18.29	19.55	20.79	21.96	22.40	23.02	23.48	23.90		
65.0			18.36	19.79	21.23	22.63	23.16	23.92	24.52	25.07		
70.0			18.33	19.95	21.59	23.21	23.84	24.76	25.49	26.18		
75.0				20.01	21.86	23.71	24.44	25.52	26.38	27.21		
80.0				19.97	22.03	24.12	24.95	26.18	27.19	28.16		

Cond °C	Suction Mass Flow, g/s											
	-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	90.50	113.00	140.50									
15.0	89.70	112.50	140.50	174.00								
20.0	88.60	111.50	139.50	173.50	214.00							
25.0	87.10	110.00	138.50	172.00	213.00	261.00	282.00					
30.0	85.20	108.50	136.50	170.50	211.00	259.00	280.00	315.00	347.00			
35.0	83.10	106.50	134.50	168.50	209.00	256.00	278.00	313.00	345.00	379.00		
40.0	80.60	104.00	132.00	165.50	206.00	253.00	275.00	310.00	341.00	376.00		
45.0	77.70	101.00	129.00	162.50	202.00	250.00	271.00	306.00	337.00	372.00		
50.0	74.60	97.80	125.50	159.00	198.50	245.00	266.00	301.00	332.00	366.00		
55.0	71.10	94.20	121.50	154.50	193.50	240.00	261.00	295.00	327.00	360.00		
60.0		90.10	117.50	149.50	188.50	234.00	255.00	289.00	320.00	354.00		
65.0			112.50	144.00	182.50	228.00	248.00	282.00	312.00	346.00		
70.0			106.50	138.00	175.50	220.00	240.00	273.00	304.00	337.00		
75.0				131.00	168.00	212.00	232.00	264.00	294.00	327.00		
80.0				123.50	159.00	202.00	222.00	254.00	284.00	317.00		

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	177
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	68
Sound Power (MT), dBA	79
Sound Power with Sound Shell (MT), dBA	65
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	1430
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
Mounting Parts	Spring
CoreSense Protection (-P)	Motor protection
Copeland Compressor Electronic (-N)	Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement

ACCESSORIES OPTIONAL

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