



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

4MA-22X

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	16.80	20.70	25.60	31.50									
15.0	15.90	19.75	24.50	30.20	37.00								
20.0	15.00	18.75	23.30	28.80	35.30	43.00							
25.0	14.05	17.65	22.10	27.30	33.60	40.80	49.30						
30.0	13.10	16.55	20.80	25.80	31.70	38.70	46.60	50.20	55.80	60.90			
35.0	12.10	15.40	19.45	24.20	29.80	36.40	43.90	47.30	52.60	57.40	62.50		
40.0	11.10	14.25	18.05	22.60	27.90	34.00	41.10	44.30	49.30	53.80	58.60		
45.0	10.05	13.05	16.65	20.90	25.90	31.60	38.30	41.20	45.90	50.10	54.60		
50.0	9.04	11.85	15.25	19.20	23.80	29.20	35.30	38.10	42.40	46.30	50.50		
55.0		10.65	13.80	17.45	21.70	26.60	32.30	34.90	38.90	42.50	46.30		
60.0		9.45	12.30	15.65	19.55	24.10	29.30	31.60	35.30	38.50	42.00		
65.0			10.85	13.90	17.40	21.50	26.20	28.30	31.60	34.60	37.70		
70.0			9.37	12.10	15.25	18.90	23.10	24.90	27.90	30.50	33.30		
75.0				10.25	13.05	16.25	19.90	21.50	24.10	26.40	28.90		
80.0				8.45	10.80	13.55	16.70	18.10	20.30	22.30	24.50		
85.0					8.60	10.90	13.50	14.65	16.55	18.20	19.95		

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	4.50	4.74	4.86	4.84									
15.0	4.78	5.11	5.33	5.42	5.37								
20.0	5.03	5.45	5.77	5.97	6.04	5.97							
25.0	5.24	5.75	6.17	6.49	6.69	6.74	6.64						
30.0	5.42	6.02	6.54	6.97	7.29	7.48	7.52	7.50	7.41	7.28			
35.0	5.55	6.24	6.87	7.41	7.85	8.17	8.36	8.39	8.40	8.36	8.27		
40.0	5.63	6.42	7.15	7.80	8.37	8.82	9.15	9.25	9.35	9.38	9.38		
45.0	5.66	6.54	7.37	8.14	8.83	9.42	9.90	10.05	10.25	10.35	10.45		
50.0	5.64	6.61	7.55	8.43	9.24	9.96	10.60	10.80	11.10	11.30	11.45		
55.0		6.62	7.66	8.65	9.59	10.45	11.20	11.50	11.85	12.15	12.40		
60.0		6.56	7.70	8.81	9.87	10.85	11.75	12.10	12.60	12.95	13.30		
65.0			7.68	8.90	10.10	11.20	12.25	12.65	13.25	13.70	14.10		
70.0			7.58	8.92	10.25	11.50	12.70	13.15	13.80	14.35	14.85		
75.0				8.86	10.30	11.70	13.05	13.55	14.30	14.95	15.50		
80.0				8.72	10.30	11.80	13.30	13.90	14.75	15.45	16.10		
85.0					10.20	11.85	13.50	14.15	15.10	15.85	16.60		

Additional restrictions, please see application guidelines

50 Hz

4MA-22X

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	14.77	14.90	14.95	14.88									
15.0	14.92	15.13	15.29	15.34	15.26								
20.0	15.07	15.37	15.63	15.81	15.87	15.76							
25.0	15.23	15.61	15.97	16.28	16.48	16.53	16.41						
30.0	15.37	15.84	16.31	16.73	17.08	17.30	17.35	17.32	17.20	17.03			
35.0	15.48	16.04	16.62	17.17	17.66	18.04	18.28	18.32	18.33	18.27	18.14		
40.0	15.57	16.22	16.90	17.58	18.22	18.76	19.18	19.30	19.43	19.48	19.47		
45.0	15.61	16.35	17.14	17.95	18.73	19.45	20.05	20.25	20.50	20.66	20.77		
50.0	15.60	16.43	17.34	18.27	19.20	20.09	20.87	21.16	21.53	21.80	22.02		
55.0		16.46	17.47	18.54	19.62	20.67	21.65	22.01	22.51	22.89	23.22		
60.0		16.41	17.54	18.74	19.97	21.19	22.35	22.80	23.43	23.91	24.36		
65.0			17.53	18.86	20.24	21.63	22.99	23.51	24.27	24.87	25.43		
70.0			17.43	18.90	20.43	22.00	23.54	24.15	25.03	25.74	26.42		
75.0				18.84	20.53	22.27	24.00	24.69	25.70	26.53	27.33		
80.0				18.68	20.52	22.43	24.36	25.13	26.28	27.21	28.13		
85.0					20.40	22.49	24.61	25.47	26.74	27.79	28.82		

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	89.30	110.50	137.00	169.00									
15.0	87.80	109.50	136.00	168.00	206.00								
20.0	86.10	108.00	134.50	166.50	205.00	250.00							
25.0	84.10	106.00	132.50	165.00	203.00	248.00	301.00						
30.0	81.80	104.00	130.50	162.50	201.00	246.00	298.00	322.00	359.00	393.00			
35.0	79.30	101.50	128.00	160.00	198.00	243.00	295.00	318.00	356.00	390.00	426.00		
40.0	76.40	98.60	125.50	157.00	195.00	239.00	291.00	314.00	351.00	385.00	421.00		
45.0	73.30	95.60	122.00	154.00	191.50	235.00	287.00	309.00	346.00	380.00	416.00		
50.0	70.00	92.20	118.50	150.00	187.00	231.00	281.00	304.00	341.00	374.00	409.00		
55.0		88.40	114.50	146.00	182.50	225.00	276.00	298.00	334.00	367.00	402.00		
60.0		84.30	110.50	141.00	177.00	220.00	269.00	291.00	327.00	360.00	395.00		
65.0			105.50	136.00	171.50	213.00	262.00	284.00	319.00	351.00	386.00		
70.0			100.00	130.00	165.00	206.00	254.00	276.00	311.00	342.00	377.00		
75.0				123.00	157.50	198.00	245.00	267.00	301.00	333.00	367.00		
80.0				115.50	149.50	189.50	236.00	257.00	292.00	323.00	357.00		
85.0					141.50	181.50	229.00	250.00	285.00	316.00	351.00		

Additional restrictions, please see application guidelines

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, dBA	72
Sound Power, dBA	83
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	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

Additional restrictions, please see application guidelines

ACCESSORIES OPTIONAL

Adapter Kit	For Parallel Operation
Capacity Control	Capacity Steps 50%
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
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