



Minimum Evaporating Temp. With:

- 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

4MTD-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
16.0	21.60								
20.0	20.60	25.80							
25.0	19.40	24.50	30.50	37.70					
30.0	18.15	23.00	28.80	35.70	43.60	52.90			
35.0	16.90	21.60	27.10	33.60	41.20	49.90	59.90	64.30	71.30
40.0	15.60	20.10	25.30	31.50	38.60	46.80	56.20	60.40	67.00
45.0	14.30	18.55	23.50	29.30	36.00	43.70	52.50	56.30	62.50
50.0	13.00	17.00	21.70	27.10	33.30	40.50	48.70	52.20	58.00
55.0		15.45	19.80	24.80	30.60	37.20	44.70	48.00	53.30
60.0		13.85	17.85	22.50	27.80	33.80	40.70	43.80	48.60
65.0			15.90	20.10	25.00	30.40	36.70	39.40	43.80
70.0			13.95	17.75	22.10	27.00	32.60	35.00	38.90
75.0				15.30	19.15	23.50	28.40	30.50	33.90
80.0				12.85	16.15	19.90	24.10	26.00	28.90
85.0					13.15	16.30	19.85	21.40	23.80

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	6.86								
20.0	7.16	7.73							
25.0	7.51	8.20	8.80	9.29					
30.0	7.81	8.64	9.38	10.05	10.55	10.95			
35.0	8.07	9.02	9.91	10.70	11.40	12.00	12.40	12.55	12.65
40.0	8.27	9.35	10.40	11.35	12.20	12.95	13.60	13.80	14.05
45.0	8.42	9.63	10.80	11.90	12.95	13.90	14.70	15.00	15.40
50.0	8.51	9.84	11.15	12.40	13.60	14.75	15.75	16.15	16.65
55.0		9.98	11.45	12.85	14.20	15.50	16.70	17.20	17.85
60.0		10.05	11.65	13.20	14.75	16.20	17.60	18.15	18.90
65.0			11.75	13.45	15.15	16.80	18.40	19.05	19.95
70.0			11.80	13.65	15.50	17.35	19.10	19.80	20.80
75.0				13.75	15.75	17.75	19.75	20.50	21.70
80.0				13.75	15.90	18.10	20.20	21.10	22.40
85.0					16.00	18.30	20.70	21.60	23.00

Additional restrictions, please see application guidelines

50 Hz

4MTD-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
16.0	16.74								
20.0	16.97	17.46							
25.0	17.26	17.92	18.56	19.13					
30.0	17.54	18.37	19.20	19.98	20.65	21.14			
35.0	17.80	18.78	19.81	20.81	21.72	22.49	23.05	23.20	23.33
40.0	18.02	19.16	20.37	21.59	22.75	23.79	24.65	24.92	25.26
45.0	18.19	19.49	20.89	22.32	23.72	25.03	26.18	26.59	27.13
50.0	18.31	19.76	21.34	22.98	24.62	26.19	27.65	28.18	28.91
55.0		19.95	21.71	23.56	25.43	27.27	29.02	29.68	30.61
60.0		20.05	21.99	24.04	26.15	28.26	30.30	31.08	32.21
65.0			22.17	24.42	26.77	29.13	31.46	32.37	33.69
70.0			22.23	24.69	27.26	29.89	32.50	33.53	35.04
75.0				24.82	27.62	30.51	33.40	34.55	36.26
80.0				24.82	27.84	30.98	34.16	35.43	37.32
85.0					27.90	31.29	34.75	36.14	38.22

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
16.0	120.00								
20.0	118.50	148.50							
25.0	116.00	146.50	183.50	227.00					
30.0	113.50	144.50	181.00	225.00	276.00	336.00			
35.0	111.00	142.00	178.50	222.00	273.00	333.00	402.00	433.00	482.00
40.0	108.00	139.00	175.50	219.00	270.00	329.00	398.00	428.00	477.00
45.0	104.50	135.50	172.50	216.00	266.00	325.00	393.00	423.00	472.00
50.0	100.50	132.00	169.00	212.00	262.00	320.00	388.00	417.00	465.00
55.0		128.00	164.50	207.00	257.00	315.00	381.00	411.00	458.00
60.0		123.50	160.00	202.00	252.00	309.00	374.00	404.00	451.00
65.0			155.00	197.00	246.00	302.00	367.00	396.00	442.00
70.0			149.00	190.50	239.00	294.00	359.00	387.00	433.00
75.0				183.50	231.00	286.00	350.00	378.00	424.00
80.0				175.50	223.00	278.00	341.00	369.00	415.00
85.0					216.00	272.00	336.00	364.00	410.00

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	189
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	66
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	44.5
Locked Rotor Current, A	175
Default Enclosure Class	IP 54 (IEC 34)

### **ACCESSORIES INCLUDED**

CoreSense Protection (-P)	Motor protection
Oil Pressure Switch (-P)	OPS2 Sensor
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
Oil Pressure Switch	OPS2 Electronic Switch
Digital Modulation	50-100 %
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Sound Attenuation	Sound Shell
Check Valve	For unloaded start operation
Mounting Parts	Rubber
Copeland Compressor Electronic module	Modbus extension module

## MOTOR OPTIONS

<b>Motor Code</b>	<b>Power Supply</b>	<b>Nominal Voltage, V</b>	<b>Start Connection</b>	<b>DOL Connection</b>	<b>Amps Factor</b>
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