



Minimum Evaporating Temp. With:

- 20 °C Suction Gas Return
- 0 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MTD-22X

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
16.0	15.00								
20.0	14.25	18.50							
25.0	13.35	17.40	22.50	28.70					
30.0	12.35	16.30	21.20	27.10	34.20	42.50			
35.0	11.35	15.10	19.80	25.50	32.20	40.10	49.30	53.40	59.90
40.0	10.30	13.90	18.40	23.80	30.20	37.70	46.50	50.40	56.60
45.0	9.23	12.70	16.95	22.00	28.10	35.30	43.60	47.30	53.20
50.0	8.15	11.45	15.45	20.30	26.00	32.80	40.70	44.10	49.80
55.0	7.07	10.20	13.95	18.50	23.90	30.20	37.70	41.00	46.30
60.0	6.00	8.93	12.45	16.70	21.70	27.70	34.60	37.80	42.80
65.0	4.94	7.67	10.95	14.85	19.55	25.10	31.60	34.50	39.20
70.0	3.92	6.43	9.44	13.05	17.35	22.50	28.50	31.20	35.60
75.0		5.21	7.94	11.20	15.15	19.80	25.40	27.90	32.00
80.0			6.46	9.40	12.95	17.15	22.30	24.60	28.30
85.0			5.03	7.60	10.75	14.55	19.10	21.20	24.70

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	5.47								
20.0	5.72	6.21							
25.0	6.01	6.61	7.14	7.59					
30.0	6.26	6.97	7.62	8.20	8.69	9.07			
35.0	6.48	7.30	8.07	8.78	9.41	9.94	10.35	10.50	10.65
40.0	6.66	7.58	8.47	9.31	10.10	10.75	11.35	11.55	11.80
45.0	6.79	7.82	8.83	9.79	10.70	11.55	12.30	12.55	12.95
50.0	6.87	8.00	9.13	10.20	11.25	12.25	13.15	13.50	14.00
55.0	6.89	8.13	9.36	10.60	11.75	12.90	14.00	14.40	14.95
60.0	6.85	8.18	9.54	10.90	12.20	13.50	14.75	15.20	15.90
65.0	6.73	8.17	9.64	11.10	12.55	14.00	15.40	15.95	16.75
70.0	6.54	8.08	9.66	11.25	12.85	14.45	16.00	16.60	17.50
75.0		7.91	9.60	11.30	13.05	14.80	16.50	17.15	18.15
80.0			9.45	11.30	13.15	15.05	16.90	17.65	18.75
85.0			9.20	11.15	13.15	15.20	17.20	18.00	19.20

50 Hz

4MTD-22X

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
16.0	15.51								
20.0	15.68	16.09							
25.0	15.89	16.41	16.92	17.37					
30.0	16.11	16.73	17.38	17.99	18.52	18.94			
35.0	16.31	17.04	17.82	18.59	19.31	19.95	20.44	20.59	20.75
40.0	16.49	17.33	18.24	19.17	20.08	20.93	21.67	21.92	22.25
45.0	16.63	17.58	18.62	19.72	20.82	21.88	22.86	23.22	23.71
50.0	16.72	17.78	18.96	20.22	21.51	22.78	24.01	24.47	25.13
55.0	16.76	17.92	19.24	20.66	22.14	23.63	25.09	25.66	26.48
60.0	16.72	17.99	19.45	21.03	22.70	24.41	26.11	26.78	27.77
65.0	16.59	17.98	19.57	21.31	23.17	25.10	27.05	27.83	28.98
70.0	16.37	17.87	19.60	21.51	23.55	25.70	27.89	28.78	30.09
75.0		17.65	19.52	21.59	23.83	26.19	28.63	29.62	31.10
80.0			19.32	21.56	23.99	26.57	29.25	30.34	32.00
85.0			18.99	21.39	24.01	26.81	29.74	30.94	32.76

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	93.90								
20.0	92.50	117.50							
25.0	90.50	115.50	146.00	182.50					
30.0	88.10	113.50	144.00	180.50	222.00	270.00			
35.0	85.20	111.00	141.50	178.00	220.00	268.00	322.00	345.00	382.00
40.0	81.90	108.00	138.50	175.00	217.00	264.00	318.00	342.00	379.00
45.0	78.00	104.50	135.50	171.50	213.00	261.00	314.00	338.00	375.00
50.0	73.60	100.50	131.50	167.50	209.00	256.00	310.00	333.00	370.00
55.0	68.60	95.70	127.00	163.00	204.00	252.00	305.00	328.00	365.00
60.0	62.90	90.40	122.00	158.00	199.00	246.00	299.00	323.00	359.00
65.0	56.60	84.50	116.00	152.00	193.50	240.00	293.00	316.00	353.00
70.0	49.40	77.70	109.50	145.50	186.50	233.00	286.00	309.00	346.00
75.0		70.10	102.00	138.00	179.00	226.00	278.00	302.00	339.00
80.0			93.70	130.00	170.50	217.00	270.00	293.00	331.00
85.0			84.20	120.50	161.50	208.00	261.00	285.00	323.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /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	605
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

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

<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