



Minimum Evaporating Temp. With:

— 20 °C Suction Gas Return

— Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MTD-22X 100% Loaded

R134a

Cond °C	Cooling Capacity, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	25.30	32.40	41.20					
15.0	23.90	30.70	39.10	49.10				
20.0	22.50	29.00	37.00	46.50	57.80			
25.0	21.20	27.40	34.90	44.00	54.70	67.30	72.90	
30.0	19.85	25.70	32.90	41.50	51.60	63.60	68.90	77.40
35.0	18.50	24.10	30.90	38.90	48.50	59.80	64.90	73.00
40.0	17.20	22.50	28.80	36.40	45.50	56.10	60.90	68.50
45.0	15.95	20.90	26.80	33.90	42.40	52.40	56.80	64.10
50.0	14.65	19.30	24.80	31.40	39.30	48.60	52.80	59.60
55.0	13.35	17.70	22.80	28.90	36.20	44.90	48.80	55.10
60.0		16.10	20.80	26.40	33.10	41.10	44.70	50.60
65.0			18.75	23.80	29.90	37.30	40.60	46.10
70.0			16.65	21.20	26.80	33.40	36.50	41.50
75.0				18.65	23.60	29.60	32.30	36.90
80.0				16.05	20.40	25.70	28.10	32.30

Cond °C	Power, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	6.19	6.47	6.56					
15.0	6.69	7.11	7.36	7.41				
20.0	7.16	7.71	8.12	8.36	8.36			
25.0	7.59	8.28	8.84	9.25	9.46	9.43	9.34	
30.0	8.00	8.81	9.52	10.10	10.50	10.70	10.70	10.60
35.0	8.39	9.30	10.15	10.90	11.50	11.90	12.00	12.05
40.0	8.74	9.77	10.75	11.65	12.40	13.05	13.20	13.40
45.0	9.08	10.20	11.30	12.35	13.30	14.10	14.40	14.75
50.0	9.39	10.60	11.85	13.00	14.15	15.15	15.50	15.95
55.0	9.67	11.00	12.30	13.65	14.90	16.10	16.55	17.15
60.0		11.35	12.75	14.25	15.65	17.00	17.55	18.25
65.0			13.20	14.75	16.35	17.90	18.45	19.30
70.0			13.60	15.30	17.00	18.70	19.35	20.30
75.0				15.75	17.60	19.45	20.20	21.30
80.0				16.20	18.15	20.20	21.00	22.20

50 Hz

4MTD-22X 100% Loaded

R134a

Cond °C	Current at 400 V, A							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	16.23	16.39	16.38					
15.0	16.58	16.92	17.12	17.11				
20.0	16.95	17.47	17.88	18.11	18.07			
25.0	17.34	18.02	18.63	19.10	19.34	19.26	19.12	
30.0	17.73	18.57	19.38	20.09	20.60	20.82	20.82	20.69
35.0	18.12	19.12	20.12	21.06	21.83	22.36	22.48	22.56
40.0	18.51	19.66	20.85	22.00	23.03	23.86	24.11	24.39
45.0	18.89	20.18	21.55	22.92	24.21	25.32	25.70	26.18
50.0	19.26	20.69	22.23	23.81	25.34	26.74	27.24	27.92
55.0	19.61	21.17	22.88	24.67	26.44	28.11	28.73	29.60
60.0		21.62	23.49	25.48	27.48	29.43	30.17	31.22
65.0			24.07	26.24	28.47	30.68	31.54	32.78
70.0			24.59	26.95	29.41	31.88	32.85	34.27
75.0				27.61	30.28	33.00	34.08	35.68
80.0				28.20	31.08	34.05	35.24	37.01

Cond °C	Suction Mass Flow, g/s							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	140.00	176.00	220.00					
15.0	137.50	173.50	217.00	267.00				
20.0	135.00	171.00	213.00	264.00	322.00			
25.0	132.50	168.00	210.00	260.00	317.00	383.00	412.00	
30.0	130.00	165.50	207.00	256.00	312.00	377.00	406.00	451.00
35.0	128.00	163.00	204.00	252.00	307.00	371.00	400.00	445.00
40.0	125.50	160.00	200.00	248.00	302.00	365.00	393.00	437.00
45.0	123.00	157.00	197.00	243.00	297.00	359.00	386.00	430.00
50.0	120.00	154.00	193.00	238.00	291.00	352.00	379.00	422.00
55.0	117.00	150.50	189.00	233.00	284.00	344.00	371.00	413.00
60.0		147.00	184.50	227.00	277.00	336.00	362.00	404.00
65.0			179.50	221.00	270.00	327.00	352.00	393.00
70.0			174.00	214.00	262.00	317.00	342.00	382.00
75.0				207.00	252.00	306.00	331.00	370.00
80.0				198.50	242.00	295.00	318.00	357.00

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	1430
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

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
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