



Minimum Evaporating Temp. With:

— 20 °C Suction Gas Return

— Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MM-20X

R134a

Cond °C	Cooling Capacity, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	23.50	29.70	37.20					
15.0	22.40	28.30	35.50	44.10				
20.0	21.20	26.90	33.80	42.00	51.60			
25.0	20.10	25.60	32.10	39.90	49.10	59.70	64.50	
30.0	18.95	24.20	30.40	37.80	46.50	56.60	61.10	68.30
35.0	17.80	22.80	28.70	35.70	43.90	53.50	57.70	64.50
40.0	16.60	21.40	27.00	33.60	41.30	50.30	54.30	60.70
45.0	15.45	19.95	25.20	31.40	38.70	47.20	50.90	56.90
50.0	14.25	18.50	23.50	29.30	36.10	44.00	47.50	53.10
55.0	13.10	17.10	21.70	27.10	33.40	40.80	44.00	49.30
60.0		15.65	19.95	25.00	30.80	37.60	40.60	45.50
65.0			18.20	22.80	28.10	34.40	37.10	41.60
70.0			16.40	20.60	25.50	31.10	33.70	37.70
75.0				18.40	22.80	27.90	30.20	33.90
80.0				16.20	20.10	24.70	26.70	30.00

Cond °C	Power, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	5.48	5.78	5.94					
15.0	5.89	6.30	6.58	6.69				
20.0	6.29	6.80	7.21	7.46	7.51			
25.0	6.66	7.28	7.80	8.19	8.40	8.40	8.33	
30.0	7.02	7.73	8.37	8.90	9.27	9.44	9.44	9.37
35.0	7.35	8.16	8.92	9.58	10.10	10.45	10.50	10.55
40.0	7.66	8.56	9.43	10.20	10.90	11.40	11.55	11.70
45.0	7.94	8.94	9.92	10.85	11.65	12.35	12.55	12.85
50.0	8.20	9.28	10.35	11.40	12.40	13.25	13.55	13.95
55.0	8.42	9.60	10.80	11.95	13.10	14.10	14.45	14.95
60.0		9.88	11.20	12.50	13.75	14.90	15.35	15.95
65.0			11.55	12.95	14.35	15.70	16.20	16.90
70.0			11.85	13.40	14.90	16.40	17.00	17.80
75.0				13.80	15.45	17.10	17.75	18.70
80.0				14.15	15.95	17.75	18.45	19.50

50 Hz

4MM-20X

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	15.04	15.35	15.50					
15.0	15.41	15.82	16.11	16.21				
20.0	15.79	16.31	16.73	17.00	17.04			
25.0	16.16	16.79	17.36	17.79	18.03	18.02	17.92	
30.0	16.53	17.28	17.99	18.59	19.03	19.24	19.25	19.16
35.0	16.88	17.75	18.61	19.39	20.03	20.48	20.58	20.65
40.0	17.21	18.21	19.22	20.18	21.03	21.71	21.91	22.15
45.0	17.52	18.64	19.81	20.95	22.01	22.93	23.24	23.64
50.0	17.79	19.04	20.37	21.70	22.98	24.14	24.55	25.11
55.0	18.02	19.41	20.90	22.43	23.92	25.33	25.85	26.58
60.0		19.74	21.40	23.12	24.84	26.49	27.12	28.02
65.0			21.85	23.77	25.71	27.62	28.36	29.43
70.0			22.26	24.37	26.55	28.71	29.56	30.80
75.0				24.93	27.33	29.76	30.72	32.14
80.0				25.42	28.07	30.76	31.83	33.43

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	114.00	144.50	181.50					
15.0	112.00	142.50	179.50	224.00				
20.0	110.50	140.50	177.50	221.00	274.00			
25.0	108.50	139.00	175.00	219.00	270.00	331.00	359.00	
30.0	106.50	136.50	172.50	216.00	267.00	327.00	354.00	398.00
35.0	104.50	134.50	170.00	213.00	263.00	323.00	350.00	393.00
40.0	102.00	132.00	167.00	209.00	259.00	318.00	345.00	388.00
45.0	99.60	129.00	164.00	206.00	255.00	313.00	339.00	382.00
50.0	96.80	126.00	161.00	202.00	250.00	308.00	334.00	376.00
55.0	93.70	123.00	157.00	197.50	245.00	302.00	328.00	369.00
60.0		119.50	153.50	193.00	240.00	296.00	321.00	362.00
65.0			149.50	188.50	235.00	290.00	314.00	355.00
70.0			145.00	183.50	229.00	283.00	307.00	348.00
75.0				178.00	223.00	276.00	300.00	340.00
80.0				172.50	216.00	269.00	293.00	332.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m³/h	78.2
Bore/Stroke, mm	71.5/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	182
Suction, inch	2 1/8
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	69
Sound Power (MT), dBA	80
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
Refrigerant's GWP	1430
Refrigerant's classification	A1

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	39
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

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
Adapter Kit	For Parallel Operation
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	YYY	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	YYY	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YYY	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	YYY	Y	2.19
AWX	380 V / 3~ / 60 Hz	380	YYY	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YYY	Y	1.00