



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

50 Hz

4MM-20X

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
10.0	15.65	19.70	24.70	30.70					
15.0	15.05	18.95	23.80	29.70	36.60				
20.0	14.30	18.15	22.90	28.50	35.20	42.90			
25.0	13.55	17.25	21.90	27.30	33.70	41.10	49.60		
30.0	12.70	16.35	20.80	26.00	32.20	39.30	47.40	51.00	56.60
35.0	11.80	15.30	19.60	24.60	30.50	37.30	45.10	48.50	53.90
40.0	10.85	14.25	18.35	23.20	28.80	35.30	42.70	45.90	51.10
45.0	9.87	13.15	17.10	21.70	27.00	33.20	40.20	43.30	48.20
50.0	8.87	12.05	15.75	20.10	25.20	31.00	37.70	40.60	45.20
55.0		10.85	14.40	18.55	23.30	28.80	35.00	37.80	42.10
60.0		9.67	13.00	16.90	21.40	26.50	32.30	34.90	38.90
65.0			11.60	15.20	19.40	24.20	29.60	32.00	35.70
70.0			10.20	13.55	17.35	21.80	26.80	29.00	32.50
75.0				11.80	15.35	19.35	23.90	26.00	29.20
80.0				10.10	13.30	16.95	21.10	22.90	25.80
85.0					11.25	14.50	18.20	19.80	22.40

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	4.55	4.73	4.81	4.78					
15.0	4.86	5.14	5.33	5.41	5.38				
20.0	5.16	5.54	5.83	6.03	6.13	6.10			
25.0	5.42	5.91	6.32	6.64	6.86	6.97	6.96		
30.0	5.66	6.25	6.77	7.21	7.56	7.81	7.94	7.96	7.95
35.0	5.85	6.55	7.19	7.75	8.23	8.61	8.89	8.97	9.06
40.0	6.00	6.80	7.56	8.25	8.86	9.38	9.81	9.95	10.15
45.0	6.09	7.01	7.88	8.69	9.44	10.10	10.70	10.90	11.15
50.0	6.12	7.15	8.15	9.09	9.97	10.80	11.50	11.75	12.15
55.0		7.23	8.34	9.42	10.45	11.40	12.25	12.60	13.05
60.0		7.24	8.47	9.67	10.85	11.95	12.95	13.35	13.90
65.0			8.52	9.86	11.15	12.40	13.60	14.05	14.70
70.0			8.48	9.95	11.40	12.80	14.15	14.65	15.40
75.0				9.96	11.55	13.10	14.60	15.20	16.05
80.0				9.86	11.60	13.30	14.95	15.60	16.55
85.0					11.55	13.40	15.20	15.95	17.00

50 Hz

4MM-20X

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
10.0	14.71	14.92	15.07	15.11					
15.0	14.96	15.25	15.50	15.66	15.69				
20.0	15.20	15.57	15.92	16.21	16.38	16.39			
25.0	15.42	15.87	16.33	16.74	17.06	17.24	17.22		
30.0	15.61	16.15	16.72	17.26	17.72	18.07	18.24	18.25	18.20
35.0	15.77	16.41	17.08	17.75	18.37	18.88	19.24	19.33	19.41
40.0	15.89	16.62	17.42	18.22	18.99	19.67	20.23	20.40	20.60
45.0	15.97	16.80	17.71	18.65	19.58	20.44	21.19	21.44	21.78
50.0	16.01	16.94	17.97	19.05	20.13	21.17	22.12	22.46	22.92
55.0		17.02	18.17	19.40	20.64	21.86	23.01	23.44	24.04
60.0		17.05	18.32	19.69	21.10	22.51	23.86	24.38	25.11
65.0			18.42	19.94	21.52	23.11	24.67	25.27	26.14
70.0			18.45	20.12	21.87	23.65	25.42	26.11	27.12
75.0				20.23	22.15	24.13	26.11	26.90	28.05
80.0				20.27	22.37	24.55	26.74	27.62	28.92
85.0					22.51	24.89	27.30	28.27	29.71

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
10.0	79.50	100.00	125.50	157.00					
15.0	79.00	99.80	125.50	157.00	194.50				
20.0	78.00	99.20	125.50	157.00	194.50	238.00			
25.0	76.70	98.10	124.50	156.00	193.50	238.00	288.00		
30.0	74.90	96.70	123.00	155.00	192.50	237.00	287.00	310.00	346.00
35.0	72.70	94.70	121.50	153.50	191.00	235.00	286.00	308.00	344.00
40.0	70.00	92.40	119.50	151.50	189.00	233.00	284.00	306.00	342.00
45.0	66.90	89.50	116.50	148.50	186.50	230.00	281.00	303.00	339.00
50.0	63.40	86.20	113.50	145.50	183.00	227.00	278.00	300.00	336.00
55.0		82.30	109.50	141.50	179.50	223.00	274.00	296.00	332.00
60.0		77.90	105.50	137.50	175.00	218.00	269.00	291.00	327.00
65.0			100.50	132.50	169.50	213.00	263.00	286.00	322.00
70.0			94.70	126.50	163.50	207.00	257.00	279.00	316.00
75.0				120.00	157.00	200.00	250.00	272.00	309.00
80.0				112.50	149.50	192.50	242.00	265.00	301.00
85.0					141.00	184.00	234.00	256.00	293.00

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	605
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

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