



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

Cond °C	Cooling Capacity, kW											
	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	11.00	14.60	19.00	24.20	30.40	37.60	46.10	55.80				
15.0	9.85	13.40	17.60	22.60	28.40	35.30	43.20	52.40	62.90			
20.0	8.71	12.15	16.15	20.90	26.50	32.90	40.40	49.10	59.00	70.20	83.00	
25.0	7.55	10.90	14.75	19.25	24.50	30.60	37.70	45.80	55.10	65.70	77.70	82.90
30.0		9.62	13.30	17.60	22.50	28.30	34.90	42.50	51.20	61.10	72.40	77.30
35.0		8.35	11.90	15.95	20.60	25.90	32.10	39.20	47.30	56.60	67.20	71.80
40.0			10.45	14.30	18.65	23.60	29.40	36.00	43.50	52.20	62.00	66.20
45.0			9.04	12.65	16.70	21.30	26.60	32.70	39.70	47.70	56.80	60.80
50.0				11.00	14.75	19.05	23.90	29.50	35.90	43.30	51.70	55.40
55.0				9.36	12.85	16.80	21.20	26.30	32.20	38.90	46.60	50.00
60.0					10.95	14.55	18.55	23.20	28.50	34.60	41.60	
62.0					10.20	13.65	17.50	21.90	27.00	32.80		

50 Hz

4MA-22X

R404A Dew Point

Cond °C	Power, kW											
	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	4.88	5.59	6.20	6.71	7.10	7.34	7.43	7.35				
15.0	4.99	5.80	6.53	7.16	7.68	8.06	8.30	8.37	8.25			
20.0	5.03	5.96	6.81	7.57	8.22	8.74	9.13	9.35	9.41	9.26	8.92	
25.0	5.00	6.05	7.02	7.92	8.71	9.38	9.92	10.30	10.55	10.55	10.40	10.30
30.0		6.06	7.17	8.21	9.14	9.97	10.65	11.25	11.65	11.85	11.85	11.80
35.0		6.01	7.26	8.43	9.52	10.50	11.35	12.10	12.70	13.10	13.30	13.35
40.0			7.27	8.59	9.84	11.00	12.05	12.95	13.70	14.30	14.70	14.85
45.0			7.20	8.68	10.10	11.40	12.65	13.70	14.65	15.45	16.10	16.30
50.0				8.70	10.25	11.75	13.15	14.45	15.60	16.60	17.45	17.75
55.0				8.63	10.40	12.05	13.65	15.10	16.45	17.70	18.75	19.10
60.0					10.40	12.25	14.05	15.75	17.30	18.70	20.00	
62.0					10.40	12.35	14.20	15.95	17.60	19.10		

Cond °C	Current at 400 V, A											
	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	15.02	15.58	16.13	16.64	17.07	17.36	17.49	17.40				
15.0	15.13	15.79	16.46	17.09	17.66	18.11	18.40	18.49	18.35			
20.0	15.18	15.95	16.75	17.53	18.24	18.86	19.33	19.62	19.69	19.48	18.96	
25.0	15.16	16.06	16.99	17.92	18.81	19.61	20.28	20.78	21.06	21.09	20.82	20.63
30.0		16.08	17.17	18.27	19.34	20.33	21.21	21.93	22.46	22.74	22.74	22.65
35.0		16.02	17.28	18.56	19.82	21.03	22.13	23.09	23.86	24.41	24.69	24.71
40.0			17.29	18.77	20.24	21.67	23.01	24.22	25.26	26.09	26.66	26.80
45.0			17.20	18.89	20.58	22.25	23.84	25.32	26.64	27.76	28.64	28.91
50.0				18.90	20.84	22.76	24.61	26.37	27.98	29.41	30.61	31.01
55.0				18.80	20.99	23.17	25.31	27.36	29.28	31.02	32.56	33.10
60.0					21.02	23.48	25.91	28.27	30.51	32.59	34.48	
62.0					21.00	23.58	26.13	28.61	30.98	33.20		

50 Hz

4MA-22X

R404A Dew Point

Cond °C	Suction Mass Flow, g/s											
	-45.0	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	61.00	81.30	106.00	135.50	171.00	213.00	262.00	319.00				
15.0	57.00	77.60	102.50	131.50	166.50	208.00	256.00	313.00	379.00			
20.0	52.60	73.60	98.30	127.50	162.00	203.00	251.00	307.00	372.00	448.00	536.00	
25.0	47.80	69.10	94.00	123.00	157.50	197.50	245.00	300.00	365.00	440.00	527.00	566.00
30.0		64.30	89.30	118.50	152.50	192.50	239.00	294.00	357.00	432.00	518.00	557.00
35.0		58.90	84.20	113.50	147.00	186.50	233.00	287.00	350.00	424.00	510.00	549.00
40.0			78.70	108.00	141.50	180.50	226.00	280.00	342.00	416.00	502.00	540.00
45.0			72.60	102.00	135.50	174.50	220.00	273.00	335.00	408.00	494.00	533.00
50.0				95.60	129.00	168.00	213.00	265.00	327.00	401.00	487.00	526.00
55.0				88.60	122.50	161.50	206.00	259.00	321.00	394.00	482.00	522.00
60.0					116.00	155.00	200.00	253.00	316.00	391.00	481.00	
62.0					113.00	152.50	198.50	252.00	315.00	391.00		

### **COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Number of cylinders	4
Displacement @ 50 Hz, m <sup>3</sup> /h	61.7
Bore/Stroke, mm	63.5/56.0
Length/Width, mm	638/501
Height, mm	452
Net Weight, kg	177
Suction, inch	1 5/8
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 (LT), dBA	75
Sound Power (LT), dBA	86
Sound Power with Sound Shell (LT), dBA	72
Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed)	-35 / 40 / 20 °C at 50 Hz
Sound Pressure @ 1m (MT), dBA	68
Sound Power (MT), dBA	79
Sound Power with Sound Shell (MT), dBA	68
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	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	36.3
Locked Rotor Current, A	175
Default Enclosure Class	IP 54 (IEC 34)

### ACCESSORIES INCLUDED

Oil Pressure Switch (-P)	OPS2 Sensor
Mounting Parts	Spring
CoreSense Protection (-P)	Motor protection
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
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
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