



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MID-30X 100% Loaded

R134a

Cond °C	Cooling Capacity, kW											
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
10.0	23.00	28.90	36.20									
15.0	21.70	27.50	34.50	43.00								
20.0	20.40	26.00	32.80	40.90	50.60							
25.0	19.15	24.50	31.00	38.80	48.10	59.00	63.80					
30.0	17.80	22.90	29.20	36.70	45.50	55.90	60.60	68.00	74.80			
35.0	16.45	21.40	27.30	34.50	42.90	52.80	57.30	64.40	70.80	77.70		
40.0	15.10	19.80	25.40	32.20	40.20	49.70	53.90	60.70	66.80	73.40	88.00	104.50
45.0	13.70	18.20	23.50	29.90	37.50	46.50	50.50	56.90	62.70	69.00	82.90	98.70
50.0	12.35	16.60	21.60	27.60	34.80	43.20	47.00	53.10	58.60	64.50	77.70	92.80
55.0	11.00	14.95	19.70	25.30	32.00	39.90	43.50	49.20	54.40	60.00	72.50	86.80
60.0		13.35	17.75	23.00	29.20	36.60	39.90	45.30	50.20	55.50	67.20	80.70
65.0			15.85	20.70	26.40	33.30	36.40	41.40	45.90	50.90	61.90	74.60
70.0			13.90	18.35	23.60	29.90	32.80	37.40	41.60	46.20	56.50	68.40
75.0				16.00	20.80	26.60	29.20	33.40	37.30	41.50	51.10	62.10
80.0				13.70	18.00	23.20	25.50	29.40	33.00	36.80	45.60	55.90

Cond °C	Power, kW											
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
10.0	5.56	5.77	5.83									
15.0	6.00	6.33	6.53	6.56								
20.0	6.41	6.86	7.20	7.38	7.37							
25.0	6.78	7.35	7.82	8.15	8.31	8.26	8.18					
30.0	7.11	7.80	8.41	8.89	9.22	9.35	9.34	9.25	9.11			
35.0	7.40	8.21	8.95	9.58	10.10	10.40	10.45	10.50	10.45	10.35		
40.0	7.64	8.57	9.44	10.25	10.90	11.40	11.55	11.70	11.75	11.75	11.55	11.05
45.0	7.82	8.87	9.88	10.80	11.65	12.35	12.55	12.85	13.00	13.10	13.15	12.90
50.0	7.95	9.12	10.25	11.35	12.35	13.20	13.50	13.90	14.20	14.40	14.65	14.65
55.0	8.02	9.31	10.60	11.85	13.00	14.05	14.40	14.95	15.30	15.65	16.15	16.35
60.0		9.44	10.85	12.25	13.55	14.80	15.25	15.90	16.40	16.85	17.55	18.05
65.0			11.05	12.60	14.10	15.50	16.05	16.80	17.40	17.95	18.90	19.60
70.0			11.15	12.85	14.50	16.10	16.75	17.60	18.30	18.95	20.20	21.10
75.0				13.05	14.90	16.65	17.35	18.35	19.15	19.95	21.30	22.60
80.0				13.20	15.15	17.15	17.90	19.05	19.95	20.80	22.50	23.90

Cond °C	Current at 400 V, A											
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
10.0	17.84	18.07	18.17									
15.0	18.17	18.49	18.69	18.73								
20.0	18.51	18.92	19.24	19.42	19.40							
25.0	18.85	19.36	19.81	20.14	20.29	20.21	20.11					
30.0	19.17	19.79	20.37	20.86	21.19	21.32	21.30	21.19	21.01			
35.0	19.45	20.20	20.93	21.58	22.10	22.44	22.51	22.55	22.49	22.36		
40.0	19.70	20.57	21.45	22.28	23.00	23.56	23.73	23.91	23.99	24.00	23.76	23.15
45.0	19.89	20.90	21.94	22.95	23.88	24.67	24.94	25.27	25.49	25.63	25.70	25.41
50.0	20.01	21.17	22.37	23.58	24.72	25.76	26.12	26.62	26.97	27.27	27.64	27.68
55.0	20.04	21.36	22.75	24.15	25.52	26.80	27.28	27.94	28.44	28.88	29.57	29.95
60.0		21.47	23.04	24.66	26.26	27.80	28.38	29.21	29.86	30.46	31.47	32.20
65.0			23.25	25.08	26.93	28.73	29.43	30.44	31.23	31.99	33.34	34.43
70.0			23.35	25.41	27.51	29.59	30.40	31.59	32.55	33.46	35.16	36.61
75.0				25.64	27.99	30.35	31.29	32.66	33.78	34.87	36.91	38.75
80.0				25.74	28.37	31.02	32.08	33.64	34.93	36.19	38.59	40.81

Cond °C	Suction Mass Flow, g/s											
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
10.0	127.00	157.00	193.00									
15.0	125.00	155.00	191.50	234.00								
20.0	122.50	153.00	189.00	232.00	282.00							
25.0	120.00	150.50	186.50	229.00	279.00	336.00	361.00					
30.0	117.00	147.50	184.00	226.00	275.00	332.00	357.00	397.00	432.00			
35.0	113.50	144.50	180.50	223.00	272.00	328.00	353.00	392.00	427.00	465.00		
40.0	110.00	140.50	177.00	219.00	268.00	323.00	348.00	387.00	422.00	459.00	540.00	631.00
45.0	105.50	136.50	172.50	214.00	263.00	318.00	343.00	382.00	416.00	453.00	534.00	624.00
50.0	101.50	132.50	168.00	210.00	258.00	313.00	337.00	376.00	410.00	447.00	527.00	617.00
55.0	96.40	127.50	163.00	204.00	252.00	306.00	330.00	369.00	403.00	440.00	519.00	609.00
60.0		122.00	157.50	198.50	245.00	299.00	323.00	361.00	395.00	432.00	511.00	600.00
65.0			151.50	192.00	238.00	292.00	315.00	353.00	387.00	423.00	502.00	591.00
70.0			145.00	185.00	231.00	284.00	307.00	344.00	378.00	414.00	493.00	581.00
75.0				177.50	223.00	275.00	298.00	335.00	369.00	404.00	483.00	572.00
80.0				169.50	214.00	266.00	289.00	326.00	359.00	395.00	473.00	562.00

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

Number of cylinders	4
Displacement @ 50 Hz, m <sup>3</sup> /h	78.2
Bore/Stroke, mm	71.5/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	194
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	67
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	46.6
Locked Rotor Current, A	221
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

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
Digital Driver	EC3-D23
Oil Pressure Switch	OPS2 Electronic Switch
Digital Modulation	50-100 %
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