



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 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

Additional restrictions, please see application guidelines

50 Hz

4MKD-35X

R513A

Cond °C	Cooling Capacity, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	23.60												
20.0	22.50	28.20											
25.0	21.20	26.70	33.40	41.70									
30.0	19.80	25.10	31.50	39.40	48.70	59.70							
35.0	18.40	23.40	29.60	37.00	45.90	56.30	68.40	73.70	82.30	90.00			
40.0	17.00	21.80	27.60	34.60	42.90	52.70	64.10	69.10	77.20	84.50	92.20		
45.0	15.60	20.10	25.60	32.10	39.90	49.10	59.70	64.40	72.00	78.80	86.10		
50.0	14.20	18.40	23.50	29.60	36.90	45.40	55.30	59.60	66.70	73.00	79.70		
55.0		16.75	21.40	27.10	33.70	41.60	50.70	54.70	61.20	67.00	73.30		
60.0		15.05	19.35	24.50	30.50	37.70	46.00	49.70	55.70	61.00	66.70		
65.0			17.20	21.80	27.30	33.80	41.30	44.60	50.00	54.80	60.00		
70.0			15.10	19.20	24.00	29.80	36.50	39.40	44.20	48.60	53.20		
75.0				16.50	20.70	25.70	31.60	34.20	38.40	42.20	46.30		
80.0				13.80	17.35	21.60	26.60	28.90	32.50	35.80	39.30		
85.0					14.00	17.50	21.60	23.50	26.50	29.30	32.20		

Cond °C	Power, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	8.08												
20.0	8.38	9.02											
25.0	8.72	9.49	10.20	10.75									
30.0	9.01	9.92	10.75	11.50	12.15	12.55							
35.0	9.26	10.30	11.30	12.25	13.05	13.75	14.20	14.30	14.40	14.40			
40.0	9.46	10.60	11.75	12.85	13.90	14.80	15.55	15.80	16.05	16.25	16.35		
45.0	9.61	10.85	12.15	13.40	14.65	15.80	16.80	17.15	17.60	17.90	18.20		
50.0	9.71	11.05	12.45	13.90	15.30	16.65	17.90	18.40	19.00	19.50	19.90		
55.0		11.20	12.70	14.30	15.90	17.45	18.95	19.50	20.30	21.00	21.50		
60.0		11.25	12.90	14.60	16.40	18.15	19.90	20.60	21.50	22.30	23.00		
65.0			13.00	14.85	16.80	18.75	20.70	21.50	22.60	23.50	24.40		
70.0			13.05	15.00	17.10	19.25	21.40	22.30	23.60	24.60	25.60		
75.0				15.10	17.30	19.65	22.00	23.00	24.40	25.60	26.70		
80.0				15.10	17.45	19.95	22.50	23.50	25.10	26.40	27.70		
85.0					17.45	20.10	22.90	24.00	25.70	27.10	28.60		

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50 Hz

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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	12.5	15.0	20.0	25.0
16.0	23.12												
20.0	23.35	23.92											
25.0	23.62	24.34	25.03	25.61									
30.0	23.88	24.73	25.60	26.41	27.09	27.56							
35.0	24.12	25.09	26.13	27.16	28.11	28.90	29.46	29.60	29.71	29.69			
40.0	24.33	25.41	26.61	27.85	29.07	30.17	31.09	31.38	31.74	31.95	32.06		
45.0	24.50	25.68	27.04	28.48	29.95	31.35	32.62	33.07	33.68	34.10	34.44		
50.0	24.62	25.90	27.40	29.04	30.75	32.45	34.06	34.66	35.51	36.14	36.71		
55.0		26.06	27.69	29.52	31.46	33.44	35.39	36.14	37.22	38.07	38.86		
60.0		26.15	27.91	29.91	32.08	34.33	36.60	37.50	38.81	39.86	40.87		
65.0			28.04	30.21	32.59	35.11	37.70	38.73	40.27	41.53	42.75		
70.0			28.08	30.40	33.00	35.78	38.67	39.84	41.60	43.05	44.48		
75.0				30.49	33.28	36.31	39.50	40.81	42.78	44.42	46.06		
80.0				30.47	33.45	36.72	40.20	41.63	43.81	45.64	47.48		
85.0					33.48	36.98	40.74	42.30	44.68	46.70	48.73		

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	12.5	15.0	20.0	25.0
16.0	131.00												
20.0	129.50	162.50											
25.0	126.50	160.00	201.00	251.00									
30.0	123.50	157.00	198.00	248.00	308.00	380.00							
35.0	120.50	154.00	195.00	245.00	305.00	376.00	459.00	496.00	557.00	611.00			
40.0	117.00	150.50	191.50	241.00	300.00	371.00	454.00	491.00	550.00	605.00	663.00		
45.0	113.50	147.00	187.50	237.00	295.00	365.00	447.00	484.00	543.00	597.00	655.00		
50.0	110.00	143.00	183.00	232.00	290.00	359.00	440.00	476.00	535.00	589.00	647.00		
55.0		139.00	178.50	226.00	283.00	352.00	432.00	468.00	526.00	580.00	637.00		
60.0		134.00	173.00	220.00	276.00	344.00	423.00	459.00	516.00	569.00	626.00		
65.0			167.50	213.00	269.00	335.00	413.00	448.00	505.00	557.00	614.00		
70.0			161.50	206.00	260.00	325.00	402.00	436.00	493.00	545.00	601.00		
75.0				198.00	250.00	313.00	389.00	424.00	480.00	531.00	587.00		
80.0				189.00	240.00	302.00	377.00	411.00	466.00	518.00	574.00		
85.0					230.00	291.00	366.00	400.00	457.00	509.00	566.00		

Additional restrictions, please see application guidelines

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m³/h	99.4
Bore/Stroke, mm	80.6/56.0
Length/Width, mm	688/501
Height, mm	452
Net Weight, kg	202
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	71
Sound Power (MT), dBA	82
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	631
Refrigerant's classification	A1

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

Maximum Operating Current, A	61.1
Locked Rotor Current, A	255
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Mounting Parts	Spring
CoreSense Protection (-P)	Motor protection
Oil Pressure Switch (-P)	OPS2 Sensor
Copeland Compressor Electronic (-N)	Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement

Additional restrictions, please see application guidelines

ACCESSORIES OPTIONAL

Check Valve	For unloaded start operation
Digital Driver	EC3-D23
Adapter Kit	For Parallel Operation
Digital Modulation	50-100 %
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Oil Pressure Switch	OPS2 Electronic Switch
Sound Attenuation	Sound Shell
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

Additional restrictions, please see application guidelines