



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

4MKD-35X 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	28.70	36.10	45.20									
15.0	27.10	34.30	43.10	53.70								
20.0	25.60	32.50	40.90	51.10	63.20							
25.0	24.00	30.60	38.70	48.50	60.10	73.70	79.80					
30.0	22.30	28.70	36.50	45.80	56.80	69.90	75.70	85.00	93.50			
35.0	20.70	26.80	34.20	43.00	53.60	66.00	71.50	80.40	88.50	97.20		
40.0	19.10	24.90	31.90	40.30	50.30	62.00	67.30	75.80	83.50	91.70	110.00	131.00
45.0	17.45	22.90	29.50	37.50	46.90	58.00	63.00	71.10	78.30	86.20	103.50	123.50
50.0	15.80	21.00	27.20	34.60	43.50	54.00	58.70	66.30	73.20	80.60	97.10	116.00
55.0	14.20	19.05	24.80	31.80	40.10	49.90	54.30	61.40	67.90	74.90	90.50	108.50
60.0		17.10	22.50	28.90	36.60	45.80	49.90	56.60	62.60	69.20	83.80	100.50
65.0			20.10	26.10	33.20	41.60	45.50	51.70	57.30	63.40	77.20	93.00
70.0			17.80	23.20	29.70	37.50	41.00	46.70	52.00	57.60	70.40	85.20
75.0				20.30	26.20	33.30	36.50	41.80	46.60	51.80	63.60	77.40
80.0				17.50	22.70	29.10	32.00	36.80	41.20	46.00	56.80	69.60

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	7.11	7.33	7.21									
15.0	7.73	8.18	8.35	8.15								
20.0	8.26	8.91	9.34	9.46	9.17							
25.0	8.71	9.53	10.20	10.60	10.65	10.30	9.99					
30.0	9.08	10.05	10.95	11.60	12.00	12.00	11.85	11.50	11.05			
35.0	9.41	10.50	11.60	12.50	13.20	13.55	13.55	13.45	13.25	12.85		
40.0	9.70	10.90	12.15	13.25	14.20	14.90	15.05	15.20	15.20	15.05	14.35	13.00
45.0	9.97	11.25	12.60	13.95	15.15	16.10	16.40	16.80	16.95	17.05	16.80	16.00
50.0	10.25	11.55	13.05	14.50	15.95	17.20	17.65	18.20	18.60	18.85	19.10	18.75
55.0	10.50	11.85	13.40	15.05	16.65	18.15	18.70	19.45	20.00	20.50	21.10	21.30
60.0		12.20	13.75	15.50	17.30	19.00	19.70	20.60	21.30	22.00	23.00	23.60
65.0			14.10	15.95	17.85	19.80	20.60	21.70	22.50	23.30	24.70	25.80
70.0			14.45	16.35	18.40	20.50	21.40	22.60	23.60	24.60	26.30	27.70
75.0				16.75	18.90	21.20	22.10	23.40	24.60	25.70	27.70	29.60
80.0				17.20	19.40	21.80	22.80	24.20	25.50	26.70	29.10	31.20

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	22.28	22.51	22.42									
15.0	22.72	23.16	23.36	23.17								
20.0	23.11	23.74	24.21	24.37	24.08							
25.0	23.48	24.27	24.99	25.47	25.57	25.15	24.80					
30.0	23.82	24.76	25.69	26.48	26.96	26.98	26.84	26.41	25.86			
35.0	24.14	25.20	26.34	27.39	28.23	28.69	28.74	28.63	28.35	27.89		
40.0	24.44	25.61	26.92	28.23	29.40	30.27	30.50	30.69	30.69	30.53	29.62	27.81
45.0	24.75	25.99	27.45	29.00	30.47	31.73	32.14	32.62	32.88	33.00	32.70	31.60
50.0	25.05	26.35	27.94	29.70	31.46	33.08	33.66	34.41	34.93	35.31	35.62	35.19
55.0	25.37	26.69	28.40	30.34	32.37	34.33	35.06	36.08	36.83	37.47	38.35	38.58
60.0		27.03	28.83	30.93	33.20	35.48	36.37	37.63	38.61	39.50	40.93	41.78
65.0			29.23	31.48	33.96	36.54	37.57	39.07	40.26	41.38	43.35	44.81
70.0			29.62	31.99	34.67	37.52	38.68	40.40	41.80	43.14	45.61	47.66
75.0				32.46	35.32	38.43	39.71	41.63	43.22	44.78	47.74	50.35
80.0				32.92	35.93	39.26	40.65	42.77	44.55	46.31	49.73	52.87

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	158.50	196.00	241.00									
15.0	156.00	193.50	239.00	292.00								
20.0	153.50	191.00	236.00	290.00	352.00							
25.0	150.00	188.00	233.00	286.00	348.00	419.00	451.00					
30.0	147.00	184.50	230.00	282.00	344.00	415.00	446.00	496.00	540.00			
35.0	143.00	181.00	226.00	278.00	339.00	410.00	441.00	490.00	534.00	581.00		
40.0	139.00	177.00	221.00	274.00	334.00	404.00	435.00	484.00	527.00	574.00	676.00	789.00
45.0	134.50	172.50	217.00	268.00	328.00	397.00	428.00	477.00	520.00	566.00	667.00	780.00
50.0	129.50	167.50	211.00	263.00	322.00	390.00	421.00	469.00	512.00	558.00	658.00	771.00
55.0	124.00	162.00	206.00	256.00	315.00	383.00	413.00	460.00	503.00	548.00	648.00	760.00
60.0		156.00	199.50	250.00	307.00	374.00	404.00	451.00	493.00	538.00	637.00	749.00
65.0			193.00	242.00	299.00	365.00	394.00	441.00	483.00	528.00	626.00	737.00
70.0			185.50	234.00	290.00	355.00	384.00	430.00	472.00	516.00	614.00	725.00
75.0				226.00	281.00	345.00	373.00	419.00	460.00	504.00	602.00	712.00
80.0				217.00	271.00	334.00	362.00	408.00	448.00	492.00	590.00	700.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /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	1430
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

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

<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