



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 20 °C Suction Gas Return
- 0 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MKD-35X

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	12.5	15.0	20.0	25.0
16.0	16.35												
20.0	15.60	20.20											
25.0	14.65	19.15	24.80	31.60									
30.0	13.55	18.00	23.40	30.00	37.90	47.20							
35.0	12.45	16.75	22.00	28.30	35.90	44.90	55.30	59.90	67.30	73.90			
40.0	11.25	15.40	20.40	26.50	33.80	42.30	52.30	56.70	63.80	70.20	77.00	92.00	
45.0	10.00	14.00	18.80	24.60	31.50	39.70	49.20	53.40	60.20	66.30	72.80	87.20	103.50
50.0	8.75	12.55	17.15	22.60	29.20	36.90	45.90	49.90	56.40	62.20	68.40	82.10	97.60
55.0	7.50	11.10	15.40	20.60	26.70	34.00	42.60	46.30	52.40	58.00	63.80	76.90	91.70
60.0	6.26	9.62	13.65	18.45	24.20	31.10	39.10	42.60	48.40	53.60	59.10	71.50	85.50
65.0	5.07	8.17	11.90	16.35	21.70	28.00	35.50	38.80	44.20	49.00	54.30	65.90	79.10
70.0	3.93	6.75	10.15	14.20	19.10	24.90	31.80	34.90	39.90	44.40	49.30	60.20	72.60
75.0		5.39	8.42	12.10	16.50	21.80	28.10	30.90	35.50	39.70	44.20	54.30	66.00
80.0			6.75	9.97	13.90	18.65	24.30	26.90	31.10	34.90	39.10	48.40	59.20
85.0			5.15	7.92	11.30	15.50	20.60	22.90	26.60	30.10	33.90	42.40	52.30

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	6.42												
20.0	6.74	7.31											
25.0	7.05	7.76	8.39	8.88									
30.0	7.30	8.12	8.91	9.60	10.10	10.35							
35.0	7.47	8.41	9.34	10.20	10.95	11.45	11.70	11.70	11.60	11.40			
40.0	7.59	8.62	9.69	10.75	11.65	12.40	12.95	13.05	13.15	13.10	13.00	12.35	
45.0	7.66	8.77	9.96	11.15	12.30	13.25	14.05	14.30	14.55	14.70	14.75	14.50	13.80
50.0	7.68	8.86	10.15	11.50	12.80	14.00	15.05	15.40	15.85	16.15	16.35	16.50	16.20
55.0	7.66	8.91	10.30	11.75	13.25	14.65	15.95	16.40	17.05	17.50	17.85	18.35	18.40
60.0	7.61	8.91	10.40	11.95	13.60	15.20	16.75	17.30	18.10	18.70	19.20	20.00	20.50
65.0	7.55	8.87	10.40	12.10	13.90	15.70	17.40	18.10	19.05	19.75	20.40	21.60	22.40
70.0	7.46	8.81	10.40	12.20	14.10	16.10	18.00	18.80	19.85	20.70	21.60	23.00	24.20
75.0		8.73	10.40	12.25	14.30	16.40	18.55	19.40	20.60	21.60	22.60	24.40	25.90
80.0			10.30	12.25	14.40	16.65	19.00	19.90	21.30	22.40	23.50	25.60	27.40
85.0			10.25	12.25	14.50	16.90	19.35	20.40	21.90	23.10	24.30	26.70	28.80

50 Hz

4MKD-35X

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	12.5	15.0	20.0	25.0
16.0	21.78												
20.0	21.99	22.43											
25.0	22.21	22.76	23.32	23.78									
30.0	22.40	23.04	23.75	24.42	24.95	25.22							
35.0	22.55	23.28	24.13	24.99	25.76	26.34	26.61	26.61	26.47	26.21			
40.0	22.66	23.47	24.45	25.50	26.50	27.37	27.98	28.13	28.23	28.19	28.03	27.25	
45.0	22.74	23.61	24.72	25.93	27.17	28.31	29.25	29.55	29.89	30.06	30.12	29.84	28.93
50.0	22.78	23.72	24.92	26.31	27.75	29.16	30.43	30.87	31.44	31.82	32.10	32.29	31.92
55.0	22.79	23.77	25.08	26.61	28.27	29.93	31.50	32.08	32.88	33.46	33.95	34.62	34.77
60.0	22.77	23.78	25.18	26.85	28.70	30.61	32.49	33.20	34.22	34.99	35.70	36.82	37.48
65.0	22.71	23.75	25.23	27.03	29.06	31.21	33.38	34.22	35.45	36.41	37.32	38.89	40.05
70.0	22.63	23.68	25.22	27.15	29.35	31.73	34.17	35.14	36.57	37.73	38.83	40.84	42.49
75.0		23.57	25.16	27.20	29.57	32.16	34.87	35.96	37.59	38.93	40.22	42.66	44.79
80.0			25.06	27.19	29.71	32.50	35.47	36.68	38.51	40.02	41.50	44.36	46.96
85.0			24.90	27.12	29.78	32.77	35.99	37.31	39.32	41.00	42.67	45.93	48.99

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	102.00												
20.0	101.50	128.50											
25.0	99.50	127.00	161.00	201.00									
30.0	96.90	125.50	159.50	199.50	247.00	300.00							
35.0	93.50	122.50	157.50	198.00	245.00	299.00	360.00	387.00	430.00	467.00			
40.0	89.40	119.00	154.50	195.00	243.00	297.00	358.00	385.00	427.00	465.00	505.00	591.00	
45.0	84.60	115.00	150.50	191.50	239.00	293.00	355.00	382.00	424.00	462.00	502.00	588.00	682.00
50.0	79.00	110.00	145.50	187.00	235.00	289.00	350.00	377.00	420.00	457.00	497.00	583.00	678.00
55.0	72.70	104.00	140.00	181.50	229.00	283.00	345.00	371.00	414.00	451.00	491.00	577.00	672.00
60.0	65.70	97.40	133.50	175.00	222.00	276.00	338.00	364.00	406.00	444.00	484.00	570.00	665.00
65.0	58.00	89.90	126.00	167.50	214.00	268.00	329.00	356.00	398.00	435.00	475.00	561.00	656.00
70.0	49.50	81.70	117.50	158.50	205.00	259.00	319.00	346.00	388.00	425.00	464.00	550.00	646.00
75.0		72.60	108.50	149.00	195.00	248.00	308.00	334.00	376.00	413.00	453.00	538.00	634.00
80.0			97.90	138.00	183.50	236.00	295.00	321.00	363.00	400.00	439.00	525.00	621.00
85.0			86.30	125.50	170.50	222.00	281.00	307.00	348.00	386.00	425.00	511.00	608.00

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	605
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