



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

4MID-30X

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	13.25												
20.0	12.55	16.45											
25.0	11.55	15.35	20.10	25.80									
30.0	10.55	14.20	18.75	24.20	30.80	38.60							
35.0	9.53	13.05	17.35	22.60	28.90	36.30	45.00	48.80	55.00	60.50			
40.0	8.48	11.80	15.95	20.90	26.90	34.00	42.20	45.90	51.80	57.10	62.70	75.20	
45.0	7.43	10.60	14.50	19.25	24.90	31.60	39.40	42.90	48.50	53.50	58.90	70.80	84.20
50.0	6.38	9.38	13.05	17.50	22.80	29.10	36.50	39.80	45.10	49.90	55.00	66.30	79.10
55.0	5.36	8.16	11.60	15.75	20.70	26.60	33.60	36.70	41.70	46.20	51.00	61.70	73.80
60.0	4.38	6.97	10.15	14.00	18.60	24.10	30.60	33.50	38.20	42.40	47.00	57.00	68.50
65.0	3.45	5.82	8.72	12.25	16.50	21.60	27.60	30.30	34.70	38.60	42.90	52.30	63.10
70.0	2.58	4.72	7.34	10.55	14.40	19.05	24.60	27.10	31.10	34.80	38.70	47.50	57.70
75.0		3.68	6.00	8.85	12.35	16.55	21.60	23.90	27.60	30.90	34.60	42.70	52.20
80.0			4.74	7.23	10.30	14.05	18.60	20.60	24.00	27.10	30.40	37.90	46.60
85.0			3.55	5.68	8.33	11.60	15.60	17.45	20.50	23.20	26.30	33.10	41.10

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	5.15												
20.0	5.39	5.83											
25.0	5.64	6.19	6.64	6.99									
30.0	5.84	6.48	7.05	7.52	7.89	8.12							
35.0	5.98	6.73	7.40	8.00	8.49	8.87	9.12	9.18	9.22	9.21			
40.0	6.06	6.91	7.70	8.42	9.05	9.57	9.97	10.10	10.25	10.30	10.35	10.30	
45.0	6.09	7.04	7.94	8.78	9.55	10.20	10.75	10.95	11.20	11.35	11.50	11.65	11.60
50.0	6.06	7.11	8.13	9.09	9.99	10.80	11.50	11.75	12.10	12.35	12.60	12.90	13.05
55.0	5.97	7.13	8.26	9.35	10.40	11.35	12.20	12.55	13.00	13.30	13.60	14.15	14.50
60.0	5.82	7.08	8.33	9.55	10.70	11.80	12.85	13.25	13.80	14.20	14.60	15.30	15.85
65.0	5.62	6.99	8.35	9.69	11.00	12.25	13.45	13.90	14.55	15.05	15.55	16.45	17.20
70.0	5.36	6.83	8.31	9.78	11.20	12.60	13.95	14.50	15.25	15.85	16.40	17.50	18.45
75.0		6.62	8.21	9.81	11.40	12.95	14.45	15.05	15.90	16.60	17.25	18.50	19.70
80.0			8.06	9.78	11.50	13.20	14.85	15.50	16.50	17.25	18.00	19.50	20.90
85.0			7.85	9.70	11.55	13.40	15.25	15.95	17.00	17.90	18.75	20.40	22.00

50 Hz

4MID-30X

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	17.49												
20.0	17.68	18.05											
25.0	17.90	18.33	18.73	19.06									
30.0	18.07	18.58	19.08	19.52	19.87	20.10							
35.0	18.20	18.79	19.38	19.95	20.44	20.84	21.09	21.15	21.17	21.13			
40.0	18.29	18.96	19.65	20.34	20.99	21.55	22.00	22.14	22.30	22.38	22.40	22.28	
45.0	18.33	19.08	19.88	20.70	21.50	22.24	22.88	23.11	23.40	23.60	23.75	23.89	23.80
50.0	18.32	19.15	20.06	21.01	21.97	22.88	23.73	24.04	24.47	24.79	25.07	25.48	25.68
55.0	18.24	19.17	20.20	21.28	22.39	23.49	24.55	24.95	25.51	25.95	26.36	27.05	27.54
60.0	18.11	19.13	20.28	21.50	22.78	24.06	25.32	25.81	26.52	27.09	27.62	28.59	29.38
65.0	17.92	19.04	20.30	21.67	23.11	24.58	26.06	26.64	27.49	28.18	28.85	30.10	31.19
70.0	17.66	18.88	20.26	21.78	23.39	25.06	26.75	27.42	28.42	29.24	30.04	31.57	32.97
75.0		18.65	20.16	21.83	23.61	25.48	27.38	28.15	29.30	30.25	31.18	33.00	34.72
80.0			19.99	21.81	23.78	25.84	27.97	28.83	30.13	31.21	32.28	34.39	36.43
85.0			19.75	21.73	23.87	26.14	28.50	29.46	30.91	32.12	33.33	35.74	38.09

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	83.10												
20.0	81.30	104.00											
25.0	78.60	102.00	130.00	163.50									
30.0	75.40	99.00	127.50	161.00	200.00	246.00							
35.0	71.70	95.60	124.00	158.00	197.00	242.00	293.00	316.00	351.00	383.00			
40.0	67.50	91.60	120.50	154.00	193.00	238.00	289.00	312.00	347.00	378.00	411.00	483.00	
45.0	62.80	87.10	116.00	149.50	188.50	233.00	284.00	306.00	342.00	373.00	406.00	477.00	556.00
50.0	57.60	82.10	111.00	144.50	183.50	228.00	279.00	301.00	336.00	367.00	400.00	471.00	549.00
55.0	52.00	76.60	105.50	139.00	177.50	222.00	272.00	294.00	329.00	360.00	392.00	463.00	541.00
60.0	45.90	70.60	99.20	132.50	170.50	215.00	265.00	286.00	321.00	352.00	384.00	455.00	533.00
65.0	39.40	64.10	92.50	125.50	163.00	207.00	256.00	278.00	312.00	343.00	375.00	445.00	523.00
70.0	32.50	57.10	85.20	117.50	155.00	198.00	247.00	268.00	302.00	333.00	365.00	435.00	513.00
75.0		49.60	77.30	109.00	146.00	188.00	237.00	258.00	292.00	322.00	354.00	423.00	501.00
80.0			68.70	99.90	136.00	177.50	225.00	246.00	280.00	310.00	342.00	411.00	489.00
85.0			59.50	90.00	125.00	166.00	213.00	234.00	268.00	298.00	329.00	399.00	477.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /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	605
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

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