



Minimum Evaporating Temp. With:

- 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

4MLD-15X

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
16.0	12.80								
20.0	12.15	15.85							
25.0	11.30	14.85	19.30	24.70					
30.0	10.45	13.80	18.05	23.20	29.30	36.60			
35.0	9.52	12.75	16.80	21.70	27.50	34.40	42.40	45.90	51.50
40.0	8.61	11.70	15.50	20.10	25.70	32.20	39.80	43.10	48.50
45.0	7.71	10.60	14.20	18.55	23.80	29.90	37.10	40.30	45.40
50.0	6.81	9.53	12.90	16.95	21.90	27.60	34.40	37.40	42.30
55.0	5.93	8.46	11.60	15.35	19.95	25.30	31.70	34.50	39.10
60.0	5.09	7.42	10.30	13.80	18.00	23.00	29.00	31.60	35.90
65.0	4.29	6.40	9.01	12.20	16.05	20.70	26.20	28.70	32.70
70.0	3.55	5.44	7.78	10.65	14.15	18.40	23.50	25.70	29.50
75.0		4.52	6.58	9.13	12.25	16.10	20.70	22.80	26.20
80.0			5.44	7.66	10.40	13.80	17.95	19.85	23.00
85.0			4.36	6.24	8.60	11.55	15.20	16.90	19.70

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	4.49								
20.0	4.68	5.08							
25.0	4.88	5.38	5.83	6.19					
30.0	5.06	5.65	6.20	6.69	7.09	7.39			
35.0	5.21	5.89	6.54	7.15	7.68	8.13	8.45	8.55	8.64
40.0	5.33	6.09	6.84	7.56	8.22	8.81	9.30	9.46	9.66
45.0	5.43	6.26	7.09	7.92	8.71	9.43	10.10	10.30	10.60
50.0	5.49	6.39	7.31	8.23	9.14	10.00	10.80	11.10	11.50
55.0	5.52	6.48	7.48	8.50	9.51	10.50	11.45	11.80	12.30
60.0	5.52	6.54	7.61	8.71	9.83	10.95	12.00	12.45	13.05
65.0	5.49	6.55	7.69	8.88	10.10	11.30	12.55	13.00	13.70
70.0	5.43	6.53	7.72	8.99	10.30	11.65	12.95	13.50	14.30
75.0		6.46	7.71	9.04	10.45	11.90	13.35	13.90	14.80
80.0			7.65	9.05	10.55	12.05	13.65	14.25	15.20
85.0			7.54	9.00	10.55	12.15	13.85	14.55	15.55

50 Hz

4MLD-15X

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
16.0	12.89								
20.0	13.03	13.43							
25.0	13.21	13.70	14.15	14.53					
30.0	13.37	13.95	14.52	15.04	15.48	15.80			
35.0	13.52	14.18	14.87	15.53	16.14	16.66	17.05	17.16	17.28
40.0	13.66	14.39	15.18	15.98	16.76	17.47	18.08	18.29	18.56
45.0	13.76	14.57	15.46	16.39	17.33	18.23	19.06	19.36	19.78
50.0	13.84	14.72	15.70	16.76	17.85	18.93	19.97	20.37	20.94
55.0	13.89	14.83	15.90	17.08	18.31	19.57	20.82	21.31	22.02
60.0	13.89	14.89	16.05	17.34	18.72	20.15	21.60	22.18	23.03
65.0	13.86	14.90	16.14	17.54	19.06	20.66	22.30	22.97	23.96
70.0	13.77	14.86	16.18	17.68	19.33	21.09	22.93	23.67	24.80
75.0		14.76	16.15	17.75	19.52	21.44	23.46	24.29	25.55
80.0			16.05	17.74	19.64	21.71	23.91	24.82	26.21
85.0			15.88	17.66	19.67	21.89	24.26	25.25	26.76

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
16.0	80.30								
20.0	78.90	100.50							
25.0	76.80	98.50	125.00	156.50					
30.0	74.40	96.20	123.00	154.00	191.00	233.00			
35.0	71.60	93.50	120.00	151.50	187.50	229.00	276.00	297.00	329.00
40.0	68.60	90.50	117.00	148.00	184.00	225.00	272.00	293.00	325.00
45.0	65.20	87.10	113.50	144.50	180.00	221.00	268.00	288.00	320.00
50.0	61.50	83.40	109.50	140.00	175.50	216.00	262.00	283.00	314.00
55.0	57.60	79.40	105.50	135.50	170.50	211.00	257.00	277.00	308.00
60.0	53.40	75.10	100.50	130.50	165.00	205.00	250.00	270.00	302.00
65.0	49.10	70.50	95.60	125.00	159.00	198.50	243.00	263.00	294.00
70.0	44.80	65.70	90.30	119.00	152.50	191.00	235.00	255.00	286.00
75.0		60.90	84.70	112.50	145.00	183.00	227.00	246.00	277.00
80.0			78.90	106.00	137.50	174.50	218.00	237.00	268.00
85.0			73.10	98.90	129.50	165.50	208.00	227.00	258.00

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

Number of cylinders	4
Displacement @ 50 Hz, m <sup>3</sup> /h	71.4
Bore/Stroke, mm	68.3/56.0
Length/Width, mm	638/501
Height, mm	452
Net Weight, kg	186
Suction, inch	1 5/8
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	68
Sound Power (MT), dBA	79
Sound Power with Sound Shell (MT), dBA	65
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	35.4
Locked Rotor Current, A	156
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
Crankcase Heater	100 W Internal
Sound Attenuation	Sound Shell
Mounting Parts	Rubber
Additional Cooling	70 W Vertical Air Flow Fan
Oil Pressure Switch	OPS2 Electronic Switch
Digital Modulation	50-100 %
Adapter Kit	For Parallel Operation
Digital Driver	EC3-D23
Copeland Compressor Electronic module	Modbus extension module

### **MOTOR OPTIONS**

<b>Motor Code</b>	<b>Power Supply</b>	<b>Nominal Voltage, V</b>	<b>Start Connection</b>	<b>DOL Connection</b>	<b>Amps Factor</b>
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