



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

4MUD-25X

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	16.50								
20.0	15.65	20.50							
25.0	14.65	19.20	25.00	32.20					
30.0	13.55	17.95	23.50	30.30	38.40	48.00			
35.0	12.50	16.70	21.90	28.40	36.10	45.20	55.80	60.40	67.90
40.0	11.45	15.40	20.40	26.40	33.70	42.40	52.40	56.90	64.00
45.0	10.35	14.10	18.80	24.50	31.40	39.50	49.00	53.30	60.10
50.0	9.30	12.80	17.20	22.60	29.00	36.70	45.70	49.70	56.10
55.0	8.25	11.55	15.60	20.60	26.60	33.80	42.30	46.00	52.10
60.0	7.21	10.25	14.05	18.65	24.30	30.90	38.80	42.40	48.10
65.0	6.18	9.00	12.45	16.70	21.90	28.00	35.40	38.70	44.00
70.0	5.19	7.75	10.90	14.80	19.50	25.20	31.90	35.00	40.00
75.0		6.53	9.37	12.85	17.10	22.30	28.50	31.30	35.90
80.0			7.85	10.95	14.75	19.40	25.00	27.60	31.80
85.0			6.36	9.05	12.40	16.50	21.60	23.90	27.70

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
16.0	6.16								
20.0	6.42	7.06							
25.0	6.73	7.48	8.17	8.79					
30.0	7.02	7.87	8.69	9.45	10.15	10.70			
35.0	7.27	8.23	9.17	10.05	10.90	11.65	12.30	12.50	12.75
40.0	7.49	8.54	9.60	10.65	11.60	12.55	13.35	13.65	14.05
45.0	7.67	8.82	9.99	11.15	12.30	13.35	14.35	14.70	15.25
50.0	7.82	9.06	10.35	11.60	12.90	14.10	15.30	15.75	16.35
55.0	7.92	9.24	10.60	12.05	13.45	14.80	16.15	16.65	17.40
60.0	7.97	9.38	10.85	12.35	13.90	15.45	16.95	17.55	18.40
65.0	7.98	9.47	11.05	12.65	14.30	16.00	17.65	18.30	19.30
70.0	7.94	9.49	11.15	12.90	14.65	16.50	18.30	19.00	20.10
75.0		9.46	11.20	13.05	14.95	16.90	18.85	19.65	20.80
80.0			11.20	13.10	15.15	17.20	19.30	20.20	21.40
85.0			11.10	13.10	15.25	17.45	19.70	20.60	22.00

50 Hz

4MUD-25X

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	18.05								
20.0	18.23	18.76							
25.0	18.45	19.11	19.78	20.41					
30.0	18.69	19.45	20.27	21.09	21.85	22.49			
35.0	18.91	19.79	20.75	21.74	22.71	23.61	24.37	24.63	24.95
40.0	19.12	20.11	21.21	22.37	23.55	24.68	25.71	26.09	26.60
45.0	19.31	20.40	21.63	22.96	24.34	25.70	27.00	27.49	28.19
50.0	19.46	20.65	22.02	23.51	25.08	26.67	28.23	28.83	29.71
55.0	19.58	20.86	22.35	24.00	25.76	27.57	29.39	30.11	31.16
60.0	19.66	21.02	22.63	24.43	26.37	28.41	30.47	31.30	32.52
65.0	19.67	21.12	22.84	24.79	26.92	29.16	31.47	32.41	33.80
70.0	19.63	21.15	22.98	25.07	27.37	29.83	32.38	33.42	34.98
75.0		21.10	23.04	25.27	27.74	30.40	33.18	34.33	36.06
80.0			23.01	25.37	28.01	30.86	33.88	35.12	37.02
85.0			22.89	25.37	28.17	31.21	34.46	35.80	37.85

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	103.50								
20.0	101.50	130.00							
25.0	99.40	127.50	162.50	204.00					
30.0	96.80	125.00	160.00	201.00	250.00	305.00			
35.0	94.10	122.50	157.00	198.00	246.00	301.00	364.00	391.00	434.00
40.0	91.00	119.50	153.50	194.50	242.00	297.00	359.00	386.00	429.00
45.0	87.70	116.00	150.00	190.50	238.00	292.00	354.00	381.00	423.00
50.0	84.00	112.50	146.50	186.50	233.00	287.00	348.00	375.00	417.00
55.0	80.00	108.50	142.00	182.00	228.00	281.00	342.00	369.00	411.00
60.0	75.60	104.00	137.50	176.50	222.00	275.00	336.00	362.00	404.00
65.0	70.80	99.10	132.50	171.00	216.00	269.00	328.00	355.00	397.00
70.0	65.50	93.80	126.50	165.00	210.00	261.00	321.00	347.00	389.00
75.0		87.90	120.50	158.50	202.00	253.00	312.00	338.00	380.00
80.0			114.00	151.00	194.50	245.00	304.00	330.00	371.00
85.0			106.50	143.50	186.00	236.00	295.00	321.00	363.00

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

Number of cylinders	4
Displacement @ 50 Hz, m <sup>3</sup> /h	99.4
Bore/Stroke, mm	80.6/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	192
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	72
Sound Power (MT), dBA	83
Sound Power with Sound Shell (MT), dBA	68
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	51.9
Locked Rotor Current, A	199
Default Enclosure Class	IP 54 (IEC 34)

### **ACCESSORIES INCLUDED**

CoreSense Protection (-P)	Motor protection
Mounting Parts	Spring
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
Mounting Parts	Rubber
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Oil Pressure Switch	OPS2 Electronic Switch
Sound Attenuation	Sound Shell
Adapter Kit	For Parallel Operation
Digital Modulation	50-100 %
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