



Minimum Evaporating Temp. With:

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

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MH-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	12.5	15.0	20.0	25.0
10.0	13.95	17.75	22.50	28.30									
15.0	13.30	17.00	21.60	27.20	33.90								
20.0	12.55	16.15	20.60	26.00	32.40	40.00							
25.0	11.75	15.20	19.50	24.70	30.90	38.20	46.60						
30.0	10.90	14.25	18.40	23.40	29.30	36.20	44.30	47.90	53.60	58.70			
35.0	10.05	13.25	17.20	22.00	27.60	34.20	41.90	45.30	50.70	55.60	60.80		
40.0	9.15	12.25	16.00	20.50	25.90	32.10	39.40	42.60	47.70	52.30	57.20		
45.0	8.25	11.20	14.75	19.05	24.10	30.00	36.80	39.90	44.70	49.00	53.70		
50.0	7.34	10.15	13.50	17.50	22.30	27.80	34.20	37.00	41.60	45.60	50.00		
55.0		9.07	12.20	15.95	20.40	25.60	31.50	34.20	38.40	42.20	46.20		
60.0		8.01	10.95	14.40	18.50	23.30	28.80	31.30	35.20	38.70	42.40		
65.0			9.68	12.90	16.65	21.00	26.10	28.40	32.00	35.20	38.60		
70.0			8.42	11.35	14.75	18.75	23.40	25.40	28.70	31.60	34.70		
75.0				9.81	12.90	16.45	20.60	22.50	25.40	28.00	30.80		
80.0				8.30	11.00	14.20	17.90	19.50	22.10	24.50	27.00		
85.0					9.19	11.95	15.15	16.60	18.85	20.90	23.10		

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
10.0	4.30	4.53	4.64	4.63									
15.0	4.63	4.95	5.17	5.26	5.23								
20.0	4.92	5.32	5.64	5.85	5.94	5.89							
25.0	5.15	5.65	6.06	6.38	6.59	6.67	6.62						
30.0	5.33	5.92	6.43	6.87	7.19	7.41	7.49	7.49	7.43	7.35			
35.0	5.45	6.14	6.76	7.30	7.75	8.10	8.32	8.37	8.41	8.40	8.35		
40.0	5.53	6.30	7.03	7.68	8.26	8.73	9.10	9.21	9.34	9.41	9.45		
45.0	5.55	6.42	7.25	8.01	8.71	9.32	9.83	10.00	10.20	10.35	10.50		
50.0	5.53	6.49	7.42	8.30	9.12	9.86	10.50	10.75	11.05	11.30	11.50		
55.0		6.50	7.53	8.53	9.47	10.35	11.15	11.45	11.85	12.15	12.45		
60.0		6.46	7.60	8.71	9.78	10.80	11.75	12.10	12.60	12.95	13.35		
65.0			7.62	8.84	10.05	11.20	12.25	12.65	13.25	13.75	14.20		
70.0			7.58	8.92	10.25	11.50	12.75	13.20	13.90	14.45	15.00		
75.0				8.95	10.40	11.80	13.20	13.70	14.50	15.15	15.75		
80.0				8.93	10.50	12.05	13.55	14.15	15.05	15.75	16.45		
85.0					10.55	12.25	13.90	14.55	15.55	16.30	17.10		

50 Hz

4MH-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	12.5	15.0	20.0	25.0
10.0	16.97	17.13	17.21	17.19									
15.0	17.17	17.38	17.54	17.61	17.56								
20.0	17.34	17.61	17.84	18.02	18.08	18.00							
25.0	17.50	17.82	18.13	18.40	18.59	18.65	18.55						
30.0	17.63	18.01	18.40	18.77	19.08	19.29	19.36	19.34	19.24	19.10			
35.0	17.73	18.17	18.64	19.12	19.56	19.91	20.15	20.20	20.22	20.19	20.10		
40.0	17.80	18.30	18.86	19.44	20.01	20.51	20.92	21.05	21.19	21.26	21.28		
45.0	17.84	18.40	19.05	19.74	20.43	21.09	21.67	21.87	22.13	22.31	22.44		
50.0	17.83	18.46	19.20	20.00	20.83	21.64	22.39	22.67	23.06	23.34	23.58		
55.0		18.49	19.32	20.23	21.19	22.16	23.09	23.45	23.95	24.34	24.70		
60.0		18.48	19.40	20.42	21.52	22.64	23.76	24.19	24.82	25.32	25.80		
65.0			19.43	20.58	21.81	23.10	24.39	24.90	25.66	26.27	26.86		
70.0			19.42	20.68	22.06	23.51	24.99	25.58	26.46	27.18	27.89		
75.0				20.75	22.27	23.88	25.55	26.22	27.23	28.06	28.89		
80.0				20.76	22.43	24.21	26.06	26.82	27.95	28.90	29.84		
85.0					22.54	24.49	26.53	27.37	28.64	29.70	30.76		

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	12.5	15.0	20.0	25.0
10.0	70.80	90.30	114.50	144.50									
15.0	69.80	89.40	114.00	144.00	180.00								
20.0	68.30	88.10	113.00	143.00	179.00	222.00							
25.0	66.50	86.50	111.00	141.50	177.50	220.00	271.00						
30.0	64.30	84.40	109.00	139.50	175.50	218.00	268.00	291.00	327.00	360.00			
35.0	61.90	82.00	107.00	137.00	172.50	215.00	265.00	288.00	324.00	356.00	392.00		
40.0	59.10	79.20	104.00	134.00	169.50	212.00	262.00	284.00	320.00	352.00	387.00		
45.0	55.90	76.10	100.50	130.50	166.00	208.00	257.00	279.00	315.00	347.00	382.00		
50.0	52.50	72.60	97.10	126.50	161.50	203.00	252.00	274.00	309.00	341.00	376.00		
55.0		68.80	93.00	122.00	157.00	198.00	246.00	268.00	303.00	335.00	369.00		
60.0		64.60	88.60	117.50	151.50	192.00	240.00	261.00	296.00	327.00	361.00		
65.0			83.70	112.00	145.50	185.50	233.00	254.00	288.00	319.00	352.00		
70.0			78.30	106.00	139.00	178.00	224.00	245.00	279.00	309.00	342.00		
75.0				99.60	132.00	170.00	215.00	236.00	269.00	299.00	332.00		
80.0				92.50	124.00	161.50	206.00	226.00	258.00	288.00	320.00		
85.0					115.50	151.50	195.00	215.00	247.00	276.00	308.00		

### **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	657/501
Height, mm	452
Net Weight, kg	187
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	66
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
Refrigerant's GWP	605
Refrigerant's classification	A1

### **COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)**

Maximum Operating Current, A	41.6
Locked Rotor Current, A	199
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
Capacity Control	Capacity Steps 50%
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
Adapter Kit	For Parallel Operation
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