COMPRESSOR DEFINITION

Designation	**FMX Y9C**
Nominal Voltage/Frequency	**230 V 43 -134 Hz**
Engineering Number	**513908312**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	230 / 43 -134	[V / Hz]	
4 Application type	Low-Medium Back Pressure (Fullmotion Compressors)		
4.1 Evaporating temperature range	-35°C to 0°C	(-31°F to 32°F)	
5 Motor type	BPM		
6 Starting torque	LST - Low Starting Torque		
7 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/7	[hp]
2 Displacement	8.74	[cm³] (0.533 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	22.000	
3 Lubricant charge	175	[ml] (5.92 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	4.8	[kg] (10.58 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 43-134 Hz 3~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	CF02E01 M 0.0 X	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	INVERTER FMX CF02E01	
6 Start winding resistance	20.00	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	20.00	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (43 /134 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (43 /134 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (43 /134 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V1300RPM**			**CECOMAF INDIRECT** **Static**		Evaporating temperature (Condensing temperature		**-25°C (-13°F)** **55°C (131°F))**	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
158	40	46	36	0.30		4.34	1.09	1.27

TEST CONDITIONS: **@220V2000RPM**			**CECOMAF INDIRECT** **Static**		Evaporating temperature (Condensing temperature		**-25°C (-13°F)** **55°C (131°F))**	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
247	62	72	55	0.44		4.52	1.14	1.32

TEST CONDITIONS: **@220V3000RPM**			**CECOMAF INDIRECT** **Static**		Evaporating temperature (Condensing temperature		**-25°C (-13°F)** **55°C (131°F))**	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
372	94	109	81	0.61		4.59	1.16	1.34

TEST CONDITIONS: **@220V4000RPM**			**CECOMAF INDIRECT** **Static**		Evaporating temperature (Condensing temperature		**-25°C (-13°F)** **55°C (131°F))**	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
451	114	132	104	0.80		4.34	1.09	1.27

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V1300RPM**		**CECOMAF-IND** **Static**			(Condensing temperature **35ºC (+95ºF))**					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	127	32	37	22	0.22	0.41	5.74	1.45	1.68
-30	**(-22)**	170	43	50	27	0.25	0.54	6.20	1.56	1.82
-25	**(-13)**	223	56	65	32	0.28	0.72	7.04	1.77	2.06
-20	**(- 4)**	287	72	84	35	0.31	0.92	8.18	2.06	2.40
-15	**(+ 5)**	366	92	107	38	0.33	1.18	9.57	2.41	2.80
-10	**(+14)**	459	116	135	41	0.36	1.48	11.13	2.80	3.26
-5	**(+23)**	570	144	167	44	0.38	1.84	12.81	3.23	3.75
0	**(+32)**	698	176	205	48	0.39	2.27	14.53	3.66	4.26

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **45ºC (+113ºF))**
@220V1300RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	103	26	30	23	0.22	0.36	4.60	1.16	1.35
-30	**(-22)**	142	36	42	29	0.25	0.49	4.94	1.25	1.45
-25	**(-13)**	190	48	56	34	0.29	0.66	5.54	1.40	1.62
-20	**(- 4)**	248	63	73	39	0.33	0.87	6.34	1.60	1.86
-15	**(+ 5)**	318	80	93	44	0.36	1.11	7.26	1.83	2.13
-10	**(+14)**	401	101	118	49	0.40	1.40	8.25	2.08	2.42
-5	**(+23)**	499	126	146	54	0.43	1.75	9.24	2.33	2.71
0	**(+32)**	614	155	180	60	0.47	2.16	10.15	2.56	2.98

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **55ºC (+131ºF))**
@220V1300RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	78	20	23	22	0.22	0.30	3.53	0.89	1.03
-30	**(-22)**	115	29	34	29	0.26	0.44	3.85	0.97	1.13
-25	**(-13)**	158	40	46	36	0.30	0.60	4.32	1.09	1.26
-20	**(- 4)**	210	53	61	43	0.35	0.80	4.86	1.23	1.42
-15	**(+ 5)**	271	68	79	51	0.40	1.04	5.42	1.37	1.59
-10	**(+14)**	344	87	101	59	0.45	1.32	5.93	1.49	1.74
-5	**(+23)**	430	108	126	68	0.51	1.66	6.32	1.59	1.85
0	**(+32)**	531	134	156	78	0.56	2.05	6.52	1.64	1.91

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **35ºC (+95ºF))**
@220V2000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	190	48	56	34	0.31	0.61	5.51	1.39	1.61
-30	**(-22)**	256	65	75	42	0.36	0.82	6.15	1.55	1.80
-25	**(-13)**	338	85	99	48	0.40	1.09	7.09	1.79	2.08
-20	**(- 4)**	439	111	129	53	0.44	1.41	8.25	2.08	2.42
-15	**(+ 5)**	559	141	164	59	0.48	1.80	9.51	2.40	2.79
-10	**(+14)**	701	177	205	65	0.53	2.26	10.79	2.72	3.16
-5	**(+23)**	866	218	254	72	0.59	2.80	11.99	3.02	3.51
0	**(+32)**	1057	266	310	82	0.67	3.44	13.00	3.28	3.81

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **45ºC (+113ºF))**
@220V2000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	159	40	46	35	0.31	0.55	4.53	1.14	1.33
-30	**(-22)**	218	55	64	44	0.37	0.76	4.97	1.25	1.46
-25	**(-13)**	291	73	85	51	0.42	1.01	5.70	1.44	1.67
-20	**(- 4)**	381	96	112	58	0.47	1.33	6.60	1.66	1.93
-15	**(+ 5)**	490	123	143	65	0.52	1.71	7.59	1.91	2.22
-10	**(+14)**	618	156	181	72	0.58	2.16	8.57	2.16	2.51
-5	**(+23)**	768	194	225	81	0.66	2.70	9.44	2.38	2.76
0	**(+32)**	943	238	276	93	0.75	3.32	10.10	2.54	2.96

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **55ºC (+131ºF))**
@220V2000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	132	33	39	36	0.32	0.50	3.70	0.93	1.08
-30	**(-22)**	183	46	54	46	0.38	0.70	3.98	1.00	1.17
-25	**(-13)**	247	62	72	55	0.44	0.94	4.51	1.14	1.32
-20	**(- 4)**	326	82	96	63	0.50	1.25	5.19	1.31	1.52
-15	**(+ 5)**	421	106	123	72	0.57	1.61	5.93	1.49	1.74
-10	**(+14)**	535	135	157	81	0.64	2.05	6.64	1.67	1.94
-5	**(+23)**	669	169	196	93	0.73	2.58	7.20	1.82	2.11
0	**(+32)**	825	208	242	106	0.84	3.19	7.54	1.90	2.21

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **35ºC (+95ºF))**
@220V3000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	266	67	78	52	0.43	0.85	5.10	1.28	1.49
-30	**(-22)**	376	95	110	64	0.49	1.21	5.90	1.49	1.73
-25	**(-13)**	506	127	148	74	0.56	1.62	6.84	1.72	2.00
-20	**(- 4)**	658	166	193	84	0.65	2.12	7.87	1.98	2.31
-15	**(+ 5)**	838	211	245	94	0.74	2.69	8.94	2.25	2.62
-10	**(+14)**	1047	264	307	105	0.82	3.38	9.99	2.52	2.93
-5	**(+23)**	1289	325	378	117	0.88	4.17	10.98	2.77	3.22
0	**(+32)**	1568	395	459	132	0.91	5.09	11.86	2.99	3.48

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **45ºC (+113ºF))**
@220V3000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	218	55	64	53	0.42	0.76	4.15	1.04	1.21
-30	**(-22)**	317	80	93	65	0.49	1.10	4.81	1.21	1.41
-25	**(-13)**	434	109	127	77	0.58	1.51	5.61	1.41	1.64
-20	**(- 4)**	570	144	167	88	0.68	1.99	6.48	1.63	1.90
-15	**(+ 5)**	730	184	214	99	0.79	2.55	7.39	1.86	2.16
-10	**(+14)**	917	231	269	111	0.88	3.21	8.27	2.08	2.42
-5	**(+23)**	1134	286	332	125	0.96	3.98	9.08	2.29	2.66
0	**(+32)**	1385	349	406	141	1.02	4.88	9.76	2.46	2.86

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **55ºC (+131ºF))**
@220V3000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	183	46	54	52	0.42	0.70	3.49	0.88	1.02
-30	**(-22)**	270	68	79	67	0.50	1.03	3.97	1.00	1.16
-25	**(-13)**	372	94	109	81	0.61	1.42	4.58	1.15	1.34
-20	**(- 4)**	490	124	144	93	0.72	1.87	5.25	1.32	1.54
-15	**(+ 5)**	629	159	184	107	0.84	2.41	5.95	1.50	1.74
-10	**(+14)**	793	200	232	121	0.96	3.04	6.61	1.66	1.94
-5	**(+23)**	983	248	288	137	1.06	3.78	7.18	1.81	2.11
0	**(+32)**	1204	304	353	155	1.13	4.64	7.63	1.92	2.24

TEST CONDITIONS: **CECOMAF-IND** (Condensing temperature **35ºC (+95ºF))**
@220V4000RPM **Static**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	316	80	92	64	0.50	1.01	4.91	1.24	1.44
-30	**(-22)**	462	116	135	82	0.64	1.48	5.65	1.42	1.66
-25	**(-13)**	647	163	190	100	0.78	2.07	6.43	1.62	1.89
-20	**(- 4)**	861	217	252	119	0.93	2.77	7.26	1.83	2.13
-15	**(+ 5)**	1094	276	320	135	1.05	3.53	8.12	2.05	2.38
-10	**(+14)**	1336	337	391	149	1.14	4.32	9.03	2.27	2.64
-5	**(+23)**	1578	398	462	158	1.18	5.10	9.96	2.51	2.92
0	**(+32)**	1810	456	530	161	1.16	5.85	10.92	2.75	3.20

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V4000RPM**		**CECOMAF-IND** **Static**			(Condensing temperature **45ºC (+113ºF))**				
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	270	68	79	66	0.51	0.94	4.09	1.03	1.20
-30	**(-22)**	390	98	114	83	0.64	1.35	4.70	1.19	1.38
-25	**(-13)**	550	139	161	102	0.79	1.91	5.37	1.35	1.57
-20	**(- 4)**	741	187	217	121	0.94	2.58	6.08	1.53	1.78
-15	**(+ 5)**	953	240	279	139	1.08	3.33	6.83	1.72	2.00
-10	**(+14)**	1177	297	345	155	1.20	4.12	7.62	1.92	2.23
-5	**(+23)**	1402	353	411	166	1.28	4.92	8.45	2.13	2.48
0	**(+32)**	1619	408	474	172	1.31	5.70	9.31	2.35	2.73

TEST CONDITIONS: **@220V4000RPM**		**CECOMAF-IND** **Static**			(Condensing temperature **55ºC (+131ºF))**				
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	224	56	65	68	0.54	0.85	3.31	0.83	0.97
-30	**(-22)**	316	80	93	85	0.66	1.21	3.81	0.96	1.12
-25	**(-13)**	451	114	132	104	0.80	1.72	4.36	1.10	1.28
-20	**(- 4)**	619	156	181	124	0.96	2.36	4.96	1.25	1.45
-15	**(+ 5)**	809	204	237	143	1.12	3.10	5.61	1.41	1.64
-10	**(+14)**	1013	255	297	161	1.26	3.89	6.30	1.59	1.84
-5	**(+23)**	1220	307	358	174	1.37	4.70	7.02	1.77	2.06
0	**(+32)**	1421	358	416	182	1.44	5.50	7.78	1.96	2.28

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard FMX		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 28° up + 25° to Back		
3.2 DISCHARGE	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 37° to Back		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 57° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		