COMPRESSOR DEFINITION

Designation	**FMX Y6C**
Nominal Voltage/Frequency	**230 V 43 -134 Hz**
Engineering Number	**513908223**

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	1/10	[hp]
2 Displacement	6.23	[cm³] (0.380 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	18.000	
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 - ELETRICAL 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	CF02D01 M 0.0 X	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	INVERTER CF02D01 M 0	
6 Start winding resistance	18.50	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	18.50	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (43 /134 Hz)	1.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (43 /134 Hz)	1.70	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (43 /134 Hz)	1.70	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V1300RPM**			**CECOMAFLBP** **Static**		Evaporating temperature (Condensing temperature	**-25°C (-13°F)** **55°C (131°F))**		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
94	24	28	23	0.21	0.36	4.14	1.04	1.21

TEST CONDITIONS: **@220V2000RPM**			**CECOMAFLBP** **Static**		Evaporating temperature (Condensing temperature	**-25°C (-13°F)** **55°C (131°F))**		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
154	39	45	34	0.28	0.59	4.53	1.14	1.33

TEST CONDITIONS: **@220V3000RPM**			**CECOMAFLBP** **Static**		Evaporating temperature (Condensing temperature	**-25°C (-13°F)** **55°C (131°F))**		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
239	60	70	52	0.39	0.91	4.61	1.16	1.35

TEST CONDITIONS: **@220V4000RPM**			**CECOMAFLBP** **Static**		Evaporating temperature (Condensing temperature	**-25°C (-13°F)** **55°C (131°F))**		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
321	81	94	70	0.55	1.22	4.57	1.15	1.34

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V1300RPM**		**CECOMAF** **Static**			(Condensing temperature **35ºC (+95ºF))**					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	76	19	22	15	0.16	0.24	5.15	1.30	1.51
-30	**(-22)**	110	28	32	18	0.17	0.35	6.03	1.52	1.77
-25	**(-13)**	152	38	44	22	0.19	0.49	7.03	1.77	2.06
-20	**(- 4)**	201	51	59	25	0.21	0.65	8.18	2.06	2.40
-15	**(+ 5)**	258	65	76	27	0.24	0.83	9.49	2.39	2.78
-10	**(+14)**	325	82	95	30	0.26	1.05	10.99	2.77	3.22
-5	**(+23)**	400	101	117	31	0.28	1.29	12.69	3.20	3.72
0	**(+32)**	485	122	142	32	0.28	1.57	14.63	3.69	4.29

E - PERFORMANCE - CURVES

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	62	16	18	15	0.17	0.22	4.11	1.04	1.20
-30	**(-22)**	88	22	26	19	0.18	0.31	4.75	1.20	1.39
-25	**(-13)**	122	31	36	22	0.20	0.43	5.46	1.37	1.60
-20	**(- 4)**	164	41	48	26	0.23	0.57	6.24	1.57	1.83
-15	**(+ 5)**	215	54	63	30	0.26	0.75	7.13	1.80	2.09
-10	**(+14)**	274	69	80	34	0.29	0.96	8.15	2.05	2.39
-5	**(+23)**	343	86	100	37	0.32	1.20	9.31	2.35	2.73
0	**(+32)**	421	106	123	40	0.34	1.48	10.65	2.68	3.12

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	50	13	15	16	0.19	0.19	3.16	0.80	0.93
-30	**(-22)**	69	17	20	19	0.19	0.26	3.69	0.93	1.08
-25	**(-13)**	95	24	28	23	0.21	0.36	4.22	1.06	1.24
-20	**(- 4)**	130	33	38	27	0.24	0.50	4.76	1.20	1.40
-15	**(+ 5)**	174	44	51	32	0.28	0.67	5.36	1.35	1.57
-10	**(+14)**	226	57	66	37	0.32	0.87	6.02	1.52	1.76
-5	**(+23)**	288	73	84	43	0.36	1.11	6.76	1.70	1.98
0	**(+32)**	360	91	105	48	0.39	1.39	7.62	1.92	2.23

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	128	32	38	23	0.20	0.41	5.43	1.37	1.59
-30	**(-22)**	179	45	52	28	0.22	0.57	6.29	1.59	1.84
-25	**(-13)**	238	60	70	33	0.26	0.76	7.24	1.83	2.12
-20	**(- 4)**	309	78	91	37	0.30	0.99	8.33	2.10	2.44
-15	**(+ 5)**	394	99	116	41	0.34	1.27	9.58	2.42	2.81
-10	**(+14)**	497	125	146	45	0.38	1.60	11.06	2.79	3.24
-5	**(+23)**	620	156	182	48	0.40	2.00	12.80	3.23	3.75
0	**(+32)**	766	193	224	52	0.41	2.49	14.85	3.74	4.35

E - PERFORMANCE - CURVES

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	95	24	28	23	0.22	0.33	4.25	1.07	1.25
-30	**(-22)**	141	36	41	28	0.24	0.49	4.98	1.26	1.46
-25	**(-13)**	195	49	57	34	0.28	0.68	5.73	1.44	1.68
-20	**(- 4)**	259	65	76	40	0.33	0.90	6.52	1.64	1.91
-15	**(+ 5)**	336	85	98	45	0.38	1.17	7.42	1.87	2.18
-10	**(+14)**	429	108	126	50	0.43	1.50	8.46	2.13	2.48
-5	**(+23)**	540	136	158	56	0.47	1.90	9.69	2.44	2.84
0	**(+32)**	673	170	197	61	0.50	2.37	11.16	2.81	3.27

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	71	18	21	23	0.23	0.27	3.12	0.79	0.91
-30	**(-22)**	112	28	33	29	0.25	0.43	3.85	0.97	1.13
-25	**(-13)**	159	40	47	35	0.29	0.61	4.52	1.14	1.32
-20	**(- 4)**	215	54	63	42	0.34	0.82	5.17	1.30	1.51
-15	**(+ 5)**	283	71	83	48	0.40	1.08	5.84	1.47	1.71
-10	**(+14)**	365	92	107	55	0.46	1.40	6.58	1.66	1.93
-5	**(+23)**	465	117	136	62	0.51	1.79	7.44	1.87	2.18
0	**(+32)**	585	147	171	70	0.55	2.25	8.45	2.13	2.48

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	186	47	54	36	0.29	0.60	5.20	1.31	1.52
-30	**(-22)**	256	64	75	42	0.32	0.82	6.05	1.52	1.77
-25	**(-13)**	347	87	102	50	0.37	1.11	6.99	1.76	2.05
-20	**(- 4)**	460	116	135	57	0.44	1.48	8.05	2.03	2.36
-15	**(+ 5)**	596	150	175	64	0.50	1.92	9.28	2.34	2.72
-10	**(+14)**	754	190	221	71	0.55	2.43	10.72	2.70	3.14
-5	**(+23)**	935	236	274	75	0.58	3.02	12.39	3.12	3.63
0	**(+32)**	1139	287	334	78	0.56	3.69	14.35	3.62	4.20

E - PERFORMANCE - CURVES

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	156	39	46	36	0.31	0.54	4.30	1.08	1.26
-30	**(-22)**	218	55	64	43	0.33	0.76	5.05	1.27	1.48
-25	**(-13)**	300	76	88	52	0.39	1.04	5.81	1.46	1.70
-20	**(- 4)**	401	101	117	60	0.47	1.40	6.61	1.67	1.94
-15	**(+ 5)**	521	131	153	69	0.55	1.82	7.49	1.89	2.20
-10	**(+14)**	661	167	194	78	0.62	2.32	8.49	2.14	2.49
-5	**(+23)**	822	207	241	85	0.67	2.89	9.64	2.43	2.83
0	**(+32)**	1003	253	294	91	0.68	3.53	10.99	2.77	3.22

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	109	27	32	37	0.33	0.41	2.95	0.74	0.86
-30	**(-22)**	166	42	49	44	0.35	0.63	3.79	0.96	1.11
-25	**(-13)**	239	60	70	53	0.40	0.91	4.56	1.15	1.34
-20	**(- 4)**	329	83	96	62	0.48	1.26	5.28	1.33	1.55
-15	**(+ 5)**	436	110	128	73	0.57	1.67	5.99	1.51	1.76
-10	**(+14)**	561	141	164	83	0.65	2.15	6.74	1.70	1.98
-5	**(+23)**	703	177	206	93	0.72	2.71	7.56	1.91	2.22
0	**(+32)**	863	218	253	102	0.75	3.33	8.49	2.14	2.49

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

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	211	53	62	47	0.35	0.68	4.52	1.14	1.33
-30	**(-22)**	308	78	90	56	0.44	0.99	5.45	1.37	1.60
-25	**(-13)**	422	106	124	67	0.53	1.36	6.32	1.59	1.85
-20	**(- 4)**	559	141	164	78	0.62	1.80	7.19	1.81	2.11
-15	**(+ 5)**	724	182	212	89	0.70	2.33	8.14	2.05	2.38
-10	**(+14)**	924	233	271	100	0.78	2.98	9.23	2.33	2.71
-5	**(+23)**	1164	293	341	110	0.85	3.76	10.54	2.66	3.09
0	**(+32)**	1450	365	425	120	0.92	4.71	12.14	3.06	3.56

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V4000RPM**	**CECOMAF Static**	(Condensing temperature **45ºC (+113ºF)**)

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	182	46	53	47	0.37	0.63	3.90	0.98	1.14
-30	**(-22)**	268	68	79	57	0.46	0.93	4.70	1.18	1.38
-25	**(-13)**	368	93	108	68	0.55	1.28	5.38	1.36	1.58
-20	**(- 4)**	487	123	143	81	0.64	1.70	6.02	1.52	1.77
-15	**(+ 5)**	632	159	185	94	0.73	2.21	6.69	1.69	1.96
-10	**(+14)**	807	203	237	108	0.83	2.83	7.45	1.88	2.18
-5	**(+23)**	1020	257	299	122	0.92	3.58	8.38	2.11	2.46
0	**(+32)**	1276	322	374	136	1.01	4.49	9.55	2.41	2.80

TEST CONDITIONS: **@220V4000RPM**	**CECOMAF Static**	(Condensing temperature **55ºC (+131ºF)**)

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	144	36	42	47	0.39	0.55	3.03	0.76	0.89
-30	**(-22)**	218	55	64	57	0.48	0.83	3.82	0.96	1.12
-25	**(-13)**	303	76	89	68	0.57	1.15	4.45	1.12	1.30
-20	**(- 4)**	404	102	118	81	0.67	1.54	4.98	1.26	1.46
-15	**(+ 5)**	526	133	154	96	0.77	2.02	5.49	1.38	1.61
-10	**(+14)**	677	171	198	112	0.87	2.60	6.05	1.52	1.77
-5	**(+23)**	862	217	253	128	0.98	3.32	6.72	1.69	1.97
0	**(+32)**	1087	274	318	145	1.09	4.18	7.58	1.91	2.22

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard FMX		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 45° up + 11° to Back		
3.2 DISCHARGE	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 45° up + 37° to Back		
3.3 PROCESS	6 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 45° up + 57° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		