

COMPRESSOR DEFINITION

Designation	FMX C6C
Nominal Voltage/Frequency	230 V 43 -134 Hz
Engineering Number	513908118

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 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm ²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm ²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/9	[hp]
2 Displacement	6.23	[cm ³] (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	-	[kgf/cm ²]

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	17.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	17.00	[Ω at 25°C (77°F)] +/- 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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V1300RPM			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature)	-23.3°C (-9.94°F) 54.4°C (129.92°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]
136	34	40	24	0.22	0.43	5.76	1.45	1.69

TEST CONDITIONS: @220V1600RPM			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature)	-23.3°C (-9.94°F) 54.4°C (129.92°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]
173	44	51	29	0.25	0.54	6.05	1.52	1.77

TEST CONDITIONS: @220V2000RPM			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature)	-23.3°C (-9.94°F) 54.4°C (129.92°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]
223	56	65	36	0.29	0.70	6.21	1.56	1.82

TEST CONDITIONS: @220V3000RPM			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature)	-23.3°C (-9.94°F) 54.4°C (129.92°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]
333	84	98	55	0.41	1.05	6.09	1.53	1.78

TEST CONDITIONS: @220V4000RPM			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature)	-23.3°C (-9.94°F) 54.4°C (129.92°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]
407	103	119	71	0.52	1.28	5.77	1.45	1.69

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1300RPM		ASHRAE32 Static			(Condensing temperature 35°C (+95°F))					
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]
-35	(-31)	76	19	22	13	0.17	0.24	5.67	1.43	1.66
-30	(-22)	112	28	33	16	0.19	0.35	6.76	1.70	1.98
-25	(-13)	152	38	45	19	0.21	0.48	7.83	1.97	2.30
-20	(- 4)	200	50	58	22	0.23	0.63	9.01	2.27	2.64
-15	(+ 5)	257	65	75	25	0.25	0.81	10.41	2.62	3.05
-10	(+14)	327	82	96	27	0.26	1.03	12.17	3.07	3.57
-5	(+23)	412	104	121	29	0.26	1.30	14.40	3.63	4.22
0	(+32)	515	130	151	30	0.24	1.63	17.24	4.34	5.05

TEST CONDITIONS: @220V1300RPM		ASHRAE32 Static			(Condensing temperature 45°C (+113°F))					
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]
-35	(-31)	65	16	19	14	0.18	0.20	4.58	1.15	1.34
-30	(-22)	100	25	29	18	0.19	0.31	5.70	1.44	1.67
-25	(-13)	139	35	41	21	0.21	0.44	6.66	1.68	1.95
-20	(- 4)	184	46	54	24	0.24	0.58	7.58	1.91	2.22
-15	(+ 5)	237	60	69	28	0.26	0.75	8.60	2.17	2.52
-10	(+14)	302	76	88	31	0.28	0.95	9.82	2.48	2.88
-5	(+23)	380	96	111	33	0.29	1.20	11.39	2.87	3.34
0	(+32)	475	120	139	36	0.28	1.51	13.42	3.38	3.93

TEST CONDITIONS: @220V1300RPM		ASHRAE32 Static			(Condensing temperature 55°C (+131°F))					
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]
-35	(-31)	43	11	13	15	0.18	0.13	2.91	0.73	0.85
-30	(-22)	80	20	24	18	0.19	0.25	4.30	1.08	1.26
-25	(-13)	120	30	35	22	0.21	0.38	5.40	1.36	1.58
-20	(- 4)	164	41	48	26	0.24	0.52	6.32	1.59	1.85
-15	(+ 5)	216	54	63	30	0.27	0.68	7.19	1.81	2.11
-10	(+14)	278	70	81	34	0.30	0.88	8.14	2.05	2.38
-5	(+23)	352	89	103	38	0.32	1.11	9.28	2.34	2.72
0	(+32)	442	111	129	42	0.33	1.40	10.75	2.71	3.15

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		ASHRAE32 Static			(Condensing temperature 35°C (+95°F))					
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	21	0.21	0.40	6.17	1.56	1.81	
-30 (-22)	183	46	53	26	0.25	0.57	7.12	1.79	2.09	
-25 (-13)	245	62	72	30	0.27	0.77	8.17	2.06	2.40	
-20 (- 4)	317	80	93	34	0.29	1.00	9.33	2.35	2.74	
-15 (+ 5)	400	101	117	38	0.31	1.26	10.60	2.67	3.11	
-10 (+14)	496	125	145	41	0.33	1.56	11.97	3.02	3.51	
-5 (+23)	607	153	178	45	0.35	1.92	13.44	3.39	3.94	
0 (+32)	734	185	215	49	0.39	2.33	15.02	3.79	4.40	

TEST CONDITIONS: @220V2000RPM		ASHRAE32 Static			(Condensing temperature 45°C (+113°F))					
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)	103	26	30	21	0.22	0.32	4.91	1.24	1.44	
-30 (-22)	155	39	45	27	0.25	0.49	5.77	1.45	1.69	
-25 (-13)	216	54	63	32	0.28	0.68	6.71	1.69	1.97	
-20 (- 4)	287	72	84	37	0.30	0.90	7.74	1.95	2.27	
-15 (+ 5)	371	94	109	42	0.32	1.17	8.86	2.23	2.60	
-10 (+14)	469	118	137	47	0.35	1.48	10.07	2.54	2.95	
-5 (+23)	583	147	171	51	0.39	1.84	11.36	2.86	3.33	
0 (+32)	714	180	209	57	0.44	2.26	12.74	3.21	3.73	

TEST CONDITIONS: @220V2000RPM		ASHRAE32 Static			(Condensing temperature 55°C (+131°F))					
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	22	0.22	0.30	4.34	1.09	1.27	
-30 (-22)	142	36	42	28	0.25	0.45	5.09	1.28	1.49	
-25 (-13)	199	50	58	34	0.28	0.63	5.90	1.49	1.73	
-20 (- 4)	268	68	79	40	0.31	0.84	6.79	1.71	1.99	
-15 (+ 5)	351	88	103	45	0.34	1.10	7.74	1.95	2.27	
-10 (+14)	448	113	131	51	0.38	1.42	8.76	2.21	2.57	
-5 (+23)	563	142	165	57	0.44	1.78	9.85	2.48	2.89	
0 (+32)	696	175	204	63	0.52	2.21	11.01	2.77	3.23	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3000RPM		ASHRAE32 Static			(Condensing temperature 35°C (+95°F))					
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)	191	48	56	33	0.28	0.60	5.72	1.44	1.68	
-30 (-22)	271	68	79	40	0.31	0.85	6.69	1.69	1.96	
-25 (-13)	364	92	107	47	0.36	1.14	7.75	1.95	2.27	
-20 (- 4)	474	119	139	53	0.42	1.49	8.92	2.25	2.61	
-15 (+ 5)	605	152	177	59	0.48	1.90	10.25	2.58	3.00	
-10 (+14)	762	192	223	65	0.54	2.40	11.76	2.96	3.45	
-5 (+23)	949	239	278	70	0.59	3.00	13.50	3.40	3.96	
0 (+32)	1171	295	343	76	0.63	3.71	15.51	3.91	4.54	

TEST CONDITIONS: @220V3000RPM		ASHRAE32 Static			(Condensing temperature 45°C (+113°F))					
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)	169	43	50	34	0.28	0.53	4.95	1.25	1.45	
-30 (-22)	247	62	72	42	0.32	0.77	5.86	1.48	1.72	
-25 (-13)	337	85	99	50	0.38	1.06	6.79	1.71	1.99	
-20 (- 4)	443	112	130	57	0.46	1.39	7.78	1.96	2.28	
-15 (+ 5)	570	144	167	64	0.54	1.79	8.87	2.23	2.60	
-10 (+14)	722	182	212	72	0.63	2.28	10.08	2.54	2.95	
-5 (+23)	904	228	265	79	0.71	2.86	11.45	2.89	3.36	
0 (+32)	1120	282	328	87	0.78	3.55	13.02	3.28	3.82	

TEST CONDITIONS: @220V3000RPM		ASHRAE32 Static			(Condensing temperature 55°C (+131°F))					
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)	130	33	38	35	0.28	0.41	3.75	0.95	1.10	
-30 (-22)	208	53	61	43	0.32	0.65	4.76	1.20	1.40	
-25 (-13)	298	75	87	52	0.39	0.94	5.73	1.44	1.68	
-20 (- 4)	403	102	118	60	0.48	1.27	6.69	1.69	1.96	
-15 (+ 5)	529	133	155	69	0.58	1.67	7.68	1.94	2.25	
-10 (+14)	679	171	199	78	0.69	2.14	8.74	2.20	2.56	
-5 (+23)	858	216	251	87	0.80	2.71	9.90	2.49	2.90	
0 (+32)	1070	270	314	96	0.91	3.39	11.19	2.82	3.28	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4000RPM		ASHRAE32 Static			(Condensing temperature 35°C (+95°F))					
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)	259	65	76	48	0.36	0.81	5.39	1.36	1.58	
-30 (-22)	348	88	102	55	0.39	1.09	6.36	1.60	1.86	
-25 (-13)	471	119	138	63	0.47	1.48	7.40	1.87	2.17	
-20 (- 4)	626	158	184	74	0.59	1.97	8.49	2.14	2.49	
-15 (+ 5)	815	205	239	85	0.72	2.57	9.59	2.42	2.81	
-10 (+14)	1038	262	304	97	0.83	3.27	10.68	2.69	3.13	
-5 (+23)	1295	326	379	110	0.89	4.09	11.75	2.96	3.44	
0 (+32)	1586	400	465	123	0.89	5.03	12.77	3.22	3.74	

TEST CONDITIONS: @220V4000RPM		ASHRAE32 Static			(Condensing temperature 45°C (+113°F))					
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)	235	59	69	49	0.38	0.74	4.80	1.21	1.41	
-30 (-22)	313	79	92	56	0.40	0.98	5.66	1.43	1.66	
-25 (-13)	424	107	124	65	0.49	1.33	6.58	1.66	1.93	
-20 (- 4)	569	143	167	75	0.61	1.79	7.55	1.90	2.21	
-15 (+ 5)	749	189	219	88	0.75	2.36	8.54	2.15	2.50	
-10 (+14)	963	243	282	101	0.88	3.04	9.53	2.40	2.79	
-5 (+23)	1211	305	355	115	0.97	3.83	10.49	2.64	3.07	
0 (+32)	1495	377	438	130	1.00	4.74	11.40	2.87	3.34	

TEST CONDITIONS: @220V4000RPM		ASHRAE32 Static			(Condensing temperature 55°C (+131°F))					
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)	181	46	53	51	0.39	0.57	3.58	0.90	1.05	
-30 (-22)	254	64	74	58	0.40	0.80	4.45	1.12	1.30	
-25 (-13)	361	91	106	67	0.49	1.13	5.38	1.36	1.58	
-20 (- 4)	503	127	147	79	0.62	1.58	6.36	1.60	1.86	
-15 (+ 5)	680	171	199	92	0.77	2.14	7.36	1.86	2.16	
-10 (+14)	892	225	261	107	0.92	2.82	8.36	2.11	2.45	
-5 (+23)	1140	287	334	122	1.03	3.61	9.34	2.35	2.74	
0 (+32)	1423	359	417	138	1.09	4.51	10.27	2.59	3.01	

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 + 45° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 15° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		