

COMPRESSOR DEFINITION

Designation	FMX C11C
Nominal Voltage/Frequency	230 V 43-160 Hz
Engineering Number	503908285

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	230 / 43-160	[V / Hz]	
4 Application type	Low-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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)	Static	187 to 255 V	-
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	1/3	[hp]
2 Displacement	10.85	[cm ³] (0.662 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	24.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	5	[kg] (11.02 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 43-160 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	
6 Start winding resistance	14.16	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	14.16	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (43/160 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (43/160 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (43/160 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

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]
303	76	89	48	0.40	0.95	6.26	1.58	1.83

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]
450	113	132	72	0.58	1.41	6.29	1.59	1.84

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]
659	166	193	107	0.87	2.07	6.19	1.56	1.81

TEST CONDITIONS: @220V4500RPM			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]
890	224	261	159	1.31	2.79	5.60	1.41	1.64

TEST CONDITIONS: @220V4800RPM			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]
919	232	269	166	1.36	2.89	5.54	1.40	1.62

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	160	40	47	28	0.23	0.50	6.12	1.54	1.79	
-30 (-22)	266	67	78	32	0.27	0.83	7.62	1.92	2.23	
-25 (-13)	334	84	98	38	0.31	1.05	8.43	2.13	2.47	
-20 (- 4)	389	98	114	43	0.35	1.22	8.96	2.26	2.62	
-15 (+ 5)	457	115	134	48	0.39	1.44	9.57	2.41	2.80	
-10 (+14)	564	142	165	54	0.43	1.78	10.65	2.68	3.12	
-5 (+23)	734	185	215	58	0.47	2.32	12.59	3.17	3.69	

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	172	43	50	29	0.25	0.54	5.87	1.48	1.72	
-30 (-22)	249	63	73	35	0.29	0.78	6.76	1.70	1.98	
-25 (-13)	300	76	88	41	0.34	0.94	7.12	1.79	2.08	
-20 (- 4)	351	89	103	48	0.39	1.10	7.33	1.85	2.15	
-15 (+ 5)	429	108	126	56	0.45	1.35	7.78	1.96	2.28	
-10 (+14)	557	140	163	63	0.50	1.76	8.85	2.23	2.59	
-5 (+23)	762	192	223	70	0.56	2.41	10.92	2.75	3.20	

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	165	42	48	29	0.24	0.52	5.44	1.37	1.60	
-30 (-22)	202	51	59	36	0.30	0.63	5.62	1.42	1.65	
-25 (-13)	227	57	66	45	0.36	0.71	5.41	1.36	1.59	
-20 (- 4)	265	67	78	54	0.44	0.83	5.20	1.31	1.53	
-15 (+ 5)	341	86	100	63	0.51	1.07	5.38	1.36	1.58	
-10 (+14)	482	121	141	73	0.59	1.52	6.33	1.60	1.86	
-5 (+23)	712	179	209	83	0.67	2.25	8.44	2.13	2.47	

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)	267	67	78	43	0.34	0.84	6.20	1.56	1.82	
-30 (-22)	349	88	102	51	0.41	1.09	6.86	1.73	2.01	
-25 (-13)	451	114	132	59	0.47	1.41	7.67	1.93	2.25	
-20 (- 4)	574	145	168	67	0.53	1.80	8.60	2.17	2.52	
-15 (+ 5)	721	182	211	75	0.59	2.27	9.59	2.42	2.81	
-10 (+14)	891	224	261	84	0.66	2.81	10.64	2.68	3.12	
-5 (+23)	1085	274	318	93	0.75	3.43	11.69	2.94	3.42	

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)	253	64	74	45	0.37	0.79	5.62	1.42	1.65	
-30 (-22)	332	84	97	54	0.44	1.04	6.14	1.55	1.80	
-25 (-13)	434	109	127	64	0.50	1.36	6.81	1.72	2.00	
-20 (- 4)	560	141	164	73	0.57	1.76	7.60	1.92	2.23	
-15 (+ 5)	710	179	208	84	0.65	2.24	8.47	2.14	2.48	
-10 (+14)	886	223	260	94	0.74	2.80	9.39	2.37	2.75	
-5 (+23)	1089	274	319	105	0.85	3.44	10.33	2.60	3.03	

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)	243	61	71	46	0.37	0.76	5.22	1.32	1.53	
-30 (-22)	313	79	92	57	0.45	0.98	5.56	1.40	1.63	
-25 (-13)	408	103	120	67	0.53	1.28	6.06	1.53	1.78	
-20 (- 4)	528	133	155	79	0.61	1.66	6.69	1.69	1.96	
-15 (+ 5)	675	170	198	91	0.71	2.13	7.41	1.87	2.17	
-10 (+14)	850	214	249	104	0.83	2.68	8.18	2.06	2.40	
-5 (+23)	1054	266	309	118	0.96	3.33	8.97	2.26	2.63	

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)	437	110	128	65	0.51	1.37	6.12	1.54	1.79	
-30 (-22)	431	109	126	77	0.61	1.35	6.07	1.53	1.78	
-25 (-13)	556	140	163	90	0.71	1.74	6.68	1.68	1.96	
-20 (- 4)	775	195	227	104	0.83	2.43	7.67	1.93	2.25	
-15 (+ 5)	1050	265	308	119	0.96	3.31	8.79	2.22	2.58	
-10 (+14)	1344	339	394	136	1.10	4.24	9.77	2.46	2.86	
-5 (+23)	1619	408	474	156	1.26	5.12	10.35	2.61	3.03	

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)	293	74	86	68	0.54	0.92	4.96	1.25	1.45	
-30 (-22)	441	111	129	81	0.64	1.38	5.67	1.43	1.66	
-25 (-13)	658	166	193	96	0.75	2.07	6.70	1.69	1.96	
-20 (- 4)	909	229	266	111	0.88	2.86	7.79	1.96	2.28	
-15 (+ 5)	1154	291	338	128	1.02	3.64	8.69	2.19	2.55	
-10 (+14)	1358	342	398	147	1.17	4.28	9.12	2.30	2.67	
-5 (+23)	1482	373	434	169	1.35	4.69	8.83	2.22	2.59	

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)	348	88	102	68	0.54	1.09	5.03	1.27	1.47	
-30 (-22)	493	124	144	84	0.66	1.55	5.62	1.42	1.65	
-25 (-13)	647	163	190	100	0.79	2.03	6.22	1.57	1.82	
-20 (- 4)	774	195	227	118	0.94	2.43	6.55	1.65	1.92	
-15 (+ 5)	834	210	245	137	1.11	2.63	6.35	1.60	1.86	
-10 (+14)	792	200	232	158	1.29	2.50	5.37	1.35	1.57	
-5 (+23)	610	154	179	183	1.49	1.93	3.33	0.84	0.98	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4800RPM		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)	525	132	154	103	0.79	1.64	5.11	1.29	1.50	
-30 (-22)	680	171	199	122	0.93	2.13	5.62	1.42	1.65	
-25 (-13)	909	229	266	146	1.15	2.85	6.20	1.56	1.82	
-20 (- 4)	1186	299	348	173	1.40	3.73	6.82	1.72	2.00	
-15 (+ 5)	1488	375	436	199	1.63	4.68	7.49	1.89	2.19	
-10 (+14)	1792	451	525	220	1.79	5.65	8.18	2.06	2.40	
-5 (+23)	2072	522	607	233	1.83	6.55	8.90	2.24	2.61	

TEST CONDITIONS: @220V4800RPM		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)	479	121	140	100	0.80	1.50	4.79	1.21	1.40	
-30 (-22)	639	161	187	123	0.96	2.00	5.25	1.32	1.54	
-25 (-13)	870	219	255	151	1.20	2.73	5.77	1.45	1.69	
-20 (- 4)	1150	290	337	180	1.47	3.61	6.35	1.60	1.86	
-15 (+ 5)	1454	366	426	208	1.73	4.58	6.98	1.76	2.04	
-10 (+14)	1758	443	515	231	1.92	5.54	7.64	1.92	2.24	
-5 (+23)	2038	514	597	245	1.99	6.44	8.32	2.10	2.44	

TEST CONDITIONS: @220V4800RPM		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)	426	107	125	100	0.80	1.34	4.25	1.07	1.24	
-30 (-22)	581	146	170	125	0.96	1.82	4.72	1.19	1.38	
-25 (-13)	807	203	236	154	1.20	2.53	5.25	1.32	1.54	
-20 (- 4)	1080	272	316	184	1.48	3.39	5.85	1.47	1.71	
-15 (+ 5)	1376	347	403	212	1.74	4.33	6.50	1.64	1.90	
-10 (+14)	1672	421	490	234	1.94	5.27	7.18	1.81	2.10	
-5 (+23)	1943	490	569	246	2.02	6.14	7.89	1.99	2.31	

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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 42° up + 45° 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 10° up + 10° 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 63° up + 49° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		