

COMPRESSOR DEFINITION

Designation	J 7225E
Nominal Voltage/Frequency	230 V 60 Hz / 200 V 50 Hz
Engineering Number	162AJ01

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	230 / 60	[V / Hz]	
4 Application type	Air Conditioning		
4.1 Evaporating temperature range	0°C to 15°C	(32°F to 59°F)	
5 Motor type	PSC		
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 pressures/temperature			
9.1 Operating (gauge)	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm ²] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	21.71	[cm ³] (1.325 cu.in)
2.1 Bore [mm]	38.087	
2.2 Stroke [mm]	19.066	
3 Lubricant charge	890	[ml] (30.10 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO32	
4 Weight (with oil charge)	19.1	[kg] (42.11 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 60 Hz / 200 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PSC	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	15(450)	[µF(VAC minimum)]
5 Motor protection	T0809/C9	
6 Start winding resistance	11.04	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.72	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	35.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	6.80	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°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]
9821	2475	2878	1132	5.40	60.65	8.68	2.19	2.54

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V50Hz			ASHRAE46 Fan		(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]
0 (+32)	7997	2015	2343	899	5.11	0.00	8.89	2.24	2.61
+5 (+41)	10197	2570	2988	951	5.32	0.00	10.72	2.70	3.14
+10 (+50)	12892	3249	3778	983	5.49	0.00	13.13	3.31	3.85
+15 (+59)	16084	4053	4713	995	5.62	0.00	16.15	4.07	4.73

TEST CONDITIONS: @230V50Hz			ASHRAE46 Fan		(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]
0 (+32)	7460	1880	2186	985	5.49	0.00	7.59	1.91	2.22
+5 (+41)	9538	2404	2795	1064	5.87	0.00	8.95	2.26	2.62
+10 (+50)	12080	3044	3540	1126	6.19	0.00	10.71	2.70	3.14
+15 (+59)	15086	3802	4421	1172	6.46	0.00	12.89	3.25	3.78

TEST CONDITIONS: @230V50Hz			ASHRAE46 Fan		(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]
0 (+32)	6902	1739	2022	1075	5.89	0.00	6.41	1.62	1.88
+5 (+41)	8852	2231	2594	1182	6.44	0.00	7.50	1.89	2.20
+10 (+50)	11233	2831	3291	1275	6.92	0.00	8.81	2.22	2.58
+15 (+59)	14045	3539	4116	1356	7.33	0.00	10.35	2.61	3.03

TEST CONDITIONS: @230V60Hz			ASHRAE46 Fan		(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]
0 (+32)	9356	2358	2742	1058	5.22	0.00	8.84	2.23	2.59
+5 (+41)	11930	3006	3496	1116	5.43	0.00	10.69	2.69	3.13
+10 (+50)	15084	3801	4420	1153	5.60	0.00	13.10	3.30	3.84
+15 (+59)	18819	4742	5514	1170	5.74	0.00	16.08	4.05	4.71

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		ASHRAE46 Fan			(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]
0	(+32)	8729	2200	2558	1159	5.60	0.00	7.54	1.90	2.21
+5	(+41)	11160	2812	3270	1247	5.99	0.00	8.94	2.25	2.62
+10	(+50)	14133	3562	4141	1318	6.32	0.00	10.71	2.70	3.14
+15	(+59)	17650	4448	5172	1371	6.59	0.00	12.89	3.25	3.78

TEST CONDITIONS: @230V60Hz		ASHRAE46 Fan			(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]
0	(+32)	8075	2035	2366	1265	6.01	0.00	6.37	1.61	1.87
+5	(+41)	10357	2610	3035	1384	6.57	0.00	7.50	1.89	2.20
+10	(+50)	13143	3312	3851	1489	7.07	0.00	8.83	2.22	2.59
+15	(+59)	16433	4141	4815	1580	7.48	0.00	10.40	2.62	3.05

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		