

COMPRESSOR DEFINITION

Designation	NJ 7225F
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	142GD11

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	208-230 / 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	HST - High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
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		[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	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO32	
4 Weight (with oil charge)	19.3	[kg] (42.55 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	PSC	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	T0875/C9	
6 Start winding resistance	6.70	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.63	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[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: @200V50Hz			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]
9846	2481	2885	1244	6.90	60.81	7.91	1.99	2.32

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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	977	5.28	0.00	8.18	2.06	2.40
+5 (+41)	10197	2570	2988	1054	5.65	0.00	9.67	2.44	2.83
+10 (+50)	12892	3249	3778	1124	5.94	0.00	11.48	2.89	3.36
+15 (+59)	16084	4053	4713	1185	6.14	0.00	13.57	3.42	3.98

TEST CONDITIONS: @200V50Hz			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	1036	5.68	0.00	7.20	1.82	2.11
+5 (+41)	9538	2404	2795	1126	6.15	0.00	8.47	2.13	2.48
+10 (+50)	12080	3044	3540	1210	6.53	0.00	9.98	2.52	2.93
+15 (+59)	15086	3802	4421	1287	6.82	0.00	11.73	2.96	3.44

TEST CONDITIONS: @200V50Hz			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	1097	6.09	0.00	6.29	1.59	1.84
+5 (+41)	8852	2231	2594	1200	6.67	0.00	7.38	1.86	2.16
+10 (+50)	11233	2831	3291	1299	7.15	0.00	8.65	2.18	2.53
+15 (+59)	14045	3539	4116	1392	7.51	0.00	10.09	2.54	2.96

TEST CONDITIONS: @200V60Hz			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	1149	5.39	0.00	8.14	2.05	2.39
+5 (+41)	11930	3006	3496	1236	5.77	0.00	9.65	2.43	2.83
+10 (+50)	15084	3801	4420	1313	6.06	0.00	11.49	2.89	3.37
+15 (+59)	18819	4742	5514	1383	6.27	0.00	13.61	3.43	3.99

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		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	1218	5.79	0.00	7.17	1.81	2.10
+5	(+41)	11160	2812	3270	1319	6.28	0.00	8.46	2.13	2.48
+10	(+50)	14133	3562	4141	1412	6.67	0.00	10.01	2.52	2.93
+15	(+59)	17650	4448	5172	1499	6.95	0.00	11.78	2.97	3.45

TEST CONDITIONS: @200V60Hz		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	1290	6.21	0.00	6.26	1.58	1.83
+5	(+41)	10357	2610	3035	1405	6.81	0.00	7.37	1.86	2.16
+10	(+50)	13143	3312	3851	1515	7.30	0.00	8.68	2.19	2.54
+15	(+59)	16433	4141	4815	1620	7.67	0.00	10.14	2.56	2.97

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	6.42 +0.08/+0.00	[mm]	(0.253" +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		