

COMPRESSOR DEFINITION

Designation	NJ X6250GS
Nominal Voltage/Frequency	400 V 50 Hz / 440 V 60 Hz
Engineering Number	945BS21

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	400 / 50	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	3PHASE		
6 Starting torque	HST - Hight 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 temperature			
9.1 Operating	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	2	[hp]
2 Displacement	37.88	[cm ³] (2.312 cu.in)
2.1 Bore [mm]	44.980	
2.2 Stroke [mm]	23.850	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	21.7	[kg] (47.84 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	400 V 50 Hz / 440 V 60 Hz 3 ~ (Three phase)	
2 Starting device type	3PHASE	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	34HM293-50	
6 Start winding resistance	7.77	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	7.77	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	23.00/23.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @440V60Hz			EN12900MBP Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
12842	3236	3763	2149	3.47	113.04	5.98	1.51	1.75

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V50Hz			EN12900 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]
-20	(- 4)	8911	2246	2611	1356	2.91	67.65	6.56	1.65	1.92
-15	(+ 5)	10990	2770	3220	1493	3.11	84.24	7.37	1.86	2.16
-10	(+14)	13426	3383	3934	1631	3.31	103.76	8.24	2.08	2.41
-5	(+23)	16219	4087	4753	1770	3.50	126.58	9.16	2.31	2.68
0	(+32)	19369	4881	5676	1910	3.67	153.07	10.14	2.55	2.97
+5	(+41)	22876	5765	6703	2051	3.84	183.60	11.15	2.81	3.27
+10	(+50)	26739	6738	7835	2194	3.99	218.55	12.20	3.07	3.57

TEST CONDITIONS: @440V50Hz			EN12900 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]
-20	(- 4)	7321	1845	2145	1452	3.06	63.22	5.04	1.27	1.48
-15	(+ 5)	9132	2301	2676	1618	3.26	79.63	5.64	1.42	1.65
-10	(+14)	11236	2831	3292	1782	3.47	98.89	6.31	1.59	1.85
-5	(+23)	13631	3435	3994	1943	3.68	121.37	7.02	1.77	2.06
0	(+32)	16319	4112	4782	2102	3.89	147.45	7.77	1.96	2.28
+5	(+41)	19299	4863	5655	2258	4.10	177.49	8.55	2.15	2.51
+10	(+50)	22570	5688	6614	2412	4.31	211.87	9.35	2.36	2.74

TEST CONDITIONS: @440V50Hz			EN12900 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]
-20	(- 4)	5714	1440	1674	1510	3.13	58.08	3.79	0.95	1.11
-15	(+ 5)	7197	1814	2109	1718	3.33	73.89	4.19	1.06	1.23
-10	(+14)	8906	2244	2610	1920	3.55	92.48	4.63	1.17	1.36
-5	(+23)	10843	2733	3177	2116	3.78	114.21	5.12	1.29	1.50
0	(+32)	13008	3278	3812	2305	4.03	139.45	5.65	1.42	1.65
+5	(+41)	15399	3881	4512	2489	4.29	168.58	6.19	1.56	1.81
+10	(+50)	18017	4540	5279	2667	4.56	201.97	6.75	1.70	1.98

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V60Hz		EN12900 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]
-20	(- 4)	10233	2579	2999	1614	2.86	77.73	6.33	1.60	1.86
-15	(+ 5)	12696	3199	3720	1792	3.09	97.31	7.09	1.79	2.08
-10	(+14)	15535	3915	4552	1985	3.33	120.03	7.83	1.97	2.29
-5	(+23)	18749	4725	5494	2192	3.59	146.30	8.55	2.16	2.51
0	(+32)	22338	5629	6546	2413	3.89	176.52	9.25	2.33	2.71
+5	(+41)	26302	6628	7707	2648	4.22	211.11	9.93	2.50	2.91
+10	(+50)	30642	7722	8979	2897	4.59	250.47	10.58	2.67	3.10

TEST CONDITIONS: @440V60Hz		EN12900 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]
-20	(- 4)	8201	2067	2403	1692	2.95	70.77	4.84	1.22	1.42
-15	(+ 5)	10402	2621	3048	1915	3.22	90.69	5.43	1.37	1.59
-10	(+14)	12892	3249	3778	2143	3.50	113.50	6.02	1.52	1.76
-5	(+23)	15673	3949	4592	2375	3.79	139.59	6.60	1.66	1.94
0	(+32)	18742	4723	5492	2613	4.10	169.38	7.18	1.81	2.10
+5	(+41)	22101	5569	6476	2856	4.43	203.27	7.74	1.95	2.27
+10	(+50)	25749	6489	7545	3104	4.80	241.67	8.28	2.09	2.43

TEST CONDITIONS: @440V60Hz		EN12900 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]
-20	(- 4)	6233	1571	1827	1708	3.02	63.36	3.66	0.92	1.07
-15	(+ 5)	8100	2041	2373	1996	3.36	83.17	4.05	1.02	1.19
-10	(+14)	10170	2563	2980	2280	3.71	105.60	4.45	1.12	1.30
-5	(+23)	12443	3136	3646	2559	4.06	131.05	4.86	1.22	1.42
0	(+32)	14920	3760	4372	2835	4.42	159.94	5.26	1.33	1.54
+5	(+41)	17600	4435	5157	3106	4.79	192.66	5.67	1.43	1.66
+10	(+50)	20483	5162	6002	3374	5.18	229.63	6.07	1.53	1.78

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.81 +0.04/-0.04	[mm]	(0.504" +0.002"/-0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8.04 +0.04/-0.04	[mm]	(0.317" +0.002"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+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		