

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			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]
23606	5949	6917	3186	4.87	194.34	7.41	1.87	2.17

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V50Hz		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]
-20	(- 4)	10089	2542	2956	1358	2.98	64.03	7.43	1.87	2.18
-15	(+ 5)	12437	3134	3644	1493	3.13	79.42	8.34	2.10	2.44
-10	(+14)	15207	3832	4456	1631	3.29	97.68	9.33	2.35	2.73
-5	(+23)	18399	4637	5391	1770	3.46	119.03	10.39	2.62	3.05
0	(+32)	22014	5547	6451	1911	3.63	143.67	11.51	2.90	3.37
+5	(+41)	26051	6565	7634	2054	3.81	171.80	12.68	3.20	3.72
+10	(+50)	30510	7689	8940	2199	4.00	203.63	13.88	3.50	4.07

TEST CONDITIONS: @440V50Hz		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]
-20	(- 4)	8597	2166	2519	1459	3.04	60.20	5.89	1.48	1.73
-15	(+ 5)	10682	2692	3130	1624	3.27	75.31	6.58	1.66	1.93
-10	(+14)	13127	3308	3847	1787	3.49	93.17	7.35	1.85	2.15
-5	(+23)	15931	4015	4668	1950	3.70	113.97	8.17	2.06	2.39
0	(+32)	19093	4811	5595	2111	3.91	137.94	9.05	2.28	2.65
+5	(+41)	22614	5699	6627	2270	4.10	165.26	9.96	2.51	2.92
+10	(+50)	26495	6677	7764	2428	4.29	196.16	10.91	2.75	3.20

TEST CONDITIONS: @440V50Hz		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]
-20	(- 4)	7019	1769	2057	1531	3.09	55.21	4.59	1.16	1.35
-15	(+ 5)	8834	2226	2589	1739	3.43	69.95	5.08	1.28	1.49
-10	(+14)	10944	2758	3207	1942	3.75	87.30	5.63	1.42	1.65
-5	(+23)	13350	3364	3912	2141	4.03	107.48	6.23	1.57	1.83
0	(+32)	16052	4045	4704	2335	4.30	130.68	6.88	1.73	2.01
+5	(+41)	19049	4800	5582	2525	4.54	157.11	7.55	1.90	2.21
+10	(+50)	22341	5630	6546	2711	4.76	186.99	8.24	2.08	2.41

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V60Hz		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]
-20 (- 4)	11644	2934	3412	1629	2.87	73.90	7.14	1.80	2.09	
-15 (+ 5)	14452	3642	4235	1814	3.12	92.28	7.97	2.01	2.34	
-10 (+14)	17685	4457	5182	2010	3.37	113.60	8.80	2.22	2.58	
-5 (+23)	21342	5378	6254	2216	3.63	138.06	9.63	2.43	2.82	
0 (+32)	25423	6407	7449	2432	3.91	165.91	10.45	2.63	3.06	
+5 (+41)	29928	7542	8770	2660	4.19	197.37	11.25	2.84	3.30	
+10 (+50)	34858	8784	10214	2897	4.49	232.66	12.04	3.03	3.53	

TEST CONDITIONS: @440V60Hz		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]
-20 (- 4)	9731	2452	2851	1719	2.97	68.14	5.66	1.43	1.66	
-15 (+ 5)	12282	3095	3599	1942	3.25	86.59	6.32	1.59	1.85	
-10 (+14)	15188	3827	4450	2170	3.55	107.80	7.00	1.76	2.05	
-5 (+23)	18447	4649	5405	2403	3.86	131.99	7.68	1.94	2.25	
0 (+32)	22061	5559	6464	2641	4.18	159.38	8.36	2.11	2.45	
+5 (+41)	26029	6559	7627	2884	4.53	190.21	9.03	2.27	2.64	
+10 (+50)	30351	7648	8893	3132	4.91	224.70	9.69	2.44	2.84	

TEST CONDITIONS: @440V60Hz		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]
-20 (- 4)	7794	1964	2284	1746	3.10	61.32	4.47	1.13	1.31	
-15 (+ 5)	10036	2529	2941	2028	3.40	79.47	4.95	1.25	1.45	
-10 (+14)	12562	3166	3681	2310	3.72	100.20	5.43	1.37	1.59	
-5 (+23)	15371	3873	4504	2590	4.07	123.74	5.93	1.49	1.74	
0 (+32)	18464	4653	5410	2870	4.44	150.31	6.43	1.62	1.89	
+5 (+41)	21841	5504	6400	3149	4.84	180.14	6.94	1.75	2.03	
+10 (+50)	25501	6426	7472	3427	5.27	213.45	7.44	1.88	2.18	

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		