

COMPRESSOR DEFINITION

Designation	NJX6250GS
Nominal Voltage/Frequency	400V 50Hz / 440V 60Hz
Engineering Number	945BS21

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R404A		
3 Nominal voltage and frequency	400/ 50	[V / Hz]	
4 Application type	Medium Back Pressure R404A		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	3PHASE		
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)	24,73	[bar]	
9.2 Peak (gauge)	27,74	[bar]	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	2	[hp]
2 Displacement	38	[cm ³]
2.1 Bore [mm]	45,00	
2.2 Stroke [mm]	23,85	
3 Lubricant charge	750	[ml]
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	21,8	[kg]
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	400V 50Hz / 440V 60Hz	3~ (3 phase)
2 Starting device type	3 Phase	
2.1 Starting device	-	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	34HM293	
6 Start winding resistance	7,6	Ω at 25°C (77°F) +/- 8%
7 Run winding resistance	7,6	Ω at 25°C (77°F) +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	22	[A] - Measured according to UL 984
9 FLA - Full load amperage	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage	-	[A] - Measured according to UL 984
11 Approval boards certification	-	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @400V50Hz			ASHRAEHBP46 Fan		Evaporating temperature	7,2°C (44,94°F)		
					Condensing temperature	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]
20178	5085	5914	2613	4,60	168,54	7,72	1,95	2,26

E - PERFORMANCE - CURVES

TEST CONDITIONS: @400V50Hz			ASHRAEHBP46 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)	10013	2552	2933	1316	2,77	63,75	7,60	1,92	2,23
-15 (+5)	12334	3107	3612	1446	2,94	78,66	8,52	2,15	2,50
-10 (+14)	15089	3800	4419	1578	3,12	96,97	9,56	2,41	2,80
-5 (+23)	18279	4604	5353	1710	3,30	118,69	10,68	2,69	3,13
0 (+32)	21903	5517	6415	1844	3,49	143,81	11,87	2,99	3,48
+5 (+41)	25962	6539	7604	1979	3,69	172,34	13,11	3,30	3,84
+10 (+50)	30455	7671	9820	2115	3,89	204,28	14,39	3,63	4,64

TEST CONDITIONS: @400V50Hz			ASHRAEHBP46 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)	8519	2146	2495	1433	2,92	60,02	5,94	1,50	1,74
-15 (+5)	10633	2678	3114	1594	3,15	74,94	6,66	1,68	1,95
-10 (+14)	13104	3300	3838	1754	3,38	93,10	7,47	1,88	2,20
-5 (+23)	15932	4013	4666	1911	3,61	114,49	8,33	2,10	2,44
0 (+32)	19117	4815	5599	2065	3,83	139,12	9,25	2,33	2,71
+5 (+41)	22659	5707	6636	2218	4,06	166,99	10,21	2,57	3,00
+10 (+50)	26557	6689	7778	2369	4,29	198,09	11,20	2,82	3,28

TEST CONDITIONS: @400V50Hz			ASHRAEHBP46 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)	7082	1784	2074	1505	3,02	56,22	4,70	1,19	1,38
-15 (+5)	8743	2202	2560	1716	3,30	69,42	5,09	1,28	1,50
-10 (+14)	10746	2706	3147	1921	3,59	86,09	5,59	1,41	1,64
-5 (+23)	13091	3297	3834	2118	3,87	106,26	6,17	1,56	1,81
0 (+32)	15780	3975	4622	2310	4,16	129,91	6,83	1,72	2,00
+5 (+41)	18812	4738	5510	2494	4,46	157,04	7,54	1,90	2,21
+10 (+50)	22186	5588	6498	2673	4,75	187,66	8,29	2,09	2,43

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @440V60Hz			ASHRAEHBP46 Fan		Evaporating temperature Condensing temperature		7,2°C (44,94°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]	
23789	5995	6972	3205	4,96	197,6	7,42	1,87	2,18	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V60Hz			ASHRAEHBP46 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)	11981	3018	3509	1665	2,89	76,36	7,19	1,81	2,10
-15	(+5)	14731	3710	4314	1842	3,09	93,88	7,99	2,01	2,34
-10	(+14)	17902	4509	5243	2021	3,31	114,94	8,85	2,23	2,60
-5	(+23)	21493	5414	6295	2202	3,55	139,55	9,75	2,46	2,86
0	(+32)	25506	6424	7470	2386	3,81	167,71	10,68	2,69	3,13
+5	(+41)	29940	7541	8769	2572	4,09	199,41	11,63	2,93	3,41
+10	(+50)	34795	8764	10191	2761	4,39	234,66	12,60	3,17	3,70

TEST CONDITIONS: @440V60Hz			ASHRAEHBP46 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)	10147	2556	2972	1763	3,00	71,41	5,75	1,45	1,70
-15	(+5)	12590	3171	3687	1977	3,26	88,94	6,36	1,60	1,86
-10	(+14)	15426	3886	4518	2192	3,54	109,92	7,03	1,77	2,06
-5	(+23)	18654	4699	5463	2408	3,83	134,37	7,74	1,95	2,27
0	(+32)	22276	5611	6524	2624	4,13	162,27	8,48	2,14	2,50
+5	(+41)	26290	6622	7700	2841	4,45	193,62	9,25	2,33	2,71
+10	(+50)	30697	7732	8991	3059	4,78	228,43	10,03	2,53	2,94

TEST CONDITIONS: @440V60Hz			ASHRAEHBP46 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)	8170	2058	2393	1815	3,05	64,88	4,50	1,13	1,32
-15	(+5)	10408	2621	3048	2088	3,38	82,74	4,98	1,26	1,46
-10	(+14)	12921	3254	3784	2357	3,72	103,67	5,48	1,38	1,61
-5	(+23)	15708	3956	4600	2621	4,06	127,66	5,99	1,51	1,76
0	(+32)	18769	4727	5497	2881	4,42	154,70	6,51	1,64	1,91
+5	(+41)	22105	5568	6474	3136	4,79	184,81	7,04	1,78	2,06
+10	(+50)	25716	6477	7532	3386	5,18	217,97	7,59	1,91	2,22

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @400V50Hz			EN12900MBP Fan		Evaporating 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]	
11072	2790	3245	1779	3,42	97,37	6,22	1,57	1,82	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @400V50Hz			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)	8655	2183	2538	1317	2,84	65,84	6,57	1,66	1,93
-15	(+5)	10723	2704	3144	1447	3,01	81,63	7,40	1,87	2,17
-10	(+14)	13147	3315	3855	1580	3,18	101,08	8,31	2,10	2,44
-5	(+23)	15928	4017	4671	1717	3,36	124,18	9,28	2,34	2,72
0	(+32)	19066	4808	5591	1857	3,55	150,93	10,26	2,60	3,01
+5	(+41)	22561	5690	6616	2000	3,75	181,34	11,27	2,85	3,31
+10	(+50)	26413	6661	7746	2147	3,97	215,40	12,30	3,10	3,61

TEST CONDITIONS: @400V50Hz			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)	7230	1823	2120	1421	2,98	62,58	5,08	1,28	1,49
-15	(+5)	9030	2277	2648	1587	3,20	78,23	5,68	1,43	1,67
-10	(+14)	11092	2797	3253	1749	3,43	97,17	6,34	1,60	1,86
-5	(+23)	13418	3384	3935	1906	3,67	119,40	7,03	1,78	2,06
0	(+32)	16006	4036	4694	2059	3,91	144,93	7,77	1,96	2,28
+5	(+41)	18857	4755	5530	2207	4,15	173,75	8,54	2,15	2,51
+10	(+50)	21971	5541	6443	2351	4,39	205,86	9,34	2,36	2,74

TEST CONDITIONS: @400V50Hz			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)	5813	1466	1704	1487	3,01	59,13	3,90	1,00	1,15
-15	(+5)	7196	1815	2110	1700	3,29	73,23	4,23	1,07	1,24
-10	(+14)	8829	2226	2589	1902	3,58	91,05	4,64	1,17	1,36
-5	(+23)	10710	2701	3141	2093	3,86	112,58	5,11	1,29	1,50
0	(+32)	12842	3238	3766	2273	4,14	137,83	5,64	1,42	1,66
+5	(+41)	15222	3839	4464	2442	4,43	166,81	6,23	1,57	1,83
+10	(+50)	17852	4502	5235	2600	4,71	199,50	6,86	1,73	2,01

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]	
13119	3306	3845	2193	3,54	115,26	5,98	1,51	1,75	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V60Hz			EN12900 Fan		Condensing temperature 35°C (+95°F)					
Evaporating temperature °C (°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]	
-20 (-4)	10397	2622	3049	1684	2,91	79,22	6,17	1,56	1,81	
-15 (+5)	12923	3259	3789	1847	3,11	98,11	6,99	1,76	2,05	
-10 (+14)	15754	3973	4620	2024	3,33	120,72	7,78	1,96	2,28	
-5 (+23)	18890	4764	5539	2213	3,58	147,05	8,53	2,15	2,50	
0 (+32)	22331	5631	6548	2414	3,85	177,11	9,24	2,33	2,71	
+5 (+41)	26077	6576	7647	2629	4,13	210,89	9,91	2,50	2,91	
+10 (+50)	30128	7598	8835	2856	4,44	248,39	10,54	2,66	3,09	

TEST CONDITIONS: @440V60Hz			EN12900 Fan		Condensing temperature 45°C (+113°F)					
Evaporating temperature °C (°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]	
-20 (-4)	8537	2153	2503	1770	3,02	73,87	4,82	1,22	1,41	
-15 (+5)	10658	2687	3125	1981	3,27	92,31	5,37	1,35	1,58	
-10 (+14)	13080	3298	3835	2196	3,55	114,56	5,95	1,50	1,75	
-5 (+23)	15805	3986	4634	2416	3,84	140,62	6,53	1,65	1,92	
0 (+32)	18833	4749	5522	2641	4,14	170,50	7,12	1,80	2,09	
+5 (+41)	22163	5589	6499	2871	4,47	204,20	7,71	1,95	2,26	
+10 (+50)	25796	6505	7564	3106	4,81	241,71	8,30	2,09	2,44	

TEST CONDITIONS: @440V60Hz			EN12900 Fan		Condensing temperature 55°C (+131°F)					
Evaporating temperature °C (°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]	
-20 (-4)	6620	1669	1941	1817	3,06	67,40	3,64	0,92	1,07	
-15 (+5)	8391	2116	2461	2083	3,38	85,45	4,02	1,02	1,18	
-10 (+14)	10389	2620	3047	2349	3,72	107,18	4,42	1,12	1,30	
-5 (+23)	12614	3181	3699	2615	4,08	132,57	4,82	1,22	1,41	
0 (+32)	15066	3799	4418	2881	4,45	161,64	5,22	1,32	1,53	
+5 (+41)	17744	4475	5203	3147	4,83	194,38	5,63	1,42	1,65	
+10 (+50)	20650	5208	6055	3414	5,24	230,79	6,04	1,53	1,77	

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	ID 12,81 ±0,04	[mm]	(0.504" ±0,04")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	ID 8,04 ±0,04	[mm]	(0.316" ±0,04")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	ID 6,5 ±0,05	[mm]	(0.256" ±0,05")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		