

COMPRESSOR DEFINITION

Designation	NJX6244US
Nominal Voltage/Frequency	400V 50Hz / 440V 60Hz
Engineering Number	887BS21

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	400/ 50	[V / Hz]	
4 Application type	Medium Back Pressure R-290		
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 Expantion 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)	18,07	[bar]	
9.2 Peak (gauge)	20,17	[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	34HM294	
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 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]
17805	4487	5218	1910	3,57	61,45	9,32	2,35	2,73

E - PERFORMANCE - CURVES

TEST CONDITIONS: @400V50Hz			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%		
	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20 (-4)	7915	1994	2318	1073	2,79	22,60	7,37	1,86	2,16
-15 (+5)	9771	2461	2862	1167	2,86	27,76	8,37	2,11	2,45
-10 (+14)	12018	3027	3520	1259	2,93	34,27	9,54	2,41	2,80
-5 (+23)	14655	3691	4292	1349	3,02	42,12	10,86	2,74	3,18
0 (+32)	17683	4454	5179	1438	3,11	51,32	12,29	3,10	3,60
5 (+41)	21100	6315	6180	1526	3,22	61,86	13,82	4,14	4,05
10 (+50)	24908	6274	7295	1612	3,33	73,74	15,44	3,89	4,53

TEST CONDITIONS: @400V50Hz			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%		
	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20 (-4)	7071	1781	2071	1159	2,82	21,83	6,10	1,54	1,79
-15 (+5)	8752	2204	2563	1272	2,93	26,75	6,87	1,73	2,01
-10 (+14)	10769	2713	3154	1384	3,05	33,03	7,77	1,96	2,28
-5 (+23)	13122	3305	3843	1494	3,16	40,65	8,77	2,21	2,57
0 (+32)	15810	3982	4630	1603	3,28	49,63	9,85	2,48	2,89
5 (+41)	18810	4744	5516	1711	3,39	59,95	11,00	2,77	3,22
10 (+50)	22196	5591	6501	1817	3,50	71,62	12,21	3,08	3,58

TEST CONDITIONS: @400V50Hz			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%		
	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20 (-4)	6251	1574	1831	1253	2,91	20,95	4,99	1,26	1,46
-15 (+5)	7567	1906	2216	1371	3,03	25,34	5,51	1,39	1,62
-10 (+14)	9254	2331	2710	1493	3,16	31,15	6,19	1,56	1,82
-5 (+23)	11313	2849	3313	1621	3,30	38,40	6,97	1,76	2,04
0 (+32)	13743	3461	4025	1753	3,44	47,09	7,83	1,97	2,30
5 (+41)	16544	4167	4845	1891	3,59	57,21	8,74	2,20	2,56
10 (+50)	19717	4966	5775	2023	3,75	68,76	9,75	2,44	2,85

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]
20389	5138	5976	2385	3,89	71,09	8,55	2,15	2,51

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)									
-15	(+5)									
-10	(+14)									
-5	(+23)									
0	(+32)									
+5	(+41)									

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)	8451	2129	2475	1373	2,57	25,90	6,15	1,55	1,80
-15	(+5)	10417	2624	3051	1523	2,75	32,04	6,84	1,72	2,00
-10	(+14)	12742	3209	3732	1672	2,94	39,43	7,61	1,92	2,23
-5	(+23)	15426	3886	4518	1822	3,13	48,08	8,46	2,13	2,48
0	(+32)	18470	4652	5410	1971	3,33	57,99	9,36	2,36	2,74
+5	(+41)	21873	5509	6406	2121	3,53	69,16	10,31	2,60	3,02

TEST CONDITIONS: @440V60Hz		ASHRAE46 Fan			Condensing temperature			55°C (+131°F)		
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(-4)	7268	1831	2129	1448	2,65	24,29	5,01	1,26	1,47
-15	(+5)	9068	2284	2656	1630	2,86	30,39	5,56	1,40	1,63
-10	(+14)	11154	2809	3267	1809	3,09	37,62	6,16	1,55	1,81
-5	(+23)	13527	3407	3962	1987	3,31	45,97	6,80	1,71	2,00
0	(+32)	16186	4077	4740	2162	3,57	55,45	7,48	1,89	2,19
+5	(+41)	19132	4819	5603	2335	3,83	66,05	8,19	2,06	2,40

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @400V50Hz			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]
9441	2379	2767	1341	2,97	33,86	7,04	1,77	2,06

E - PERFORMANCE - CURVES

TEST CONDITIONS: @400V50Hz				EN12900 Fan		Condensing temperature 35°C (+95°F)				
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(-4)	7189	1813	2108	1082	2,78	23,36	6,64	1,67	1,95
-15	(+5)	8874	2238	2602	1171	2,86	28,82	7,57	1,91	2,22
-10	(+14)	10883	2744	3191	1262	2,95	35,57	8,61	2,17	2,53
-5	(+23)	13216	3333	3875	1356	3,04	43,62	9,74	2,45	2,86
0	(+31)	15874	4003	4655	1452	3,14	52,95	10,93	2,75	3,21
+5	(+41)	18856	4755	5530	1550	3,23	63,57	12,16	3,06	3,57
+10	(+50)	22163	5589	6499	1650	3,32	75,48	13,43	3,38	3,94

TEST CONDITIONS: @400V50Hz					EN12900 Fan	Condensing temperature			45°C (+113°F)	
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(-4)	6255	1577	1834	1166	2,86	22,33	5,36	1,35	1,57
-15	(+5)	7753	1955	2273	1278	2,96	27,64	6,06	1,52	1,78
-10	(+14)	9553	2409	2801	1391	3,07	34,28	6,85	1,73	2,01
-5	(+23)	11656	2939	3418	1504	3,19	42,23	7,74	1,95	2,27
0	(+31)	14062	3546	4124	1618	3,30	51,49	8,68	2,19	2,55
+5	(+41)	16772	4229	4918	1732	3,42	62,07	9,68	2,44	2,84
+10	(+50)	19784	4989	5801	1847	3,55	73,97	10,71	2,70	3,14

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)	5399	1361	1583	1291	3,00	21,26	4,17	1,05	1,23
-15	(+5)	6568	1656	1926	1387	3,08	26,16	4,73	1,19	1,39
-10	(+14)	8055	2031	2362	1498	3,18	32,42	5,37	1,35	1,58
-5	(+23)	9860	2486	2891	1623	3,31	40,03	6,07	1,53	1,78
0	(+31)	11982	3022	3514	1762	3,45	48,99	6,79	1,71	1,99
+5	(+41)	14422	3637	4229	1915	3,62	59,31	7,52	1,89	2,21
+10	(+50)	17180	4333	5038	2089	3,80	70,99	8,24	2,08	2,42

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]
11628	2930	3408	1681	2,92	41,90	6,92	1,74	2,03

E - PERFORMANCE - CURVES

TEST CONDITIONS:					EN12900		Condensing temperature 35°C (+95°F)				
@440V60Hz		Fan									
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-20	(-4)										
-15	(+5)										
-10	(+14)										
-5	(+23)										
0	(+31)										
+5	(+41)										

TEST CONDITIONS: @440V60Hz			EN12900 Fan			Condensing temperature			45°C (+113°F)	
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(-4)	7504	1893	2201	1388	2,59	26,69	5,40	1,36	1,59
-15	(+5)	9305	2347	2729	1537	2,78	33,23	6,05	1,52	1,77
-10	(+14)	11384	2871	3338	1690	2,98	40,96	6,73	1,69	1,97
-5	(+23)	13741	3465	4029	1847	3,18	49,90	7,43	1,87	2,18
0	(+31)	16375	4129	4802	2008	3,38	60,03	8,15	2,05	2,39
+5	(+41)	19287	4864	5656	2173	3,58	71,37	8,87	2,23	2,60

TEST CONDITIONS: @440V60Hz		EN12900 Fan			Condensing temperature			55°C (+131°F)		
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(-4)	6365	1605	1867	1465	2,68	25,16	4,34	1,09	1,27
-15	(+5)	7904	1993	2318	1645	2,89	31,44	4,80	1,21	1,41
-10	(+14)	9693	2444	2842	1826	3,12	38,92	5,30	1,33	1,56
-5	(+23)	11732	2958	3440	2010	3,37	47,59	5,83	1,47	1,71
0	(+31)	14021	3536	4112	2197	3,63	57,44	6,38	1,60	1,87
+5	(+41)	16560	4176	4856	2385	3,91	68,49	6,94	1,75	2,04

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		