

COMPRESSOR DEFINITION

Designation	NJ X6232ZX
Nominal Voltage/Frequency	380-420 V 50 Hz / 440-480 V 60 Hz
Engineering Number	145AM21

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	380-420 / 50	[V / Hz]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°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 temperature			
9.1 Operating	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 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)	21.07	[kg] (46.45 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	380-420 V 50 Hz / 440-480 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	34HM260	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.04	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	20.00/20.00	[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	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]
15166	3822	4444	1832	2.86	98.33	8.28	2.09	2.43

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]
-15	(+5)	6289	1585	1843	775	2.01	34.01	8.12	2.05	2.38
-10	(+14)	7854	1979	2301	866	2.08	42.62	9.08	2.29	2.66
-5	(+23)	9829	2477	2880	958	2.16	53.54	10.26	2.58	3.01
0	(+32)	12214	3078	3579	1052	2.26	66.83	11.60	2.92	3.40
+5	(+41)	15008	3782	4398	1147	2.37	82.57	13.08	3.30	3.83
+10	(+50)	18214	4590	5337	1244	2.49	100.84	14.65	3.69	4.29

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]
-15	(+5)	5597	1410	1640	838	2.05	32.69	6.67	1.68	1.95
-10	(+14)	7025	1770	2059	946	2.14	41.20	7.43	1.87	2.18
-5	(+23)	8813	2221	2582	1054	2.25	51.89	8.36	2.11	2.45
0	(+32)	10958	2762	3211	1162	2.39	64.84	9.43	2.38	2.76
+5	(+41)	13463	3393	3945	1270	2.54	80.13	10.61	2.67	3.11
+10	(+50)	16327	4114	4784	1378	2.71	97.83	11.85	2.99	3.47

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]
-15	(+5)	4785	1206	1402	892	2.08	30.49	5.37	1.35	1.57
-10	(+14)	6073	1530	1779	1019	2.18	38.84	5.96	1.50	1.75
-5	(+23)	7669	1932	2247	1145	2.31	49.26	6.69	1.69	1.96
0	(+32)	9572	2412	2805	1271	2.46	61.81	7.54	1.90	2.21
+5	(+41)	11782	2969	3452	1395	2.63	76.59	8.46	2.13	2.48
+10	(+50)	14300	3604	4190	1518	2.83	93.66	9.41	2.37	2.76

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]
-15	(+ 5)	7656	1929	2243	963	1.86	41.40	7.95	2.00	2.33
-10	(+14)	9632	2427	2822	1087	1.98	52.27	8.86	2.23	2.60
-5	(+23)	11977	3018	3510	1215	2.11	65.24	9.86	2.49	2.89
0	(+32)	14693	3703	4305	1345	2.26	80.40	10.92	2.75	3.20
+5	(+41)	17779	4480	5210	1478	2.42	97.81	12.02	3.03	3.52
+10	(+50)	21236	5352	6223	1615	2.60	117.57	13.15	3.31	3.85

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]
-15	(+ 5)	6678	1683	1957	1016	1.92	39.02	6.56	1.65	1.92
-10	(+14)	8458	2131	2478	1160	2.07	49.60	7.29	1.84	2.14
-5	(+23)	10569	2663	3097	1306	2.24	62.22	8.09	2.04	2.37
0	(+32)	13011	3279	3813	1454	2.41	76.98	8.95	2.25	2.62
+5	(+41)	15785	3978	4625	1605	2.59	93.94	9.84	2.48	2.88
+10	(+50)	18890	4760	5535	1757	2.77	113.20	10.75	2.71	3.15

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]
-15	(+ 5)	5571	1404	1633	1051	1.94	35.50	5.31	1.34	1.55
-10	(+14)	7185	1811	2105	1221	2.15	45.95	5.88	1.48	1.72
-5	(+23)	9091	2291	2664	1393	2.36	58.40	6.52	1.64	1.91
0	(+32)	11290	2845	3308	1565	2.58	72.92	7.21	1.82	2.11
+5	(+41)	13781	3473	4038	1739	2.79	89.59	7.93	2.00	2.32
+10	(+50)	16565	4174	4854	1914	3.01	108.50	8.65	2.18	2.54

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		