



COMPRESSOR TECHNICAL DATA

COMPRESSOR DEFINITION

Designation	NE U6187Z
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	267JN51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-240 / 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	CSIR		
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)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	9.99	[cm ³] (0.610 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	10.5	[kg] (23.15 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-41	
3 Start capacitor	43-53(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T1026	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance		[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	13.00/13.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	



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D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
3475	876	1018	417	2.33	22.53	8.33	2.10	2.44

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	1712	431	502	228	1.71	9.26	7.51	1.89	2.20
-10	(+14)	2157	544	632	250	1.77	11.71	8.63	2.18	2.53
-5	(+23)	2699	680	791	273	1.84	14.70	9.89	2.49	2.90
0	(+32)	3340	842	979	296	1.91	18.27	11.27	2.84	3.30
+5	(+41)	4077	1028	1195	320	1.99	22.43	12.74	3.21	3.73
+10	(+50)	4913	1238	1440	344	2.08	27.20	14.29	3.60	4.19

TEST CONDITIONS: @220V50Hz		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)	1510	381	442	245	1.76	8.82	6.16	1.55	1.81
-10	(+14)	1914	482	561	273	1.84	11.22	7.01	1.77	2.06
-5	(+23)	2405	606	705	301	1.93	14.16	7.99	2.01	2.34
0	(+32)	2984	752	874	329	2.02	17.65	9.05	2.28	2.65
+5	(+41)	3650	920	1069	358	2.12	21.72	10.20	2.57	2.99
+10	(+50)	4403	1110	1290	386	2.23	26.38	11.40	2.87	3.34

TEST CONDITIONS: @220V50Hz		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)	1296	326	380	257	1.79	8.25	5.05	1.27	1.48
-10	(+14)	1656	417	485	292	1.90	10.59	5.66	1.43	1.66
-5	(+23)	2093	527	613	328	2.02	13.45	6.38	1.61	1.87
0	(+32)	2608	657	764	363	2.14	16.84	7.18	1.81	2.10
+5	(+41)	3200	806	938	399	2.27	20.80	8.03	2.02	2.35
+10	(+50)	3869	975	1134	434	2.41	25.34	8.91	2.25	2.61



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E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	2012	507	589	263	1.59	10.88	7.65	1.93	2.24	
-10 (+14)	2550	643	747	293	1.70	13.84	8.71	2.20	2.55	
-5 (+23)	3188	803	934	325	1.82	17.37	9.81	2.47	2.88	
0 (+32)	3925	989	1150	359	1.94	21.48	10.93	2.75	3.20	
+5 (+41)	4762	1200	1395	395	2.07	26.20	12.04	3.04	3.53	
+10 (+50)	5699	1436	1670	434	2.21	31.55	13.14	3.31	3.85	

TEST CONDITIONS: @220V60Hz		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)	1777	448	521	282	1.65	10.38	6.29	1.59	1.84	
-10 (+14)	2258	569	662	318	1.79	13.24	7.10	1.79	2.08	
-5 (+23)	2830	713	829	357	1.94	16.66	7.93	2.00	2.32	
0 (+32)	3493	880	1023	398	2.10	20.66	8.78	2.21	2.57	
+5 (+41)	4247	1070	1244	442	2.28	25.27	9.62	2.42	2.82	
+10 (+50)	5092	1283	1492	488	2.48	30.52	10.43	2.63	3.06	

TEST CONDITIONS: @220V60Hz		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)	1512	381	443	295	1.70	9.64	5.13	1.29	1.50	
-10 (+14)	1949	491	571	339	1.87	12.46	5.74	1.45	1.68	
-5 (+23)	2467	622	723	387	2.05	15.85	6.38	1.61	1.87	
0 (+32)	3067	773	899	437	2.25	19.81	7.02	1.77	2.06	
+5 (+41)	3750	945	1099	490	2.48	24.38	7.66	1.93	2.24	
+10 (+50)	4516	1138	1323	546	2.72	29.58	8.27	2.08	2.42	



COMPRESSOR TECHNICAL DATA

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		