

COMPRESSOR DEFINITION

Designation	NE K5144Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	267EA50

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 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	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expantion device	Capillary tube		
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/cm²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	5.44	[cm ³] (0.332 cu.in)
2.1 Bore [mm]	20.873	
2.2 Stroke [mm]	15.920	
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)	9.8	[kg] (21.60 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0024	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0827/G6	
6 Start winding resistance	53.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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	IMQ	

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]
1820	459	533	242	1.43	11.80	7.52	1.90	2.20

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46				(Condensing temperature 35°C (+95°F))				
@220V50Hz		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]
-15	(+ 5)	905	228	265	144	1.13	4.89	6.30	1.59	1.84
-10	(+14)	1119	282	328	155	1.16	6.07	7.22	1.82	2.11
-5	(+23)	1392	351	408	167	1.20	7.58	8.35	2.10	2.45
0	(+32)	1723	434	505	178	1.24	9.43	9.66	2.43	2.83
+5	(+41)	2112	532	619	190	1.28	11.62	11.11	2.80	3.26
+10	(+50)	2560	645	750	202	1.32	14.17	12.68	3.20	3.72

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)	788	198	231	152	1.16	4.60	5.19	1.31	1.52
-10	(+14)	990	249	290	168	1.20	5.81	5.90	1.49	1.73
-5	(+23)	1243	313	364	183	1.24	7.32	6.79	1.71	1.99
0	(+32)	1546	389	453	198	1.29	9.15	7.82	1.97	2.29
+5	(+41)	1899	479	556	212	1.34	11.30	8.96	2.26	2.63
+10	(+50)	2303	580	675	226	1.39	13.80	10.19	2.57	2.98

TEST CONDITIONS: @220V50Hz		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]
-15	(+ 5)	671	169	197	156	1.18	4.28	4.31	1.09	1.26
-10	(+14)	857	216	251	177	1.23	5.48	4.84	1.22	1.42
-5	(+23)	1084	273	318	196	1.28	6.96	5.52	1.39	1.62
0	(+32)	1354	341	397	215	1.34	8.74	6.30	1.59	1.85
+5	(+41)	1667	420	488	233	1.40	10.83	7.16	1.81	2.10
+10	(+50)	2021	509	592	250	1.46	13.24	8.08	2.03	2.37

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		