

COMPRESSOR DEFINITION

Designation	NE K6170Z
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	267DG71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[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 - Hight 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	1/4+	[hp]
2 Displacement	8.39	[cm ³] (0.512 cu.in)
2.1 Bore [mm]	24.282	
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)	10.4	[kg] (22.93 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	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-0019	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0060/G9	
6 Start winding resistance	6.14	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.24	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	28.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.90	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@100V60Hz		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)	1644	414	482	243	3.84	8.88	6.76	1.70	1.98	
-10 (+14)	2064	520	605	263	3.94	11.20	7.85	1.98	2.30	
-5 (+23)	2581	651	756	285	4.06	14.06	9.08	2.29	2.66	
0 (+32)	3196	805	936	307	4.20	17.49	10.41	2.62	3.05	
+5 (+41)	3908	985	1145	330	4.36	21.50	11.83	2.98	3.47	
+10 (+50)	4717	1189	1382	355	4.53	26.11	13.28	3.35	3.89	

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@100V60Hz		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)	1466	369	430	254	3.90	8.57	5.77	1.45	1.69	
-10 (+14)	1832	462	537	282	4.06	10.74	6.50	1.64	1.90	
-5 (+23)	2291	577	671	310	4.23	13.49	7.39	1.86	2.17	
0 (+32)	2843	716	833	338	4.41	16.82	8.41	2.12	2.47	
+5 (+41)	3488	879	1022	367	4.60	20.76	9.53	2.40	2.79	
+10 (+50)	4226	1065	1238	395	4.79	25.33	10.70	2.70	3.13	

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@100V60Hz		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)	1286	324	377	266	3.93	8.20	4.84	1.22	1.42	
-10 (+14)	1594	402	467	301	4.15	10.19	5.29	1.33	1.55	
-5 (+23)	1991	502	583	336	4.38	12.79	5.92	1.49	1.73	
0 (+32)	2476	624	726	370	4.61	15.99	6.69	1.69	1.96	
+5 (+41)	3051	769	894	403	4.85	19.83	7.57	1.91	2.22	
+10 (+50)	3715	936	1088	436	5.09	24.33	8.52	2.15	2.50	

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
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	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		