COMPRESSOR DEFINITION

Designation	**NE 5170Z**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**261CG71**

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	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 (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4+	[hp]
2 Displacement	8.77	[cm³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
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)	10.35	[kg] (22.82 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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-55	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0743/G9	
6 Start winding resistance	11.00	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.55	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	31.00	[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)	5.00	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **35ºC (+95ºF))**
@100V60Hz **Fan**

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)**	1562	394	458	247	3.60	8.45	6.32	1.59	1.85
-10	**(+14)**	2012	507	589	273	3.77	10.92	7.37	1.86	2.16
-5	**(+23)**	2552	643	748	299	3.94	13.90	8.54	2.15	2.50
0	**(+32)**	3184	802	933	324	4.10	17.42	9.82	2.48	2.88
+5	**(+41)**	3906	984	1145	349	4.27	21.49	11.19	2.82	3.28
+10	**(+50)**	4720	1189	1383	374	4.44	26.13	12.62	3.18	3.70

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **45ºC (+113ºF))**
@100V60Hz **Fan**

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)**	1301	328	381	241	3.57	7.60	5.40	1.36	1.58
-10	**(+14)**	1717	433	503	276	3.78	10.07	6.22	1.57	1.82
-5	**(+23)**	2216	558	649	310	4.00	13.05	7.15	1.80	2.09
0	**(+32)**	2796	705	819	343	4.21	16.54	8.15	2.05	2.39
+5	**(+41)**	3458	871	1013	375	4.43	20.58	9.22	2.32	2.70
+10	**(+50)**	4202	1059	1231	407	4.64	25.18	10.33	2.60	3.03

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@100V60Hz **Fan**

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)**	1029	259	301	235	3.53	6.56	4.39	1.11	1.28
-10	**(+14)**	1410	355	413	278	3.79	9.02	5.06	1.28	1.48
-5	**(+23)**	1865	470	546	321	4.06	11.98	5.81	1.46	1.70
0	**(+32)**	2391	603	701	362	4.32	15.45	6.61	1.67	1.94
+5	**(+41)**	2991	754	876	402	4.59	19.44	7.45	1.88	2.18
+10	**(+50)**	3663	923	1073	441	4.85	23.99	8.30	2.09	2.43

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		