

COMPRESSOR DEFINITION

Designation	NE 6181E
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	262LG92

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
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)	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm ²] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	7.28	[cm ³] (0.444 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	13.200	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO46	
4 Weight (with oil charge)	11.15	[kg] (24.58 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-58	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0625/G8	
6 Start winding resistance	8.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.04	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	34.60	[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)	7.00	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
3994	1006	1170	505	6.03	24.67	7.91	1.99	2.32

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V50Hz		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)	1682	424	493	259	3.86	8.84	6.50	1.64	1.90
-10	(+14)	2108	531	618	280	4.01	11.11	7.54	1.90	2.21
-5	(+23)	2635	664	772	299	4.15	13.96	8.81	2.22	2.58
0	(+32)	3264	822	956	317	4.27	17.39	10.29	2.59	3.02
+5	(+41)	3994	1006	1170	334	4.38	21.42	11.98	3.02	3.51
+10	(+50)	4825	1216	1414	348	4.49	26.07	13.86	3.49	4.06

TEST CONDITIONS: @115V50Hz		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)	1422	358	417	265	3.92	7.97	5.38	1.35	1.58
-10	(+14)	1815	457	532	294	4.12	10.22	6.17	1.56	1.81
-5	(+23)	2295	578	672	321	4.30	12.99	7.13	1.80	2.09
0	(+32)	2862	721	839	347	4.48	16.31	8.24	2.08	2.42
+5	(+41)	3517	886	1031	370	4.64	20.17	9.50	2.39	2.78
+10	(+50)	4258	1073	1248	391	4.80	24.62	10.90	2.75	3.19

TEST CONDITIONS: @115V50Hz		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)	1162	293	340	270	3.98	7.01	4.29	1.08	1.26
-10	(+14)	1521	383	446	308	4.23	9.23	4.94	1.25	1.45
-5	(+23)	1955	493	573	343	4.47	11.91	5.69	1.43	1.67
0	(+32)	2461	620	721	376	4.69	15.10	6.54	1.65	1.92
+5	(+41)	3040	766	891	407	4.91	18.79	7.48	1.88	2.19
+10	(+50)	3691	930	1082	434	5.12	23.03	8.50	2.14	2.49

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	2028	511	594	312	4.66	10.65	6.50	1.64	1.90	
-10 (+14)	2540	640	744	337	4.84	13.39	7.55	1.90	2.21	
-5 (+23)	3175	800	930	360	5.00	16.82	8.81	2.22	2.58	
0 (+32)	3933	991	1152	382	5.14	20.95	10.29	2.59	3.01	
+5 (+41)	4812	1213	1410	402	5.28	25.81	11.97	3.02	3.51	
+10 (+50)	5813	1465	1703	419	5.41	31.41	13.86	3.49	4.06	

TEST CONDITIONS: @115V60Hz		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)	1714	432	502	319	4.73	9.61	5.38	1.36	1.58	
-10 (+14)	2186	551	641	354	4.97	12.32	6.18	1.56	1.81	
-5 (+23)	2765	697	810	387	5.19	15.66	7.13	1.80	2.09	
0 (+32)	3449	869	1011	418	5.40	19.65	8.24	2.08	2.41	
+5 (+41)	4238	1068	1242	446	5.60	24.31	9.50	2.39	2.78	
+10 (+50)	5130	1293	1503	471	5.79	29.66	10.90	2.75	3.19	

TEST CONDITIONS: @115V60Hz		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)	1400	353	410	326	4.80	8.45	4.28	1.08	1.25	
-10 (+14)	1833	462	537	371	5.10	11.12	4.94	1.25	1.45	
-5 (+23)	2355	593	690	414	5.38	14.36	5.69	1.43	1.67	
0 (+32)	2965	747	869	454	5.66	18.19	6.54	1.65	1.92	
+5 (+41)	3663	923	1073	490	5.92	22.65	7.48	1.88	2.19	
+10 (+50)	4447	1121	1303	523	6.17	27.74	8.50	2.14	2.49	

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		