

COMPRESSOR DEFINITION

Designation	NB 6152E
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	294LG70

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 - 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)	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	1/5+	[hp]
2 Displacement	5.01	[cm ³] (0.306 cu.in)
2.1 Bore [mm]	21.996	
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)	10.48	[kg] (23.10 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELECTRICAL 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	T0645/G9	
6 Start winding resistance	8.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	26.50	[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)	4.60	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @100V50Hz			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]
2233	563	654	353	4.17	13.79	6.33	1.60	1.85

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz		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)	1174	296	344	211	3.07	6.16	5.56	1.40	1.63
-10	(+14)	1456	367	427	235	3.22	7.68	6.20	1.56	1.82
-5	(+23)	1790	451	524	257	3.36	9.48	6.96	1.75	2.04
0	(+32)	2175	548	637	278	3.50	11.59	7.84	1.98	2.30
+5	(+41)	2612	658	765	296	3.64	14.01	8.82	2.22	2.58
+10	(+50)	3100	781	908	313	3.79	16.75	9.90	2.49	2.90

TEST CONDITIONS: @100V50Hz		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)	1041	262	305	222	3.12	5.84	4.70	1.19	1.38
-10	(+14)	1294	326	379	247	3.29	7.29	5.25	1.32	1.54
-5	(+23)	1595	402	467	271	3.46	9.03	5.88	1.48	1.72
0	(+32)	1944	490	570	295	3.63	11.07	6.59	1.66	1.93
+5	(+41)	2342	590	686	318	3.80	13.44	7.36	1.85	2.16
+10	(+50)	2789	703	817	341	3.97	16.13	8.19	2.06	2.40

TEST CONDITIONS: @100V50Hz		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)	902	227	264	232	3.17	5.44	3.88	0.98	1.14
-10	(+14)	1124	283	329	258	3.37	6.82	4.36	1.10	1.28
-5	(+23)	1391	351	408	285	3.57	8.48	4.89	1.23	1.43
0	(+32)	1704	429	499	312	3.77	10.45	5.46	1.38	1.60
+5	(+41)	2061	519	604	340	3.96	12.74	6.06	1.53	1.78
+10	(+50)	2464	621	722	369	4.17	15.37	6.68	1.68	1.96

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V60Hz		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)	1373	346	402	247	3.71	7.21	5.56	1.40	1.63	
-10 (+14)	1704	429	499	275	3.88	8.98	6.19	1.56	1.81	
-5 (+23)	2094	528	614	301	4.05	11.09	6.96	1.75	2.04	
0 (+32)	2545	641	746	325	4.22	13.56	7.83	1.97	2.30	
+5 (+41)	3056	770	896	347	4.39	16.39	8.82	2.22	2.58	
+10 (+50)	3628	914	1063	366	4.57	19.60	9.90	2.50	2.90	

TEST CONDITIONS: @100V60Hz		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)	1217	307	357	259	3.76	6.83	4.71	1.19	1.38	
-10 (+14)	1513	381	443	288	3.97	8.52	5.25	1.32	1.54	
-5 (+23)	1866	470	547	317	4.17	10.56	5.88	1.48	1.72	
0 (+32)	2275	573	667	345	4.38	12.96	6.59	1.66	1.93	
+5 (+41)	2741	691	803	372	4.58	15.72	7.36	1.85	2.16	
+10 (+50)	3263	822	956	399	4.79	18.87	8.19	2.06	2.40	

TEST CONDITIONS: @100V60Hz		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)	1055	266	309	272	3.82	6.37	3.87	0.98	1.13	
-10 (+14)	1315	331	385	302	4.06	7.97	4.36	1.10	1.28	
-5 (+23)	1628	410	477	333	4.30	9.92	4.89	1.23	1.43	
0 (+32)	1993	502	584	365	4.54	12.23	5.46	1.38	1.60	
+5 (+41)	2412	608	707	398	4.78	14.91	6.06	1.53	1.78	
+10 (+50)	2883	727	845	432	5.02	17.98	6.67	1.68	1.95	

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		