

COMPRESSOR DEFINITION

Designation	NB 6152GK
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	994LG70

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°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)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[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	ESTER / ISO22	
4 Weight (with oil charge)	10.5	[kg] (23.15 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	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)	5.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[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]
2382	600	698	399	4.49	19.61	5.97	1.50	1.75

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]
-20	(- 4)	1107	279	324	221	3.19	7.03	5.01	1.26	1.47
-15	(+ 5)	1376	347	403	243	3.35	8.78	5.66	1.43	1.66
-10	(+14)	1700	428	498	267	3.52	10.92	6.37	1.60	1.87
-5	(+23)	2078	524	609	292	3.68	13.45	7.12	1.79	2.09
0	(+32)	2510	633	735	317	3.84	16.38	7.92	1.99	2.32
+5	(+41)	2996	755	878	343	4.00	19.75	8.73	2.20	2.56
+10	(+50)	3536	891	1036	370	4.16	23.56	9.57	2.41	2.80

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]
-20	(- 4)	942	237	276	224	3.16	6.60	4.20	1.06	1.23
-15	(+ 5)	1182	298	346	250	3.35	8.33	4.73	1.19	1.39
-10	(+14)	1468	370	430	277	3.55	10.42	5.30	1.34	1.55
-5	(+23)	1802	454	528	305	3.74	12.89	5.91	1.49	1.73
0	(+32)	2182	550	639	334	3.94	15.76	6.53	1.65	1.91
+5	(+41)	2609	657	764	364	4.13	19.05	7.17	1.81	2.10
+10	(+50)	3082	777	903	394	4.33	22.77	7.81	1.97	2.29

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]
-20	(- 4)	771	194	226	228	3.12	6.06	3.38	0.85	0.99
-15	(+ 5)	979	247	287	257	3.35	7.75	3.81	0.96	1.12
-10	(+14)	1227	309	359	287	3.57	9.79	4.28	1.08	1.25
-5	(+23)	1514	382	444	318	3.80	12.19	4.76	1.20	1.39
0	(+32)	1841	464	539	351	4.03	14.99	5.25	1.32	1.54
+5	(+41)	2207	556	647	384	4.26	18.18	5.73	1.44	1.68
+10	(+50)	2612	658	765	418	4.50	21.79	6.20	1.56	1.82

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]
-20	(- 4)	1295	326	379	258	3.85	8.22	5.01	1.26	1.47
-15	(+ 5)	1610	406	472	284	4.04	10.28	5.66	1.43	1.66
-10	(+14)	1989	501	583	312	4.24	12.77	6.37	1.60	1.87
-5	(+23)	2431	613	712	341	4.44	15.73	7.12	1.80	2.09
0	(+32)	2937	740	861	371	4.63	19.17	7.92	2.00	2.32
+5	(+41)	3506	883	1027	401	4.82	23.11	8.74	2.20	2.56
+10	(+50)	4138	1043	1213	430	5.00	27.58	9.58	2.41	2.81

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]
-20	(- 4)	1102	278	323	262	3.81	7.72	4.21	1.06	1.23
-15	(+ 5)	1382	348	405	292	4.04	9.74	4.73	1.19	1.39
-10	(+14)	1718	433	503	324	4.28	12.19	5.30	1.34	1.55
-5	(+23)	2108	531	618	357	4.51	15.09	5.91	1.49	1.73
0	(+32)	2554	644	748	390	4.75	18.45	6.55	1.65	1.92
+5	(+41)	3054	770	895	424	4.97	22.30	7.20	1.81	2.11
+10	(+50)	3609	910	1058	457	5.19	26.67	7.85	1.98	2.30

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]
-20	(- 4)	902	227	264	266	3.76	7.09	3.39	0.86	0.99
-15	(+ 5)	1145	289	336	300	4.04	9.07	3.81	0.96	1.12
-10	(+14)	1435	362	421	336	4.31	11.45	4.27	1.08	1.25
-5	(+23)	1772	446	519	373	4.59	14.27	4.75	1.20	1.39
0	(+32)	2155	543	631	410	4.86	17.54	5.25	1.32	1.54
+5	(+41)	2585	651	757	447	5.13	21.29	5.76	1.45	1.69
+10	(+50)	3061	771	897	484	5.38	25.54	6.25	1.58	1.83

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		