

COMPRESSOR DEFINITION

Designation	NB 6144GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	994IA50

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[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	1/5	[hp]
2 Displacement	4.51	[cm ³] (0.275 cu.in)
2.1 Bore [mm]	20.873	
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)	10.28	[kg] (22.66 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0027	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0058/G5	
6 Start winding resistance	30.14	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	8.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	13.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.09	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
2045	515	599	320	2.06	16.84	6.39	1.61	1.87

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			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)	917	231	269	193	1.73	5.82	4.75	1.20	1.39
-15	(+ 5)	1155	291	338	209	1.76	7.37	5.52	1.39	1.62
-10	(+14)	1440	363	422	225	1.80	9.25	6.40	1.61	1.88
-5	(+23)	1771	446	519	240	1.83	11.46	7.38	1.86	2.16
0	(+32)	2150	542	630	254	1.87	14.03	8.46	2.13	2.48
+5	(+41)	2577	649	755	267	1.91	16.98	9.64	2.43	2.82
+10	(+50)	3051	769	894	278	1.95	20.33	10.91	2.75	3.20

TEST CONDITIONS: @220V50Hz			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)	775	195	227	196	1.69	5.43	3.96	1.00	1.16
-15	(+ 5)	986	248	289	215	1.74	6.95	4.58	1.16	1.34
-10	(+14)	1238	312	363	234	1.80	8.79	5.28	1.33	1.55
-5	(+23)	1531	386	449	253	1.85	10.96	6.05	1.53	1.77
0	(+32)	1866	470	547	271	1.91	13.48	6.89	1.74	2.02
+5	(+41)	2242	565	657	288	1.96	16.37	7.79	1.96	2.28
+10	(+50)	2660	670	779	304	2.02	19.65	8.76	2.21	2.57

TEST CONDITIONS: @220V50Hz			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)	627	158	184	199	1.65	4.93	3.15	0.79	0.92
-15	(+ 5)	810	204	237	222	1.73	6.41	3.66	0.92	1.07
-10	(+14)	1028	259	301	244	1.80	8.20	4.21	1.06	1.23
-5	(+23)	1281	323	375	267	1.88	10.32	4.80	1.21	1.41
0	(+32)	1569	395	460	289	1.95	12.77	5.43	1.37	1.59
+5	(+41)	1893	477	555	310	2.02	15.60	6.09	1.53	1.78
+10	(+50)	2254	568	660	331	2.10	18.80	6.79	1.71	1.99

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		