

### COMPRESSOR DEFINITION

Designation	<b>NB 6165GK</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>994NA51</b>

### 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 - 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)	25.7	[kgf/cm <sup>2</sup> ] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm <sup>2</sup> ] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/4+	[hp]
2 Displacement	6.05	[cm <sup>3</sup> ] (0.369 cu.in)
2.1 Bore [mm]	21.996	
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)	10.38	[kg] (22.88 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL 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-0029	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0660/G5	
6 Start winding resistance	31.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	6.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	14.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.84	[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]
2833	714	830	488	2.91	23.32	5.81	1.46	1.70

### 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)	1303	328	382	267	2.23	8.27	4.88	1.23	1.43
-15	(+ 5)	1613	407	473	297	2.30	10.30	5.43	1.37	1.59
-10	(+14)	1994	502	584	326	2.38	12.80	6.11	1.54	1.79
-5	(+23)	2444	616	716	354	2.46	15.81	6.91	1.74	2.02
0	(+32)	2965	747	869	380	2.53	19.35	7.80	1.97	2.29
+5	(+41)	3556	896	1042	405	2.60	23.44	8.78	2.21	2.57
+10	(+50)	4217	1063	1236	427	2.65	28.11	9.82	2.47	2.88

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)	1120	282	328	277	2.17	7.84	4.05	1.02	1.19
-15	(+ 5)	1398	352	410	309	2.28	9.86	4.53	1.14	1.33
-10	(+14)	1736	437	509	341	2.39	12.32	5.09	1.28	1.49
-5	(+23)	2132	537	625	373	2.50	15.26	5.71	1.44	1.67
0	(+32)	2587	652	758	405	2.61	18.69	6.39	1.61	1.87
+5	(+41)	3100	781	909	437	2.71	22.63	7.11	1.79	2.08
+10	(+50)	3673	926	1076	468	2.81	27.12	7.85	1.98	2.30

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)	929	234	272	287	2.10	7.31	3.24	0.82	0.95
-15	(+ 5)	1175	296	344	321	2.24	9.30	3.66	0.92	1.07
-10	(+14)	1467	370	430	356	2.39	11.71	4.12	1.04	1.21
-5	(+23)	1807	455	529	393	2.53	14.55	4.60	1.16	1.35
0	(+32)	2194	553	643	431	2.68	17.86	5.09	1.28	1.49
+5	(+41)	2628	662	770	470	2.82	21.65	5.57	1.40	1.63
+10	(+50)	3110	784	911	510	2.95	25.95	6.02	1.52	1.76

### 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		