

### COMPRESSOR DEFINITION

Designation	<b>NT 6220GK</b>
Nominal Voltage/Frequency	<b>208-230 V 60 Hz</b>
Engineering Number	<b>922BD04</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[ V / Hz ]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°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 temperature			
9.1 Operating (gauge)	25.2	[kgf/cm <sup>2</sup> ] (358 psig)	/ °C - °F
9.2 Peak (gauge)	28.3	[kgf/cm <sup>2</sup> ] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.50	[cm <sup>3</sup> ] (0.885 cu.in)
2.1 Bore [mm]	34.120	
2.2 Stroke [mm]	15.870	
3 Lubricant charge	450	[ml] (15.22 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	16.9	[kg] (37.26 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH61-65	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0558/G9	
6 Start winding resistance	6.49	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.69	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
8270	2084	2423	1212	6.84	68.08	6.82	1.72	2.00

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			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)	4015	1012	1176	619	4.08	25.47	6.47	1.63	1.90
-15	(+ 5)	4961	1250	1454	680	4.34	31.68	7.30	1.84	2.14
-10	(+14)	6097	1536	1786	741	4.61	39.16	8.24	2.08	2.41
-5	(+23)	7432	1873	2178	802	4.88	48.08	9.27	2.34	2.72
0	(+32)	8977	2262	2631	862	5.16	58.58	10.41	2.62	3.05
+5	(+41)	10743	2707	3148	923	5.45	70.84	11.63	2.93	3.41
+10	(+50)	12738	3210	3733	983	5.74	85.02	12.95	3.26	3.79

TEST CONDITIONS: @208V60Hz			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)	3349	844	981	663	4.25	23.44	5.05	1.27	1.48
-15	(+ 5)	4197	1058	1230	740	4.60	29.59	5.67	1.43	1.66
-10	(+14)	5195	1309	1522	816	4.95	36.88	6.36	1.60	1.86
-5	(+23)	6355	1601	1862	893	5.32	45.47	7.11	1.79	2.08
0	(+32)	7686	1937	2252	969	5.68	55.54	7.93	2.00	2.32
+5	(+41)	9200	2318	2696	1045	6.06	67.23	8.80	2.22	2.58
+10	(+50)	10906	2748	3196	1121	6.44	80.73	9.74	2.45	2.85

TEST CONDITIONS: @208V60Hz			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)	2750	693	806	700	4.41	21.65	3.93	0.99	1.15
-15	(+ 5)	3484	878	1021	795	4.85	27.58	4.38	1.10	1.28
-10	(+14)	4331	1091	1269	889	5.28	34.53	4.87	1.23	1.43
-5	(+23)	5302	1336	1554	983	5.73	42.67	5.40	1.36	1.58
0	(+32)	6406	1614	1877	1076	6.18	52.15	5.96	1.50	1.75
+5	(+41)	7654	1929	2243	1170	6.63	63.14	6.54	1.65	1.92
+10	(+50)	9056	2282	2654	1264	7.09	75.80	7.15	1.80	2.10

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Vertical		
3.3 PROCESS	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		