

COMPRESSOR DEFINITION

Designation	NT 6220GK
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	922BN04

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	200-240 / 50	[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	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.50	[cm ³] (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)	17	[kg] (37.48 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	200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-55	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRA38112-3259	
6 Start winding resistance	12.16	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.86	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	31.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	4.60	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			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]
8765	2209	2568	1185	6.19	72.16	7.40	1.86	2.17

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz			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)	4071	1026	1193	664	3.82	25.85	6.12	1.54	1.79
-15	(+ 5)	5083	1281	1489	725	4.11	32.46	7.01	1.77	2.05
-10	(+14)	6300	1588	1846	782	4.38	40.47	8.06	2.03	2.36
-5	(+23)	7724	1947	2263	835	4.61	49.96	9.26	2.33	2.71
0	(+32)	9355	2357	2741	884	4.82	61.04	10.59	2.67	3.10
+5	(+41)	11191	2820	3279	929	5.01	73.80	12.05	3.04	3.53
+10	(+50)	13234	3335	3878	970	5.18	88.34	13.63	3.44	3.99

TEST CONDITIONS: @230V60Hz			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)	3379	852	990	709	4.11	23.67	4.78	1.20	1.40
-15	(+ 5)	4268	1076	1251	786	4.46	30.09	5.44	1.37	1.59
-10	(+14)	5344	1347	1566	858	4.79	37.92	6.23	1.57	1.82
-5	(+23)	6607	1665	1936	925	5.09	47.26	7.13	1.80	2.09
0	(+32)	8056	2030	2360	989	5.35	58.19	8.14	2.05	2.39
+5	(+41)	9691	2442	2840	1047	5.60	70.83	9.25	2.33	2.71
+10	(+50)	11513	2901	3374	1102	5.82	85.26	10.45	2.63	3.06

TEST CONDITIONS: @230V60Hz			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)	2734	689	801	731	4.19	21.49	3.73	0.94	1.09
-15	(+ 5)	3464	873	1015	831	4.63	27.43	4.17	1.05	1.22
-10	(+14)	4361	1099	1278	926	5.04	34.80	4.71	1.19	1.38
-5	(+23)	5424	1367	1589	1016	5.42	43.69	5.34	1.34	1.56
0	(+32)	6654	1677	1950	1101	5.77	54.19	6.04	1.52	1.77
+5	(+41)	8051	2029	2359	1182	6.09	66.41	6.81	1.72	2.00
+10	(+50)	9615	2423	2817	1258	6.38	80.44	7.65	1.93	2.24

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		