

COMPRESSOR DEFINITION

Designation	NT 6220GKV
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	922JD09

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 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	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)	16.9	[kg] (37.26 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-61-31	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0558/J5	
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)	26.50	[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]	
8211	2069	2406	1216	6.85	67.60	6.75	1.70	1.98	

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)	3950	995	1157	619	4.08	25.01	6.40	1.61	1.88
-15	(+ 5)	4972	1253	1457	680	4.34	31.76	7.32	1.85	2.15
-10	(+14)	6148	1549	1801	741	4.61	39.52	8.30	2.09	2.43
-5	(+23)	7492	1888	2195	802	4.88	48.50	9.34	2.35	2.74
0	(+32)	9021	2273	2643	862	5.16	58.89	10.45	2.63	3.06
+5	(+41)	10751	2709	3150	923	5.45	70.90	11.64	2.93	3.41
+10	(+50)	12698	3200	3721	983	5.74	84.72	12.92	3.25	3.78

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)	3480	877	1020	663	4.25	24.39	5.20	1.31	1.53
-15	(+ 5)	4333	1092	1270	740	4.60	30.56	5.84	1.47	1.71
-10	(+14)	5301	1336	1553	816	4.95	37.62	6.49	1.64	1.90
-5	(+23)	6400	1613	1875	893	5.32	45.78	7.18	1.81	2.10
0	(+32)	7647	1927	2241	969	5.68	55.23	7.90	1.99	2.32
+5	(+41)	9057	2282	2654	1045	6.06	66.18	8.68	2.19	2.54
+10	(+50)	10647	2683	3120	1121	6.44	78.82	9.51	2.40	2.79

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)	2687	677	787	700	4.41	21.19	3.86	0.97	1.13
-15	(+ 5)	3493	880	1024	795	4.85	27.64	4.40	1.11	1.29
-10	(+14)	4377	1103	1283	889	5.28	34.87	4.93	1.24	1.44
-5	(+23)	5355	1349	1569	983	5.73	43.07	5.45	1.37	1.60
0	(+32)	6443	1624	1888	1076	6.18	52.44	5.99	1.51	1.75
+5	(+41)	7657	1930	2244	1170	6.63	63.18	6.54	1.65	1.92
+10	(+50)	9013	2271	2641	1264	7.09	75.49	7.12	1.79	2.09

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal
2 Tray holder	No
3 Connectors	
3.1 SUCTION	12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010")
3.1.1 Material	Steel
3.1.2 Shape	ROTOLOCK(Ex. thr. 1"-14UNS-2A)
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