

COMPRESSOR DEFINITION

Designation	NT 6220GKV
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	922JN09

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 (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[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: @200V50Hz			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]
7232	1822	2119	961	5.80	59.54	7.53	1.90	2.21

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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)	3236	816	948	499	3.70	20.52	6.49	1.63	1.90
-15	(+ 5)	4109	1036	1204	543	3.89	26.24	7.58	1.91	2.22
-10	(+14)	5158	1300	1511	589	4.08	33.15	8.76	2.21	2.57
-5	(+23)	6384	1609	1871	637	4.27	41.31	10.02	2.53	2.94
0	(+32)	7786	1962	2281	687	4.48	50.82	11.34	2.86	3.32
+5	(+41)	9364	2360	2744	737	4.69	61.75	12.71	3.20	3.72
+10	(+50)	11119	2802	3258	788	4.92	74.20	14.09	3.55	4.13

TEST CONDITIONS: @200V50Hz			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)	2721	686	797	528	3.82	19.07	5.15	1.30	1.51
-15	(+ 5)	3433	865	1006	587	4.07	24.21	5.85	1.47	1.71
-10	(+14)	4309	1086	1263	648	4.33	30.57	6.65	1.67	1.95
-5	(+23)	5348	1348	1567	711	4.61	38.24	7.51	1.89	2.20
0	(+32)	6551	1651	1920	776	4.90	47.31	8.44	2.13	2.47
+5	(+41)	7916	1995	2320	842	5.22	57.85	9.40	2.37	2.75
+10	(+50)	9445	2380	2768	910	5.55	69.95	10.39	2.62	3.04

TEST CONDITIONS: @200V50Hz			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)	2283	575	669	554	3.93	17.95	4.12	1.04	1.21
-15	(+ 5)	2858	720	838	623	4.22	22.63	4.60	1.16	1.35
-10	(+14)	3584	903	1050	695	4.53	28.59	5.16	1.30	1.51
-5	(+23)	4459	1124	1307	770	4.87	35.90	5.79	1.46	1.70
0	(+32)	5485	1382	1607	847	5.23	44.66	6.48	1.63	1.90
+5	(+41)	6660	1678	1952	925	5.62	54.94	7.20	1.81	2.11
+10	(+50)	7986	2012	2340	1005	6.04	66.83	7.94	2.00	2.33

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		