

COMPRESSOR DEFINITION

Designation	NT 6224GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	922RA04

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 10°C	(-4°F to 50°F)	
5 Motor type	CSCR		
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	1	[hp]
2 Displacement	20.44	[cm ³] (1.247 cu.in)
2.1 Bore [mm]	36.990	
2.2 Stroke [mm]	19.030	
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)	17.2	[kg] (37.92 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3ARR3B6AV3	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	25(440)	[µF(VAC minimum)]
5 Motor protection	T0590/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 (50 Hz)	29.00	[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	VDE	

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]
10318	2600	3023	1271	6.02	84.94	8.12	2.05	2.38

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)	4653	1173	1363	743	3.70	29.48	6.27	1.58	1.84
-15	(+ 5)	5909	1489	1732	801	3.96	37.74	7.38	1.86	2.16
-10	(+14)	7375	1858	2161	859	4.22	47.40	8.58	2.16	2.51
-5	(+23)	9049	2280	2652	917	4.48	58.57	9.86	2.49	2.89
0	(+32)	10932	2755	3203	974	4.73	71.37	11.22	2.83	3.29
+5	(+41)	13025	3282	3817	1030	4.98	85.90	12.65	3.19	3.71
+10	(+50)	15326	3862	4491	1083	5.23	102.26	14.14	3.56	4.14

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)	3996	1007	1171	785	3.90	28.02	5.07	1.28	1.49
-15	(+ 5)	5043	1271	1478	857	4.21	35.56	5.88	1.48	1.72
-10	(+14)	6279	1582	1840	928	4.53	44.55	6.76	1.70	1.98
-5	(+23)	7703	1941	2257	999	4.84	55.09	7.71	1.94	2.26
0	(+32)	9317	2348	2730	1069	5.16	67.29	8.72	2.20	2.56
+5	(+41)	11120	2802	3258	1137	5.48	81.26	9.79	2.47	2.87
+10	(+50)	13112	3304	3842	1203	5.80	97.10	10.90	2.75	3.20

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)	3249	819	952	835	4.12	25.58	3.90	0.98	1.14
-15	(+ 5)	4154	1047	1217	919	4.49	32.89	4.53	1.14	1.33
-10	(+14)	5228	1318	1532	1002	4.86	41.69	5.22	1.31	1.53
-5	(+23)	6471	1631	1896	1086	5.24	52.08	5.96	1.50	1.75
0	(+32)	7884	1987	2310	1168	5.63	64.17	6.75	1.70	1.98
+5	(+41)	9465	2385	2773	1249	6.02	78.07	7.58	1.91	2.22
+10	(+50)	11215	2826	3286	1328	6.43	93.88	8.44	2.13	2.47

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		