

COMPRESSOR DEFINITION

Designation	NT 6224GKV
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	922GD04

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	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 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	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)	16.85	[kg] (37.15 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	Voltage Relay	
2.1 Starting device	3ARR3B10A3	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(440)	[µF(VAC minimum)]
5 Motor protection	T0928/G9	
6 Start winding resistance	6.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.58	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	36.00	[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)	6.80	[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]
11984	3020	3512	1562	7.70	98.66	7.67	1.93	2.25

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)	5862	1477	1718	834	4.05	37.20	7.02	1.77	2.06
-15	(+ 5)	7193	1813	2108	908	4.40	45.94	7.93	2.00	2.32
-10	(+14)	8755	2206	2565	985	4.75	56.24	8.90	2.24	2.61
-5	(+23)	10565	2662	3096	1064	5.11	68.34	9.93	2.50	2.91
0	(+32)	12641	3185	3704	1146	5.48	82.49	11.03	2.78	3.23
+5	(+41)	14998	3779	4395	1230	5.85	98.90	12.19	3.07	3.57
+10	(+50)	17654	4449	5173	1315	6.22	117.84	13.43	3.38	3.93

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)	4940	1245	1447	875	4.25	34.59	5.65	1.42	1.66
-15	(+ 5)	6149	1550	1802	970	4.72	43.35	6.34	1.60	1.86
-10	(+14)	7547	1902	2211	1066	5.21	53.56	7.08	1.78	2.07
-5	(+23)	9148	2305	2681	1165	5.70	65.45	7.85	1.98	2.30
0	(+32)	10971	2765	3215	1265	6.20	79.27	8.67	2.18	2.54
+5	(+41)	13032	3284	3819	1367	6.70	95.25	9.53	2.40	2.79
+10	(+50)	15348	3868	4497	1470	7.21	113.62	10.45	2.63	3.06

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)	4012	1011	1176	914	4.45	31.58	4.40	1.11	1.29
-15	(+ 5)	5091	1283	1492	1031	5.03	40.29	4.93	1.24	1.44
-10	(+14)	6314	1591	1850	1150	5.62	50.34	5.48	1.38	1.61
-5	(+23)	7697	1940	2255	1271	6.21	61.96	6.06	1.53	1.78
0	(+32)	9258	2333	2713	1392	6.82	75.39	6.66	1.68	1.95
+5	(+41)	11013	2775	3227	1514	7.43	90.86	7.28	1.83	2.13
+10	(+50)	12979	3271	3803	1636	8.04	108.61	7.93	2.00	2.32

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		