

COMPRESSOR DEFINITION

Designation	NT 6222GKV
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	922KN09

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	1	[hp]
2 Displacement	17.39	[cm ³] (1.061 cu.in)
2.1 Bore [mm]	34.120	
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	[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-60-59	
3 Start capacitor	130-156(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0750/G6	
6 Start winding resistance	10.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.75	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	37.00	[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	IMQ - IRAM - UL	

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]
10118	2550	2965	1437	7.39	83.30	7.04	1.77	2.06

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V50Hz			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)	4033	1016	1182	637	4.63	25.64	6.31	1.59	1.85
-15	(+ 5)	5000	1260	1465	699	4.89	31.93	7.15	1.80	2.10
-10	(+14)	6186	1559	1813	758	5.14	39.71	8.17	2.06	2.39
-5	(+23)	7589	1912	2224	813	5.37	49.06	9.35	2.36	2.74
0	(+32)	9211	2321	2699	863	5.59	60.09	10.68	2.69	3.13
+5	(+41)	11050	2785	3238	909	5.80	72.88	12.16	3.06	3.56
+10	(+50)	13108	3303	3841	951	6.00	87.52	13.78	3.47	4.04

TEST CONDITIONS: @230V50Hz			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)	3352	845	982	676	4.79	23.44	4.98	1.26	1.46
-15	(+ 5)	4228	1066	1239	755	5.12	29.81	5.61	1.41	1.65
-10	(+14)	5276	1330	1546	830	5.44	37.46	6.35	1.60	1.86
-5	(+23)	6496	1637	1904	902	5.76	46.49	7.19	1.81	2.11
0	(+32)	7888	1988	2311	970	6.07	57.00	8.12	2.05	2.38
+5	(+41)	9451	2382	2769	1034	6.38	69.08	9.13	2.30	2.68
+10	(+50)	11187	2819	3278	1095	6.68	82.81	10.22	2.58	3.00

TEST CONDITIONS: @230V50Hz			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)	2587	652	758	709	4.91	20.33	3.64	0.92	1.07
-15	(+ 5)	3385	853	992	807	5.33	26.81	4.18	1.05	1.23
-10	(+14)	4308	1086	1262	902	5.75	34.38	4.77	1.20	1.40
-5	(+23)	5357	1350	1570	993	6.17	43.14	5.39	1.36	1.58
0	(+32)	6531	1646	1914	1082	6.59	53.18	6.04	1.52	1.77
+5	(+41)	7831	1973	2295	1168	7.01	64.58	6.72	1.69	1.97
+10	(+50)	9257	2333	2712	1251	7.44	77.45	7.40	1.87	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)	4996	1259	1464	741	4.55	31.70	6.74	1.70	1.97
-15	(+ 5)	6134	1546	1797	807	4.80	39.17	7.61	1.92	2.23
-10	(+14)	7509	1892	2200	876	5.06	48.24	8.58	2.16	2.51
-5	(+23)	9121	2298	2673	946	5.33	59.01	9.64	2.43	2.82
0	(+32)	10969	2764	3214	1019	5.62	71.58	10.76	2.71	3.15
+5	(+41)	13054	3290	3825	1093	5.93	86.09	11.94	3.01	3.50
+10	(+50)	15375	3874	4505	1170	6.25	102.62	13.14	3.31	3.85

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)	4247	1070	1244	801	4.75	29.75	5.30	1.34	1.55
-15	(+ 5)	5230	1318	1532	883	5.07	36.87	5.93	1.49	1.74
-10	(+14)	6420	1618	1881	966	5.40	45.56	6.64	1.67	1.95
-5	(+23)	7816	1970	2290	1051	5.75	55.91	7.44	1.87	2.18
0	(+32)	9419	2374	2760	1137	6.11	68.04	8.28	2.09	2.43
+5	(+41)	11229	2830	3290	1225	6.49	82.06	9.17	2.31	2.69
+10	(+50)	13246	3338	3881	1315	6.89	98.08	10.07	2.54	2.95

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)	3512	885	1029	836	4.89	27.62	4.20	1.06	1.23
-15	(+ 5)	4340	1094	1272	940	5.30	34.37	4.62	1.16	1.35
-10	(+14)	5345	1347	1566	1045	5.72	42.64	5.11	1.29	1.50
-5	(+23)	6527	1645	1913	1151	6.15	52.55	5.67	1.43	1.66
0	(+32)	7886	1987	2311	1258	6.60	64.21	6.27	1.58	1.84
+5	(+41)	9422	2374	2761	1366	7.07	77.71	6.91	1.74	2.02
+10	(+50)	11135	2806	3263	1474	7.55	93.18	7.55	1.90	2.21

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