

COMPRESSOR DEFINITION

Designation	NT 6224U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	842CA09

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
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 - Hight 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	18.4	[kgf/cm ²] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	22.37	[cm ³] (1.365 cu.in)
2.1 Bore [mm]	36.990	
2.2 Stroke [mm]	20.830	
3 Lubricant charge	450	[ml] (15.22 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	AB / ISO32	
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	RVA3AN3C-575	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	20(420)	[µF(VAC minimum)]
5 Motor protection	T0907/G6	
6 Start winding resistance	8.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.30	[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	CCC - 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 (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
9702	2445	2843	1040	4.85	33.21	9.33	2.35	2.73

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	4257	1073	1247	573	2.64	12.01	7.43	1.87	2.18
-15	(+ 5)	5483	1382	1607	624	2.86	15.53	8.78	2.21	2.57
-10	(+14)	6856	1728	2009	670	3.06	19.51	10.23	2.58	3.00
-5	(+23)	8365	2108	2451	712	3.25	23.91	11.75	2.96	3.44
0	(+32)	9999	2520	2930	752	3.44	28.74	13.31	3.35	3.90
+5	(+41)	11746	2960	3442	789	3.61	33.98	14.90	3.75	4.36
+10	(+50)	13594	3426	3983	825	3.77	39.61	16.47	4.15	4.83

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	3601	907	1055	615	2.84	11.01	5.86	1.48	1.72
-15	(+ 5)	4618	1164	1353	679	3.12	14.15	6.81	1.72	1.99
-10	(+14)	5809	1464	1702	737	3.38	17.86	7.88	1.98	2.31
-5	(+23)	7165	1806	2100	792	3.62	22.14	9.04	2.28	2.65
0	(+32)	8673	2186	2541	844	3.84	26.97	10.27	2.59	3.01
+5	(+41)	10322	2601	3025	894	4.05	32.34	11.55	2.91	3.38
+10	(+50)	12100	3049	3546	943	4.24	38.24	12.84	3.23	3.76

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	3073	774	900	646	2.94	10.23	4.74	1.20	1.39
-15	(+ 5)	3856	972	1130	727	3.32	12.90	5.32	1.34	1.56
-10	(+14)	4842	1220	1419	803	3.67	16.29	6.04	1.52	1.77
-5	(+23)	6019	1517	1764	875	4.00	20.36	6.88	1.73	2.02
0	(+32)	7377	1859	2162	943	4.30	25.12	7.81	1.97	2.29
+5	(+41)	8903	2244	2609	1010	4.57	30.54	8.81	2.22	2.58
+10	(+50)	10587	2668	3102	1075	4.83	36.62	9.85	2.48	2.89

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		