

COMPRESSOR DEFINITION

Designation	NT 6220U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	842DA04

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	3/4	[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	AB / ISO32	
4 Weight (with oil charge)	17	[kg] (37.48 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	RVA4AL3C-560	
3 Start capacitor	43-53(330)	[μF(VAC minimum)]
4 Run capacitor	15(440)	[μF(VAC minimum)]
5 Motor protection	T0485/G9	
6 Start winding resistance	9.00	[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	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]
7678	1935	2250	806	4.28	26.28	9.53	2.40	2.79

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)	3507	884	1028	507	3.19	0.95	6.90	1.74	2.02
-15	(+ 5)	4270	1076	1251	539	3.29	10.07	7.93	2.00	2.32
-10	(+14)	5234	1319	1534	568	3.39	15.65	9.23	2.32	2.70
-5	(+23)	6403	1614	1876	593	3.48	19.20	10.79	2.72	3.16
0	(+32)	7781	1961	2280	616	3.56	22.26	12.64	3.19	3.70
+5	(+41)	9371	2362	2746	635	3.63	26.32	14.77	3.72	4.33
+10	(+50)	11178	2817	3276	651	3.70	32.93	17.18	4.33	5.03

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)	2825	712	828	524	3.27	0.40	5.43	1.37	1.59
-15	(+ 5)	3572	900	1047	570	3.42	9.31	6.27	1.58	1.84
-10	(+14)	4478	1128	1312	612	3.56	14.68	7.30	1.84	2.14
-5	(+23)	5546	1398	1625	649	3.69	18.03	8.52	2.15	2.50
0	(+32)	6780	1708	1987	681	3.80	20.90	9.94	2.50	2.91
+5	(+41)	8184	2062	2398	708	3.90	24.78	11.55	2.91	3.38
+10	(+50)	9762	2460	2861	731	4.00	31.22	13.37	3.37	3.92

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)	2477	624	726	550	3.35	0.57	4.49	1.13	1.32
-15	(+ 5)	3157	795	925	612	3.57	9.14	5.15	1.30	1.51
-10	(+14)	3952	996	1158	668	3.76	14.18	5.92	1.49	1.73
-5	(+23)	4867	1226	1426	717	3.94	17.21	6.79	1.71	1.99
0	(+32)	5905	1488	1730	761	4.10	19.77	7.77	1.96	2.28
+5	(+41)	7071	1782	2072	797	4.24	23.35	8.88	2.24	2.60
+10	(+50)	8369	2109	2452	827	4.37	29.49	10.10	2.55	2.96

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		