

COMPRESSOR DEFINITION

Designation	NT X6238U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	843JA82

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 1/2	[hp]
2 Displacement	33.42	[cm ³] (2.039 cu.in)
2.1 Bore [mm]	41.770	
2.2 Stroke [mm]	24.400	
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)	17.8	[kg] (39.24 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL 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	RVA3G3C-101	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	30(400)	[µF(VAC minimum)]
5 Motor protection	USP-605-84	
6 Start winding resistance	3.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.55	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	40.00	[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]
15071	3798	4416	1701	8.10	51.58	8.86	2.23	2.60

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)	7044	1775	2064	963	4.72	19.87	7.32	1.84	2.14
-15	(+ 5)	8705	2194	2551	1039	5.05	24.67	8.38	2.11	2.46
-10	(+14)	10624	2677	3113	1116	5.38	30.22	9.52	2.40	2.79
-5	(+23)	12799	3225	3751	1193	5.73	36.59	10.72	2.70	3.14
0	(+32)	15233	3839	4463	1271	6.08	43.78	11.97	3.02	3.51
+5	(+41)	17923	4517	5252	1350	6.44	51.85	13.27	3.34	3.89
+10	(+50)	20871	5260	6116	1430	6.80	60.82	14.60	3.68	4.28

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)	6230	1570	1826	1035	4.98	19.01	6.00	1.51	1.76
-15	(+ 5)	7693	1939	2254	1128	5.42	23.57	6.82	1.72	2.00
-10	(+14)	9388	2366	2751	1220	5.85	28.88	7.70	1.94	2.26
-5	(+23)	11317	2852	3316	1312	6.28	34.99	8.63	2.18	2.53
0	(+32)	13477	3396	3949	1403	6.70	41.93	9.61	2.42	2.82
+5	(+41)	15871	3999	4651	1493	7.11	49.73	10.63	2.68	3.12
+10	(+50)	18497	4661	5420	1583	7.52	58.42	11.68	2.94	3.42

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)	5253	1324	1539	1092	5.24	17.51	4.82	1.21	1.41
-15	(+ 5)	6583	1659	1929	1211	5.79	22.03	5.43	1.37	1.59
-10	(+14)	8121	2046	2380	1328	6.33	27.30	6.11	1.54	1.79
-5	(+23)	9866	2486	2891	1443	6.85	33.35	6.83	1.72	2.00
0	(+32)	11820	2979	3463	1557	7.36	40.23	7.59	1.91	2.23
+5	(+41)	13981	3523	4097	1668	7.85	47.96	8.39	2.11	2.46
+10	(+50)	16351	4120	4791	1777	8.32	56.58	9.20	2.32	2.70

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		