

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 Expantion 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/cm²] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm²] (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			EN12900MBP Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
8479	2137	2485	1244	5.92	30.51	6.82	1.72	2.00

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900 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)	6377	1607	1868	965	4.69	20.67	6.60	1.66	1.93
-15	(+ 5)	7883	1987	2310	1042	5.03	25.70	7.57	1.91	2.22
-10	(+14)	9622	2425	2819	1120	5.38	31.55	8.60	2.17	2.52
-5	(+23)	11591	2921	3396	1200	5.74	38.27	9.66	2.43	2.83
0	(+32)	13792	3475	4041	1283	6.11	45.92	10.75	2.71	3.15
+5	(+41)	16223	4088	4754	1368	6.49	54.55	11.86	2.99	3.48
+10	(+50)	18887	4759	5534	1455	6.89	64.23	12.99	3.27	3.80

TEST CONDITIONS: @220V50Hz		EN12900 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)	5481	1381	1606	1040	5.04	19.48	5.27	1.33	1.54
-15	(+ 5)	6817	1718	1998	1133	5.45	24.38	6.02	1.52	1.76
-10	(+14)	8361	2107	2450	1226	5.86	30.09	6.82	1.72	2.00
-5	(+23)	10111	2548	2963	1320	6.28	36.66	7.66	1.93	2.25
0	(+32)	12069	3041	3536	1413	6.71	44.17	8.54	2.15	2.50
+5	(+41)	14233	3587	4171	1507	7.14	52.66	9.45	2.38	2.77
+10	(+50)	16605	4184	4866	1601	7.58	62.20	10.36	2.61	3.04

TEST CONDITIONS: @220V50Hz		EN12900 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)	4622	1165	1354	1096	5.25	18.28	4.22	1.06	1.24
-15	(+ 5)	5773	1455	1692	1214	5.77	22.98	4.75	1.20	1.39
-10	(+14)	7106	1791	2082	1329	6.29	28.49	5.34	1.35	1.56
-5	(+23)	8623	2173	2527	1443	6.82	34.88	5.97	1.50	1.75
0	(+32)	10322	2601	3025	1555	7.35	42.19	6.64	1.67	1.95
+5	(+41)	12204	3075	3576	1664	7.88	50.48	7.34	1.85	2.15
+10	(+50)	14269	3596	4181	1772	8.42	59.83	8.05	2.03	2.36

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		