

COMPRESSOR DEFINITION

Designation	NT X2213UV
Nominal Voltage/Frequency	230 V 60 Hz
Engineering Number	843LJ72

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	230 / 60	[V / Hz]	
4 Application type	Low Back Pressure R290		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°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	230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2AG3C-117	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	30(400)	[µF(VAC minimum)]
5 Motor protection	USP-577-84	
6 Start winding resistance	3.07	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.44	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	32.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]	
6275	1581	1839	1182	5.06	18.68	5.31	1.34	1.56	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		ASHRAE32 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]
-40	(-40)	3217	811	943	735	3.21	9.50	4.37	1.10	1.28
-35	(-31)	4144	1044	1214	833	3.66	12.26	4.97	1.25	1.46
-30	(-22)	5277	1330	1546	932	4.09	15.65	5.66	1.43	1.66
-25	(-13)	6616	1667	1939	1030	4.52	19.68	6.42	1.62	1.88
-20	(- 4)	8162	2057	2392	1129	4.95	24.36	7.23	1.82	2.12
-15	(+ 5)	9913	2498	2905	1228	5.37	29.70	8.08	2.04	2.37
-10	(+14)	11871	2991	3478	1327	5.79	35.72	8.94	2.25	2.62

TEST CONDITIONS: @230V60Hz		ASHRAE32 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]
-40	(-40)	2978	751	873	759	3.31	8.79	3.93	0.99	1.15
-35	(-31)	3864	974	1132	866	3.79	11.43	4.47	1.13	1.31
-30	(-22)	4964	1251	1455	977	4.28	14.72	5.08	1.28	1.49
-25	(-13)	6278	1582	1840	1091	4.78	18.67	5.75	1.45	1.68
-20	(- 4)	7806	1967	2287	1210	5.30	23.29	6.45	1.62	1.89
-15	(+ 5)	9547	2406	2798	1332	5.84	28.60	7.17	1.81	2.10
-10	(+14)	11502	2899	3370	1458	6.39	34.61	7.89	1.99	2.31

TEST CONDITIONS: @230V60Hz		ASHRAE32 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]
-40	(-40)	2725	687	799	781	3.41	8.04	3.48	0.88	1.02
-35	(-31)	3560	897	1043	896	3.92	10.53	3.98	1.00	1.17
-30	(-22)	4616	1163	1353	1019	4.46	13.69	4.53	1.14	1.33
-25	(-13)	5894	1485	1727	1149	5.03	17.52	5.13	1.29	1.50
-20	(- 4)	7394	1863	2167	1287	5.64	22.06	5.75	1.45	1.68
-15	(+ 5)	9115	2297	2671	1432	6.28	27.30	6.37	1.60	1.87
-10	(+14)	11057	2786	3240	1585	6.96	33.26	6.98	1.76	2.04

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		