

COMPRESSOR DEFINITION

Designation	NT X2213U
Nominal Voltage/Frequency	230 V 50 Hz
Engineering Number	843IV72

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	230 / 50	[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 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2E3C-103	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	25(400)	[µF(VAC minimum)]
5 Motor protection	USP-553-84	
6 Start winding resistance	3.64	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.78	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	34.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	5.40	[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			EN12900LBP Fan		Evaporating temperature (Condensing temperature		-35°C (-31°F) 40°C (104°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]
3136	790	919	722	3.65	10.50	4.35	1.10	1.27

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]
-40	(-40)	2582	651	757	619	3.23	8.25	4.16	1.05	1.22
-35	(-31)	3343	842	980	711	3.63	10.72	4.71	1.19	1.38
-30	(-22)	4249	1071	1245	803	4.04	13.66	5.30	1.34	1.55
-25	(-13)	5300	1336	1553	896	4.47	17.10	5.92	1.49	1.73
-20	(- 4)	6497	1637	1904	990	4.91	21.06	6.56	1.65	1.92
-15	(+ 5)	7839	1976	2297	1084	5.36	25.55	7.23	1.82	2.12
-10	(+14)	9327	2350	2733	1180	5.83	30.59	7.90	1.99	2.32

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]
-40	(-40)	2154	543	631	644	3.33	7.54	3.36	0.85	0.98
-35	(-31)	2843	716	833	746	3.77	9.98	3.81	0.96	1.12
-30	(-22)	3655	921	1071	851	4.23	12.88	4.29	1.08	1.26
-25	(-13)	4591	1157	1345	958	4.72	16.24	4.78	1.21	1.40
-20	(- 4)	5651	1424	1656	1069	5.23	20.09	5.28	1.33	1.55
-15	(+ 5)	6834	1722	2003	1182	5.77	24.43	5.78	1.46	1.69
-10	(+14)	8142	2052	2386	1298	6.33	29.29	6.28	1.58	1.84

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]
-40	(-40)	1771	446	519	656	3.42	6.89	2.70	0.68	0.79
-35	(-31)	2376	599	696	772	3.91	9.27	3.07	0.77	0.90
-30	(-22)	3082	777	903	893	4.43	12.07	3.45	0.87	1.01
-25	(-13)	3891	980	1140	1018	4.99	15.30	3.82	0.96	1.12
-20	(- 4)	4801	1210	1407	1148	5.58	18.99	4.19	1.05	1.23
-15	(+ 5)	5813	1465	1703	1283	6.22	23.14	4.53	1.14	1.33
-10	(+14)	6928	1746	2030	1422	6.89	27.78	4.86	1.23	1.42

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		