

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			ARILBP18 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 48.9°C (120.02°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]
5429	1368	1591	1152	5.08	20.21	4.71	1.19	1.38

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz			ARI18 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)	2999	756	879	737	3.22	9.65	4.07	1.03	1.19
-35	(-31)	3899	983	1142	837	3.68	12.61	4.66	1.17	1.37
-30	(-22)	4991	1258	1462	936	4.13	16.20	5.33	1.34	1.56
-25	(-13)	6274	1581	1838	1036	4.58	20.44	6.05	1.53	1.77
-20	(- 4)	7750	1953	2271	1137	5.02	25.36	6.82	1.72	2.00
-15	(+ 5)	9417	2373	2759	1238	5.45	30.97	7.61	1.92	2.23
-10	(+14)	11275	2841	3304	1339	5.88	37.31	8.41	2.12	2.46

TEST CONDITIONS: @230V60Hz			ARI18 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)	2595	654	760	764	3.39	9.18	3.40	0.86	1.00
-35	(-31)	3332	840	976	870	3.85	11.81	3.83	0.96	1.12
-30	(-22)	4261	1074	1249	981	4.33	15.14	4.34	1.09	1.27
-25	(-13)	5381	1356	1577	1095	4.83	19.20	4.90	1.24	1.44
-20	(- 4)	6693	1687	1961	1214	5.35	24.01	5.51	1.39	1.61
-15	(+ 5)	8196	2065	2402	1336	5.88	29.60	6.14	1.55	1.80
-10	(+14)	9891	2492	2898	1463	6.43	35.97	6.77	1.71	1.98

TEST CONDITIONS: @230V60Hz			ARI18 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)	2240	564	656	791	3.47	8.80	2.82	0.71	0.83
-35	(-31)	2814	709	825	903	3.94	11.09	3.13	0.79	0.92
-30	(-22)	3580	902	1049	1023	4.46	14.17	3.51	0.88	1.03
-25	(-13)	4537	1143	1329	1151	5.02	18.04	3.94	0.99	1.15
-20	(- 4)	5685	1433	1666	1287	5.63	22.74	4.41	1.11	1.29
-15	(+ 5)	7024	1770	2058	1431	6.28	28.28	4.91	1.24	1.44
-10	(+14)	8554	2156	2507	1582	6.98	34.69	5.40	1.36	1.58

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		