

COMPRESSOR DEFINITION

Designation	NT X6238UV
Nominal Voltage/Frequency	230 V 60 Hz
Engineering Number	8430J72

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	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)	17.7	[kg] (39.02 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL 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	RVA2AE3C-105	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	30(400)	[µF(VAC minimum)]
5 Motor protection	USP-577-84	
6 Start winding resistance	2.44	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.39	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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			ARIMBP18 Fan		Evaporating temperature (Condensing temperature		-6.7°C (19.94°F) 48.9°C (120.02°F)	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
10442	2631	3060	1660	7.51	39.75	6.29	1.59	1.84

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz			ARI18 Fan		(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	7706	1942	2258	1149	5.33	25.19	6.71	1.69	1.97
-15	(+ 5)	9422	2374	2761	1250	5.76	31.02	7.55	1.90	2.21
-10	(+14)	11443	2884	3353	1355	6.19	37.92	8.45	2.13	2.48
-5	(+23)	13768	3470	4034	1465	6.63	45.94	9.40	2.37	2.75
0	(+32)	16399	4133	4805	1579	7.07	55.11	10.39	2.62	3.04
+5	(+41)	19335	4872	5665	1697	7.51	65.45	11.39	2.87	3.34
+10	(+50)	22575	5689	6615	1819	7.95	77.01	12.41	3.13	3.64

TEST CONDITIONS: @230V60Hz			ARI18 Fan		(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	6672	1681	1955	1240	5.74	23.91	5.37	1.35	1.57
-15	(+ 5)	8156	2055	2390	1352	6.22	29.42	6.03	1.52	1.77
-10	(+14)	9910	2497	2904	1466	6.71	36.03	6.76	1.70	1.98
-5	(+23)	11932	3007	3496	1582	7.22	43.78	7.55	1.90	2.21
0	(+32)	14224	3584	4168	1701	7.73	52.71	8.37	2.11	2.45
+5	(+41)	16785	4230	4918	1822	8.25	62.85	9.21	2.32	2.70
+10	(+50)	19615	4943	5748	1946	8.77	74.22	10.07	2.54	2.95

TEST CONDITIONS: @230V60Hz			ARI18 Fan		(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	5607	1413	1643	1306	6.03	22.50	4.30	1.08	1.26
-15	(+ 5)	6882	1734	2017	1448	6.61	27.67	4.75	1.20	1.39
-10	(+14)	8391	2115	2459	1591	7.21	33.97	5.27	1.33	1.54
-5	(+23)	10133	2554	2969	1733	7.83	41.44	5.84	1.47	1.71
0	(+32)	12109	3051	3548	1877	8.46	50.11	6.45	1.63	1.89
+5	(+41)	14318	3608	4196	2020	9.10	60.02	7.09	1.79	2.08
+10	(+50)	16761	4224	4911	2164	9.75	71.20	7.75	1.95	2.27

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		