

### 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 <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm <sup>2</sup> ] (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 <sup>3</sup> ] (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 <sup>2</sup> ]

### 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			ARIMBP 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]
10318	2600	3023	1617	7.34	43.12	6.38	1.61	1.87

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz			ARI4 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)	7654	1929	2243	1153	5.34	26.99	6.64	1.67	1.95
-15	(+ 5)	9317	2348	2730	1264	5.82	33.14	7.37	1.86	2.16
-10	(+14)	11305	2849	3313	1373	6.30	40.55	8.23	2.07	2.41
-5	(+23)	13619	3432	3991	1482	6.80	49.31	9.19	2.32	2.69
0	(+32)	16257	4097	4764	1589	7.29	59.50	10.23	2.58	3.00
+5	(+41)	19222	4844	5632	1695	7.77	71.20	11.34	2.86	3.32
+10	(+50)	22512	5673	6596	1801	8.23	84.49	12.50	3.15	3.66

TEST CONDITIONS: @230V60Hz			ARI4 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)	6505	1639	1906	1307	5.99	25.46	4.97	1.25	1.45
-15	(+ 5)	7871	1983	2306	1429	6.51	30.97	5.51	1.39	1.61
-10	(+14)	9572	2412	2805	1549	7.04	37.96	6.18	1.56	1.81
-5	(+23)	11608	2925	3401	1666	7.57	46.53	6.97	1.76	2.04
0	(+32)	13978	3522	4096	1780	8.10	56.75	7.86	1.98	2.30
+5	(+41)	16683	4204	4889	1891	8.60	68.70	8.83	2.22	2.59
+10	(+50)	19723	4970	5779	2000	9.08	82.47	9.85	2.48	2.89

TEST CONDITIONS: @230V60Hz			ARI4 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)	5452	1374	1598	1378	6.30	23.96	3.96	1.00	1.16
-15	(+ 5)	6581	1658	1928	1524	6.91	29.14	4.32	1.09	1.27
-10	(+14)	8054	2030	2360	1666	7.53	36.04	4.83	1.22	1.42
-5	(+23)	9871	2487	2892	1802	8.16	44.74	5.47	1.38	1.60
0	(+32)	12031	3032	3525	1934	8.77	55.31	6.21	1.57	1.82
+5	(+41)	14536	3663	4259	2062	9.36	67.85	7.05	1.78	2.07
+10	(+50)	17384	4381	5094	2185	9.92	82.42	7.96	2.01	2.33

### 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		