COMPRESSOR DEFINITION

Designation	**NT 6230U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**843DA02**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[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 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	19,1	[kgf/cm²] (272 psig)	/ ºC - ºF
9.2 Peak (gauge)	21,2	[kgf/cm²] (301 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1 1/4	[hp]
2 Displacement	27,80	[cm³] (1.696 cu.in)
2.1 Bore [mm]	38,100	
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)	17,4	[kg] (38.36 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA403C-123	
3 Start capacitor	130-156(330)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	T0828/C9	
6 Start winding resistance	8.40	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.70	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	39.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	5.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**ASHRAEHBP46** **Fan**		Evaporating temperature (Condensing temperature	**7,2°C (44,96°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]
12358	3114	3621	1379	6,61	42,30	8,96	2,26	2,63

TEST CONDITIONS: **@220V50Hz**			**EN12900MBP** **Fan**		Evaporating temperature (Condensing temperature	**-10°C (14°F)** **45°C (113°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]
6605	1664	1935	1006	4,92	22,15	6,57	1,66	1,93

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **ASHRAE46** **Fan** — (Condensing temperature **35ºC (+95ºF))**

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]
-20	**(- 4)**	5598	1411	1640	797	4,00	15,80	7,03	1,77	2,06
-15	**(+ 5)**	6804	1715	1994	838	4,22	19,27	8,17	2,06	2,40
-10	**(+14)**	8446	2128	2475	896	4,48	24,02	9,45	2,38	2,77
-5	**(+23)**	10524	2652	3084	970	4,78	30,08	10,82	2,73	3,17
0	**(+32)**	13037	3285	3820	1061	5,13	37,47	12,23	3,08	3,58
+5	**(+41)**	15986	4028	4684	1169	5,52	46,25	13,64	3,44	4,00
+10	**(+50)**	19370	4881	5676	1293	5,97	56,44	15,02	3,79	4,40

TEST CONDITIONS: **@220V50Hz** — **ASHRAE46** **Fan** — (Condensing temperature **45ºC (+113ºF))**

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]
-20	**(- 4)**	4928	1242	1444	844	4,24	15,01	5,76	1,45	1,69
-15	**(+ 5)**	5964	1503	1748	906	4,52	18,27	6,57	1,66	1,93
-10	**(+14)**	7310	1842	2142	976	4,83	22,51	7,51	1,89	2,20
-5	**(+23)**	8966	2259	2627	1056	5,15	27,75	8,53	2,15	2,50
0	**(+32)**	10933	2755	3204	1143	5,51	34,03	9,60	2,42	2,81
+5	**(+41)**	13209	3329	3871	1240	5,89	41,39	10,67	2,69	3,13
+10	**(+50)**	15796	3981	4629	1345	6,30	49,85	11,70	2,95	3,43

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

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]
-20	**(- 4)**	4063	1024	1191	898	4,45	13,57	4,59	1,16	1,35
-15	**(+ 5)**	5153	1299	1510	989	4,86	17,25	5,18	1,31	1,52
-10	**(+14)**	6427	1620	1883	1081	5,27	21,59	5,90	1,49	1,73
-5	**(+23)**	7887	1987	2311	1172	5,69	26,63	6,71	1,69	1,96
0	**(+32)**	9530	2402	2793	1265	6,11	32,41	7,55	1,90	2,21
+5	**(+41)**	11359	2862	3328	1359	6,54	38,96	8,39	2,11	2,46
+10	**(+50)**	13372	3370	3918	1453	6,98	46,32	9,19	2,32	2,69

TEST CONDITIONS: **EN12900** (Condensing temperature **35ºC (+95ºF))**
@220V50Hz **Fan**

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]
-20	**(- 4)**	5049	1272	1479	789	3,99	0,00	6,39	1,61	1,87
-15	**(+ 5)**	6235	1571	1827	849	4,25	0,00	7,36	1,85	2,16
-10	**(+14)**	7683	1936	2251	911	4,52	0,00	8,45	2,13	2,48
-5	**(+23)**	9393	2367	2752	973	4,80	0,00	9,66	2,43	2,83
0	**(+32)**	11364	2864	3330	1038	5,08	0,00	10,96	2,76	3,21
+5	**(+41)**	13598	3427	3984	1103	5,37	0,00	12,32	3,11	3,61
+10	**(+50)**	16093	4055	4716	1169	5,67	0,00	13,74	3,46	4,03

TEST CONDITIONS: **EN12900** (Condensing temperature **45ºC (+113ºF))**
@220V50Hz **Fan**

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]
-20	**(- 4)**	4312	1087	1263	843	4,22	0,00	5,10	1,29	1,49
-15	**(+ 5)**	5322	1341	1560	911	4,52	0,00	5,83	1,47	1,71
-10	**(+14)**	6563	1654	1923	983	4,84	0,00	6,67	1,68	1,95
-5	**(+23)**	8036	2025	2355	1059	5,18	0,00	7,58	1,91	2,22
0	**(+32)**	9740	2454	2854	1138	5,54	0,00	8,56	2,16	2,51
+5	**(+41)**	11674	2942	3421	1221	5,92	0,00	9,57	2,41	2,81
+10	**(+50)**	13841	3488	4056	1308	6,31	0,00	10,61	2,67	3,11

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900** (Condensing temperature **55ºC (+131ºF))**

@220V50Hz **Fan**

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]
-20	**(- 4)**	3583	903	1050	895	4,47	0,00	4,02	1,01	1,18
-15	**(+ 5)**	4470	1127	1310	981	4,84	0,00	4,56	1,15	1,34
-10	**(+14)**	5558	1401	1629	1072	5,24	0,00	5,18	1,30	1,52
-5	**(+23)**	6846	1725	2006	1170	5,68	0,00	5,85	1,47	1,71
0	**(+32)**	8335	2101	2442	1274	6,15	0,00	6,54	1,65	1,92
+5	**(+41)**	10025	2526	2938	1383	6,65	0,00	7,25	1,83	2,12
+10	**(+50)**	11915	3003	3491	1499	7,18	0,00	7,94	2,00	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		