

COMPRESSOR DEFINITION

Designation	NT 6230U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	843EA02

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 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 1/4	[hp]
2 Displacement	27.80	[cm ³] (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	AB / ISO32	
4 Weight (with oil charge)	16.6	[kg] (36.60 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL 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	USP-553-84	
6 Start winding resistance	7.56	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.22	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			EN12900MBP Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°F)	
Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
6605	1664	1935	1006	4.92	23.77	6.57	1.66	1.93

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900 Fan			(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 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	16.34	6.39	1.61	1.87
-15	(+ 5)	6235	1571	1827	849	4.25	20.33	7.36	1.85	2.16
-10	(+14)	7683	1936	2251	911	4.52	25.20	8.45	2.13	2.48
-5	(+23)	9393	2367	2752	973	4.80	31.03	9.66	2.43	2.83
0	(+32)	11364	2864	3330	1038	5.08	37.85	10.96	2.76	3.21
+5	(+41)	13598	3427	3984	1103	5.37	45.73	12.32	3.11	3.61
+10	(+50)	16093	4055	4716	1169	5.67	54.72	13.74	3.46	4.03

TEST CONDITIONS: @220V50Hz		EN12900 Fan			(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 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	15.33	5.10	1.29	1.49
-15	(+ 5)	5322	1341	1560	911	4.52	19.03	5.83	1.47	1.71
-10	(+14)	6563	1654	1923	983	4.84	23.62	6.67	1.68	1.95
-5	(+23)	8036	2025	2355	1059	5.18	29.13	7.58	1.91	2.22
0	(+32)	9740	2454	2854	1138	5.54	35.64	8.56	2.16	2.51
+5	(+41)	11674	2942	3421	1221	5.92	43.19	9.57	2.41	2.81
+10	(+50)	13841	3488	4056	1308	6.31	51.84	10.61	2.67	3.11

TEST CONDITIONS: @220V50Hz		EN12900 Fan			(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 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	14.18	4.02	1.01	1.18
-15	(+ 5)	4470	1127	1310	981	4.84	17.79	4.56	1.15	1.34
-10	(+14)	5558	1401	1629	1072	5.24	22.27	5.18	1.30	1.52
-5	(+23)	6846	1725	2006	1170	5.68	27.68	5.85	1.47	1.71
0	(+32)	8335	2101	2442	1274	6.15	34.06	6.54	1.65	1.92
+5	(+41)	10025	2526	2938	1383	6.65	41.47	7.25	1.83	2.12
+10	(+50)	11915	3003	3491	1499	7.18	49.98	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		