COMPRESSOR DEFINITION

Designation	**NT 2210U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**843BA08**

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	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 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 temperature			
9.1 Operating	18.4	[kgf/cm²] (262 psig)	/ ºC - ºF
9.2 Peak	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
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	AB / ISO32	
4 Weight (with oil charge)	17.8	[kg] (39.24 lb.)
5 Nitrogen charge	-	[kgf/cm²]

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	RVA2E3C-103/RVA2E3C-547	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(450)	[µF(VAC minimum)]
5 Motor protection	USP-533-84	
6 Start winding resistance	6.82	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.82	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	30.00	[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	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**		Evaporating temperature		**-23.3°C (-9.94°F)**	
@220V50Hz			**Fan**		(Condensing temperature		**54.4°C (129.92°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]
4196	1057	1230	853	4.45	12.49	4.92	1.24	1.44

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **35ºC (+95ºF))**					
@220V50Hz		**Fan**								
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]
-40	**(-40)**	2088	526	612	513	3.09	6.17	4.07	1.03	1.19
-35	**(-31)**	2700	680	791	583	3.33	7.99	4.64	1.17	1.36
-30	**(-22)**	3469	874	1017	655	3.60	10.29	5.30	1.34	1.55
-25	**(-13)**	4395	1108	1288	727	3.88	13.07	6.04	1.52	1.77
-20	**(- 4)**	5478	1380	1605	801	4.19	16.35	6.84	1.72	2.01
-15	**(+ 5)**	6718	1693	1969	875	4.52	20.13	7.68	1.93	2.25
-10	**(+14)**	8116	2045	2378	951	4.87	24.42	8.52	2.15	2.50

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **45ºC (+113ºF))**					
@220V50Hz		**Fan**								
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]
-40	**(-40)**	1905	480	558	528	3.12	5.63	3.60	0.91	1.05
-35	**(-31)**	2482	626	727	608	3.43	7.35	4.08	1.03	1.20
-30	**(-22)**	3218	811	943	691	3.76	9.54	4.65	1.17	1.36
-25	**(-13)**	4112	1036	1205	776	4.11	12.23	5.30	1.33	1.55
-20	**(- 4)**	5165	1302	1513	863	4.48	15.41	5.99	1.51	1.75
-15	**(+ 5)**	6377	1607	1869	953	4.87	19.10	6.70	1.69	1.96
-10	**(+14)**	7748	1952	2270	1045	5.28	23.31	7.42	1.87	2.17

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **55ºC (+131ºF))**					
@220V50Hz		**Fan**								
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]
-40	**(-40)**	1637	412	480	529	3.16	4.83	3.10	0.78	0.91
-35	**(-31)**	2171	547	636	619	3.52	6.42	3.52	0.89	1.03
-30	**(-22)**	2865	722	840	712	3.90	8.49	4.02	1.01	1.18
-25	**(-13)**	3719	937	1090	810	4.30	11.06	4.59	1.16	1.35
-20	**(- 4)**	4734	1193	1387	911	4.72	14.12	5.20	1.31	1.52
-15	**(+ 5)**	5910	1489	1732	1016	5.15	17.70	5.82	1.47	1.70
-10	**(+14)**	7246	1826	2123	1125	5.60	21.80	6.43	1.62	1.88

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.7 +0.25/-0.25	[mm]	(0.500" +0.010"/-0.010")
3.1.1 Material	Steel		
3.1.2 Shape	ROTOLOCK(Ex. thr. 1"-14UNS-2A)		
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		