

COMPRESSOR DEFINITION

Designation	NT X2211U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513308801

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 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)	17.8	[kg] (39.24 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	RVA2E3C-103	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(400)	[µF(VAC minimum)]
5 Motor protection	USP-543-84	
6 Start winding resistance	3.64	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.78	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	33.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	4.30	[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: @220V50Hz			EN12900LBP Fan		Evaporating temperature (Condensing temperature		-35°C (-31°F) 40°C (104°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]
2550	643	747	599	3.11	8.54	4.26	1.07	1.25

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			EN12900 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]
-40	(-40)	2144	540	628	505	2.74	6.85	4.24	1.07	1.24
-35	(-31)	2785	702	816	579	3.06	8.93	4.82	1.21	1.41
-30	(-22)	3560	897	1043	653	3.38	11.45	5.46	1.38	1.60
-25	(-13)	4469	1126	1309	725	3.69	14.42	6.17	1.55	1.81
-20	(- 4)	5510	1389	1615	796	4.00	17.87	6.93	1.75	2.03
-15	(+ 5)	6686	1685	1959	865	4.30	21.79	7.73	1.95	2.26
-10	(+14)	7994	2015	2343	933	4.60	26.21	8.56	2.16	2.51

TEST CONDITIONS: @220V50Hz			EN12900 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]
-40	(-40)	1790	451	525	514	2.79	6.27	3.48	0.88	1.02
-35	(-31)	2366	596	693	601	3.16	8.31	3.93	0.99	1.15
-30	(-22)	3062	772	897	688	3.54	10.79	4.45	1.12	1.30
-25	(-13)	3880	978	1137	774	3.91	13.72	5.00	1.26	1.47
-20	(- 4)	4819	1214	1412	861	4.29	17.13	5.60	1.41	1.64
-15	(+ 5)	5879	1482	1723	947	4.67	21.02	6.21	1.57	1.82
-10	(+14)	7060	1779	2069	1033	5.05	25.41	6.85	1.72	2.01

TEST CONDITIONS: @220V50Hz			EN12900 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]
-40	(-40)	1426	359	418	515	2.78	5.55	2.77	0.70	0.81
-35	(-31)	1926	485	564	615	3.22	7.51	3.14	0.79	0.92
-30	(-22)	2535	639	743	716	3.67	9.92	3.54	0.89	1.04
-25	(-13)	3253	820	953	818	4.12	12.79	3.98	1.00	1.17
-20	(- 4)	4079	1028	1195	921	4.59	16.13	4.43	1.12	1.30
-15	(+ 5)	5014	1264	1469	1025	5.06	19.96	4.89	1.23	1.43
-10	(+14)	6058	1527	1775	1131	5.54	24.30	5.35	1.35	1.57

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		