

### COMPRESSOR DEFINITION

Designation	NJ X2215U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	887FA21

### 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 - High 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 3/4	[hp]
2 Displacement	37.88	[cm <sup>3</sup> ] (2.312 cu.in)
2.1 Bore [mm]	44.980	
2.2 Stroke [mm]	23.850	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	22	[kg] (48.50 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### 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	RVA3H3C-108	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	15HM1994-248	
6 Start winding resistance	4.30	[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)	34.00	[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: @220V50Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
5701	1437	1671	1089	5.45	16.97	5.24	1.32	1.54

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(Condensing temperature 35°C (+95°F))					
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]
-40	(-40)	2794	704	819	627	3.49	8.25	4.44	1.12	1.30
-35	(-31)	3682	928	1079	729	3.91	10.90	5.07	1.28	1.48
-30	(-22)	4783	1205	1401	831	4.34	14.18	5.76	1.45	1.69
-25	(-13)	6095	1536	1786	934	4.80	18.13	6.52	1.64	1.91
-20	(- 4)	7619	1920	2232	1039	5.27	22.74	7.33	1.85	2.15
-15	(+ 5)	9354	2357	2741	1144	5.75	28.03	8.18	2.06	2.40
-10	(+14)	11302	2848	3312	1250	6.25	34.01	9.04	2.28	2.65

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(Condensing temperature 45°C (+113°F))					
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]
-40	(-40)	2530	638	741	644	3.60	7.47	3.93	0.99	1.15
-35	(-31)	3400	857	996	757	4.08	10.06	4.49	1.13	1.32
-30	(-22)	4466	1125	1309	874	4.58	13.24	5.10	1.29	1.49
-25	(-13)	5727	1443	1678	995	5.10	17.03	5.75	1.45	1.68
-20	(- 4)	7184	1810	2105	1118	5.65	21.44	6.42	1.62	1.88
-15	(+ 5)	8838	2227	2590	1245	6.22	26.47	7.10	1.79	2.08
-10	(+14)	10687	2693	3131	1375	6.81	32.15	7.78	1.96	2.28

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(Condensing temperature 55°C (+131°F))					
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]
-40	(-40)	2224	560	652	647	3.58	6.56	3.44	0.87	1.01
-35	(-31)	3072	774	900	775	4.14	9.09	3.96	1.00	1.16
-30	(-22)	4100	1033	1201	908	4.72	12.16	4.51	1.14	1.32
-25	(-13)	5307	1337	1555	1048	5.33	15.78	5.07	1.28	1.48
-20	(- 4)	6695	1687	1962	1193	5.98	19.97	5.62	1.42	1.65
-15	(+ 5)	8262	2082	2421	1344	6.66	24.74	6.16	1.55	1.80
-10	(+14)	10010	2522	2933	1500	7.37	30.11	6.66	1.68	1.95

### F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.81 +0.04/-0.04	[mm]	(0.504" +0.002"/-0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8.04 +0.04/-0.04	[mm]	(0.317" +0.002"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+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		