

COMPRESSOR DEFINITION

Designation	NE X6221UA
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	864EE46

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115-127 / 60	[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	[hp]
2 Displacement	16.80	[cm ³] (1.025 cu.in)
2.1 Bore [mm]	31.190	
2.2 Stroke [mm]	22.000	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	11.6	[kg] (25.57 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVAH7AA3C-571	
3 Start capacitor	340-408(165)	[µF(VAC minimum)]
4 Run capacitor	40(400)	[µF(VAC minimum)]
5 Motor protection	USP-577-83	
6 Start winding resistance	3.81	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.96	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	49.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	9.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ARIMBP Fan		Evaporating temperature (Condensing temperature		-6.7°C (19.94°F) 48.9°C (120.02°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]
5364	1352	1572	828	7.46	22.42	6.48	1.63	1.90

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			ARI4 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]
-20	(- 4)	3895	982	1141	592	5.41	13.73	6.59	1.66	1.93
-15	(+ 5)	4733	1193	1387	643	5.91	16.84	7.36	1.86	2.16
-10	(+14)	5758	1451	1687	693	6.38	20.66	8.31	2.09	2.43
-5	(+23)	6971	1757	2043	741	6.80	25.24	9.40	2.37	2.76
0	(+32)	8370	2109	2453	787	7.17	30.64	10.64	2.68	3.12
+5	(+41)	9957	2509	2918	832	7.48	36.88	11.98	3.02	3.51
+10	(+50)	11730	2956	3437	875	7.74	44.02	13.41	3.38	3.93

TEST CONDITIONS: @115V60Hz			ARI4 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]
-20	(- 4)	3388	854	993	633	5.71	13.27	5.34	1.35	1.57
-15	(+ 5)	4069	1025	1192	698	6.27	16.01	5.83	1.47	1.71
-10	(+14)	4943	1246	1448	760	6.83	19.60	6.50	1.64	1.91
-5	(+23)	6009	1514	1761	820	7.37	24.09	7.33	1.85	2.15
0	(+32)	7268	1832	2130	876	7.89	29.51	8.30	2.09	2.43
+5	(+41)	8719	2197	2555	930	8.38	35.91	9.38	2.36	2.75
+10	(+50)	10362	2611	3036	981	8.85	43.33	10.56	2.66	3.09

TEST CONDITIONS: @115V60Hz			ARI4 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]
-20	(- 4)	2828	713	829	671	6.17	12.43	4.21	1.06	1.23
-15	(+ 5)	3383	852	991	750	6.80	14.98	4.52	1.14	1.32
-10	(+14)	4135	1042	1212	826	7.46	18.50	5.01	1.26	1.47
-5	(+23)	5085	1281	1490	897	8.14	23.05	5.66	1.43	1.66
0	(+32)	6233	1571	1826	965	8.82	28.66	6.46	1.63	1.89
+5	(+41)	7578	1910	2221	1027	9.51	35.38	7.38	1.86	2.16
+10	(+50)	9121	2299	2673	1086	10.19	43.25	8.40	2.12	2.46

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
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	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		