

COMPRESSOR DEFINITION

Designation	NE U6214U
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	863LG71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115 / 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 - 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 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	3/4	[hp]
2 Displacement	12.11	[cm ³] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
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)	11.5	[kg] (25.35 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA9AD3C-121	
3 Start capacitor	243-292(165)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	T0728/G9	
6 Start winding resistance	5.45	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.92	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	42.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[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]
3744	943	1097	589	5.71	15.65	6.36	1.60	1.86

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)	2734	689	801	421	4.42	9.65	6.49	1.64	1.90
-15	(+ 5)	3354	845	983	459	4.71	11.93	7.31	1.84	2.14
-10	(+14)	4077	1028	1195	496	5.00	14.62	8.22	2.07	2.41
-5	(+23)	4903	1236	1437	532	5.29	17.75	9.21	2.32	2.70
0	(+32)	5832	1470	1709	568	5.58	21.34	10.26	2.59	3.01
+5	(+41)	6863	1729	2011	604	5.87	25.42	11.36	2.86	3.33
+10	(+50)	7996	2015	2343	641	6.16	30.02	12.48	3.14	3.66

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)	2336	589	685	450	4.66	9.13	5.19	1.31	1.52
-15	(+ 5)	2885	727	845	495	5.00	11.35	5.83	1.47	1.71
-10	(+14)	3530	889	1034	539	5.34	14.01	6.55	1.65	1.92
-5	(+23)	4270	1076	1251	581	5.69	17.13	7.35	1.85	2.15
0	(+32)	5105	1286	1496	622	6.03	20.73	8.20	2.07	2.40
+5	(+41)	6035	1521	1768	663	6.38	24.85	9.10	2.29	2.67
+10	(+50)	7061	1779	2069	705	6.73	29.51	10.02	2.52	2.94

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)	1965	495	576	471	4.80	8.64	4.17	1.05	1.22
-15	(+ 5)	2428	612	711	527	5.24	10.75	4.61	1.16	1.35
-10	(+14)	2979	751	873	579	5.68	13.33	5.14	1.30	1.51
-5	(+23)	3619	912	1060	630	6.12	16.40	5.74	1.45	1.68
0	(+32)	4346	1095	1273	680	6.56	19.97	6.39	1.61	1.87
+5	(+41)	5161	1301	1512	729	7.01	24.09	7.08	1.79	2.08
+10	(+50)	6064	1528	1777	778	7.46	28.76	7.79	1.96	2.28

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		