

### COMPRESSOR DEFINITION

Designation	<b>NE U2155GK</b>
Nominal Voltage/Frequency	<b>115-127 V 60 Hz</b>
Engineering Number	<b>959QE92</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115-127 / 60	[ V / Hz ]	
4 Application type	Low Back Pressure R404A		
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	25.2	[kgf/cm <sup>2</sup> ] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm <sup>2</sup> ] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	12.11	[cm <sup>3</sup> ] (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)	11.3	[kg] (24.91 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	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA7AC3C-115	
3 Start capacitor	189-227(330)	[µF(VAC minimum)]
4 Run capacitor	25(400)	[µF(VAC minimum)]
5 Motor protection	MRA6981-3261	
6 Start winding resistance	5.99	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[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			ARILBP Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
1921	484	563	528	4.99	19.89	3.64	0.92	1.07

### 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]
-40	(-40)	1060	267	311	316	3.32	8.72	3.34	0.84	0.98
-35	(-31)	1405	354	412	368	3.71	11.65	3.83	0.96	1.12
-30	(-22)	1844	465	540	422	4.13	15.36	4.38	1.10	1.28
-25	(-13)	2377	599	697	478	4.58	19.93	4.98	1.25	1.46
-20	(- 4)	3004	757	880	536	5.07	25.39	5.61	1.41	1.64
-15	(+ 5)	3724	939	1091	595	5.58	31.82	6.26	1.58	1.83
-10	(+14)	4538	1144	1330	656	6.12	39.25	6.91	1.74	2.03

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]
-40	(-40)	818	206	240	317	3.34	7.75	2.59	0.65	0.76
-35	(-31)	1111	280	326	374	3.76	10.59	2.98	0.75	0.87
-30	(-22)	1483	374	435	434	4.22	14.22	3.41	0.86	1.00
-25	(-13)	1935	488	567	498	4.74	18.69	3.88	0.98	1.14
-20	(- 4)	2466	621	723	565	5.30	24.07	4.36	1.10	1.28
-15	(+ 5)	3076	775	901	635	5.91	30.40	4.84	1.22	1.42
-10	(+14)	3766	949	1104	709	6.56	37.73	5.32	1.34	1.56

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]
-40	(-40)	601	152	176	317	3.33	6.80	1.89	0.48	0.55
-35	(-31)	833	210	244	377	3.78	9.50	2.20	0.56	0.65
-30	(-22)	1130	285	331	443	4.30	12.99	2.55	0.64	0.75
-25	(-13)	1492	376	437	514	4.89	17.33	2.91	0.73	0.85
-20	(- 4)	1919	484	562	589	5.54	22.56	3.26	0.82	0.96
-15	(+ 5)	2411	608	707	670	6.25	28.75	3.61	0.91	1.06
-10	(+14)	2968	748	870	756	7.03	35.94	3.92	0.99	1.15

### 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		