

COMPRESSOR DEFINITION

Designation	NE U2155GK
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	959QE71

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	CSIR		
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 pressures/temperature			
9.1 Operating (gauge)	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak (gauge)	28.3	[kgf/cm ²] (402 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)	11.3	[kg] (24.91 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-68-31	
3 Start capacitor	189-227(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRA 38165-3266	
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			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]
2603	656	763	587	6.59	17.65	4.43	1.12	1.30

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			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)	1227	309	360	330	5.02	8.25	3.72	0.94	1.09
-35	(-31)	1626	410	476	386	5.31	10.96	4.23	1.07	1.24
-30	(-22)	2126	536	623	444	5.65	14.38	4.80	1.21	1.41
-25	(-13)	2728	687	799	504	6.03	18.53	5.41	1.36	1.59
-20	(- 4)	3432	865	1006	566	6.46	23.44	6.06	1.53	1.77
-15	(+ 5)	4237	1068	1242	630	6.93	29.11	6.72	1.69	1.97
-10	(+14)	5144	1296	1507	696	7.45	35.58	7.39	1.86	2.16

TEST CONDITIONS: @115V60Hz			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)	1131	285	331	335	5.07	7.59	3.37	0.85	0.99
-35	(-31)	1517	382	445	395	5.37	10.21	3.84	0.97	1.13
-30	(-22)	2002	505	587	460	5.75	13.52	4.35	1.10	1.27
-25	(-13)	2586	652	758	530	6.20	17.54	4.87	1.23	1.43
-20	(- 4)	3269	824	958	604	6.73	22.28	5.41	1.36	1.58
-15	(+ 5)	4051	1021	1187	683	7.34	27.77	5.94	1.50	1.74
-10	(+14)	4931	1243	1445	765	8.02	34.04	6.45	1.62	1.89

TEST CONDITIONS: @115V60Hz			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)	971	245	285	331	5.05	6.50	2.94	0.74	0.86
-35	(-31)	1350	340	396	397	5.37	9.07	3.40	0.86	1.00
-30	(-22)	1825	460	535	470	5.80	12.30	3.88	0.98	1.14
-25	(-13)	2396	604	702	550	6.33	16.21	4.35	1.10	1.27
-20	(- 4)	3062	772	897	638	6.98	20.83	4.81	1.21	1.41
-15	(+ 5)	3825	964	1121	732	7.72	26.18	5.23	1.32	1.53
-10	(+14)	4684	1180	1372	833	8.58	32.27	5.62	1.42	1.65

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		