

### COMPRESSOR DEFINITION

Designation	<b>NE U6181GK</b>
Nominal Voltage/Frequency	<b>115-127 V 60 Hz</b>
Engineering Number	<b>957AE92</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	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°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 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	1/3+	[hp]
2 Displacement	6.20	[cm <sup>3</sup> ] (0.378 cu.in)
2.1 Bore [mm]	20.873	
2.2 Stroke [mm]	18.120	
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)	10.01	[kg] (22.07 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### 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-60-31	
3 Start capacitor	189-227(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0728/G9	
6 Start winding resistance	7.19	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.57	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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]
2046	516	600	432	4.80	22.05	4.73	1.19	1.39

### 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)	1600	403	469	303	3.94	13.50	5.26	1.33	1.54
-15	(+ 5)	1866	470	547	338	4.15	15.96	5.54	1.40	1.62
-10	(+14)	2282	575	669	370	4.36	19.75	6.17	1.56	1.81
-5	(+23)	2846	717	834	400	4.57	24.98	7.11	1.79	2.08
0	(+32)	3560	897	1043	427	4.78	31.80	8.34	2.10	2.44
+5	(+41)	4423	1115	1296	451	4.99	40.31	9.81	2.47	2.87
+10	(+50)	5435	1370	1593	472	5.19	50.65	11.51	2.90	3.37

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)	1292	326	379	320	4.02	12.63	4.04	1.02	1.18
-15	(+ 5)	1524	384	447	362	4.31	15.06	4.22	1.06	1.24
-10	(+14)	1877	473	550	400	4.58	18.79	4.69	1.18	1.37
-5	(+23)	2353	593	690	434	4.85	23.96	5.40	1.36	1.58
0	(+32)	2952	744	865	466	5.11	30.70	6.33	1.60	1.86
+5	(+41)	3672	925	1076	494	5.35	39.11	7.45	1.88	2.18
+10	(+50)	4515	1138	1323	518	5.59	49.35	8.71	2.20	2.55

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)	1005	253	294	338	4.13	11.82	2.97	0.75	0.87
-15	(+ 5)	1194	301	350	388	4.49	14.21	3.08	0.78	0.90
-10	(+14)	1478	372	433	433	4.84	17.88	3.41	0.86	1.00
-5	(+23)	1857	468	544	475	5.16	22.98	3.91	0.99	1.15
0	(+32)	2332	588	683	512	5.46	29.63	4.57	1.15	1.34
+5	(+41)	2903	732	851	545	5.75	37.94	5.34	1.35	1.57
+10	(+50)	3569	899	1046	573	6.02	48.06	6.21	1.56	1.82

### 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		