COMPRESSOR DEFINITION

Designation	**NE K6181GK**
Nominal Voltage/Frequency	**208-230 V 60 Hz**
Engineering Number	**957MD71**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 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 - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	7.28	[cm³] (0.444 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	13.200	
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)	10.4	[kg] (22.93 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0030	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0660/G9	
6 Start winding resistance	20.70	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.30	[Ω at 25ºC (77ºF)] +/- 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	IMQ - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@208V60Hz**			**ASHRAEHBP46** **Fan**		Evaporating temperature (Condensing temperature	**7.2°C (44.96°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]
4404	1110	1290	624	3.60	36.26	7.06	1.78	2.07

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **35ºC (+95ºF))**
@208V60Hz **Fan**

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)**	2070	522	607	328	2.38	13.12	6.33	1.60	1.85
-15	**(+ 5)**	2513	633	736	359	2.49	16.05	7.02	1.77	2.06
-10	**(+14)**	3107	783	910	390	2.61	19.97	7.95	2.00	2.33
-5	**(+23)**	3838	967	1125	422	2.74	24.85	9.08	2.29	2.66
0	**(+32)**	4693	1183	1375	454	2.87	30.64	10.33	2.60	3.03
+5	**(+41)**	5659	1426	1658	486	3.01	37.32	11.64	2.93	3.41
+10	**(+50)**	6721	1694	1969	518	3.16	44.84	12.96	3.27	3.80

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **45ºC (+113ºF))**
@208V60Hz **Fan**

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)**	1880	474	551	350	2.45	13.17	5.36	1.35	1.57
-15	**(+ 5)**	2216	558	649	388	2.60	15.63	5.71	1.44	1.67
-10	**(+14)**	2695	679	790	426	2.75	19.13	6.31	1.59	1.85
-5	**(+23)**	3304	833	968	464	2.90	23.62	7.10	1.79	2.08
0	**(+32)**	4027	1015	1180	502	3.06	29.08	8.02	2.02	2.35
+5	**(+41)**	4853	1223	1422	540	3.23	35.46	9.01	2.27	2.64
+10	**(+50)**	5768	1453	1690	577	3.41	42.72	9.99	2.52	2.93

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@208V60Hz **Fan**

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)**	1688	425	495	363	2.51	13.27	4.64	1.17	1.36
-15	**(+ 5)**	1925	485	564	412	2.69	15.26	4.69	1.18	1.37
-10	**(+14)**	2296	579	673	460	2.88	18.32	4.99	1.26	1.46
-5	**(+23)**	2787	702	817	508	3.08	22.44	5.48	1.38	1.61
0	**(+32)**	3386	853	992	555	3.29	27.55	6.10	1.54	1.79
+5	**(+41)**	4079	1028	1195	602	3.50	33.63	6.79	1.71	1.99
+10	**(+50)**	4852	1223	1422	648	3.71	40.63	7.48	1.88	2.19

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		