COMPRESSOR DEFINITION

Designation	**NE 5181GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**952KA51**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°F)	
5 Motor type	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expantion device	Capillary tube		
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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm²] (365 psig)	/ ºC - ºF
9.2 Peak (gauge)	28.7	[kgf/cm²] (408 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)	11	[kg] (24.25 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0029	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762NFBZZ-53	
6 Start winding resistance	60.25	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	5.65	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.88	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAEHBP46**		Evaporating temperature	**7.2°C (44.96°F)**		
@220V50Hz			**Fan**		(Condensing temperature	**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]
3590	905	1052	468	2.87	29.56	7.67	1.93	2.25

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE46**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**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)**	1501	378	440	260	2.23	9.53	5.77	1.45	1.69
-15	**(+ 5)**	1925	485	564	289	2.29	12.29	6.67	1.68	1.95
-10	**(+14)**	2448	617	717	314	2.35	15.72	7.80	1.97	2.29
-5	**(+23)**	3069	773	899	336	2.40	19.86	9.14	2.30	2.68
0	**(+32)**	3790	955	1111	355	2.46	24.74	10.67	2.69	3.13
+5	**(+41)**	4611	1162	1351	371	2.52	30.39	12.38	3.12	3.63
+10	**(+50)**	5531	1394	1621	383	2.58	36.86	14.25	3.59	4.18

TEST CONDITIONS:		**ASHRAE46**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**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)**	1233	311	361	262	2.19	8.64	4.72	1.19	1.38
-15	**(+ 5)**	1607	405	471	296	2.28	11.33	5.42	1.37	1.59
-10	**(+14)**	2067	521	606	328	2.38	14.67	6.29	1.58	1.84
-5	**(+23)**	2614	659	766	358	2.47	18.70	7.30	1.84	2.14
0	**(+32)**	3247	818	951	386	2.57	23.46	8.42	2.12	2.47
+5	**(+41)**	3967	1000	1162	411	2.67	28.96	9.66	2.43	2.83
+10	**(+50)**	4774	1203	1399	434	2.78	35.26	10.99	2.77	3.22

TEST CONDITIONS:		**ASHRAE46**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**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)**	954	240	280	263	2.14	7.50	3.62	0.91	1.06
-15	**(+ 5)**	1276	322	374	304	2.27	10.10	4.20	1.06	1.23
-10	**(+14)**	1671	421	490	343	2.41	13.33	4.87	1.23	1.43
-5	**(+23)**	2139	539	627	381	2.54	17.23	5.61	1.41	1.64
0	**(+32)**	2681	676	786	418	2.68	21.82	6.41	1.61	1.88
+5	**(+41)**	3297	831	966	454	2.82	27.16	7.24	1.82	2.12
+10	**(+50)**	3988	1005	1168	488	2.98	33.26	8.09	2.04	2.37

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		