COMPRESSOR DEFINITION

Designation	**NE K2168GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**959FA51**

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	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 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	3/4	[hp]
2 Displacement	14.28	[cm³] (0.871 cu.in)
2.1 Bore [mm]	30.157	
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)	11.6	[kg] (25.57 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	Voltage Relay	
2.1 Starting device	RVA3N3C-122	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	10(450)	[µF(VAC minimum)]
5 Motor protection	T0834/G9	
6 Start winding resistance	13.20	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.00	[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)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
1329	335	389	359	1.96	9.78	3.70	0.93	1.08

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (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]
-40	**(-40)**	1103	278	323	309	1.78	7.64	3.56	0.90	1.04
-35	**(-31)**	1460	368	428	353	1.94	10.16	4.14	1.04	1.21
-30	**(-22)**	1901	479	557	403	2.12	13.28	4.73	1.19	1.38
-25	**(-13)**	2432	613	713	456	2.33	17.05	5.33	1.34	1.56
-20	**(- 4)**	3057	770	896	514	2.56	21.54	5.95	1.50	1.74
-15	**(+ 5)**	3782	953	1108	573	2.81	26.82	6.59	1.66	1.93
-10	**(+14)**	4611	1162	1351	635	3.08	32.95	7.26	1.83	2.13

TEST CONDITIONS: **EN12900HH** (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]
-40	**(-40)**	882	222	259	314	1.79	6.86	2.82	0.71	0.83
-35	**(-31)**	1201	303	352	363	1.97	9.39	3.31	0.83	0.97
-30	**(-22)**	1587	400	465	417	2.18	12.46	3.80	0.96	1.11
-25	**(-13)**	2045	515	599	477	2.41	16.13	4.28	1.08	1.25
-20	**(- 4)**	2581	650	756	542	2.68	20.48	4.76	1.20	1.39
-15	**(+ 5)**	3200	806	938	610	2.97	25.57	5.25	1.32	1.54
-10	**(+14)**	3907	984	1145	681	3.28	31.46	5.74	1.45	1.68

TEST CONDITIONS: **EN12900HH** (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]
-40	**(-40)**	671	169	196	314	1.79	6.04	2.14	0.54	0.63
-35	**(-31)**	945	238	277	368	1.99	8.54	2.56	0.64	0.75
-30	**(-22)**	1269	320	372	429	2.22	11.52	2.95	0.74	0.87
-25	**(-13)**	1650	416	483	496	2.49	15.06	3.33	0.84	0.97
-20	**(- 4)**	2091	527	613	569	2.79	19.23	3.68	0.93	1.08
-15	**(+ 5)**	2597	655	761	647	3.12	24.09	4.02	1.01	1.18
-10	**(+14)**	3175	800	930	728	3.49	29.71	4.35	1.10	1.28

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		