COMPRESSOR DEFINITION

Designation	**NE K2172GK**
Nominal Voltage/Frequency	**220 V 50 Hz**
Engineering Number	**959KC51**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220 / 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 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	3/4	[hp]
2 Displacement	16.80	[cm³] (1.025 cu.in)
2.1 Bore [mm]	31.190	
2.2 Stroke [mm]	22.000	
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)	11.8	[kg] (26.01 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 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA403C-123	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	10(425)	[µF(VAC minimum)]
5 Motor protection	T0964/G6	
6 Start winding resistance	13.90	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	3.10	[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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900LBP** **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]
1574	397	461	445	2.72	12.49	3.54	0.89	1.04

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **EN12900** **Fan** — (Condensing temperature **35ºC (+95ºF))**

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)**	1281	323	375	377	2.50	9.53	3.39	0.85	0.99
-35	**(-31)**	1709	431	501	432	2.68	12.79	3.96	1.00	1.16
-30	**(-22)**	2237	564	656	490	2.89	16.81	4.57	1.15	1.34
-25	**(-13)**	2866	722	840	551	3.12	21.64	5.20	1.31	1.52
-20	**(- 4)**	3594	906	1053	616	3.38	27.31	5.84	1.47	1.71
-15	**(+ 5)**	4423	1115	1296	683	3.66	33.86	6.47	1.63	1.90
-10	**(+14)**	5351	1349	1568	753	3.96	41.34	7.10	1.79	2.08

TEST CONDITIONS: **@220V50Hz** — **EN12900** **Fan** — (Condensing temperature **45ºC (+113ºF))**

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)**	1066	269	312	388	2.52	9.01	2.75	0.69	0.81
-35	**(-31)**	1433	361	420	448	2.73	12.16	3.20	0.81	0.94
-30	**(-22)**	1886	475	553	513	2.97	16.07	3.67	0.92	1.07
-25	**(-13)**	2425	611	711	583	3.24	20.79	4.15	1.05	1.22
-20	**(- 4)**	3051	769	894	658	3.54	26.35	4.63	1.17	1.36
-15	**(+ 5)**	3763	948	1103	738	3.88	32.79	5.10	1.29	1.50
-10	**(+14)**	4561	1149	1336	822	4.25	40.15	5.55	1.40	1.63

TEST CONDITIONS: **@220V50Hz** — **EN12900** **Fan** — (Condensing temperature **55ºC (+131ºF))**

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)**	824	208	241	386	2.50	8.15	2.13	0.54	0.63
-35	**(-31)**	1125	284	330	454	2.74	11.19	2.48	0.62	0.73
-30	**(-22)**	1499	378	439	528	3.01	14.99	2.84	0.71	0.83
-25	**(-13)**	1945	490	570	609	3.34	19.60	3.19	0.80	0.94
-20	**(- 4)**	2464	621	722	697	3.70	25.04	3.54	0.89	1.04
-15	**(+ 5)**	3055	770	895	791	4.10	31.37	3.87	0.98	1.13
-10	**(+14)**	3719	937	1090	891	4.55	38.63	4.17	1.05	1.22

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		