

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 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 ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.28	[cm ³] (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/cm ²] (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 25°C (77°F)] +/- 8%
7 Run winding resistance	4.00	[Ω at 25°C (77°F)] +/- 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			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
2412	608	707	520	2.58	16.35	4.64	1.17	1.36

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	1140	287	334	309	1.78	7.67	3.69	0.93	1.08
-35	(-31)	1510	381	442	354	1.94	10.18	4.27	1.08	1.25
-30	(-22)	1966	495	576	403	2.12	13.30	4.88	1.23	1.43
-25	(-13)	2514	634	737	456	2.33	17.08	5.52	1.39	1.62
-20	(- 4)	3160	796	926	513	2.56	21.58	6.17	1.55	1.81
-15	(+ 5)	3909	985	1146	573	2.81	26.86	6.83	1.72	2.00
-10	(+14)	4767	1201	1397	636	3.08	32.98	7.50	1.89	2.20

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	1023	258	300	313	1.79	6.86	3.28	0.83	0.96
-35	(-31)	1390	350	407	364	1.97	9.36	3.82	0.96	1.12
-30	(-22)	1838	463	539	419	2.18	12.41	4.38	1.10	1.28
-25	(-13)	2373	598	695	478	2.41	16.09	4.96	1.25	1.45
-20	(- 4)	3000	756	879	542	2.68	20.45	5.54	1.40	1.62
-15	(+ 5)	3725	939	1092	609	2.97	25.54	6.12	1.54	1.79
-10	(+14)	4553	1147	1334	681	3.28	31.44	6.69	1.69	1.96

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	917	231	269	308	1.79	6.14	2.98	0.75	0.87
-35	(-31)	1274	321	373	366	1.99	8.56	3.47	0.87	1.02
-30	(-22)	1706	430	500	429	2.22	11.50	3.97	1.00	1.16
-25	(-13)	2220	559	650	497	2.49	15.02	4.47	1.13	1.31
-20	(- 4)	2820	711	826	569	2.79	19.18	4.96	1.25	1.45
-15	(+ 5)	3512	885	1029	646	3.12	24.03	5.44	1.37	1.60
-10	(+14)	4302	1084	1261	728	3.49	29.64	5.91	1.49	1.73

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		