

COMPRESSOR DEFINITION

Designation	NE K2168GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	959HA51

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	3ARR3B6AC3	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	10(440)	[µF(VAC minimum)]
5 Motor protection	T0634/G9	
6 Start winding resistance	13.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.10	[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	CCC - 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	551	3.00	16.35	4.38	1.10	1.28

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)	1152	290	338	341	2.41	7.74	3.37	0.85	0.99
-35	(-31)	1520	383	445	386	2.51	10.25	3.94	0.99	1.15
-30	(-22)	1987	501	582	434	2.63	13.45	4.58	1.16	1.34
-25	(-13)	2555	644	749	483	2.78	17.36	5.29	1.33	1.55
-20	(- 4)	3225	813	945	535	2.94	22.02	6.03	1.52	1.77
-15	(+ 5)	3996	1007	1171	588	3.13	27.46	6.80	1.71	1.99
-10	(+14)	4871	1227	1427	643	3.34	33.70	7.57	1.91	2.22

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)	1040	262	305	343	2.36	6.97	3.04	0.77	0.89
-35	(-31)	1395	352	409	394	2.49	9.39	3.55	0.89	1.04
-30	(-22)	1847	465	541	449	2.64	12.47	4.11	1.04	1.20
-25	(-13)	2395	604	702	507	2.82	16.24	4.72	1.19	1.38
-20	(- 4)	3042	767	891	568	3.04	20.73	5.35	1.35	1.57
-15	(+ 5)	3787	954	1110	632	3.29	25.97	5.99	1.51	1.76
-10	(+14)	4632	1167	1357	699	3.56	31.98	6.63	1.67	1.94

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)	935	235	274	342	2.38	6.26	2.72	0.69	0.80
-35	(-31)	1271	320	372	400	2.52	8.54	3.18	0.80	0.93
-30	(-22)	1700	428	498	462	2.69	11.46	3.68	0.93	1.08
-25	(-13)	2222	560	651	528	2.90	15.04	4.21	1.06	1.23
-20	(- 4)	2839	716	832	599	3.16	19.31	4.74	1.20	1.39
-15	(+ 5)	3551	895	1041	674	3.45	24.30	5.28	1.33	1.55
-10	(+14)	4360	1099	1277	753	3.78	30.04	5.78	1.46	1.69

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		