

COMPRESSOR DEFINITION

Designation	NE K2168GK
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	959HG71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115 / 60	[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 - High 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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 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)	11.7	[kg] (25.79 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	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVAH9AD3C-555	
3 Start capacitor	243-292(250)	[µF(VAC minimum)]
4 Run capacitor	30(250)	[µF(VAC minimum)]
5 Motor protection	T0920/G9	
6 Start winding resistance	2.68	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.65	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	46.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	7.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ARILBP Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 48.9°C (120.02°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]
1966	495	576	608	6.61	20.35	3.23	0.81	0.95

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ARI4 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)	1069	269	313	366	4.86	8.79	2.91	0.73	0.85
-35	(-31)	1438	362	421	423	5.23	11.91	3.41	0.86	1.00
-30	(-22)	1898	478	556	484	5.65	15.81	3.92	0.99	1.15
-25	(-13)	2449	617	717	549	6.13	20.53	4.46	1.12	1.31
-20	(- 4)	3090	779	905	618	6.65	26.12	4.99	1.26	1.46
-15	(+ 5)	3822	963	1120	691	7.24	32.65	5.53	1.39	1.62
-10	(+14)	4645	1170	1361	768	7.88	40.16	6.05	1.53	1.77

TEST CONDITIONS: @115V60Hz		ARI4 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)	836	211	245	367	4.86	7.92	2.27	0.57	0.67
-35	(-31)	1146	289	336	432	5.28	10.92	2.66	0.67	0.78
-30	(-22)	1531	386	449	501	5.75	14.68	3.06	0.77	0.90
-25	(-13)	1991	502	583	574	6.29	19.23	3.47	0.87	1.02
-20	(- 4)	2525	636	740	651	6.90	24.65	3.88	0.98	1.14
-15	(+ 5)	3135	790	919	732	7.57	30.97	4.29	1.08	1.26
-10	(+14)	3820	963	1119	817	8.30	38.27	4.68	1.18	1.37

TEST CONDITIONS: @115V60Hz		ARI4 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)	571	144	167	358	4.81	6.48	1.60	0.40	0.47
-35	(-31)	825	208	242	433	5.28	9.41	1.90	0.48	0.56
-30	(-22)	1138	287	334	512	5.83	13.08	2.22	0.56	0.65
-25	(-13)	1511	381	443	596	6.44	17.53	2.53	0.64	0.74
-20	(- 4)	1942	489	569	683	7.13	22.82	2.84	0.72	0.83
-15	(+ 5)	2433	613	713	775	7.90	29.01	3.14	0.79	0.92
-10	(+14)	2984	752	874	871	8.74	36.15	3.42	0.86	1.00

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +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		