

COMPRESSOR DEFINITION

Designation	NE K2168GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	959HD71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 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	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3ARR3B6AV3	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	10(440)	[µF(VAC minimum)]
5 Motor protection	T0883/G9	
6 Start winding resistance	8.21	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.64	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[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: @230V60Hz			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]	
1990	501	583	624	3.40	20.60	3.19	0.80	0.93	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz			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)	1072	270	314	377	2.62	8.82	2.84	0.71	0.83
-35	(-31)	1433	361	420	437	2.80	11.88	3.28	0.83	0.96
-30	(-22)	1898	478	556	500	3.00	15.81	3.80	0.96	1.11
-25	(-13)	2467	622	723	565	3.22	20.68	4.37	1.10	1.28
-20	(- 4)	3139	791	920	632	3.46	26.54	4.96	1.25	1.45
-15	(+ 5)	3915	987	1147	701	3.73	33.45	5.58	1.41	1.64
-10	(+14)	4795	1208	1405	773	4.03	41.47	6.20	1.56	1.82

TEST CONDITIONS: @230V60Hz			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)	829	209	243	385	2.62	7.84	2.16	0.55	0.63
-35	(-31)	1137	286	333	447	2.81	10.83	2.54	0.64	0.74
-30	(-22)	1530	385	448	514	3.03	14.67	2.97	0.75	0.87
-25	(-13)	2007	506	588	586	3.28	19.40	3.42	0.86	1.00
-20	(- 4)	2570	648	753	661	3.56	25.08	3.89	0.98	1.14
-15	(+ 5)	3217	811	943	740	3.87	31.78	4.35	1.10	1.27
-10	(+14)	3949	995	1157	824	4.22	39.56	4.79	1.21	1.40

TEST CONDITIONS: @230V60Hz			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)	593	150	174	385	2.63	6.72	1.54	0.39	0.45
-35	(-31)	848	214	248	451	2.83	9.67	1.87	0.47	0.55
-30	(-22)	1168	294	342	524	3.07	13.43	2.22	0.56	0.65
-25	(-13)	1555	392	456	602	3.35	18.04	2.58	0.65	0.76
-20	(- 4)	2007	506	588	687	3.67	23.58	2.93	0.74	0.86
-15	(+ 5)	2525	636	740	777	4.02	30.10	3.26	0.82	0.96
-10	(+14)	3108	783	911	874	4.42	37.66	3.55	0.89	1.04

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		