

### COMPRESSOR DEFINITION

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

### 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 temperature			
9.1 Operating	25.2	[kgf/cm <sup>2</sup> ] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm <sup>2</sup> ] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.28	[cm <sup>3</sup> ] (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 <sup>2</sup> ]

### 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	RVA4L3C-566	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	10(440)	[µF(VAC minimum)]
5 Motor protection	MST24AJK-3261	
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: @208V60Hz			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]
2783	701	815	632	3.45	18.87	4.41	1.11	1.29

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			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)	1311	330	384	353	2.14	8.81	3.70	0.93	1.08
-35	(-31)	1727	435	506	410	2.38	11.65	4.22	1.06	1.24
-30	(-22)	2260	570	662	470	2.64	15.29	4.81	1.21	1.41
-25	(-13)	2911	734	853	533	2.92	19.78	5.46	1.38	1.60
-20	(- 4)	3679	927	1078	600	3.23	25.13	6.13	1.54	1.80
-15	(+ 5)	4564	1150	1337	671	3.57	31.36	6.80	1.71	1.99
-10	(+14)	5567	1403	1631	746	3.93	38.51	7.47	1.88	2.19

TEST CONDITIONS: @208V60Hz			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)	1188	299	348	354	2.15	7.97	3.36	0.85	0.98
-35	(-31)	1592	401	467	418	2.42	10.72	3.82	0.96	1.12
-30	(-22)	2110	532	618	486	2.72	14.25	4.34	1.09	1.27
-25	(-13)	2742	691	803	559	3.05	18.59	4.90	1.23	1.44
-20	(- 4)	3487	879	1022	636	3.42	23.77	5.48	1.38	1.61
-15	(+ 5)	4346	1095	1273	718	3.81	29.80	6.05	1.53	1.77
-10	(+14)	5318	1340	1558	805	4.23	36.72	6.61	1.66	1.94

TEST CONDITIONS: @208V60Hz			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)	1042	263	305	342	2.08	6.97	3.04	0.77	0.89
-35	(-31)	1432	361	420	415	2.39	9.62	3.45	0.87	1.01
-30	(-22)	1933	487	566	493	2.74	13.02	3.92	0.99	1.15
-25	(-13)	2543	641	745	576	3.13	17.21	4.41	1.11	1.29
-20	(- 4)	3264	823	956	665	3.55	22.20	4.91	1.24	1.44
-15	(+ 5)	4095	1032	1200	759	4.00	28.02	5.40	1.36	1.58
-10	(+14)	5036	1269	1476	859	4.50	34.70	5.86	1.48	1.72

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	6.45 +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		