

COMPRESSOR DEFINITION

Designation	NE U2168GKA
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	955AA76

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	CSIR		
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	13.54	[cm ³] (0.826 cu.in)
2.1 Bore [mm]	29.362	
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)	11.05	[kg] (24.36 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213515047	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	USP-M1E-83	
6 Start winding resistance	12.02	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	24.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	3.60	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

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]
2505	631	734	556	3.30	16.98	4.51	1.14	1.32

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)	1163	293	341	318	2.62	7.82	3.65	0.92	1.07
-35	(-31)	1553	391	455	369	2.74	10.47	4.22	1.06	1.24
-30	(-22)	2050	517	601	420	2.88	13.87	4.89	1.23	1.43
-25	(-13)	2654	669	778	472	3.03	18.03	5.62	1.42	1.65
-20	(- 4)	3364	848	986	524	3.20	22.98	6.42	1.62	1.88
-15	(+ 5)	4182	1054	1225	577	3.39	28.73	7.25	1.83	2.12
-10	(+14)	5107	1287	1496	630	3.60	35.33	8.10	2.04	2.37

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)	1022	257	299	319	2.64	6.85	3.20	0.81	0.94
-35	(-31)	1407	355	412	378	2.77	9.47	3.72	0.94	1.09
-30	(-22)	1893	477	555	439	2.93	12.78	4.31	1.09	1.26
-25	(-13)	2481	625	727	502	3.12	16.82	4.93	1.24	1.45
-20	(- 4)	3170	799	929	567	3.34	21.60	5.59	1.41	1.64
-15	(+ 5)	3960	998	1160	634	3.59	27.15	6.26	1.58	1.83
-10	(+14)	4852	1223	1422	702	3.88	33.50	6.92	1.74	2.03

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)	853	215	250	307	2.62	5.71	2.79	0.70	0.82
-35	(-31)	1232	310	361	376	2.76	8.28	3.28	0.83	0.96
-30	(-22)	1706	430	500	448	2.94	11.50	3.81	0.96	1.12
-25	(-13)	2276	573	667	523	3.17	15.40	4.35	1.10	1.27
-20	(- 4)	2941	741	862	602	3.45	20.01	4.90	1.23	1.43
-15	(+ 5)	3703	933	1085	683	3.77	25.34	5.43	1.37	1.59
-10	(+14)	4560	1149	1336	769	4.14	31.42	5.92	1.49	1.74

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		