

COMPRESSOR DEFINITION

Designation	NE U2140GK
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	958KB51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	200-230 / 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 - 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 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	1/2	[hp]
2 Displacement	8.77	[cm ³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	15.920	
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)	11.17	[kg] (24.63 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-49	
3 Start capacitor	64-77(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0660/J5	
6 Start winding resistance	27.95	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.11	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	18.00	[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	KC - 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]
1937	488	568	418	2.54	13.13	4.63	1.17	1.36

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)	924	233	271	235	1.86	6.21	3.91	0.99	1.15
-35	(-31)	1221	308	358	277	2.00	8.23	4.42	1.11	1.29
-30	(-22)	1603	404	470	319	2.15	10.84	5.03	1.27	1.47
-25	(-13)	2069	521	606	360	2.31	14.06	5.74	1.45	1.68
-20	(- 4)	2620	660	768	401	2.47	17.89	6.52	1.64	1.91
-15	(+ 5)	3255	820	954	442	2.64	22.37	7.37	1.86	2.16
-10	(+14)	3975	1002	1165	481	2.81	27.49	8.26	2.08	2.42

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)	829	209	243	238	1.88	5.56	3.48	0.88	1.02
-35	(-31)	1117	281	327	284	2.02	7.52	3.94	0.99	1.15
-30	(-22)	1484	374	435	333	2.19	10.02	4.46	1.12	1.31
-25	(-13)	1930	486	565	383	2.38	13.08	5.04	1.27	1.48
-20	(- 4)	2454	618	719	434	2.60	16.73	5.65	1.42	1.66
-15	(+ 5)	3058	771	896	486	2.83	20.97	6.29	1.58	1.84
-10	(+14)	3740	942	1096	540	3.08	25.82	6.93	1.75	2.03

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)	701	177	205	236	1.87	4.69	2.97	0.75	0.87
-35	(-31)	988	249	289	287	2.02	6.63	3.44	0.87	1.01
-30	(-22)	1348	340	395	342	2.21	9.08	3.93	0.99	1.15
-25	(-13)	1781	449	522	401	2.44	12.05	4.44	1.12	1.30
-20	(- 4)	2288	577	670	463	2.70	15.56	4.95	1.25	1.45
-15	(+ 5)	2867	723	840	528	3.00	19.62	5.44	1.37	1.59
-10	(+14)	3520	887	1031	596	3.33	24.25	5.90	1.49	1.73

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		