

### COMPRESSOR DEFINITION

Designation	NE U2140GK
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	958KB71

### 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 <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	1/2	[hp]
2 Displacement	8.77	[cm <sup>3</sup> ] (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 <sup>2</sup> ]

### C - ELETRICAL 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 (50 Hz)	18.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	KC - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @200V50Hz			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]
1639	413	480	357	2.50	11.11	4.59	1.16	1.34

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz		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)	788	199	231	211	2.09	5.30	3.73	0.94	1.09
-35	(-31)	1025	258	300	242	2.16	6.91	4.26	1.07	1.25
-30	(-22)	1337	337	392	272	2.24	9.04	4.92	1.24	1.44
-25	(-13)	1725	435	505	303	2.33	11.72	5.69	1.43	1.67
-20	(- 4)	2190	552	642	334	2.43	14.95	6.54	1.65	1.92
-15	(+ 5)	2730	688	800	366	2.55	18.76	7.47	1.88	2.19
-10	(+14)	3348	844	981	397	2.67	23.16	8.43	2.12	2.47

TEST CONDITIONS: @200V50Hz		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)	709	179	208	215	2.10	4.75	3.28	0.83	0.96
-35	(-31)	943	238	276	251	2.18	6.35	3.76	0.95	1.10
-30	(-22)	1247	314	365	287	2.28	8.42	4.34	1.09	1.27
-25	(-13)	1619	408	475	324	2.39	10.98	4.99	1.26	1.46
-20	(- 4)	2061	519	604	363	2.52	14.05	5.68	1.43	1.66
-15	(+ 5)	2572	648	754	402	2.67	17.64	6.41	1.61	1.88
-10	(+14)	3152	794	924	442	2.84	21.76	7.14	1.80	2.09

TEST CONDITIONS: @200V50Hz		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)	605	153	177	213	2.10	4.05	2.85	0.72	0.84
-35	(-31)	846	213	248	254	2.19	5.69	3.33	0.84	0.98
-30	(-22)	1149	289	337	297	2.31	7.74	3.86	0.97	1.13
-25	(-13)	1513	381	443	341	2.45	10.24	4.43	1.12	1.30
-20	(- 4)	1940	489	568	388	2.61	13.19	5.01	1.26	1.47
-15	(+ 5)	2428	612	712	435	2.80	16.62	5.59	1.41	1.64
-10	(+14)	2979	751	873	485	3.01	20.53	6.13	1.54	1.80

### 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		