COMPRESSOR DEFINITION

Designation	**NE U2183GKA**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513308227**

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	CSCR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	16.80	[cm³] (1.025 cu.in)
2.1 Bore [mm]	31.190	
2.2 Stroke [mm]	22.000	
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)	11.2	[kg] (24.69 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL 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	QL2-7.8-NTC-15	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(450)	[µF(VAC minimum)]
5 Motor protection	USP-M12-83	
6 Start winding resistance	7.80	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	5.20	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	22.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	3.80	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - EAC - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**EN12900LBP**			Evaporating temperature		**-35°C (-31°F)**
@220V50Hz			**Fan**			(Condensing temperature		**40°C (104°F))**
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1714	432	502	437	2.03	13.61	3.92	0.99	1.15

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**EN12900**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1374	346	403	377	1.76	10.22	3.63	0.91	1.06
-35	**(-31)**	1836	463	538	433	2.01	13.74	4.26	1.07	1.25
-30	**(-22)**	2416	609	708	490	2.27	18.15	4.94	1.24	1.45
-25	**(-13)**	3113	785	912	550	2.54	23.50	5.66	1.43	1.66
-20	**(- 4)**	3928	990	1151	613	2.82	29.85	6.41	1.61	1.88
-15	**(+ 5)**	4861	1225	1424	677	3.12	37.22	7.17	1.81	2.10
-10	**(+14)**	5911	1490	1732	744	3.43	45.66	7.94	2.00	2.33

TEST CONDITIONS:		**EN12900**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1096	276	321	376	1.76	9.25	2.92	0.74	0.86
-35	**(-31)**	1493	376	438	440	2.05	12.67	3.39	0.86	0.99
-30	**(-22)**	1989	501	583	508	2.36	16.95	3.91	0.98	1.14
-25	**(-13)**	2582	651	756	580	2.68	22.13	4.44	1.12	1.30
-20	**(- 4)**	3273	825	959	656	3.03	28.27	4.98	1.26	1.46
-15	**(+ 5)**	4061	1023	1190	736	3.39	35.39	5.53	1.39	1.62
-10	**(+14)**	4948	1247	1450	819	3.78	43.55	6.05	1.52	1.77

TEST CONDITIONS:		**EN12900**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	824	208	242	373	1.72	8.16	2.22	0.56	0.65
-35	**(-31)**	1153	291	338	445	2.05	11.47	2.59	0.65	0.76
-30	**(-22)**	1560	393	457	523	2.41	15.60	2.98	0.75	0.87
-25	**(-13)**	2046	516	599	607	2.79	20.60	3.37	0.85	0.99
-20	**(- 4)**	2609	657	764	696	3.20	26.51	3.76	0.95	1.10
-15	**(+ 5)**	3250	819	952	790	3.63	33.38	4.12	1.04	1.21
-10	**(+14)**	3970	1000	1163	889	4.10	41.24	4.45	1.12	1.31

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.15 +0.00/-0.05	[mm]	(0.321" +0.000"/-0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		