COMPRESSOR DEFINITION

Designation	**NE U2168GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**959MA51**

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 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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm²] (365 psig)	/ ºC - ºF
9.2 Peak (gauge)	28.7	[kgf/cm²] (408 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.28	[cm³] (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)	11.6	[kg] (25.57 lb.)
5 Nitrogen charge	-	[kgf/cm²]

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	MTRPH-0055-65	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRT26ALK-3261	
6 Start winding resistance	14.26	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.25	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	22.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	4.38	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
1420	358	416	384	2.68	10.45	3.70	0.93	1.08

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V50Hz **Fan**

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)**	1179	297	345	319	2.46	8.19	3.67	0.92	1.07
-35	**(-31)**	1545	389	453	372	2.61	10.75	4.17	1.05	1.22
-30	**(-22)**	2015	508	590	428	2.79	14.05	4.73	1.19	1.39
-25	**(-13)**	2588	652	758	485	2.99	18.13	5.33	1.34	1.56
-20	**(- 4)**	3264	822	956	544	3.21	22.99	5.98	1.51	1.75
-15	**(+ 5)**	4043	1019	1185	606	3.45	28.68	6.67	1.68	1.95
-10	**(+14)**	4926	1241	1443	669	3.72	35.21	7.38	1.86	2.16

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V50Hz **Fan**

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)**	926	233	271	326	2.47	7.19	2.86	0.72	0.84
-35	**(-31)**	1271	320	372	386	2.65	9.94	3.30	0.83	0.97
-30	**(-22)**	1692	426	496	451	2.86	13.30	3.75	0.95	1.10
-25	**(-13)**	2190	552	642	519	3.11	17.29	4.21	1.06	1.23
-20	**(- 4)**	2764	697	810	591	3.39	21.94	4.67	1.18	1.37
-15	**(+ 5)**	3414	860	1000	667	3.70	27.28	5.11	1.29	1.50
-10	**(+14)**	4141	1043	1213	747	4.05	33.33	5.54	1.40	1.62

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

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)**	660	166	194	326	2.48	5.94	2.03	0.51	0.60
-35	**(-31)**	985	248	289	395	2.68	8.91	2.47	0.62	0.72
-30	**(-22)**	1360	343	398	469	2.93	12.35	2.88	0.73	0.84
-25	**(-13)**	1783	449	522	549	3.22	16.28	3.25	0.82	0.95
-20	**(- 4)**	2256	568	661	636	3.56	20.75	3.57	0.90	1.05
-15	**(+ 5)**	2778	700	814	728	3.95	25.76	3.84	0.97	1.12
-10	**(+14)**	3350	844	982	826	4.38	31.35	4.04	1.02	1.18

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		