COMPRESSOR DEFINITION

Designation	**NE K2121GK**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**957DG71**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115 / 60	[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	1/3	[hp]
2 Displacement	5.44	[cm³] (0.332 cu.in)
2.1 Bore [mm]	20.873	
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)	10.4	[kg] (22.93 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-59	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0743/G9	
6 Start winding resistance	6.14	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.24	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	26.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.90	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@115V60Hz**			**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]
1212	305	355	286	4.04	8.22	4.24	1.07	1.24

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **35ºC (+95ºF))**
@115V60Hz **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)**	617	156	181	184	3.61	4.15	3.35	0.84	0.98
-35	**(-31)**	789	199	231	209	3.70	5.32	3.77	0.95	1.10
-30	**(-22)**	1009	254	296	234	3.80	6.82	4.31	1.09	1.26
-25	**(-13)**	1277	322	374	258	3.90	8.68	4.95	1.25	1.45
-20	**(- 4)**	1594	402	467	281	4.02	10.89	5.67	1.43	1.66
-15	**(+ 5)**	1960	494	574	304	4.14	13.47	6.46	1.63	1.89
-10	**(+14)**	2375	598	696	326	4.28	16.43	7.28	1.83	2.13

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@115V60Hz **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)**	569	143	167	185	3.61	3.82	3.08	0.78	0.90
-35	**(-31)**	728	183	213	212	3.71	4.90	3.44	0.87	1.01
-30	**(-22)**	935	236	274	240	3.82	6.32	3.90	0.98	1.14
-25	**(-13)**	1191	300	349	268	3.95	8.08	4.44	1.12	1.30
-20	**(- 4)**	1496	377	438	296	4.10	10.19	5.05	1.27	1.48
-15	**(+ 5)**	1849	466	542	325	4.26	12.68	5.70	1.44	1.67
-10	**(+14)**	2250	567	659	354	4.45	15.54	6.36	1.60	1.86

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@115V60Hz **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)**	517	130	152	185	3.62	3.46	2.79	0.70	0.82
-35	**(-31)**	668	168	196	214	3.72	4.49	3.13	0.79	0.92
-30	**(-22)**	867	219	254	244	3.84	5.85	3.56	0.90	1.04
-25	**(-13)**	1115	281	327	275	3.99	7.55	4.05	1.02	1.19
-20	**(- 4)**	1411	356	414	308	4.17	9.60	4.58	1.15	1.34
-15	**(+ 5)**	1756	443	515	342	4.37	12.02	5.13	1.29	1.50
-10	**(+14)**	2150	542	630	378	4.61	14.81	5.69	1.43	1.67

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+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		