COMPRESSOR TECHNICAL DATA

COMPRESSOR DEFINITION

Designation	**NE K6165GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**957IA51**

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	Medium Back Pressure (Commercial Compressors R404A)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°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	6.20	[cm³] (0.378 cu.in)
2.1 Bore	20.873	
2.2 Stroke	9.060	
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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device		
3 Start capacitor	43-53(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection (external)	T0660/G5	
6 Start winding resistance	28.90	[at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	6.80	[at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	12.40	[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	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAEHBP46**			Evaporating temperature	**7.2°C (44.96°F)**	
@220V50Hz			**Fan**			(Condensing temperature	**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]
3295	830	966	471	2.54	27.13	7.00	1.76	2.05

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE46**					(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]
-20	**(- 4)**	1765	445	517	245	1.70	11.20	7.16	1.80	2.10
-15	**(+ 5)**	2044	515	599	272	1.79	13.05	7.53	1.90	2.21
-10	**(+14)**	2424	611	710	296	1.87	15.57	8.19	2.06	2.40
-5	**(+23)**	2906	732	851	318	1.95	18.79	9.14	2.30	2.68
0	**(+32)**	3488	879	1022	338	2.02	22.76	10.34	2.60	3.03
+5	**(+41)**	4172	1051	1222	355	2.09	27.51	11.76	2.96	3.45
+10	**(+50)**	4957	1249	1452	369	2.15	33.08	13.39	3.38	3.92

TEST CONDITIONS:		**ASHRAE46**					(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]
-20	**(- 4)**	1490	375	437	271	1.77	10.43	5.52	1.39	1.62
-15	**(+ 5)**	1745	440	511	302	1.88	12.30	5.78	1.46	1.69
-10	**(+14)**	2084	525	611	331	1.99	14.79	6.27	1.58	1.84
-5	**(+23)**	2506	632	734	359	2.09	17.93	6.96	1.75	2.04
0	**(+32)**	3012	759	883	384	2.18	21.76	7.82	1.97	2.29
+5	**(+41)**	3602	908	1055	408	2.28	26.32	8.84	2.23	2.59
+10	**(+50)**	4275	1077	1253	429	2.38	31.65	9.98	2.52	2.93

TEST CONDITIONS:		**ASHRAE46**					(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]
-20	**(- 4)**	1248	315	366	288	1.84	9.82	4.32	1.09	1.27
-15	**(+ 5)**	1477	372	433	325	1.97	11.70	4.55	1.15	1.33
-10	**(+14)**	1773	447	519	360	2.09	14.14	4.92	1.24	1.44
-5	**(+23)**	2134	538	625	394	2.22	17.18	5.42	1.37	1.59
0	**(+32)**	2562	646	751	426	2.35	20.85	6.02	1.52	1.76
+5	**(+41)**	3055	770	895	457	2.48	25.20	6.69	1.69	1.96
+10	**(+50)**	3615	911	1059	486	2.62	30.25	7.42	1.87	2.17

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		