

COMPRESSOR DEFINITION

Designation	NE 6210GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	951ND71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2-	[hp]
2 Displacement	8.77	[cm ³] (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)	10.4	[kg] (22.93 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-46	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0741/G9	
6 Start winding resistance	7.64	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.63	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	16.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	4.20	[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: @208V60Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°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]
4928	1242	1444	748	4.26	40.57	6.59	1.66	1.93

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			ASHRAE46 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]
-20	(- 4)	2344	591	687	396	2.51	14.89	5.91	1.49	1.73
-15	(+ 5)	2899	730	849	431	2.70	18.50	6.73	1.70	1.97
-10	(+14)	3587	904	1051	468	2.90	23.03	7.66	1.93	2.24
-5	(+23)	4409	1111	1292	507	3.09	28.53	8.69	2.19	2.55
0	(+32)	5365	1352	1572	548	3.28	35.02	9.79	2.47	2.87
+5	(+41)	6455	1627	1892	591	3.47	42.56	10.95	2.76	3.21
+10	(+50)	7680	1935	2250	635	3.65	51.19	12.14	3.06	3.56

TEST CONDITIONS: @208V60Hz			ASHRAE46 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]
-20	(- 4)	1884	475	552	384	2.49	13.19	4.91	1.24	1.44
-15	(+ 5)	2402	605	704	437	2.75	16.93	5.49	1.38	1.61
-10	(+14)	3026	762	887	491	3.01	21.48	6.16	1.55	1.81
-5	(+23)	3754	946	1100	545	3.27	26.86	6.89	1.74	2.02
0	(+32)	4587	1156	1344	599	3.53	33.13	7.66	1.93	2.24
+5	(+41)	5525	1392	1619	653	3.78	40.32	8.44	2.13	2.47
+10	(+50)	6569	1655	1925	708	4.03	48.48	9.22	2.32	2.70

TEST CONDITIONS: @208V60Hz			ASHRAE46 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]
-20	(- 4)	1405	354	412	371	2.47	11.06	3.79	0.96	1.11
-15	(+ 5)	1885	475	552	443	2.80	14.92	4.24	1.07	1.24
-10	(+14)	2440	615	715	515	3.13	19.46	4.74	1.20	1.39
-5	(+23)	3071	774	900	584	3.46	24.73	5.26	1.33	1.54
0	(+32)	3778	952	1107	652	3.79	30.76	5.79	1.46	1.70
+5	(+41)	4561	1149	1337	719	4.12	37.59	6.30	1.59	1.84
+10	(+50)	5421	1366	1588	784	4.44	45.27	6.76	1.70	1.98

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		