

### COMPRESSOR DEFINITION

Designation	<b>NE 6210E</b>
Nominal Voltage/Frequency	<b>115 V 60 Hz</b>
Engineering Number	<b>261NG71</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	115 / 60	[ V / Hz ]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°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 (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)	21.7	[kgf/cm <sup>2</sup> ] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm <sup>2</sup> ] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	8.77	[cm <sup>3</sup> ] (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	ALQUILB / ISO46	
4 Weight (with oil charge)	10.33	[kg] (22.77 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (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-63	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0728/G9	
6 Start winding resistance	7.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.20	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	29.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	7.05	[A] - Measured according to UL 984
11 Approval boards certification	UL	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @100V50Hz			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]
3966	999	1162	577	6.17	24.49	6.87	1.73	2.01

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz			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]
-15 (+5)	2081	524	610	336	5.13	10.93	6.19	1.56	1.81
-10 (+14)	2609	657	764	372	5.48	13.76	7.01	1.77	2.05
-5 (+23)	3235	815	948	405	5.78	17.14	7.99	2.01	2.34
0 (+32)	3959	998	1160	435	6.03	21.09	9.11	2.30	2.67
+5 (+41)	4781	1205	1401	461	6.24	25.64	10.38	2.62	3.04
+10 (+50)	5701	1437	1671	484	6.39	30.81	11.77	2.97	3.45

TEST CONDITIONS: @100V50Hz			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]
-15 (+5)	1797	453	526	349	5.29	10.08	5.16	1.30	1.51
-10 (+14)	2267	571	664	391	5.62	12.77	5.80	1.46	1.70
-5 (+23)	2829	713	829	431	5.95	16.02	6.55	1.65	1.92
0 (+32)	3482	877	1020	470	6.28	19.83	7.40	1.86	2.17
+5 (+41)	4226	1065	1238	507	6.61	24.24	8.33	2.10	2.44
+10 (+50)	5061	1275	1483	543	6.94	29.27	9.34	2.35	2.74

TEST CONDITIONS: @100V50Hz			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]
-15 (+5)	1501	378	440	362	5.46	9.06	4.14	1.04	1.21
-10 (+14)	1912	482	560	410	5.77	11.59	4.67	1.18	1.37
-5 (+23)	2407	606	705	458	6.13	14.67	5.26	1.33	1.54
0 (+32)	2985	752	875	506	6.54	18.32	5.90	1.49	1.73
+5 (+41)	3648	919	1069	555	7.00	22.55	6.57	1.66	1.93
+10 (+50)	4394	1107	1288	604	7.51	27.41	7.27	1.83	2.13

### E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@100V60Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	2435	614	713	393	5.13	12.78	6.19	1.56	1.81	
-10 (+14)	3052	769	894	436	5.48	16.10	7.00	1.77	2.05	
-5 (+23)	3785	954	1109	474	5.78	20.05	7.98	2.01	2.34	
0 (+32)	4632	1167	1357	509	6.03	24.67	9.11	2.29	2.67	
+5 (+41)	5593	1410	1639	540	6.24	29.99	10.37	2.61	3.04	
+10 (+50)	6670	1681	1954	566	6.39	36.04	11.77	2.97	3.45	

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@100V60Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	2102	530	616	408	5.29	11.79	5.16	1.30	1.51	
-10 (+14)	2653	669	777	457	5.62	14.95	5.80	1.46	1.70	
-5 (+23)	3310	834	970	504	5.95	18.74	6.55	1.65	1.92	
0 (+32)	4074	1027	1194	550	6.28	23.20	7.39	1.86	2.17	
+5 (+41)	4944	1246	1449	593	6.61	28.36	8.33	2.10	2.44	
+10 (+50)	5921	1492	1735	635	6.94	34.24	9.34	2.35	2.74	

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@100V60Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1756	443	515	424	5.46	10.60	4.13	1.04	1.21	
-10 (+14)	2237	564	655	480	5.77	13.56	4.67	1.18	1.37	
-5 (+23)	2816	710	825	536	6.13	17.17	5.26	1.32	1.54	
0 (+32)	3493	880	1024	593	6.54	21.43	5.89	1.49	1.73	
+5 (+41)	4268	1076	1251	650	7.00	26.39	6.57	1.65	1.92	
+10 (+50)	5141	1296	1506	707	7.51	32.07	7.27	1.83	2.13	

### 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		