

### COMPRESSOR DEFINITION

Designation	<b>NE K6210U</b>
Nominal Voltage/Frequency	<b>115 V 60 Hz</b>
Engineering Number	<b>862CG71</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115 / 60	[ V / Hz ]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°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 temperature			
9.1 Operating	18.4	[kgf/cm <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/3	[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	ESTER / ISO22	
4 Weight (with oil charge)	10.6	[kg] (23.37 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELECTRICAL 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-64	
3 Start capacitor	189-227(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0828/J5	
6 Start winding resistance	6.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.96	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	37.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	6.82	[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			ARIMBP Fan		Evaporating temperature (Condensing temperature		-6.7°C (19.94°F) 48.9°C (120.02°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]
2447	617	717	447	5.88	10.23	5.47	1.38	1.60

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ARI4 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)	1746	440	512	330	5.10	6.16	5.29	1.33	1.55
-15	(+ 5)	2187	551	641	356	5.25	7.78	6.15	1.55	1.80
-10	(+14)	2696	679	790	378	5.39	9.67	7.12	1.79	2.09
-5	(+23)	3272	825	959	399	5.53	11.85	8.20	2.07	2.40
0	(+32)	3917	987	1148	417	5.66	14.34	9.39	2.37	2.75
+5	(+41)	4629	1166	1356	433	5.79	17.15	10.69	2.70	3.13
+10	(+50)	5409	1363	1585	447	5.91	20.30	12.11	3.05	3.55

TEST CONDITIONS: @115V60Hz		ARI4 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)	1520	383	445	355	5.26	5.94	4.27	1.08	1.25
-15	(+ 5)	1897	478	556	386	5.44	7.46	4.91	1.24	1.44
-10	(+14)	2336	589	685	415	5.62	9.27	5.63	1.42	1.65
-5	(+23)	2837	715	831	441	5.79	11.38	6.43	1.62	1.89
0	(+32)	3400	857	996	464	5.94	13.81	7.33	1.85	2.15
+5	(+41)	4025	1014	1179	485	6.09	16.57	8.30	2.09	2.43
+10	(+50)	4712	1187	1381	503	6.23	19.69	9.37	2.36	2.74

TEST CONDITIONS: @115V60Hz		ARI4 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)	1238	312	363	370	5.33	5.44	3.34	0.84	0.98
-15	(+ 5)	1563	394	458	412	5.61	6.92	3.80	0.96	1.11
-10	(+14)	1945	490	570	450	5.88	8.70	4.32	1.09	1.27
-5	(+23)	2383	600	698	486	6.14	10.80	4.90	1.23	1.44
0	(+32)	2877	725	843	519	6.38	13.22	5.54	1.40	1.62
+5	(+41)	3427	864	1004	548	6.60	15.99	6.25	1.57	1.83
+10	(+50)	4033	1016	1182	575	6.81	19.13	7.01	1.77	2.06

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	6.45 +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		