

COMPRESSOR DEFINITION

Designation	NE U6210Z
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	268HE71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 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	CSCR		
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	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	12.11	[cm ³] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
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)	10.62	[kg] (23.41 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA9AD3C-121	
3 Start capacitor	189-227(250)	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	T0728/G9	
6 Start winding resistance	6.83	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	7.80	[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			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]
4920	1240	1442	591	5.62	31.90	8.32	2.10	2.44

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			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)	2402	605	704	314	3.30	12.99	7.63	1.92	2.24
-10	(+14)	3023	762	886	349	3.55	16.40	8.66	2.18	2.54
-5	(+23)	3769	950	1104	389	3.84	20.53	9.68	2.44	2.84
0	(+32)	4639	1169	1359	435	4.19	25.38	10.68	2.69	3.13
+5	(+41)	5636	1420	1651	485	4.59	31.00	11.62	2.93	3.41
+10	(+50)	6757	1703	1980	541	5.04	37.41	12.50	3.15	3.66

TEST CONDITIONS: @115V60Hz			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)	2100	529	615	332	3.42	12.27	6.33	1.59	1.85
-10	(+14)	2673	674	783	373	3.72	15.67	7.18	1.81	2.10
-5	(+23)	3363	848	985	417	4.07	19.80	8.06	2.03	2.36
0	(+32)	4171	1051	1222	466	4.45	24.68	8.95	2.26	2.62
+5	(+41)	5098	1285	1494	518	4.88	30.34	9.84	2.48	2.88
+10	(+50)	6143	1548	1800	574	5.35	36.81	10.69	2.70	3.13

TEST CONDITIONS: @115V60Hz			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)	1835	463	538	346	3.52	11.69	5.30	1.34	1.55
-10	(+14)	2338	589	685	395	3.89	14.95	5.92	1.49	1.73
-5	(+23)	2951	744	865	446	4.29	18.96	6.60	1.66	1.94
0	(+32)	3675	926	1077	500	4.73	23.74	7.34	1.85	2.15
+5	(+41)	4511	1137	1322	556	5.20	29.32	8.11	2.04	2.38
+10	(+50)	5457	1375	1599	614	5.71	35.74	8.89	2.24	2.60

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		