

COMPRESSOR DEFINITION

Designation	NE U6210E
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	958MB71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-422D		
3 Nominal voltage and frequency	200-230 / 50	[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 - 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	21.8	[kgf/cm ²] (310 psig)	/ °C - °F
9.2 Peak	24.6	[kgf/cm ²] (350 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	ALQUILB / ISO46	
4 Weight (with oil charge)	10.6	[kg] (23.37 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0012	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MST26LK-3259	
6 Start winding resistance	27.92	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.53	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	24.00/24.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMTRO	

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]
4869	1227	1427	659	3.84		7.39	1.86	2.17

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V50Hz		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)	2210	557	647	309	2.67	0.00	7.15	1.80	2.10
-10	(+14)	2779	700	814	337	2.77	0.00	8.24	2.08	2.42
-5	(+23)	3451	870	1011	366	2.89	0.00	9.42	2.37	2.76
0	(+32)	4226	1065	1238	396	3.01	0.00	10.67	2.69	3.13
+5	(+41)	5104	1286	1495	426	3.14	0.00	11.98	3.02	3.51
+10	(+50)	6085	1533	1783	457	3.27	0.00	13.32	3.36	3.90

TEST CONDITIONS: @208V50Hz		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)	1940	489	568	334	2.78	0.00	5.80	1.46	1.70
-10	(+14)	2448	617	717	369	2.90	0.00	6.63	1.67	1.94
-5	(+23)	3047	768	893	404	3.03	0.00	7.54	1.90	2.21
0	(+32)	3735	941	1094	439	3.16	0.00	8.50	2.14	2.49
+5	(+41)	4513	1137	1322	474	3.31	0.00	9.52	2.40	2.79
+10	(+50)	5381	1356	1577	510	3.46	0.00	10.56	2.66	3.09

TEST CONDITIONS: @208V50Hz		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)	1594	402	467	352	2.86	0.00	4.53	1.14	1.33
-10	(+14)	2027	511	594	396	3.01	0.00	5.11	1.29	1.50
-5	(+23)	2537	639	743	440	3.17	0.00	5.76	1.45	1.69
0	(+32)	3123	787	915	484	3.34	0.00	6.45	1.63	1.89
+5	(+41)	3786	954	1110	528	3.53	0.00	7.18	1.81	2.10
+10	(+50)	4526	1141	1326	571	3.72	0.00	7.93	2.00	2.32

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]
-15 (+5)	2649	667	776	351	2.53	0.00	7.52	1.89	2.20	
-10 (+14)	3339	841	978	398	2.70	0.00	8.42	2.12	2.47	
-5 (+23)	4128	1040	1209	441	2.89	0.00	9.37	2.36	2.75	
0 (+32)	5014	1264	1469	485	3.09	0.00	10.34	2.60	3.03	
+5 (+41)	5999	1512	1758	532	3.30	0.00	11.26	2.84	3.30	
+10 (+50)	7082	1785	2075	586	3.52	0.00	12.09	3.05	3.54	

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]
-15 (+5)	2284	575	669	378	2.63	0.00	6.03	1.52	1.77	
-10 (+14)	2892	729	847	432	2.84	0.00	6.71	1.69	1.97	
-5 (+23)	3590	905	1052	482	3.05	0.00	7.46	1.88	2.19	
0 (+32)	4378	1103	1283	531	3.28	0.00	8.23	2.08	2.41	
+5 (+41)	5257	1325	1540	584	3.53	0.00	8.99	2.27	2.63	
+10 (+50)	6225	1569	1824	643	3.79	0.00	9.68	2.44	2.84	

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]
-15 (+5)	1898	478	556	406	2.71	0.00	4.68	1.18	1.37	
-10 (+14)	2402	605	704	469	2.96	0.00	5.13	1.29	1.50	
-5 (+23)	2989	753	876	528	3.22	0.00	5.66	1.43	1.66	
0 (+32)	3658	922	1072	586	3.51	0.00	6.24	1.57	1.83	
+5 (+41)	4410	1111	1292	646	3.82	0.00	6.82	1.72	2.00	
+10 (+50)	5244	1321	1537	713	4.15	0.00	7.36	1.85	2.16	

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		