

COMPRESSOR DEFINITION

Designation	NE U6210U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	862FA51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[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 - 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)	19.1	[kgf/cm²] (272 psig)	/ °C - °F
9.2 Peak (gauge)	21.2	[kgf/cm²] (301 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[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)	10.6	[kg] (23.37 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0030	
3 Start capacitor	53-64(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	MST26ALK-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 Hz)	20.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.90	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
4147	1045	1215	457	2.99	14.19	9.08	2.29	2.66

TEST CONDITIONS: @220V50Hz			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
2305	581	675	342	2.65	7.76	6.74	1.70	1.97

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	1991	502	583	271	2.46	5.63	7.32	1.85	2.15
-15	(+ 5)	2355	593	690	291	2.52	6.67	8.08	2.04	2.37
-10	(+14)	2825	712	828	308	2.57	8.03	9.18	2.31	2.69
-5	(+23)	3403	858	997	321	2.61	9.72	10.60	2.67	3.10
0	(+32)	4089	1030	1198	332	2.64	11.75	12.33	3.11	3.61
+5	(+41)	4882	1230	1431	340	2.66	14.12	14.39	3.63	4.22
+10	(+50)	5785	1458	1695	345	2.67	16.87	16.75	4.22	4.91

TEST CONDITIONS:					ASHRAE46		(Condensing temperature 45°C (+113°F))			
@220V50Hz		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]
-20	(- 4)	1741	439	510	294	2.56	5.31	5.97	1.50	1.75
-15	(+ 5)	2084	525	611	319	2.60	6.38	6.55	1.65	1.92
-10	(+14)	2521	635	739	342	2.65	7.76	7.37	1.86	2.16
-5	(+23)	3053	769	895	362	2.71	9.44	8.41	2.12	2.46
0	(+32)	3680	927	1078	379	2.78	11.45	9.68	2.44	2.84
+5	(+41)	4403	1110	1290	394	2.86	13.80	11.16	2.81	3.27
+10	(+50)	5222	1316	1530	407	2.95	16.49	12.85	3.24	3.76

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@220V50Hz		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]
-20	(- 4)	1428	360	418	307	2.68	4.75	4.61	1.16	1.35
-15	(+ 5)	1740	438	510	339	2.69	5.82	5.14	1.29	1.51
-10	(+14)	2133	537	625	369	2.73	7.17	5.80	1.46	1.70
-5	(+23)	2608	657	764	396	2.80	8.82	6.59	1.66	1.93
0	(+32)	3165	798	927	422	2.90	10.78	7.50	1.89	2.20
+5	(+41)	3806	959	1115	446	3.03	13.05	8.53	2.15	2.50
+10	(+50)	4529	1141	1327	468	3.19	15.66	9.68	2.44	2.84

TEST CONDITIONS:		EN12900HH			(Condensing temperature 35°C (+95°F))					
@220V50Hz		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]
-20	(- 4)	1752	441	513	280	2.59	5.35	6.25	1.58	1.83
-15	(+ 5)	2200	554	645	299	2.63	6.75	7.35	1.85	2.15
-10	(+14)	2702	681	792	315	2.66	8.33	8.57	2.16	2.51
-5	(+23)	3257	821	955	329	2.69	10.09	9.91	2.50	2.90
0	(+32)	3867	974	1133	340	2.72	12.05	11.39	2.87	3.34
+5	(+41)	4530	1142	1327	349	2.75	14.23	13.00	3.28	3.81
+10	(+50)	5247	1322	1538	355	2.78	16.62	14.76	3.72	4.32

TEST CONDITIONS:		EN12900HH			(Condensing temperature 45°C (+113°F))					
@220V50Hz		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]
-20	(- 4)	1497	377	439	297	2.61	5.00	5.07	1.28	1.48
-15	(+ 5)	1897	478	556	322	2.67	6.36	5.89	1.48	1.73
-10	(+14)	2354	593	690	345	2.72	7.93	6.81	1.72	2.00
-5	(+23)	2868	723	840	365	2.76	9.71	7.82	1.97	2.29
0	(+32)	3439	867	1008	384	2.80	11.73	8.94	2.25	2.62
+5	(+41)	4067	1025	1192	400	2.84	13.98	10.16	2.56	2.98
+10	(+50)	4752	1197	1392	414	2.88	16.49	11.50	2.90	3.37

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900HH 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)	1286	324	377	315	2.64	4.75	4.06	1.02	1.19
-15	(+ 5)	1608	405	471	343	2.71	5.97	4.70	1.18	1.38
-10	(+14)	1990	501	583	370	2.77	7.43	5.40	1.36	1.58
-5	(+23)	2432	613	713	395	2.82	9.14	6.16	1.55	1.81
0	(+32)	2935	740	860	419	2.87	11.11	7.00	1.76	2.05
+5	(+41)	3498	882	1025	441	2.91	13.36	7.92	2.00	2.32
+10	(+50)	4122	1039	1208	462	2.95	15.89	8.92	2.25	2.61

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		