COMPRESSOR DEFINITION

Designation	**EM X6210U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513304120**

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 (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	18.4	[kgf/cm²] (262 psig)	/ ºC - ºF
9.2 Peak	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	9.04	[cm³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO22	
4 Weight (with oil charge)	7.4	[kg] (16.31 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL 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	QL2-6.2/QL2-6R2	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	DRB30N61AYF	
6 Start winding resistance	14.20	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	9.20	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	16.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - EAC - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900MBP Fan**		Evaporating temperature (Condensing temperature	**-10°C (14°F) 45°C (113°F))**		
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
2354	593	690	338	2.04	8.47	6.97	1.76	2.04

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **EN12900 Fan** — (Condensing temperature **35ºC (+95ºF))**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	1831	461	537	264	1.78	5.93	6.93	1.75	2.03
-15	**(+ 5)**	2238	564	656	285	1.86	7.30	7.84	1.97	2.30
-10	**(+14)**	2718	685	797	303	1.92	8.91	8.96	2.26	2.62
-5	**(+23)**	3273	825	959	318	1.98	10.81	10.30	2.60	3.02
0	**(+32)**	3902	983	1143	330	2.02	12.99	11.86	2.99	3.48
+5	**(+41)**	4605	1160	1349	338	2.05	15.48	13.66	3.44	4.00
+10	**(+50)**	5382	1356	1577	342	2.07	18.30	15.68	3.95	4.60

TEST CONDITIONS: **@220V50Hz** — **EN12900 Fan** — (Condensing temperature **45ºC (+113ºF))**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	1580	398	463	286	1.85	5.61	5.55	1.40	1.63
-15	**(+ 5)**	1945	490	570	314	1.95	6.95	6.20	1.56	1.82
-10	**(+14)**	2374	598	696	339	2.04	8.54	6.98	1.76	2.05
-5	**(+23)**	2867	722	840	361	2.13	10.40	7.91	1.99	2.32
0	**(+32)**	3424	863	1003	380	2.20	12.53	8.98	2.26	2.63
+5	**(+41)**	4045	1019	1185	397	2.27	14.97	10.20	2.57	2.99
+10	**(+50)**	4730	1192	1386	410	2.32	17.72	11.59	2.92	3.39

TEST CONDITIONS: **@220V50Hz** — **EN12900 Fan** — (Condensing temperature **55ºC (+131ºF))**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	1337	337	392	303	1.90	5.29	4.39	1.11	1.29
-15	**(+ 5)**	1645	415	482	339	2.03	6.55	4.87	1.23	1.43
-10	**(+14)**	2008	506	588	372	2.16	8.05	5.41	1.36	1.59
-5	**(+23)**	2425	611	711	404	2.28	9.81	6.02	1.52	1.76
0	**(+32)**	2896	730	849	432	2.40	11.84	6.70	1.69	1.96
+5	**(+41)**	3421	862	1003	459	2.51	14.15	7.45	1.88	2.18
+10	**(+50)**	4001	1008	1172	483	2.62	16.78	8.28	2.09	2.43

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42º up + 45° to Back		
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	Slanted 0° up + 24° to Back		
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 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		