

**COMPRESSOR DEFINITION**

Designation	<b>EM X3134U</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>513300623</b>

**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	Low-Medium Back Pressure (Light Commercial) up to -40°C		
4.1 Evaporating temperature range	-40°C to 0°C	(-40°F to 32°F)	
5 Motor type	RSCR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
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)	18,4	[kgf/cm <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak (gauge)	20,6	[kgf/cm <sup>2</sup> ] (293 psig)	
10 Maximum winding temperature	130	[ °C ]	

**B - MECHANICAL DATA**

1 Commercial designation		[hp]
2 Displacement	7,95	[cm <sup>3</sup> ] (0.485 cu.in)
2.1 Bore [mm]	22,500	
2.2 Stroke [mm]	20,000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7,6	[kg] (16.75 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

**C - ELETRICAL DATA**

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C3/QPS2-A22MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(450)	[µF(VAC minimum)]
5 Motor protection	DRB35K61A2	
6 Start winding resistance	[Ω at 25°C (77°F)] +/- 8%	
7 Run winding resistance	[Ω at 25°C (77°F)] +/- 8%	
8 LRA - Locked rotor amperage (50 Hz)	10.50	[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	CCC - VDE	

**D - PERFORMANCE - CHECK POINT DATA**

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAEHBP46</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>7,2°C (44,96°F)</b> <b>54,4°C (129,92°F)</b>		
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]
3930	990	1152	395	1,95	13,45	9,94	2,50	2,91

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAELBP32</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>-23,3°C (-9,94°F)</b> <b>54,4°C (129,92°F)</b>		
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]
1385	349	406	246	1,33	4,12	5,63	1,42	1,65

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAEMP46</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>-6,7°C (19,94°F)</b> <b>54,4°C (129,92°F)</b>		
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]
2445	616	716	336	1,70	7,28	1,83	2,13	

**E - PERFORMANCE - CURVES**

TEST CONDITIONS: <b>@220V50Hz</b>		<b>ASHRAE32</b> <b>Fan</b>				(Condensing temperature <b>35°C (+95°F)</b> )				
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]
<b>-40</b>	<b>(-40)</b>	745	188	218	135	0,94	2,20	5,58	1,41	1,64
<b>-35</b>	<b>(-31)</b>	997	251	292	170	1,04	2,95	5,87	1,48	1,72
<b>-30</b>	<b>(-22)</b>	1307	329	383	200	1,15	3,88	6,48	1,63	1,90
<b>-25</b>	<b>(-13)</b>	1670	421	489	225	1,23	4,97	7,37	1,86	2,16
<b>-20</b>	<b>(- 4)</b>	2080	524	609	245	1,31	6,21	8,52	2,15	2,50
<b>-15</b>	<b>(+ 5)</b>	2532	638	742	259	1,37	7,59	9,87	2,49	2,89
<b>-10</b>	<b>(+14)</b>	3020	761	885	268	1,41	9,09	11,41	2,88	3,34
<b>-5</b>	<b>(+23)</b>	3539	892	1037	272	1,43	10,70	13,10	3,30	3,84
<b>0</b>	<b>(+32)</b>	4083	1029	1196	271	1,42	12,41	14,91	3,76	4,37

**E - PERFORMANCE - CURVES**

TEST CONDITIONS: @220V50Hz		ASHRAE32 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]
-40	(-40)	714	180	209	148	0,99	2,11	4,85	1,22	1,42
-35	(-31)	892	225	261	181	1,09	2,64	4,98	1,25	1,46
-30	(-22)	1139	287	334	212	1,19	3,38	5,37	1,35	1,57
-25	(-13)	1449	365	424	238	1,29	4,31	6,01	1,51	1,76
-20	(- 4)	1816	458	532	262	1,38	5,42	6,86	1,73	2,01
-15	(+ 5)	2236	563	655	282	1,46	6,70	7,88	1,99	2,31
-10	(+14)	2702	681	792	299	1,54	8,13	9,04	2,28	2,65
-5	(+23)	3209	809	940	313	1,60	9,70	10,31	2,60	3,02
0	(+32)	3751	945	1099	323	1,64	11,40	11,66	2,94	3,42

TEST CONDITIONS: @220V50Hz		ASHRAE32 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]
-40	(-40)	688	173	202	154	1,02	2,04	4,25	1,07	1,24
-35	(-31)	801	202	235	187	1,11	2,37	4,30	1,08	1,26
-30	(-22)	993	250	291	218	1,21	2,94	4,59	1,16	1,35
-25	(-13)	1258	317	369	247	1,32	3,74	5,08	1,28	1,49
-20	(- 4)	1591	401	466	276	1,43	4,75	5,73	1,45	1,68
-15	(+ 5)	1986	501	582	302	1,55	5,95	6,52	1,64	1,91
-10	(+14)	2438	614	714	328	1,66	7,34	7,41	1,87	2,17
-5	(+23)	2941	741	862	352	1,76	8,89	8,37	2,11	2,45
0	(+32)	3490	879	1023	374	1,86	10,61	9,35	2,36	2,74

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 65°C (+149°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]
-40	(-40)	603	152	177	149	1,00	1,79	3,47	0,87	1,02
-35	(-31)	659	166	193	181	1,09	1,95	3,56	0,90	1,04
-30	(-22)	804	202	235	213	1,20	2,38	3,84	0,97	1,13
-25	(-13)	1032	260	302	246	1,32	3,07	4,28	1,08	1,25
-20	(- 4)	1339	337	392	280	1,46	3,99	4,85	1,22	1,42
-15	(+ 5)	1718	433	503	314	1,60	5,14	5,51	1,39	1,61
-10	(+14)	2164	545	634	349	1,75	6,51	6,22	1,57	1,82
-5	(+23)	2671	673	783	383	1,91	8,08	6,96	1,75	2,04
0	(+32)	3234	815	948	419	2,06	9,83	7,69	1,94	2,25

**F - EXTERNAL CHARACTERISTICS**

1 Base plate	Universal		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	8,2 +0.12/-0.08	[mm]	(0.323" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 40° 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	6,2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 40° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		