

COMPRESSOR DEFINITION

Designation	EM C3134U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	7110A52

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
2.1 Max Refrigerant Charge	150 [g]		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low-Medium Back Pressure (Light Commercial)		
4.1 Evaporating temperature range	-35°C to 0°C	(-31°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)	Fan	198 to 254 V	-
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/cm ²] (272 psig)	/ °C - °F
9.2 Peak (gauge)	21,2	[kgf/cm ²] (301 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	7,95	[cm ³] (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 / ISO10	
4 Weight (with oil charge)	8,15	[kg] (17.97 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	TSD	
2.1 Starting device	TSD2-220V/TSD2-220V1.2/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	8(350)	[µF(VAC minimum)]
5 Motor protection	4TM308KDBYY-73	
6 Start winding resistance	13.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.25	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	10.30	[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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature	-23,3°C (-9,94°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]
1423	359	417	226	1,12	4,24	6,30	1,59	1,85

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-35 (-31)	952	240	279	162	0,91	2,82	5,88	1,48	1,72
-30 (-22)	1163	293	341	178	0,97	3,45	6,56	1,65	1,92
-25 (-13)	1434	361	420	193	1,03	4,26	7,44	1,87	2,18
-20 (- 4)	1767	445	518	208	1,09	5,27	8,48	2,14	2,48
-15 (+ 5)	2160	544	633	223	1,15	6,47	9,67	2,44	2,83
-10 (+14)	2615	659	766	238	1,22	7,87	10,99	2,77	3,22
-5 (+23)	3130	789	917	253	1,28	9,47	12,40	3,12	3,63
0 (+32)	3707	934	1086	267	1,34	11,27	13,89	3,50	4,07

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]
-35 (-31)	911	230	267	172	0,94	2,70	5,31	1,34	1,55
-30 (-22)	1118	282	328	191	1,02	3,32	5,85	1,47	1,71
-25 (-13)	1384	349	405	211	1,10	4,11	6,56	1,65	1,92
-20 (- 4)	1708	431	501	230	1,18	5,10	7,42	1,87	2,17
-15 (+ 5)	2092	527	613	249	1,26	6,27	8,39	2,12	2,46
-10 (+14)	2534	639	743	267	1,34	7,63	9,47	2,39	2,77
-5 (+23)	3035	765	889	286	1,42	9,18	10,62	2,68	3,11
0 (+32)	3595	906	1053	304	1,50	10,93	11,82	2,98	3,46

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]
-35 (-31)	853	215	250	176	0,96	2,52	4,84	1,22	1,42
-30 (-22)	1056	266	309	200	1,05	3,13	5,29	1,33	1,55
-25 (-13)	1315	331	385	224	1,15	3,91	5,88	1,48	1,72
-20 (- 4)	1631	411	478	248	1,25	4,86	6,58	1,66	1,93
-15 (+ 5)	2003	505	587	271	1,35	6,00	7,38	1,86	2,16
-10 (+14)	2432	613	713	295	1,45	7,32	8,25	2,08	2,42
-5 (+23)	2918	735	855	319	1,56	8,82	9,17	2,31	2,69
0 (+32)	3460	872	1014	342	1,66	10,52	10,11	2,55	2,96

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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 42° up + 45° to Back		
3.2 DISCHARGE	4,94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 45° 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		