COMPRESSOR DEFINITION

Designation	**EM C3134U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513301937**

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 (Commercial Compressors)		
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 Expantion device	Capillary tube		
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	7.95	[cm³] (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	ALQUILB / ISO22	
4 Weight (with oil charge)	8.15	[kg] (17.97 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	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 25ºC (77ºF)] +/- 8%
7 Run winding resistance	9.25	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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 - ISI - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**			Evaporating temperature		**-23.3°C (-9.94°F)**
@220V50Hz			**Fan**			(Condensing temperature		**54.4°C (129.92°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]
1423	359	417	226	1.12	4.24	6.30	1.59	1.85

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**Fan**								
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]
-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:		**ASHRAE32**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**Fan**								
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]
-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:		**ASHRAE32**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**Fan**								
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]
-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 EUEM		
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 42º 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 + 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		