

COMPRESSOR DEFINITION

Designation	EG U130HLR
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513700027

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 60	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	CSIR		
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)	Fan	-	103 to 140 V
8.2 LBP (43°C Ambient temperature)	Fan	-	103 to 140 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	10.61	[cm ³] (0.647 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	230	[ml] (7.78 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	10.47	[kg] (23.08 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516191	
3 Start capacitor	378-454(68)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRT30AIK-5590	
6 Start winding resistance	10.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.50	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	30.45	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	4.35	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	5.00	[A] - Measured according to UL 984
11 Approval boards certification	TUV	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
1250	315	366	239	3.20	7.10	5.23	1.32	1.53

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			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)	724	182	212	158	2.83	4.09	4.61	1.16	1.35
-30	(-22)	1001	252	293	185	2.95	5.67	5.44	1.37	1.59
-25	(-13)	1340	338	393	215	3.11	7.61	6.26	1.58	1.83
-20	(- 4)	1749	441	512	247	3.31	9.95	7.08	1.79	2.08
-15	(+ 5)	2236	564	655	281	3.55	12.77	7.93	2.00	2.32
-10	(+14)	2811	708	824	318	3.82	16.11	8.81	2.22	2.58

TEST CONDITIONS: @115V60Hz			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)	643	162	188	154	2.81	3.64	4.11	1.04	1.20
-30	(-22)	917	231	269	186	2.95	5.20	4.88	1.23	1.43
-25	(-13)	1249	315	366	221	3.14	7.09	5.64	1.42	1.65
-20	(- 4)	1647	415	483	258	3.37	9.37	6.38	1.61	1.87
-15	(+ 5)	2120	534	621	297	3.63	12.10	7.13	1.80	2.09
-10	(+14)	2677	674	784	338	3.94	15.34	7.90	1.99	2.32

TEST CONDITIONS: @115V60Hz			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)	513	129	150	147	2.78	2.90	3.51	0.88	1.03
-30	(-22)	787	198	231	185	2.96	4.46	4.25	1.07	1.25
-25	(-13)	1115	281	327	226	3.18	6.33	4.96	1.25	1.45
-20	(- 4)	1506	379	441	268	3.44	8.57	5.65	1.42	1.65
-15	(+ 5)	1967	496	576	312	3.74	11.23	6.33	1.59	1.85
-10	(+14)	2509	632	735	359	4.09	14.37	7.01	1.77	2.05

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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]
-35	(-31)	401	101	117	135	2.71	2.27	3.00	0.76	0.88
-30	(-22)	678	171	199	179	2.93	3.85	3.73	0.94	1.09
-25	(-13)	1006	253	295	226	3.19	5.71	4.42	1.11	1.29
-20	(- 4)	1392	351	408	274	3.49	7.92	5.07	1.28	1.48
-15	(+ 5)	1845	465	541	325	3.84	10.53	5.69	1.43	1.67
-10	(+14)	2375	598	696	377	4.23	13.60	6.31	1.59	1.85

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
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	Straight		
3.2 DISCHARGE	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		