

COMPRESSOR DEFINITION

Designation	EG U130HLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513700043

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[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	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)	Fan	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Fan	198 to 255 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	280	[ml] (9.47 fl.oz)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	11.21	[kg] (24.71 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Combo	
2.1 Starting device	3ARR52T7H/3ARR56T7H	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(300)	[µF(VAC minimum)]
5 Motor protection	3ARR52/56T7H	
6 Start winding resistance	19.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	10.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	9.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.60	[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]
1060	267	311	195	0.99	6.02	5.44	1.37	1.59

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]
-35 (-31)	576	145	169	129	0.72	3.26	4.47	1.13	1.31
-30 (-22)	780	197	229	155	0.81	4.42	5.09	1.28	1.49
-25 (-13)	1040	262	305	179	0.91	5.90	5.83	1.47	1.71
-20 (- 4)	1366	344	400	205	1.02	7.78	6.68	1.68	1.96
-15 (+ 5)	1769	446	518	231	1.14	10.10	7.61	1.92	2.23
-10 (+14)	2259	569	662	261	1.27	12.94	8.62	2.17	2.53

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)	500	126	147	127	0.70	2.83	3.92	0.99	1.15
-30 (-22)	706	178	207	157	0.81	4.00	4.49	1.13	1.32
-25 (-13)	959	242	281	187	0.93	5.44	5.15	1.30	1.51
-20 (- 4)	1269	320	372	216	1.07	7.22	5.87	1.48	1.72
-15 (+ 5)	1646	415	482	248	1.21	9.40	6.64	1.67	1.95
-10 (+14)	2102	530	616	282	1.37	12.04	7.44	1.87	2.18

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]
-35 (-31)	389	98	114	119	0.68	2.20	3.31	0.83	0.97
-30 (-22)	610	154	179	154	0.80	3.46	3.91	0.99	1.15
-25 (-13)	869	219	255	189	0.94	4.93	4.56	1.15	1.34
-20 (- 4)	1176	296	345	224	1.10	6.69	5.23	1.32	1.53
-15 (+ 5)	1542	389	452	261	1.27	8.80	5.91	1.49	1.73
-10 (+14)	1977	498	579	301	1.46	11.33	6.58	1.66	1.93

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		