

### COMPRESSOR DEFINITION

Designation	EG AS80HLR
Nominal Voltage/Frequency	220 V 50 Hz
Engineering Number	513701398

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220 / 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	RSIR		
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)	Static/Fan	198 to 242 V	-
8.2 LBP (43°C Ambient temperature)	Static/Fan	198 to 242 V	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/4+	[hp]
2 Displacement	6.36	[cm <sup>3</sup> ] (0.388 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	16.000	
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)	9.54	[kg] (21.03 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516221	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM283KFBYY-53	
6 Start winding resistance	33.43	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	17.74	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	10.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.89	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.13	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Static		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]
647	163	190	125	0.86	3.68	5.18	1.31	1.52

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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)	396	100	116	86	0.76	2.24	4.65	1.17	1.36
-30 (-22)	481	121	141	96	0.74	2.73	5.25	1.32	1.54
-25 (-13)	632	159	185	104	0.77	3.59	6.23	1.57	1.83
-20 (- 4)	841	212	246	111	0.82	4.79	7.44	1.87	2.18
-15 (+ 5)	1100	277	322	120	0.88	6.28	8.75	2.20	2.56
-10 (+14)	1403	354	411	135	0.93	8.04	10.02	2.53	2.94

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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)	327	82	96	76	0.72	1.85	4.17	1.05	1.22
-30 (-22)	417	105	122	95	0.71	2.36	4.61	1.16	1.35
-25 (-13)	568	143	166	109	0.74	3.22	5.41	1.36	1.58
-20 (- 4)	773	195	227	120	0.80	4.40	6.44	1.62	1.89
-15 (+ 5)	1026	259	301	133	0.88	5.86	7.56	1.91	2.22
-10 (+14)	1318	332	386	149	0.95	7.55	8.64	2.18	2.53

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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)	269	68	79	72	0.72	1.52	3.58	0.90	1.05
-30 (-22)	365	92	107	99	0.71	2.07	3.89	0.98	1.14
-25 (-13)	518	131	152	118	0.75	2.94	4.56	1.15	1.34
-20 (- 4)	722	182	212	134	0.83	4.11	5.46	1.38	1.60
-15 (+ 5)	969	244	284	150	0.92	5.53	6.44	1.62	1.89
-10 (+14)	1252	316	367	167	1.02	7.17	7.38	1.86	2.16

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static			(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)	222	56	65	87	0.75	1.26	2.61	0.66	0.77
-30	(-22)	325	82	95	121	0.74	1.84	2.84	0.72	0.83
-25	(-13)	482	121	141	146	0.79	2.74	3.43	0.86	1.01
-20	(- 4)	686	173	201	167	0.88	3.90	4.24	1.07	1.24
-15	(+ 5)	929	234	272	184	1.00	5.30	5.13	1.29	1.50
-10	(+14)	1204	304	353	203	1.12	6.90	5.98	1.51	1.75

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted		
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		
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	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		