

### COMPRESSOR DEFINITION

Designation	EG AS70HLR
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701412

### 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	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	-	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	98 to 140 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	1/5+	[hp]
2 Displacement	5.56	[cm <sup>3</sup> ] (0.339 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	14.000	
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)	10.33	[kg] (22.77 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	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516124	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762KFBYY-53	
6 Start winding resistance	10.24	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.28	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	22.75	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.12	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.31	[A] - Measured according to UL 984
11 Approval boards certification	CE - TUV - UKCA	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
690	174	202	135	1.95	3.92	5.13	1.29	1.50

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	383	96	112	90	1.67	2.16	4.26	1.07	1.25	
-30 (-22)	539	136	158	104	1.72	3.06	5.18	1.31	1.52	
-25 (-13)	727	183	213	118	1.79	4.13	6.17	1.55	1.81	
-20 (- 4)	952	240	279	131	1.86	5.42	7.25	1.83	2.12	
-15 (+ 5)	1223	308	358	145	1.94	6.98	8.44	2.13	2.47	
-10 (+14)	1545	389	453	158	2.02	8.85	9.78	2.47	2.87	

TEST CONDITIONS: @115V60Hz		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)	351	89	103	88	1.67	1.99	3.99	1.01	1.17	
-30 (-22)	501	126	147	105	1.73	2.84	4.77	1.20	1.40	
-25 (-13)	681	172	199	123	1.81	3.86	5.56	1.40	1.63	
-20 (- 4)	898	226	263	141	1.91	5.11	6.39	1.61	1.87	
-15 (+ 5)	1159	292	340	158	2.01	6.62	7.29	1.84	2.14	
-10 (+14)	1471	371	431	176	2.13	8.43	8.29	2.09	2.43	

TEST CONDITIONS: @115V60Hz		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)	290	73	85	81	1.64	1.64	3.57	0.90	1.05	
-30 (-22)	440	111	129	102	1.72	2.49	4.34	1.09	1.27	
-25 (-13)	618	156	181	123	1.82	3.51	5.08	1.28	1.49	
-20 (- 4)	834	210	244	145	1.94	4.74	5.80	1.46	1.70	
-15 (+ 5)	1092	275	320	168	2.08	6.23	6.55	1.65	1.92	
-10 (+14)	1401	353	411	191	2.23	8.03	7.35	1.85	2.15	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	161	41	47	69	1.60	0.91	2.37	0.60	0.70
-30	(-22)	316	80	93	94	1.69	1.79	3.28	0.83	0.96
-25	(-13)	500	126	147	120	1.81	2.84	4.10	1.03	1.20
-20	(- 4)	720	182	211	147	1.95	4.10	4.87	1.23	1.43
-15	(+ 5)	983	248	288	175	2.12	5.61	5.61	1.41	1.64
-10	(+14)	1296	326	380	204	2.31	7.42	6.35	1.60	1.86

### 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	Straight		
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	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		