

### COMPRESSOR DEFINITION

Designation	EG AS80HLP
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513701364

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220 / 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/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	6.44	[cm <sup>3</sup> ] (0.393 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	16.200	
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)	9.7	[kg] (21.38 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 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	MSC34X 220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSC34A49J3	
6 Start winding resistance	18.63	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	14.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	8.05	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.66	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	2.00	[A] - Measured according to UL 984
11 Approval boards certification		

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V60Hz			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]
805	203	236	160	1.10	4.57	5.05	1.27	1.48

TEST CONDITIONS: @220V60Hz			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]
830	209	243	159	1.15	4.72	5.21	1.31	1.53

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz			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)	476	120	139	102	0.97	2.69	4.64	1.17	1.36
-30 (-22)	635	160	186	119	0.98	3.60	5.35	1.35	1.57
-25 (-13)	828	209	243	135	1.01	4.70	6.16	1.55	1.80
-20 (- 4)	1064	268	312	150	1.06	6.06	7.09	1.79	2.08
-15 (+ 5)	1352	341	396	165	1.11	7.72	8.19	2.07	2.40
-10 (+14)	1699	428	498	178	1.17	9.73	9.51	2.40	2.79

TEST CONDITIONS: @220V60Hz			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)	418	105	122	104	0.94	2.36	4.02	1.01	1.18
-30 (-22)	585	148	172	125	0.98	3.32	4.69	1.18	1.38
-25 (-13)	784	198	230	145	1.05	4.45	5.40	1.36	1.58
-20 (- 4)	1022	257	299	165	1.13	5.81	6.18	1.56	1.81
-15 (+ 5)	1307	329	383	184	1.21	7.46	7.07	1.78	2.07
-10 (+14)	1648	415	483	203	1.28	9.44	8.11	2.04	2.38

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	338	85	99	98	0.92	1.91	3.46	0.87	1.01
-30	(-22)	514	130	151	124	0.99	2.92	4.15	1.05	1.22
-25	(-13)	718	181	210	149	1.07	4.08	4.81	1.21	1.41
-20	(- 4)	957	241	280	174	1.16	5.45	5.49	1.38	1.61
-15	(+ 5)	1240	312	363	199	1.25	7.08	6.22	1.57	1.82
-10	(+14)	1575	397	462	223	1.32	9.02	7.04	1.77	2.06

TEST CONDITIONS: @220V60Hz		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)	238	60	70	83	0.92	1.35	2.86	0.72	0.84
-30	(-22)	422	106	124	115	0.99	2.39	3.61	0.91	1.06
-25	(-13)	630	159	185	147	1.07	3.58	4.28	1.08	1.25
-20	(- 4)	870	219	255	178	1.15	4.95	4.90	1.23	1.44
-15	(+ 5)	1150	290	337	210	1.22	6.56	5.51	1.39	1.62
-10	(+14)	1479	373	433	240	1.27	8.47	6.16	1.55	1.81

### 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		