

COMPRESSOR DEFINITION

Designation	EG AS80HLP
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513701221

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 ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	6.36	[cm ³] (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)	10.37	[kg] (22.86 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 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Combo	
2.1 Starting device	MSC34X 220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSC34A49H3	
6 Start winding resistance	22.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	10.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	7.51	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.45	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	1.70	[A] - Measured according to UL 984
11 Approval boards certification	TUV	

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]
820	207	240	151	0.99	4.66	5.43	1.37	1.59

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)	478	120	140	99	0.88	2.70	4.83	1.22	1.41
-30 (-22)	636	160	186	115	0.93	3.61	5.53	1.39	1.62
-25 (-13)	839	211	246	132	0.98	4.76	6.39	1.61	1.87
-20 (- 4)	1093	276	320	147	1.03	6.22	7.42	1.87	2.17
-15 (+ 5)	1408	355	413	163	1.09	8.04	8.63	2.17	2.53
-10 (+14)	1791	451	525	178	1.15	10.26	10.03	2.53	2.94

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)	433	109	127	101	0.89	2.45	4.29	1.08	1.26
-30 (-22)	595	150	174	120	0.94	3.37	4.96	1.25	1.45
-25 (-13)	797	201	234	140	1.00	4.52	5.72	1.44	1.68
-20 (- 4)	1047	264	307	159	1.07	5.96	6.58	1.66	1.93
-15 (+ 5)	1353	341	397	179	1.14	7.72	7.56	1.91	2.22
-10 (+14)	1723	434	505	198	1.22	9.87	8.68	2.19	2.54

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)	357	90	105	97	0.88	2.02	3.68	0.93	1.08
-30 (-22)	526	132	154	120	0.94	2.98	4.38	1.10	1.28
-25 (-13)	730	184	214	143	1.01	4.15	5.10	1.29	1.50
-20 (- 4)	979	247	287	167	1.10	5.57	5.87	1.48	1.72
-15 (+ 5)	1280	323	375	192	1.19	7.31	6.68	1.68	1.96
-10 (+14)	1640	413	481	217	1.29	9.40	7.57	1.91	2.22

E - PERFORMANCE - CURVES

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)	251	63	74	86	0.85	1.42	2.94	0.74	0.86
-30	(-22)	429	108	126	114	0.92	2.43	3.72	0.94	1.09
-25	(-13)	640	161	188	142	1.01	3.63	4.46	1.12	1.31
-20	(- 4)	890	224	261	172	1.11	5.07	5.18	1.31	1.52
-15	(+ 5)	1189	300	348	203	1.23	6.79	5.90	1.49	1.73
-10	(+14)	1543	389	452	234	1.36	8.84	6.61	1.67	1.94

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard 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	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	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		