

COMPRESSOR DEFINITION

Designation	EG AS70HLR
Nominal Voltage/Frequency	220-240 V 50-60 Hz
Engineering Number	513701391

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50-60	[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-CSIR		
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	-	198 to 255 V
8.2 LBP (43°C Ambient temperature)	Static	198 to 255 V	198 to 255 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	1/5+	[hp]
2 Displacement	5.56	[cm ³] (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)	10.34	[kg] (22.80 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 50-60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516116/213516337	
3 Start capacitor	88-108(200)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	4TM739KFBYY-53	
6 Start winding resistance	28.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	14.40/13.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	2.37/2.19	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	2.55/2.34	[A] - Measured according to UL 984
11 Approval boards certification	CE - IMTRO - TUV - 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]
555	140	163	113	0.98	3.15	4.93	1.24	1.44

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]
686	173	201	126	0.87	3.90	5.44	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)	368	93	108		0.00	2.08	0.00	0.00	0.00
-30 (-22)	540	136	158		0.00	3.06	0.00	0.00	0.00
-25 (-13)	736	185	216		0.00	4.18	0.00	0.00	0.00
-20 (- 4)	962	242	282		0.00	5.48	0.00	0.00	0.00
-15 (+ 5)	1225	309	359		0.00	6.99	0.00	0.00	0.00
-10 (+14)	1530	385	448		0.00	8.76	0.00	0.00	0.00

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)	305	77	89		0.00	1.73	0.00	0.00	0.00
-30 (-22)	472	119	138		0.00	2.67	0.00	0.00	0.00
-25 (-13)	664	167	195		0.00	3.77	0.00	0.00	0.00
-20 (- 4)	889	224	260		0.00	5.06	0.00	0.00	0.00
-15 (+ 5)	1152	290	337		0.00	6.57	0.00	0.00	0.00
-10 (+14)	1459	368	428		0.00	8.36	0.00	0.00	0.00

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)	248	62	73		0.00	1.40	0.00	0.00	0.00
-30	(-22)	406	102	119		0.00	2.30	0.00	0.00	0.00
-25	(-13)	591	149	173		0.00	3.36	0.00	0.00	0.00
-20	(- 4)	811	204	238		0.00	4.61	0.00	0.00	0.00
-15	(+ 5)	1070	270	314		0.00	6.11	0.00	0.00	0.00
-10	(+14)	1376	347	403		0.00	7.88	0.00	0.00	0.00

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)	179	45	52		0.00	1.01	0.00	0.00	0.00
-30	(-22)	324	82	95		0.00	1.84	0.00	0.00	0.00
-25	(-13)	499	126	146		0.00	2.83	0.00	0.00	0.00
-20	(- 4)	710	179	208		0.00	4.04	0.00	0.00	0.00
-15	(+ 5)	962	243	282		0.00	5.49	0.00	0.00	0.00
-10	(+14)	1263	318	370		0.00	7.24	0.00	0.00	0.00

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		