COMPRESSOR DEFINITION

Designation	**EG AS100HLR**
Nominal Voltage/Frequency	**220-240 V 50-60 Hz**
Engineering Number	**513701174**

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		
6 Starting torque	LST - Low Starting Torque		
7 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°CC Ambient temperature)	Fan	198 to 264 V	-
8.2 LBP (43°CC Ambient temperature)	Fan	198 to 264 V	-
8.3 HBP (32°CC Ambient temperature)	-	-	-
8.4 HBP (43°CC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm¸] (230 psig)	/ °CC - °CF
9.2 Peak (gauge)	20.6	[kgf/cm¸] (293 psig)	/ °CC - °CF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	7.95	[cmł] (0.485 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	10.99	[kg] (24.23 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm¸] (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	213516442	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM757KFBYY-53	
6 Start winding resistance	34.00 ohm	[at 25°CC (77°CF)] +/-
7 Run winding resistance	8.80 ohm	[at 25°CC (77°CF)] +/-
8 LRA - Locked rotor amperage (50 Hz)	17.55	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.32	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	2.72	[A] - Measured according to UL 984
11 Approval boards certification	IRAM - 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]
855	215	251	164	1.36	4.86	5.20	1.31	1.52

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]
1050	265	308	193	1.25	5.97	5.45	1.37	1.60

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **Static** — (Condensing temperature **45°CC (+113°CF))**

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)**	442	111	129	110	0.94	2.50	3.99	1.01	1.17
-30	**(-22)**	620	156	182	130	1.10	3.52	4.78	1.20	1.40
-25	**(-13)**	828	209	243	151	1.26	4.70	5.52	1.39	1.62
-20	**(- 4)**	1074	271	315	172	1.42	6.11	6.25	1.58	1.83
-15	**(+ 5)**	1369	345	401	194	1.59	7.82	7.02	1.77	2.06
-10	**(+14)**	1724	434	505	218	1.79	9.88	7.85	1.98	2.30

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **Static** — (Condensing temperature **55°CC (+131°CF))**

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)**	362	91	106	106	0.90	2.05	3.42	0.86	1.00
-30	**(-22)**	554	140	162	131	1.10	3.14	4.23	1.07	1.24
-25	**(-13)**	769	194	225	156	1.29	4.36	4.94	1.25	1.45
-20	**(- 4)**	1016	256	298	182	1.49	5.78	5.60	1.41	1.64
-15	**(+ 5)**	1306	329	383	209	1.70	7.45	6.25	1.58	1.83
-10	**(+14)**	1649	415	483	237	1.94	9.44	6.94	1.75	2.03

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65°CC (+149°CF))**
@220V50Hz **Static**

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)**	263	66	77	89	0.78	1.49	2.95	0.74	0.87
-30	**(-22)**	471	119	138	122	1.04	2.67	3.77	0.95	1.10
-25	**(-13)**	695	175	204	155	1.30	3.94	4.45	1.12	1.30
-20	**(- 4)**	945	238	277	188	1.56	5.38	5.04	1.27	1.48
-15	**(+ 5)**	1231	310	361	222	1.83	7.03	5.58	1.41	1.64
-10	**(+14)**	1564	394	458	257	2.11	8.96	6.11	1.54	1.79

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45°CC (+113°CF))**
@220V60Hz **Static**

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)**	543	137	159	129	0.86	3.07	4.18	1.05	1.23
-30	**(-22)**	762	192	223	153	1.01	4.32	5.01	1.26	1.47
-25	**(-13)**	1017	256	298	177	1.15	5.77	5.79	1.46	1.70
-20	**(- 4)**	1319	332	387	201	1.30	7.51	6.55	1.65	1.92
-15	**(+ 5)**	1682	424	493	228	1.46	9.60	7.35	1.85	2.15
-10	**(+14)**	2117	534	620	256	1.64	12.13	8.23	2.07	2.41

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55°CC (+131°CF))**
@220V60Hz **Static**

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)**	445	112	130	124	0.83	2.52	3.59	0.90	1.05
-30	**(-22)**	681	172	200	153	1.01	3.86	4.43	1.12	1.30
-25	**(-13)**	945	238	277	183	1.19	5.36	5.18	1.31	1.52
-20	**(- 4)**	1248	314	366	213	1.38	7.10	5.87	1.48	1.72
-15	**(+ 5)**	1604	404	470	245	1.58	9.15	6.55	1.65	1.92
-10	**(+14)**	2024	510	593	278	1.79	11.60	7.27	1.83	2.13

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65°CC (+149°CF))**
@220V60Hz **Static**

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)**	323	81	95	105	0.72	1.83	3.09	0.78	0.91
-30	**(-22)**	578	146	170	143	0.96	3.28	3.95	1.00	1.16
-25	**(-13)**	854	215	250	181	1.19	4.85	4.67	1.18	1.37
-20	**(- 4)**	1160	292	340	220	1.43	6.60	5.28	1.33	1.55
-15	**(+ 5)**	1512	381	443	260	1.68	8.63	5.85	1.47	1.71
-10	**(+14)**	1921	484	563	301	1.94	11.00	6.40	1.61	1.87

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	Slanted		
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	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		