

COMPRESSOR DEFINITION

Designation	EG YS100HLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701212

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	-	103 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	103 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 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	1/3	[hp]
2 Displacement	7.95	[cm ³] (0.485 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	20.000	
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)	10.76	[kg] (23.72 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	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA14C1/8EA21C1/QPS2-A4R7MG1/QPS2-A4R7MG1 090	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM445NFBYY-53	
6 Start winding resistance	6.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	22.20	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	4.00	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - UL	

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]
1050	265	308	188	2.47	5.97	5.60	1.41	1.64

E - PERFORMANCE - CURVES

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)	543	137	159	126	1.70	3.07	4.30	1.08	1.26
-30 (-22)	762	192	223	148	1.98	4.32	5.15	1.30	1.51
-25 (-13)	1017	256	298	172	2.27	5.77	5.95	1.50	1.74
-20 (- 4)	1319	332	387	196	2.56	7.51	6.74	1.70	1.97
-15 (+ 5)	1682	424	493	222	2.88	9.60	7.56	1.90	2.21
-10 (+14)	2117	534	620	249	3.23	12.13	8.45	2.13	2.48

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)	445	112	130	121	1.62	2.52	3.69	0.93	1.08
-30 (-22)	681	172	200	149	1.98	3.86	4.56	1.15	1.33
-25 (-13)	945	238	277	178	2.34	5.36	5.32	1.34	1.56
-20 (- 4)	1248	314	366	207	2.71	7.10	6.03	1.52	1.77
-15 (+ 5)	1604	404	470	238	3.09	9.15	6.73	1.70	1.97
-10 (+14)	2024	510	593	270	3.51	11.60	7.47	1.88	2.19

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)	323	81	95	102	1.42	1.83	3.18	0.80	0.93
-30 (-22)	578	146	170	139	1.89	3.28	4.06	1.02	1.19
-25 (-13)	854	215	250	176	2.35	4.85	4.80	1.21	1.41
-20 (- 4)	1160	292	340	214	2.82	6.60	5.43	1.37	1.59
-15 (+ 5)	1512	381	443	253	3.31	8.63	6.01	1.51	1.76
-10 (+14)	1921	484	563	293	3.83	11.00	6.57	1.66	1.93

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		