COMPRESSOR DEFINITION

Designation	**EG Y80HLP**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513700212**

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	RSCR		
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 (32ºC Ambient temperature)	Static	85 to 110 V	98 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	85 to 110 V	98 to 140 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	6.76	[cm³] (0.413 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	17.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO7	
4 Weight (with oil charge)	11.37	[kg] (25.07 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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	Combo	
2.1 Starting device	3ARR51D4A/3ARR55D4A	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)	[µF(VAC minimum)]
5 Motor protection	3ARR55D4A	
6 Start winding resistance	5.60	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	3.50	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	13.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.70	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**			Evaporating temperature		**-23.3°C (-9.94°F)**
@115V60Hz			**Static**			(Condensing temperature		**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]
815	205	239	141	1.30	4.63	5.76	1.45	1.69

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **45ºC (+113ºF))**			
@115V60Hz		**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)**	436	110	128	96	0.90	2.46	4.56	1.15	1.34
-30	**(-22)**	609	154	179	114	1.08	3.45	5.33	1.34	1.56
-25	**(-13)**	823	207	241	133	1.25	4.67	6.15	1.55	1.80
-20	**(- 4)**	1082	273	317	153	1.42	6.16	7.05	1.78	2.06
-15	**(+ 5)**	1394	351	409	174	1.59	7.96	8.01	2.02	2.35
-10	**(+14)**	1766	445	518	195	1.77	10.12	9.05	2.28	2.65

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **55ºC (+131ºF))**			
@115V60Hz		**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)**	400	101	117	95	0.90	2.27	4.23	1.07	1.24
-30	**(-22)**	556	140	163	114	1.09	3.15	4.87	1.23	1.43
-25	**(-13)**	751	189	220	136	1.27	4.26	5.54	1.40	1.62
-20	**(- 4)**	993	250	291	159	1.47	5.65	6.25	1.57	1.83
-15	**(+ 5)**	1287	324	377	184	1.68	7.35	6.99	1.76	2.05
-10	**(+14)**	1642	414	481	211	1.91	9.41	7.78	1.96	2.28

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **65ºC (+149ºF))**			
@115V60Hz		**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)**	334	84	98	92	0.87	1.89	3.63	0.91	1.06
-30	**(-22)**	478	120	140	112	1.06	2.71	4.26	1.07	1.25
-25	**(-13)**	661	167	194	135	1.26	3.75	4.89	1.23	1.43
-20	**(- 4)**	891	225	261	162	1.48	5.07	5.52	1.39	1.62
-15	**(+ 5)**	1175	296	344	191	1.73	6.70	6.16	1.55	1.81
-10	**(+14)**	1518	383	445	222	2.01	8.70	6.82	1.72	2.00

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	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		