COMPRESSOR DEFINITION

Designation	**EM Y80CLP**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701MA97**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[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 (32ºC Ambient temperature)	Static	187 to 255 V	-
8.2 LBP (43ºC Ambient temperature)	Static	187 to 255 V	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	12.21	[cm³] (0.745 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	23.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	8	[kg] (17.64 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	MI2021X/V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AE15BU	
6 Start winding resistance	16.10	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	12.55	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	8.75	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.65	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.94	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**CECOMAFLBP-NOFAN** **Static**		Evaporating temperature (Condensing temperature	**-25°C (-13°F)** **55°C (131°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]
540	136	158	123	0.87	2.06	4.39	1.11	1.29

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF-NOFAN** (Condensing temperature **35ºC (+95ºF))**
@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)**	408	103	119	87	0.77	1.30	4.66	1.18	1.37
-30	**(-22)**	544	137	159	99	0.81	1.74	5.47	1.38	1.60
-25	**(-13)**	709	179	208	113	0.85	2.28	6.27	1.58	1.84
-20	**(- 4)**	907	229	266	128	0.90	2.92	7.10	1.79	2.08
-15	**(+ 5)**	1142	288	335	144	0.95	3.68	7.96	2.01	2.33
-10	**(+14)**	1416	357	415	160	1.00	4.57	8.87	2.24	2.60

TEST CONDITIONS: **CECOMAF-NOFAN** (Condensing temperature **45ºC (+113ºF))**
@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)**	351	89	103	89	0.77	1.22	3.96	1.00	1.16
-30	**(-22)**	475	120	139	103	0.81	1.65	4.61	1.16	1.35
-25	**(-13)**	625	157	183	118	0.86	2.17	5.26	1.33	1.54
-20	**(- 4)**	805	203	236	136	0.92	2.81	5.92	1.49	1.73
-15	**(+ 5)**	1018	257	298	154	0.98	3.56	6.60	1.66	1.93
-10	**(+14)**	1267	319	371	173	1.05	4.44	7.32	1.84	2.14

TEST CONDITIONS: **CECOMAF-NOFAN** (Condensing temperature **55ºC (+131ºF))**
@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)**	294	74	86	89	0.77	1.12	3.31	0.83	0.97
-30	**(-22)**	404	102	119	105	0.81	1.54	3.85	0.97	1.13
-25	**(-13)**	538	136	158	123	0.87	2.05	4.36	1.10	1.28
-20	**(- 4)**	699	176	205	143	0.93	2.67	4.88	1.23	1.43
-15	**(+ 5)**	890	224	261	164	1.01	3.41	5.41	1.36	1.59
-10	**(+14)**	1114	281	326	187	1.10	4.27	5.97	1.50	1.75

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF-NOFAN** (Condensing temperature **65ºC (+149ºF))**
@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)**	240	61	70	89	0.78	1.01	2.71	0.68	0.79
-30	**(-22)**	337	85	99	107	0.82	1.42	3.15	0.79	0.92
-25	**(-13)**	454	114	133	127	0.88	1.91	3.57	0.90	1.05
-20	**(- 4)**	594	150	174	150	0.96	2.52	3.97	1.00	1.16
-15	**(+ 5)**	761	192	223	174	1.05	3.24	4.37	1.10	1.28
-10	**(+14)**	959	242	281	200	1.15	4.09	4.80	1.21	1.41

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42º up + 45° to Back		
3.2 DISCHARGE	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 45° to Back		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		