COMPRESSOR DEFINITION

Designation	**EM C80CLT**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701EA77**

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	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	198 to 255 V	-
8.2 LBP (43ºC Ambient temperature)	Static	198 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)	8.15	[kg] (17.97 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	TSD	
2.1 Starting device	TSD2-220V/TSD2-220V1.2/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	4TM276KFBYY-73	
6 Start winding resistance	16.56	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	17.44	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.90	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.92	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.14	[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]
552	139	162	113	0.52	2.10	4.91	1.24	1.44

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)**	398	100	117	76	0.35	1.27	5.25	1.32	1.54
-30	**(-22)**	541	136	159	89	0.41	1.74	6.09	1.54	1.79
-25	**(-13)**	711	179	208	102	0.47	2.29	6.99	1.76	2.05
-20	**(- 4)**	912	230	267	116	0.53	2.93	7.92	2.00	2.32
-15	**(+ 5)**	1147	289	336	129	0.60	3.69	8.89	2.24	2.60
-10	**(+14)**	1421	358	416	143	0.67	4.58	9.88	2.49	2.90

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)**	354	89	104	77	0.36	1.23	4.58	1.15	1.34
-30	**(-22)**	484	122	142	92	0.42	1.68	5.24	1.32	1.54
-25	**(-13)**	637	161	187	107	0.49	2.22	5.93	1.49	1.74
-20	**(- 4)**	819	206	240	123	0.57	2.86	6.65	1.67	1.95
-15	**(+ 5)**	1032	260	303	140	0.65	3.61	7.38	1.86	2.16
-10	**(+14)**	1281	323	375	158	0.73	4.49	8.12	2.05	2.38

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)**	300	76	88	78	0.36	1.14	3.85	0.97	1.13
-30	**(-22)**	415	105	122	95	0.43	1.58	4.39	1.11	1.29
-25	**(-13)**	551	139	162	112	0.50	2.10	4.93	1.24	1.44
-20	**(- 4)**	713	180	209	130	0.59	2.72	5.48	1.38	1.61
-15	**(+ 5)**	903	228	265	149	0.68	3.46	6.03	1.52	1.77
-10	**(+14)**	1126	284	330	171	0.78	4.32	6.58	1.66	1.93

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	60	70	77	0.36	1.01	3.10	0.78	0.91
-30	**(-22)**	339	85	99	95	0.43	1.43	3.56	0.90	1.04
-25	**(-13)**	457	115	134	114	0.52	1.93	4.01	1.01	1.17
-20	**(- 4)**	597	150	175	134	0.62	2.53	4.45	1.12	1.30
-15	**(+ 5)**	763	192	224	157	0.72	3.25	4.88	1.23	1.43
-10	**(+14)**	959	242	281	182	0.84	4.09	5.28	1.33	1.55

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	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
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		