COMPRESSOR DEFINITION

Designation	**EM C70CLT**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701HA90**

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	11.14	[cm³] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
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)	8.1	[kg] (17.86 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	MI.E-START ES1B	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	AE37FQ	
6 Start winding resistance	14.75	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	19.97	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.78	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.97	[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]
499	126	146	100	0.47	1.90	4.97	1.25	1.46

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)**	380	96	111	67	0.32	1.22	5.66	1.43	1.66
-30	**(-22)**	513	129	150	78	0.37	1.65	6.59	1.66	1.93
-25	**(-13)**	671	169	197	90	0.43	2.16	7.49	1.89	2.20
-20	**(- 4)**	857	216	251	103	0.49	2.75	8.38	2.11	2.46
-15	**(+ 5)**	1073	270	314	116	0.55	3.45	9.27	2.34	2.72
-10	**(+14)**	1321	333	387	130	0.61	4.26	10.19	2.57	2.99

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)**	327	82	96	70	0.34	1.13	4.68	1.18	1.37
-30	**(-22)**	447	113	131	82	0.39	1.55	5.44	1.37	1.59
-25	**(-13)**	590	149	173	96	0.45	2.05	6.17	1.56	1.81
-20	**(- 4)**	759	191	222	110	0.52	2.65	6.88	1.73	2.02
-15	**(+ 5)**	957	241	280	126	0.59	3.34	7.59	1.91	2.22
-10	**(+14)**	1185	299	347	143	0.66	4.15	8.31	2.10	2.44

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)**	267	67	78	71	0.34	1.02	3.81	0.96	1.12
-30	**(-22)**	372	94	109	84	0.40	1.42	4.42	1.11	1.30
-25	**(-13)**	499	126	146	100	0.47	1.90	4.99	1.26	1.46
-20	**(- 4)**	649	164	190	117	0.54	2.48	5.54	1.40	1.62
-15	**(+ 5)**	827	208	242	135	0.63	3.16	6.08	1.53	1.78
-10	**(+14)**	1034	260	303	155	0.72	3.97	6.64	1.67	1.94

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)**	220	56	65	69	0.34	0.93	3.19	0.80	0.93
-30	**(-22)**	309	78	91	84	0.40	1.30	3.67	0.92	1.08
-25	**(-13)**	418	105	122	102	0.48	1.77	4.10	1.03	1.20
-20	**(- 4)**	548	138	161	122	0.57	2.33	4.50	1.13	1.32
-15	**(+ 5)**	704	177	206	144	0.67	3.00	4.89	1.23	1.43
-10	**(+14)**	888	224	260	168	0.78	3.79	5.29	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 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 43° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		