COMPRESSOR DEFINITION

Designation	**EM C20CLT**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701IA90**

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	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	1/12	[hp]
2 Displacement	3.97	[cm³] (0.242 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	14.000	
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)	7.6	[kg] (16.75 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	TSD-220V0.6/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2(350)/2.5(350)	[µF(VAC minimum)]
5 Motor protection	CP4TMC112K61A5	
6 Start winding resistance	27.00	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	64.50	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.32	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.29	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.35	[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]
164	41	48	35	0.17	0.63	4.66	1.17	1.37

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)**	131	33	38	26	0.12	0.42	5.07	1.28	1.48
-30	**(-22)**	177	45	52	29	0.14	0.57	6.04	1.52	1.77
-25	**(-13)**	229	58	67	33	0.16	0.74	6.90	1.74	2.02
-20	**(- 4)**	290	73	85	37	0.18	0.93	7.78	1.96	2.28
-15	**(+ 5)**	362	91	106	41	0.19	1.17	8.81	2.22	2.58
-10	**(+14)**	450	113	132	45	0.21	1.45	10.11	2.55	2.96

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)**	100	25	29	26	0.12	0.35	3.89	0.98	1.14
-30	**(-22)**	145	36	42	30	0.14	0.50	4.82	1.22	1.41
-25	**(-13)**	194	49	57	35	0.16	0.68	5.58	1.41	1.63
-20	**(- 4)**	251	63	74	40	0.19	0.87	6.28	1.58	1.84
-15	**(+ 5)**	318	80	93	45	0.21	1.11	7.07	1.78	2.07
-10	**(+14)**	399	101	117	49	0.23	1.40	8.06	2.03	2.36

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)**	76	19	22	25	0.11	0.29	3.04	0.77	0.89
-30	**(-22)**	118	30	34	29	0.14	0.45	3.96	1.00	1.16
-25	**(-13)**	163	41	48	35	0.17	0.62	4.63	1.17	1.36
-20	**(- 4)**	215	54	63	41	0.19	0.82	5.19	1.31	1.52
-15	**(+ 5)**	275	69	81	47	0.22	1.05	5.76	1.45	1.69
-10	**(+14)**	348	88	102	53	0.25	1.34	6.47	1.63	1.90

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)**	51	13	15	23	0.10	0.22	2.19	0.55	0.64
-30	**(-22)**	89	22	26	28	0.13	0.37	3.13	0.79	0.92
-25	**(-13)**	129	33	38	35	0.16	0.54	3.75	0.95	1.10
-20	**(- 4)**	174	44	51	42	0.20	0.74	4.19	1.06	1.23
-15	**(+ 5)**	227	57	67	50	0.23	0.97	4.58	1.15	1.34
-10	**(+14)**	291	73	85	57	0.26	1.24	5.04	1.27	1.48

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		