COMPRESSOR DEFINITION

Designation	**EM C40CLT**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701NA95**

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 pressures/temperature			
9.1 Operating (gauge)	7,7	[kgf/cm²] (109 psig)	/ ºC - ºF
9.2 Peak (gauge)	9,8	[kgf/cm²] (139 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	7,23	[cm³] (0.441 cu.in)
2.1 Bore [mm]	24,000	
2.2 Stroke [mm]	16,000	
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)	7,7	[kg] (16.98 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	4(350)	[µF(VAC minimum)]
5 Motor protection	AE37FN	
6 Start winding resistance	18.80	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	41.00	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.43	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.51	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.59	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**ASHRAE LBP-NOFAN** **Static**		Evaporating temperature (Condensing temperature	**-23,3°C (-9,94°F)** **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]
400	101	117	67	0,31	1,26	5,93	1,49	1,74

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]
297	75	87	64	0,30	1,13	4,63	1,17	1,36

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz**		**ASHRAE32-NOFAN** **Static**			(Condensing temperature **35ºC (+95ºF))**				
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)**	242	61	71	47	0,21	0,76	5,18	1,30	1,52
-30	**(-22)**	326	82	96	53	0,24	1,02	6,20	1,56	1,82
-25	**(-13)**	433	109	127	59	0,28	1,36	7,28	1,83	2,13
-20	**(- 4)**	561	141	165	67	0,32	1,76	8,41	2,12	2,46
-15	**(+ 5)**	713	180	209	75	0,36	2,24	9,57	2,41	2,80
-10	**(+14)**	887	223	260	83	0,40	2,80	10,75	2,71	3,15

TEST CONDITIONS: **@220V50Hz**		**ASHRAE32-NOFAN** **Static**			(Condensing temperature **45ºC (+113ºF))**				
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)**	221	56	65	45	0,22	0,69	4,88	1,23	1,43
-30	**(-22)**	300	75	88	53	0,25	0,94	5,67	1,43	1,66
-25	**(-13)**	401	101	118	62	0,29	1,26	6,52	1,64	1,91
-20	**(- 4)**	526	133	154	71	0,33	1,65	7,42	1,87	2,17
-15	**(+ 5)**	675	170	198	81	0,38	2,12	8,36	2,11	2,45
-10	**(+14)**	846	213	248	91	0,43	2,67	9,32	2,35	2,73

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32-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)**	196	49	57	45	0,22	0,61	4,35	1,10	1,27
-30	**(-22)**	268	67	78	54	0,26	0,84	4,97	1,25	1,46
-25	**(-13)**	364	92	107	64	0,30	1,14	5,67	1,43	1,66
-20	**(- 4)**	483	122	142	75	0,35	1,52	6,41	1,61	1,88
-15	**(+ 5)**	627	158	184	87	0,40	1,97	7,19	1,81	2,11
-10	**(+14)**	795	200	233	99	0,45	2,51	7,99	2,01	2,34

TEST CONDITIONS: **ASHRAE32-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)**	174	44	51	46	0,23	0,54	3,72	0,94	1,09
-30	**(-22)**	238	60	70	56	0,27	0,75	4,26	1,07	1,25
-25	**(-13)**	326	82	96	67	0,31	1,02	4,86	1,22	1,42
-20	**(- 4)**	440	111	129	80	0,36	1,38	5,51	1,39	1,61
-15	**(+ 5)**	577	146	169	93	0,42	1,82	6,20	1,56	1,82
-10	**(+14)**	740	186	217	107	0,48	2,33	6,92	1,75	2,03

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)**	237	60	69	45	0,20	0,76	5,30	1,33	1,55
-30	**(-22)**	319	80	93	51	0,23	1,02	6,30	1,59	1,85
-25	**(-13)**	422	106	124	57	0,27	1,36	7,36	1,86	2,16
-20	**(- 4)**	549	138	161	65	0,31	1,76	8,47	2,13	2,48
-15	**(+ 5)**	697	176	204	73	0,35	2,24	9,61	2,42	2,81
-10	**(+14)**	867	218	254	81	0,39	2,80	10,76	2,71	3,15

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)**	199	50	58	43	0,21	0,69	4,60	1,16	1,35
-30	**(-22)**	270	68	79	51	0,24	0,94	5,31	1,34	1,55
-25	**(-13)**	362	91	106	60	0,28	1,26	6,07	1,53	1,78
-20	**(- 4)**	475	120	139	69	0,32	1,65	6,88	1,73	2,02
-15	**(+ 5)**	608	153	178	79	0,37	2,12	7,72	1,95	2,26
-10	**(+14)**	762	192	223	89	0,42	2,67	8,59	2,16	2,52

E - PERFORMANCE - CURVES

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)**	160	40	47	43	0,21	0,61	3,73	0,94	1,09
-30	**(-22)**	219	55	64	52	0,25	0,83	4,24	1,07	1,24
-25	**(-13)**	298	75	87	62	0,29	1,14	4,79	1,21	1,40
-20	**(- 4)**	397	100	116	73	0,34	1,51	5,40	1,36	1,58
-15	**(+ 5)**	515	130	151	85	0,39	1,97	6,03	1,52	1,77
-10	**(+14)**	652	164	191	97	0,44	2,50	6,68	1,68	1,96

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)**	129	33	38	44	0,22	0,54	2,88	0,73	0,84
-30	**(-22)**	176	44	52	54	0,26	0,74	3,26	0,82	0,96
-25	**(-13)**	242	61	71	65	0,30	1,02	3,70	0,93	1,09
-20	**(- 4)**	326	82	95	78	0,35	1,38	4,19	1,05	1,23
-15	**(+ 5)**	428	108	125	91	0,41	1,82	4,70	1,18	1,38
-10	**(+14)**	547	138	160	105	0,47	2,33	5,23	1,32	1,53

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 +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		