COMPRESSOR DEFINITION

Designation	**EM T46CLP**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**891EA63**

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-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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 254 V	-
8.2 LBP (43ºC Ambient temperature)	Static	198 to 254 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)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	7.96	[cm³] (0.486 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	17.600	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO7	
4 Weight (with oil charge)	7	[kg] (15.43 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	MSDA3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(450)	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-153	
6 Start winding resistance	30.80	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	25.00	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**ASHRAELBP32** **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]
464	117	136	99	0.56	1.46	4.69	1.18	1.37

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **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)**	275	69	81	70	0.48	0.86	3.90	0.98	1.14
-30	**(-22)**	365	92	107	79	0.50	1.14	4.65	1.17	1.36
-25	**(-13)**	474	120	139	87	0.52	1.49	5.46	1.38	1.60
-20	**(- 4)**	605	152	177	95	0.54	1.90	6.34	1.60	1.86
-15	**(+ 5)**	760	191	223	104	0.57	2.39	7.29	1.84	2.14
-10	**(+14)**	942	237	276	113	0.60	2.97	8.29	2.09	2.43
-5	**(+23)**	1154	291	338	123	0.64	3.65	9.36	2.36	2.74

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **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)**	256	65	75	72	0.49	0.80	3.54	0.89	1.04
-30	**(-22)**	345	87	101	82	0.51	1.08	4.22	1.06	1.24
-25	**(-13)**	451	114	132	91	0.54	1.42	4.95	1.25	1.45
-20	**(- 4)**	578	146	169	101	0.57	1.82	5.71	1.44	1.67
-15	**(+ 5)**	729	184	214	112	0.60	2.30	6.52	1.64	1.91
-10	**(+14)**	906	228	266	123	0.64	2.86	7.37	1.86	2.16
-5	**(+23)**	1112	280	326	135	0.68	3.52	8.25	2.08	2.42

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **Static** — (Condensing temperature **55ºC (+131ºF))**

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)**	229	58	67	73	0.49	0.72	3.14	0.79	0.92
-30	**(-22)**	316	80	93	83	0.52	0.99	3.78	0.95	1.11
-25	**(-13)**	420	106	123	94	0.55	1.32	4.44	1.12	1.30
-20	**(- 4)**	543	137	159	106	0.58	1.71	5.12	1.29	1.50
-15	**(+ 5)**	689	174	202	118	0.62	2.17	5.81	1.46	1.70
-10	**(+14)**	861	217	252	132	0.67	2.72	6.52	1.64	1.91
-5	**(+23)**	1062	267	311	147	0.73	3.36	7.24	1.83	2.12

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (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)**	202	51	59	72	0.48	0.63	2.79	0.70	0.82
-30	**(-22)**	286	72	84	84	0.51	0.90	3.40	0.86	1.00
-25	**(-13)**	387	97	113	96	0.55	1.21	4.02	1.01	1.18
-20	**(- 4)**	506	128	148	110	0.59	1.59	4.63	1.17	1.36
-15	**(+ 5)**	648	163	190	124	0.64	2.04	5.23	1.32	1.53
-10	**(+14)**	814	205	239	140	0.70	2.57	5.82	1.47	1.71
-5	**(+23)**	1008	254	295	157	0.77	3.19	6.40	1.61	1.88

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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 42°		
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	Straight		
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 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		