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TEST REPORT

REPORT NO.: 2005EL0214	PAGE : 1 OF 7

Applicant : MINI SUN MARKETING

Manufacturer : *Same as above*

Product : POWER SAVER

Reference Standard / Method of test : Performance Test according to Manufacturer's Specification

Description of sample:
Brand : MINI SUN
Model : MS 188, MS 388
Rating : Voltage : 220-240 VAC
Frequency : 50-60 Hz

Date received : 17/02/2005

Job No. : J20055020087

Issue date : 13 APR 2005

Approved Signatories

(SURIAN RASOL)
Technical Executive

Electrotechnical Testing Section
SIRIM QAS INTERNATIONAL Sdn. Bhd.

(GOH TOK POIE)
Senior Manager,
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NOTES:

1. This is a performance test report as requested by the applicant.
2. The tests were conducted on a submitted sample for every model: MS 188 and MS 388.
3. The tests were carried out to compare the following parameters using fluorescent lights, a single phase motor and a CPU supplied with and without power saver device at 240±10 V, 50 Hz supply:
   a) Current (A)
   b) Cos φ
   c) Real power (W)
   d) Apparent power (VA)
4. Unless otherwise stated, the tests were conducted at an ambient temperature of 25 ° C ± 5 ° C.

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Requirements – Test	Result
The electrical power saver device was connected in series with a single-phase power supply and the measurement of the parameters was taken with power saver and without power saver on the following load:	See Table 1A (MS 188) See Table 1B (MS 388)

1. Fluorescent lamp
   Brand: SONIC
   Rating: 36 Watt

2. Single Phase Free-Running AC Motor
   Brand: EMM
   Type: JY09A-4
   Rating: ¼ HP, 230-240 V, 50 Hz

3. CPU Power Supply
   Brand: ETJKA
   Model: ATX-350W
   Rating: 350 W, 230V, 50 Hz

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A. Model MS 188.

	PARAMETERS							
	Without power saver device				With power saver device			
Type of load and combination	Current (A)	Power Factor	Real Power (W)	Apparent Power (VA)	Current (A)	Power Factor	Real Power (W)	Apparent Power (VA)
2 F/tube	0.634	0.86 lag	128	151	1.245	0.03 lea	1	306
3 F/tube	0.974	0.85 lag	195	237	1.084	0.27 lea	66	266
4 F/tube	1.323	0.83 lag	260	321	1.042	0.58 lea	137	256
1 motor	1.547	0.58 lag	210	375	0.506	0.70 lea	75	126
1 F/tube + 1 motor	1.877	0.61 lag	270	455	0.650	0.98 lea	144	160
2 F/tube + 1 motor	2.198	0.63 lag	334	534	0.911	1.00	213	225
3 F/tube + 1 motor	2.545	0.66 lag	394	611	1.229	0.97 lag	284	301
2 F/tube + 1 CPU	0.866	0.96 lag	173	211	1.470	0.20 lea	62	361
3 F/tube + 1 CPU	1.185	0.91 lag	235	284	1.335	0.43 lea	125	330

Table 1A

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B. Model MS 388

	PARAMETERS							
	Without energy saving device				With energy saving device			
Type of load and combination	Current (A)	Power Factor	Real Power (W)	Apparent Power (VA)	Current (A)	Power Factor	Real Power (W)	Apparent Power (VA)
2 F/tube	0.634	0.86 lag	128	151	2.603	0.1 lea	-73	643
3 F/tube	0.974	0.85 lag	195	237	2.346	0.01 lea	-8	583
4 F/tube	1.323	0.83 lag	260	321	2.144	0.12 lea	59	531
1 motor	1.547	0.58 lag	210	375	1.596	0.01 lea	-10	394
1 F/tube + 1 motor	1.877	0.61 lag	270	455	1.420	0.18 lea	56	349
2 F/tube + 1 motor	2.198	0.63 lag	334	534	1.297	0.43 lea	123	320
3 F/tube + 1 motor	2.545	0.66 lag	394	611	1.267	0.66 lea	191	313
2 F/tube + 1 CPU	0.866	0.96 lag	173	211	2.701	0.01 lea	-17	669
3 F/tube + 1 CPU	1.185	0.91 lag	235	284	2.488	0.11 lea	53	613

Table 1B

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PHOTOGRAPHS OF TEST SAMPLES

Model MS 188

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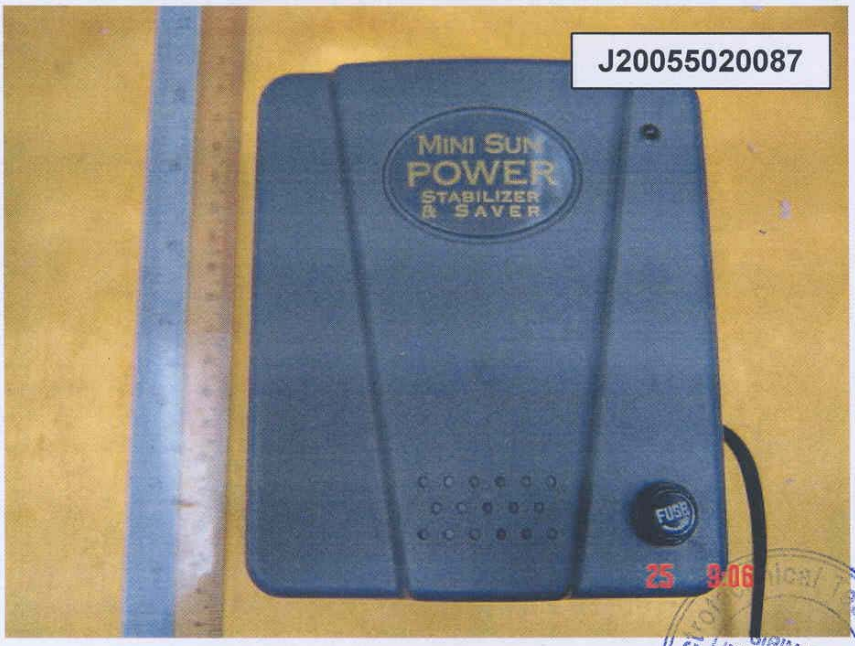
PHOTOGRAPHS OF TEST SAMPLES

Model MS 388



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