



## TEST REPORT

REPORT NO: EQP/0867/0210

### **ELECTRONICS AND QUALITY DEVELOPMENT CENTRE**

(A Centre under STQC programme, DIT, Ministry of Commn. & Information Technology, Govt. of India)

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|                                                |                                       |                   |                         |
|------------------------------------------------|---------------------------------------|-------------------|-------------------------|
| Service Request No. : 0867                     | Date: 14/06/2003                      |                   |                         |
|                                                |                                       |                   |                         |
| <b>DESCRIPTION/ IDENTIFICATION OF THE ITEM</b> |                                       |                   |                         |
| <b>Nomenclature</b>                            | Electronic Energy Saver cum Protector |                   |                         |
| Make/Model No./Type No.                        | Ascent Systems/ ENSAVE                |                   |                         |
| Serial No.(s)                                  | 02K370                                |                   |                         |
| Quantity/ No. Of samples                       | One                                   |                   |                         |
| Date of receipt of item                        | 14/06/2003                            |                   |                         |
| Date of completion of test(s)                  | 18/06/2003                            |                   |                         |
| Condition of equipment/Material on receipt     | Good                                  |                   |                         |
| Location where test is performed               | LAB                                   |                   |                         |
| Test Specification                             | As per Customer Requirements          |                   |                         |
| Test Category                                  | Performance Test                      |                   |                         |
| Test procedure referred                        | --                                    |                   |                         |
| Test facilities used:                          |                                       |                   |                         |
| <b>Nomenclature</b>                            | <b>Make/ Model</b>                    | <b>Sl. Number</b> | <b>Calibration Date</b> |
| 1] Single & Three Phase Power Analyzer         | Infratek/ 106A-3/0.05                 | 01054012          | 28/04/2003              |
| 2] 4 ½ Digital Multimeter                      | HP/ 974 A                             | JP40009304        | 08/03/2003              |
| 3] Digital Clamp-On Tester                     | Yokogawa/ 2343 01                     | 0203196           | 15/04/2003              |
| 4] Resistive Load Panel                        | Yogeshwar ckts                        | --                | --                      |
| 5] Inductive Load Panel                        | IPC                                   | --                | --                      |



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### TEST RESULTS:

Unit under Test : Electronic Energy Saver cum Protector: Ascent Systems/ ENSAVE

| Sr. No. | Test Parameters           | Test Conditions                                                                                                                                                                                                | Requirements                                                                                                                                                                                                                             | Observations                                                                                                                                                       |
|---------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Input Rating              | 160 V to 280 V AC, 50 Hz, Single Phase                                                                                                                                                                         | 160 V to 280 V AC, 50 Hz, Single Phase                                                                                                                                                                                                   | In Compliance                                                                                                                                                      |
| 2       | Max. Load Capacity        | 20 A (Inductive Load)<br>30 A (Resistive Load)                                                                                                                                                                 | 20 A (Inductive Load)<br>30 A (Resistive Load)                                                                                                                                                                                           | In Compliance                                                                                                                                                      |
| 3       | Total Harmonic Distortion | Input: 230V, 50Hz<br>Min. Pot setting<br>Max. Pot Setting                                                                                                                                                      | --                                                                                                                                                                                                                                       | 0.003 %<br>0.65 %                                                                                                                                                  |
| 4       | High/ Low cutoff test     | i) Increase input voltage to $270 \text{ V} \pm 5 \text{ V}$<br><br>ii) Decrease input voltage to $170 \text{ V} \pm 5 \text{ V}$                                                                              | Unit under test should disconnect the output                                                                                                                                                                                             | When input voltage reached to 273 V, the "UV/OV LED" glows & "Saver LED" OFF.<br><br>When input voltage reached to 148 V, the "UV/OV LED" glows & "Saver LED" OFF. |
| 5       | % Energy Saving           | Input: $230 \text{ V} \pm 10 \%$ /50 Hz<br>Load: Inductive Load (R-L Combination) of $\text{PF } 0.7 \pm 0.2$ and Current of $1.9\text{A} \pm 0.2\text{A}$<br>a) Pot setting to min.<br>b) Pot setting to max. | i) Measure Energy consumed without Unit under Test for 1 Hour $\pm 5$ Minute<br><br>ii) Measure Energy consumed with Unit under Test for 1 Hour $\pm 5$ Minute<br><br>iii) Compute Energy Saving as :<br>$[(ii) - (i) / (i)] \times 100$ | Energy saved with pot to min. was : 14.07 %<br><br>Energy saved with pot to max. was : 32.02 %<br><br>Refer Remarks 1 & 2 given below                              |





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### Remarks :

1) The Load wattage observed at input of mains Energy Meter in case of Direct measurement was : 315.448 W.

2) The Load wattage observed at the output of "Energy Saver (Unit under Test)" was  
a) pot position to min.: 271.285 W  
b) pot position to max.: 214.504 W

### NOTE :

1. This report refers only to particular items/equipment submitted for testing.
2. This report shall not be reproduced except in full without the written approval from Director, EQDC (Gandhinagar).
3. The test result reported are valid at the time of and under the stated condition of measurement.
4. Any anomalies/discrepancies in this report should be brought to our notice within 45 days from the date of issue of this report.

*Dharde*

Authorised Signatory :

Name : Dipak chavda

*Nayabkane*

Issued by:

Name : N. shirastara.

Officer In-Charge  
Customer Service Cell

