

ULE ECVP 108



Environmental Claim Validation Procedure (ECVP)

Estimating Energy Savings for Energy Saving Power Strips

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Environmental Claim Validation Procedure (ECVP) for Estimating Energy Savings for Energy Saving Power Strips, ULE ECVP 108

Second Edition, Dated February 21, 2011

Summary of Topics

The second edition of the Environmental Claim Validation Procedure (ECVP) for Estimating Energy Savings for Energy Saving Power Strips, ULE ECVP 108 has been issued.

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ULE ECVP 108

**Environmental Claim Validation Procedure for Estimating Energy Savings
for Energy Saving Power Strips**

First Edition – September, 2010

Second Edition

February 21, 2011

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INTRODUCTION

1 General

1.1 This procedure covers the measurement of the performance of a group of power saving power strips that control the power available to a set of components plugged into the power strip. Even when most electronics devices are off they draw electricity. This is referred to as "Standby Mode". An energy saving power strip turns off all power to devices plugged into one or more of the outlets under secondary control. Secondary control can be motion sensors, load sensing or a timer.

1.2 Load sensing power strips sense the "primary" load going from a high power to a low power state. When this condition occurs, the secondary loads are turned off. The products plugged into the secondary outlets could be full on, partially on, or in their own "low power" states when power to the outlets is turned off.

1.3 Motion sensing power strips detect occupancy in the room. If there is no movement in the room after a predetermined period, power to the secondary outlets is turned off.

1.4 Timer-equipped power strips automatically turn power off to outlets after a preset period.

2 Scope

2.1 This procedure is divided into two sections; the first is focused on measuring the performance of an energy saving power strip; the second estimates the energy savings based on a reference set of devices that are plugged into the power strip.

2.2 The performance of the power strip is based on the specifications declared by the manufacturer. The load sensor, occupancy sensor or timer, and the load switching capability of the controlled outlets are all verified for compliance to the manufacturer's specifications.

2.3 The operational conditions verified for the power strip in 2.2 are used to calculate an energy savings based on a reference usage/occupancy pattern and a reference set of components plugged into the power strip. This is a theoretical calculation based on the expected performance and a prediction of future performance. Actual energy savings will depend on the components used and the usage pattern.

3 Units of Measurement

3.1 For the purposes of this procedure, values shall be reported in accordance with the requirements of the individual criteria. Unless otherwise indicated, all voltage and current values measured or mentioned in this procedure are root-mean-square (rms). If the manufacturer's choice of units deviates, that change shall be documented and justified as to the reason and relevance for that change.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the requirements of this procedure shall be interpreted as referring to the latest edition of that code or standard.

5 Glossary

5.1 For the purpose of this procedure, the following definitions apply.

5.2 **ACTIVE STATE** – The state in which the device is carrying out useful work in response to either prior or concurrent user input or prior or concurrent instruction over a network. This state includes active processing, seeking data from storage, memory or cache, including idle state time, while awaiting further user input and before entering low power modes.

5.3 **IDLE STATE** – The state in which the device is not asleep, and activity is limited to those basic applications that the system starts by default.

5.4 **OFF MODE** – The power consumption level in the lowest power mode which cannot be switched off (influenced) by the user and that may persist for an indefinite time when the appliance is connected to the main electricity supply and used in accordance with the manufacturer's instructions. For systems where ACPI standards are applicable, Off Mode correlates to ACPI System Level S5 state.

5.5 **SLEEP OR STANDBY MODE** – A low power state that the device is capable of entering automatically after a period of inactivity or by manual selection.

COMPLIANCE, EVALUATION AND ASSESSMENT CRITERIA

6 Documentation

6.1 The manufacturer shall provide full performance and technical specifications for each product submitted for testing. Performance specifications must, at a minimum, include the technical performance of the sensor or timer, the load capability of the outlets, and details of the sensor operation (including field of view for occupation sensors).