

AHAM Guidelines for Energy Modes



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Purpose

The purpose of this document is to provide general application guidelines to individual appliance energy standards committees on the use of IEC 62301 definitions. Energy Mode definitions are consistent with those in IEC 62301 Ed. 1 (2005-06) and the Energy Independence and Security Act of 2007 (EISA). Product specific definitions and applications will be developed using these guidelines as a foundation.

The Energy Independence and Security Act of 2007 (EISA), Section 310, states:

OFF MODE.—The term ‘off mode’ means the condition in which an energy-using product—

- (I) is connected to a main power source; and
- (II) is not providing any standby or active mode function.

STANDBY MODE.—The term ‘standby mode’ means the condition in which an energy-using product—

- (I) is connected to a main power source; and
- (II) offers 1 or more of the following user-oriented or protective functions:
 - (aa) To facilitate the activation or deactivation of other functions (including active mode) by remote switch (including remote control), internal sensor, or timer.
 - (bb) Continuous functions, including information or status displays (including clocks) or sensor-based functions.”

ACTIVE MODE.—The term ‘active mode’ means the condition in which an energy-using product—

- (I) is connected to a main power source;
- (II) has been activated; and
- (III) provides 1 or more main functions.

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Guidelines

A. Off Mode

Off Mode describes the status of an appliance when it is connected to the main electricity supply and is providing no consumer-interactive function. Off Mode may persist for an indefinite period of time. Providing the product with an on/off switch satisfies this condition.

Off Mode may include:

1. LED or some other indication of off mode condition;
2. Electric noise reduction capacitor, choke or filter;
3. The state where a one-way remote control device has turned the product off, but cannot be used to activate the product.
4. Leakage current will occur in some appliances, and may include current flow in 208/230 volt appliances where only one leg of the line is isolated by the switch.
5. May include electrical energy flow to a transformer of some electronics units.

B. Standby Mode

Standby Mode is the lowest-power consumption mode when the appliance is connected to the main electricity supply and is used in accordance with the manufacturer's instructions. Standby Mode power usage is the power (wattage) consumed by an appliance at the factory setting. Standby Mode may persist for an indefinite period of time. Standby Mode may allow activation of other modes by local or remote switch.

All products will default to this mode as delivered from the factory.

Products may have provision for the consumer to add or delete product functions that alter the as-shipped standby energy mode. The power consumption in these user-selected modes may exceed the power consumption in the lowest-power consumption mode. The consumer must be informed how to make these selections and that their selection(s) will override the lowest-power consumption mode.

Standby Mode applies only to products that are not continuous run products. A continuous run product is performing in active mode 100% of time that it is plugged into the main electricity supply.

The appliance shall be tested at factory or "default" settings. Where there are no indications for such settings, the appliance shall be tested as shipped (See Section 5.2 IEC 62301 Ed. 1).

C. Active Mode

When a product is not in Off Mode or Standby Mode, it is in Active Mode.