

Product Sheet, GEEA Criteria 2007  
**Personal Computers (System Units)**



## Scope

Personal computers include: desktops, integrated computers, desktop-derived servers, gaming consoles, notebooks and tablets. The models concerned must be available through the trade in Europe in the same configuration as indicated in the registration. The product as sold to the customer should be able to operate on mains voltage (230 V AC). This includes portable equipment that is sold with an external power supply and portable computers that are capable of being powered also from a battery.

## Criteria

Personal computers comply with the GEEA criteria if the following criteria are met:

Category	Criteria	Basis for criteria
Desktops, integrated computers, desktop-derived servers and gaming consoles	The power consumption in the off / standby mode is <b>2.0 (+ 0.7*) W</b> or less.	ENERGY STAR
	The power consumption in the sleep mode is <b>4.0 (+ 0.7*) W</b> or less.	ENERGY STAR
	Products must be shipped with the computer's sleep mode set to activate within <b>30 minutes</b> of user inactivity.	ENERGY STAR
	Products must be shipped with the display's sleep mode set to activate within <b>15 minutes</b> of user inactivity.	ENERGY STAR
	The power consumption in the on mode (idle) is:	
Category A**	<b>50.0 W</b> or less	ENERGY STAR
Category B**	<b>65.0 W</b> or less	ENERGY STAR
Category C**	<b>95.0 W</b> or less.	ENERGY STAR
Notebooks and tablets	The power consumption in the off / standby mode is <b>1.0 (+ 0.7*) W</b> or less.	ENERGY STAR
	The power consumption in the sleep mode is <b>1.7 (+ 0.7*) W</b> or less.	ENERGY STAR
	Products must be shipped with the computer's sleep mode set to activate within <b>30 minutes</b> of user inactivity.	ENERGY STAR
	Products must be shipped with the display's sleep mode set to activate within <b>15 minutes</b> of user inactivity.	ENERGY STAR
	The power consumption in the on mode (idle) is:	
Category A**	<b>14.0 W</b> or less	ENERGY STAR
Category B**	<b>22.0 W</b> or less.	ENERGY STAR

\* Additional power allowance in sleep and standby for WOL: 0.7 W. All computers, regardless of distribution channel, shall have the ability to enable and disable WOL for sleep mode.

\*\* Categories are defined in ENERGY STAR Program Requirements for Computers: Version 4.0, Energy Efficiency and Power Management Criteria.



## Definition

### Power modes

Term	Definition
Off / standby 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 purposes of this specification, Standby correlates to ACPI System Level S4 or S5 states, where applicable.
Sleep mode	Low powers state that the computer is capable of entering automatically after a period of inactivity or by manual selection. A computer with sleep capability can quickly "wake" in response to network connections or user interface devices. For the purposes of this specification, Sleep mode correlates to ACPI System Level S3 (suspend to RAM) state, where applicable.
On mode (idle)	This is the state in which the operating system and other software have completed loading, the machine is not asleep, and activity is limited to those basic applications that the system starts by default.

### Desktop categories for idle criteria

Term	Definition
Cat. A	All desktop computers that do not meet the definition of either Category B or Category C below should be considered under Category A for ENERGY STAR qualification.
Cat. B	<ul style="list-style-type: none"> <li>Multi-core processor(s) or greater than 1 discrete processor; and</li> <li>Minimum of 1 gigabyte of system memory</li> </ul>
Cat. C	<ul style="list-style-type: none"> <li>Multi-core processor(s) or greater than 1 discrete processor; and</li> <li>A GPU with greater than 128 megabytes of dedicated, non-shared memory.</li> </ul> In addition to the requirements above, models qualifying under Category C must be configured with a minimum of 2 of the following three characteristics: <ul style="list-style-type: none"> <li>Minimum of 2 gigabytes of system memory;</li> <li>TV tuner and/or video capture capability with high definition support; and/or</li> <li>Minimum of 2 hard disk drives.</li> </ul>

### Notebook categories for idle criteria

Term	Definition
Cat. A	All notebook computers that do not meet the definition of Category B below will be considered under Category A for ENERGY STAR qualification.
Cat. B	A GPU with a minimum of 128 megabytes of dedicated, non-shared memory.



## Test Method

Test method for personal computers are equal to current ENERGY STAR definition and test method with this supplement: For portable computers with rechargeable battery, no charging takes place.

### Test method

Test procedures for measuring operation modes (off / standby mode, sleep, on mode (idle) and maximum power) must comply with the test protocol described in ENERGY STAR Program Requirements for Computers: Version 4.0 'Appendix A'.

Test procedures for measuring power supply efficiency must comply with IPS: Internal Power Supply Efficiency Protocol ([www.energystar.gov/powersupplies](http://www.energystar.gov/powersupplies)) and ENERGY STAR Test Method for External Power Supplies ([www.energystar.gov/powersupplies](http://www.energystar.gov/powersupplies)).

### Basis for criteria

ENERGY STAR: ENERGY STAR Program Requirements for Computers: Version 4.0, Eligibility Criteria