

Commission communication in the framework of the implementation of Commission Regulation (EU) No 617/2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers

(Publication of titles and references of transitional methods of measurement ⁽¹⁾ for the implementation of Regulation (EU) No 617/2013)

(2014/C 110/05)

Requirement	Organisation	Reference/Title	Notes
1.1, 1.2 P_{off} for calculation of E_{TEC} of desktop computer and integrated desktop computer	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
1.1, 1.2 P_{sleep} for calculation of E_{TEC} of desktop computer and integrated desktop computer	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
1.1, 1.2 P_{idle} for calculation of E_{TEC} of desktop computer, integrated desktop computer	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.4 Measuring long idle mode (for integrated desktop computers); 5.3.5. Measuring short idle mode (for desktop computers); 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy; Annex E (informative) ENERGY STAR V5 compliant testing methodology.	Annex E.2 (informative) of EN 62623:2013 indicates the measurement method for long idle mode to be used for integrated desktop computers. Annex E.3 (informative) of EN 62623:2013 — indicates the measurement method for short idle mode to be used for desktop computers.

⁽¹⁾ It is intended that these transitional methods will ultimately be replaced by harmonised standard(s). When available, reference(s) to the harmonised standard(s) will be published in the *Official Journal of the European Union* in accordance with Articles 9 and 10 of Directive 2009/125/EC.

Requirement	Organisation	Reference/Title	Notes
1.1, 1.2, 1.3, 1.4 dGfx category	ECMA	Categories to be used with ECMA-383 Measuring the Energy Consumption of Personal Computing Products, 3rd edition (December 2010).	How to calculate the FB_BW. Category classification and required calculation is specified in COMMISSION REGULATION (EU) No 617/2013. The website link, referenced by EN 62623:2013, explains how 'data rate' is calculated based on memory type. (http://www.ecma-international.org/publications/standards/Categories_to_be_used_with_Ecma-383.htm).
1.3, 1.4 P_{off} for calculation of E_{TEC} of notebook computers	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
1.3, 1.4 P_{sleep} for calculation of E_{TEC} of notebook computers	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
1.3, 1.4 P_{idle} for calculation of E_{TEC} of notebook computers	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.4. Measuring long idle mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy; Annex E.2 (informative) ENERGY STAR V5 compliant testing methodology.	Annex E.2 (informative) of EN 62623:2013 indicates the measurement method for long idle mode to be used for notebook computers.

Requirement	Organisation	Reference/Title	Notes
2. SLEEP MODE (desktop computer, integrated desktop computer, notebook computer)	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
3. LOWEST POWER STATE (desktop computer, integrated desktop computer, notebook computer)	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2 Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy. OR EN 50564:2011 Electrical and electronic household and office equipment - Measurement of low power consumption: 4. General conditions for measurements; 5. Measurements.	The lowest power state in computers will often be 'off mode'. However, some computers may contain an additional power state with a lower power demand than 'off mode'. Where 'off mode' is not the lowest power state the appropriate measurement procedure listed in EN 50564:2011 may be used.
4. OFF MODE (desktop computer, integrated desktop computer, notebook computer)	CENELEC	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	Where a product is placed on the market with a WOL functionality enabled in off mode the system under test must be tested in off mode with WOL enabled and with WOL disabled. Addition to the text of EN 62623:2013 — 5.3.2: 'if testing both WOL enabled and WOL disabled for off mode, wake the EUT and change the WOL from off mode setting through the operating system or by other means. Place the EUT back in off mode and repeat test, recording off mode power necessary for this alternate configuration as 'off mode with WOL enabled'.

Requirement	Organisation	Reference/Title	Notes
<p>5. INTERNAL POWER SUPPLY EFFICIENCY</p> <p>(desktop computer, integrated desktop computer, thin client, workstation, small-scale server, computer servers)</p>	EPRI and Ecova	Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.6 (April, 2012).	<p>Published on www.plugloadsolutions.com</p> <p>Note: The UUT shall be tested at the following voltage and frequency combination: 230 V at 60 Hz.</p>
<p>6.1</p> <p>A power management function that automatically switches the computer into a power mode that has a lower power demand than the applicable power demand requirement for sleep mode</p> <p>(desktop computer, integrated desktop computer, notebook computer)</p>	CENELEC	<p>EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption:</p> <p>5.2. Test setup;</p> <p>5.3.4. Measuring long idle mode;</p> <p>5.4. Test conditions;</p> <p>5.7. True RMS watt meter specification;</p> <p>5.8. True RMS watt meter accuracy.</p>	<p>Amendments in the text of EN 62623:2013 — 5.3.4:</p> <p>— ‘To measure the long idle mode’ is to be replaced by ‘To measure the power mode of a power management function that has a lower power demand than the applicable power demand requirement for sleep mode’.</p> <p>— ‘in long idle mode (see 4.2.8.4)’ is to be replaced by ‘in a power mode of a power management function that has a lower power demand than the applicable power demand requirement for sleep mode’.</p>
<p>7. INFORMATION TO BE PROVIDED BY MANUFACTURERS (Desktop computer, integrated desktop computer, notebook computer, workstation, mobile workstation, desktop thin client, small-scale server and computer server)</p>	European Commission	<p>Guidelines accompanying Commission Regulation (EU) No 617/2013:</p> <p>3. Ecodesign requirements.</p>	Reporting requirements are explained in the Guidelines accompanying Commission Regulation (EU) No 617/2013.
<p>7.1.1</p> <p>External power supply efficiency</p>	CENELEC	EN 50563:2011 External a.c. — d.c. and a.c. — a.c. power supplies — Determination of no-load power and average efficiency of active modes.	External power supplies are regulated by Commission Regulation (EC) No 278/2009.

Requirement	Organisation	Reference/Title	Notes
<p>7.1.1</p> <p>Minimum number of loading cycles that batteries can withstand</p> <p>(notebook computers)</p>	CENELEC	<p>EN 61960:2011 Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary lithium cells and batteries for portable applications:</p> <p>7.6.1 General;</p> <p>7.6.2 Endurance in cycles.</p> <p>OR</p> <p>7.6.3 Endurance in cycles (accelerated test procedure).</p>	Batteries to power non-volatile BIOS memory (in CMOS, EEPROM or flash memory) or the real-time clock (RTC) of the computer system are exempt.
<p>7.1.1</p> <p>Total content of mercury</p> <p>(computers with an integrated display)</p>	IEC (or other)	<p>IEC 62321-1 ed1.0 — Determination of certain substances in electrotechnical products — Part 1: Introduction and overview.</p> <p>IEC 62321-2 ed1.0 — Determination of certain substances in electrotechnical products — Part 2: Disassembly, disjunction and mechanical sample preparation.</p> <p>IEC 62321-3-1 ed1.0 — Determination of certain substances in electrotechnical products — Part 3-1: Screening — Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry.</p> <p>IEC 62321-4 ed1.0 — Determination of certain substances in electrotechnical products — Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS.</p> <p>IEC 62554 ed1.0 — Sample preparation for measurement of mercury level in fluorescent lamps.</p> <p>OR</p> <p>Manufacturer declared.</p>	Suitable alternative methods to the IEC process may be followed when measuring and declaring mercury content. When choosing this option the chosen alternative method shall be declared.

Requirement	Organisation	Reference/Title	Notes
<p>7.1.1</p> <p>Noise levels (the declared A-weighted sound power level) of the computer</p> <p>(desktop computer, integrated desktop computer, notebook computer, workstation, mobile workstation, desktop thin client, small-scale server, computer server)</p>	ECMA	<p>ECMA-109 2nd edition (December 1987) Declared Noise Emission Values of Computer and Business Equipment:</p> <p>4. Determination of the declared noise emission values.</p> <p>ECMA-74 11th edition (December 2010) Measurement of Airborne Noise emitted by Information Technology and Telecommunications Equipment:</p> <p>5. Installation and operating instructions;</p> <p>6. Method for determination of sound power levels of equipment in reverberation test rooms;</p> <p>7. Method for determination of sound power levels of equipment under essentially free-field conditions over a reflecting plane;</p> <p>Annex C.15 Equipment category: personal computers and workstations.</p>	<p>ECMA-109 2nd edition has been adapted to the final wording of ISO 9296:1988.</p> <p>ECMA-74 11th edition is aligned closely with ISO 7779:2010, 3rd edition.</p> <p>Either the method for determination of sound power levels of equipment in reverberation test rooms or under essentially free-field conditions over a reflecting plane may be used.</p>