


# THE ECO DECLARATION



ECMA/TC38-TG3/2015/026  
(Rev. 1 – 15 April 2015)

## Annex B2 - Product environmental attributes Notebooks and Tablets


The declaration may be published only when all rows and/or fields marked with \* are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

<b>Brand *</b>	<i>Lenovo</i>	<b>Logo</b> 
<b>Company name *</b>	<i>Lenovo</i>	
<b>Contact information * e-mail address</b>	<i>Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com</i>	
<b>Internet site *</b>	<i>www.lenovo.com</i>	
<b>Additional information</b>		

<b>The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.</b>	
<b>Type of product *</b>	<i>Notebook</i>
<b>Commercial name *</b>	<i>Lenovo V330-15/E53-80</i>
<b>Model number *</b>	<i>81AW, 81AX, 81CL, 81CM</i>
<b>Issue date *</b>	<i>2017/10/11</i>
<b>Intended market *</b>	<input checked="" type="checkbox"/> Global <input type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
<b>Additional information</b>	


This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

<b>About Annex B2</b>
Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template: P4.1 – P4.3 Consumable materials P9.1 TEC and Print speed P10.2 - P10.3 Chemical emissions from printing products P11.1 - P11.3 Consumable materials for printing products.

<b>Model number *</b>	<b>81AW, 81AX, 81CL, 81CM</b>	<b>Logo</b>	
<b>Issue date *</b>	<b>2017/10/11</b>		

<b>Product environmental attributes - Legal requirements</b>		<b>Requirement met</b>		
Item		Yes	No	n.a.
<b>P1</b>	<b>Hazardous substances and preparations</b>			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 µg/cm <sup>2</sup> /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): <a href="http://www.lenovo.com/social_responsibility/us/en/materials.html">http://www.lenovo.com/social_responsibility/us/en/materials.html</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P2</b>	<b>Batteries</b>			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P3</b>	<b>Conformity verification &amp; Eco design (ErP)</b>			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference). Required information is; <input checked="" type="checkbox"/> given in item P15 or added to this document, <input type="checkbox"/> available at (add URL):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P5</b>	<b>Product packaging</b>			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P6</b>	<b>Treatment information</b>			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	81AW, 81AX, 81CL, 81CM	Logo	
Issue date *	2017/10/11		

Product environmental attributes - Market requirements (See General NOTE GN below)		Requirement met		
- Environmental conscious design		Yes	No	n.a.
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.			
<b>P7 Design</b>				
<b>Disassembly, recycling</b>				
P7.1*	Parts that have to be treated separately are easily separable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.2*	Plastic materials in covers/housing have no surface coating.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Product lifetime</b>				
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.8*	Upgrading can be done using commonly available tool	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.9	Spare parts are available after end of production for: 5 years			<input checked="" type="checkbox"/>
P7.10	Service is available after end of production for: 5 years			<input checked="" type="checkbox"/>
<b>Material and substance requirements</b>				
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: <b>Plastic</b> Material type: <b>Metal</b> Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.13	Insulation materials of internal electrical cables are PVC free.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all <input type="checkbox"/> PCBs > 25 g <input type="checkbox"/> are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: <b>&gt;PC+ABS-TD15FR(40)&lt;, &gt;PC+ABS-TD3FR(40)&lt;</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.17	<u>Alt. 1:</u> Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): <input type="checkbox"/> TBBPA (additive), <input type="checkbox"/> TBBPA (reactive) (See NOTE B3), <input type="checkbox"/> Other:                      , CAS #: <u>Alt. 2:</u> Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.18	<u>Alt. 1:</u> Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: <b>TMB1615</b> , CAS #: <b>25971-63-5,9003-56-9</b> (See NOTE B4) 2. Chemical name: <b>MB1700</b> , CAS #: <b>25967-63-5,9003-56-9</b> " 3. Chemical name:                      , CAS #:                      " <u>Alt. 2:</u> Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases;                      and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)):                      ,                      (See note B5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):  If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is <b>0.005%</b> . or b) The weight of recycled material is                      g.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	81AW, 81AX, 81CL, 81CM	Logo	
Issue date *	2017/10/11		

<b>Product environmental attributes - Market requirements (continued)</b>	<b>Requirement met</b>
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Item	Yes	No	n.a.
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<b>Material and substance requirements (continued)</b>	
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P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<b>P8 Batteries</b>	
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P8.1*	Battery chemical composition: <i>Lithium Ion/Lithium Manganese Dioxide</i>	<input checked="" type="checkbox"/>		
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<b>P9 Energy consumption (See NOTE B8) (PIC: Env.)</b>	
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P9.1 For the product the following power levels or energy consumptions are reported:


Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for energy modes and test method *	<input checked="" type="checkbox"/>
<i>Peak (On-max)</i>	65 W	65 W	65 W	<i>Full load</i>	
<b>Category I1</b>					
<i>Short Idle State - WOL Enabled</i>	8.748 W	9.156 W	9.552 W	<i>ENERGY STAR V6.1</i>	
<i>Long Idle State - WOL Enabled</i>	4.992 W	5.076 W	5.268 W	<i>ENERGY STAR V6.1</i>	
<i>Sleep (S3) - WOL Enabled</i>	1.128 W	1.176 W	1.284 W	<i>ENERGY STAR V6.1</i>	
<i>Sleep (S3) - WOL Disabled</i>	1.123 W	1.174 W	1.281 W	<i>ENERGY STAR V6.1</i>	
<i>Off (S5) - WOL Enabled</i>	0.864 W	0.888 W	0.936 W	<i>ENERGY STAR V6.1</i>	
<i>Off (S5) - WOL Disabled</i>	0.381 W	0.385 W	0.451 W	<i>Use for ErP Lot 3</i>	
	W	W	W	<i>Reference</i>	
<b>Category I2</b>					
<i>Short Idle State - WOL Enabled</i>	9.948 W	10.272 W	10.764 W	<i>ENERGY STAR V6.1</i>	
<i>Long Idle State - WOL Enabled</i>	6.168 W	6.252 W	6.612 W	<i>ENERGY STAR V6.1</i>	
<i>Sleep (S3) - WOL Enabled</i>	1.200 W	1.236 W	1.308 W	<i>ENERGY STAR V6.1</i>	
<i>Sleep (S3) - WOL Disabled</i>	1.196 W	1.231 W	1.304 W	<i>ENERGY STAR V6.1</i>	
<i>Off (S5) - WOL Enabled</i>	0.984 W	1.008 W	1.032 W	<i>ENERGY STAR V6.1</i>	
<i>Off (S5) - WOL Disabled</i>	0.439 W	0.489 W	0.447 W	<i>Use for ErP Lot 3</i>	
	W	W	W	<i>Reference</i>	
<b>Category ---</b>					
<i>Short Idle State - WOL Enabled</i>	W	W	W	<i>Reference</i>	
<i>Long Idle State - WOL Enabled</i>	W	W	W	<i>Reference</i>	
<i>Sleep (S3) - WOL Enabled</i>	W	W	W	<i>Reference</i>	

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B9 A Guidance document on Acoustic Noise is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

<b>Sleep (S3) - WOL Disabled</b>	W	W	W	<b>Reference</b>	
<b>Off (S5) - WOL Enabled</b>	W	W	W	<b>Reference</b>	
<b>Off (S5) - WOL Disabled</b>	W	W	W	<b>Reference</b>	
	W	W	W	<b>Reference</b>	
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	W	W	W		
PTEC * Typical Energy Consumption	<b>4.27 W</b>	<b>4.39 W</b>	<b>4.61 W</b>	<b>I2</b>	<input checked="" type="checkbox"/>
ETEC * Annual Energy Consumption	<b>37.38 kWh/year</b>	<b>38.47 kWh/year</b>	<b>40.35 kWh/year</b>	<b>I2</b>	<input checked="" type="checkbox"/>
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * : <b>VI</b>					<input checked="" type="checkbox"/>
Display resolution * : <b>1920*1080</b> megapixels					<input checked="" type="checkbox"/>
Default time to enter energy save mode: <b>10</b> minutes					<input type="checkbox"/>
P9.2*	Information about the energy save function is provided with the product.				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
P9.3	Energy efficiency class (monitors only):				<input checked="" type="checkbox"/>
<b>P10 Emissions</b>					
<b>Noise emission – Declared according to ISO 9296 (See NOTE B9)</b>					
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)		
	Idle	* <b>Idle mode</b>	* <b>2.9</b>	<input type="checkbox"/>	
	Operation	* <b>Operating (CPU)</b>	* <b>3.7</b>	<input type="checkbox"/>	
	Other mode				
Measured according to: <input checked="" type="checkbox"/> ISO 7779 <input type="checkbox"/> ECMA-74 <input type="checkbox"/> Other (only if not covered by ECMA-74)					

Model number *	81AW, 81AX, 81CL, 81CM	Logo	
Issue date *	2017/10/11		

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
<b>Electromagnetic emissions</b>				
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s): <i>MPR-II(3 pin AC adapter only)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P12 Ergonomics for computing products</b>				
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>P13 Packaging and documentation</b>				
P13.1*	Product packaging material type(s): <i>Paper</i> weight (kg): <i>0.804</i> Product packaging material type(s): <i>EPE</i> weight (kg): <i>0.152</i> Product packaging material type(s): <i>PE</i> weight (kg): <i>0.014</i>			
P13.2*	Product plastic primary packaging is free from PVC.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: %			<input type="checkbox"/>
P13.4*	Specify media for user and product documentation (tick box): <input type="checkbox"/> Electronic, <input type="checkbox"/> Paper, <input type="checkbox"/> Other			<input type="checkbox"/>
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify: Totally chlorine-free Elemental chlorine-free Processed chlorine-free	<input type="checkbox"/>	<input type="checkbox"/>	
<b>P14 Voluntary programs (</b>				
P14.1	The product meets the requirements of the following voluntary program(s):  ENERGY STAR® Criteria version: <i>6.1</i> Date: <i>Sep/20167</i> Product category: <i>11/12</i> Eco-label: Criteria version: Date: Product category: Eco-label: Criteria version: Date: Product category:			
<b>P15 Additional information (See NOTE B10)</b>				
P9	<b>Energy consumption of specific configuration may vary; description of the tested product configuration:</b>			

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

## Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII)	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2.3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC ( Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

# Lenovo ErP Lot3 Information Sheet


## - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

### Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo V330-15/E53-80	Logo 
Model number *	81AW, 81AX, 81CL, 81CM	
Issue date *	2017/10/11	
Additional information		

P7.1.1 Product environmental attributes					
(d) year of manufacture: <span style="float: right;">2017</span>					
(e) <b>Etec value</b> (kWh) per ErP Lot 3 Category and capability adjustments applied when <b>all discrete graphics cards (dGfx) are disabled</b> and if the system is tested with switchable graphics mode with UMA driving the display.					
(f) <b>Etec value</b> (kWh) per ErP Lot 3 Category and capability adjustments applied when <b>all discrete graphics cards (dGfx) are enable</b>					
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)
capability adjustments applied during testing	Memory over base [GB]	20	20		
	Additional internal storage	yes (Yes / No)	yes (Yes / No)	(Yes / No)	(Yes / No)
	Discrete television tuner	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)
	Discrete Audio Card	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)
	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	yes #: G2 (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	N/A	G2		
Test results	<b>Etec Value (kWh) - dGfx disabled</b> all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	18.76	N/A		
	<b>Etec Value (kWh) - dGfx enabled</b> all discrete graphics cards (dGfx) are enabled	N/A	19.81		
(g) Idle state power demand (Watts); <span style="float: right;">5.83/6.23</span>					
(h) Sleep mode power demand (Watts); <span style="float: right;">1.17/1.22</span>					
(i) Sleep mode with WOL enabled power demand (Watts) (where enabled); <span style="float: right;">1.17/1.22</span>					
(j) Off mode power demand (Watts); <span style="float: right;">0.46/0.45</span>					
(k) Off mode with WOL enabled power demand (Watts) (where enabled); <span style="float: right;">0.46/0.45</span>					
(l) Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable): 10%      20%      50%      100%      Average					
(m) external power supply efficiency (if applicable)*: Average active efficiency: <b>45W:81.44%,87.60%,88.51%,88.53%,65W:89.04%,89.18%</b> <small>*internal note: show values for all available external power supplies</small>					
(o) Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): <span style="float: right;">300 cycles</span>					
(p-1) Measurement methodology used to determine information mentioned in points (l) – internal PSU efficiency: <span style="float: right;">NA</span>					



(p-2)	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: <b><i>EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage. External Ac-Dc and Ac-Ac Power Supplies" dated August 11, 2004</i></b>
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: <b><i>IEC 61960 measurement methodology</i></b>
(p-4)	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: <b><i>IEC 62623 / IEC EN 50564:2011 measurement methodology</i></b>
(q)	Sequence of steps for achieving a stable condition with respect to power demand:: <b><i>IEC 62623 / IEC EN 50564:2011 measurement methodology</i></b>
(r)	Description of how sleep and/or off mode was selected or programmed: <b><i>Based on user manual</i></b>
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: <b><i>Based on user manual</i></b>
(t)	<b>Duration of idle state condition before the computer automatically reaches sleep mode</b> , or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): <b>30</b>
(u)	<b>Length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode</b> (in minutes): <b>NA</b>
(v)	<b>Length of time before the display sleep mode is set to activate</b> after user inactivity (in minutes): <b>10</b>
(w)	Information on the energy-saving potential of power management functionality: <b><i>Based on user manual</i></b>
(x)	user information on how to enable the power management functionality: <b><i>Based on user manual</i></b>
(z)	test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing: <b><i>230V50HZ-2%-Edition 2.0, 2011-01, Section 4, IEC62301</i></b>

#### **Addition Notebook Battery Information:**

	Battery[ies] <b>not</b> user replaceable	Battery[ies] user replaceable	n/a
	The battery[ies] in this product cannot be easily replaced by users themselves. <sup>1)</sup>		
Internal/built-in Battery	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
External/detachable Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bios Backup Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **Additional information**

1)

The battery[ies] in this product cannot be easily replaced by users themselves.  
 Аккумуляторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.  
 Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.  
 Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé.  
 Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.  
 Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden.  
 Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada.  
 Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες.  
 La/les batterie(s) présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes.  
 Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu.  
 La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente.  
 Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us).  
 Šio gaminio baterijos [baterijų] pats vartotojas negali lengvai pakeisti.  
 A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni.  
 Il-batterija/batteriji f dan il-prodott ma tistax/jistghux tigi/jiġu sostitwita/i mill-utenti stess.  
 Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv.  
 De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar.  
 Użytkownik nie może sam w łatwy sposób wymienić baterii w tym produkcie.  
 A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores.  
 Bateria (bateriile) din acest produs nu poate (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși.  
 Batériu(-ie) v tomto výrobku nemôže vymeniť použivateľ.  
 Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati.  
 Tämään tuotteen akku [akut] ei[vät] ole helposti käytettävän vaihdettavissa.  
 Det är inte enkelt för kunden att själv byta ut batteriet/batterierna.  
 Bu üründe ki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.