

Product environmental attributes - THE ECO DECLARATION

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).

Additional information regarding each item may be found under P14.

Brand *	Lenovo	Logo		
Company name *	Lenovo			
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Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment.html			
Additional information	The latest version of this document can be found at http://www.lenovo.com/social_responsibility/us/en/datasheets_	notebooks.html		

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.					
Type of product *	Personal Computer				
Commercial name *	Erazer X315				
Model number *	90AY 90B0				
Issue date *	2014-07-01				
Intended market *	Global Europe Asia, Pacific & Japan Americas Other				
Additional information	ENERGY STAR® Qualified(90BF); GreenGuard				

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Quality	Control	Requireme	nt met
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration		
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control	\boxtimes	
	such as organized by IT-Företagen (see www.itecodeclaration.org).		

Model number *	Erazer X315	MT:90AY 90B0		
Issue date *	2014.07.01		Logo	lenovo.

Product	environmental attributes - Legal requirements	Require	men	t met
Item	y 1	Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)			
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	\boxtimes		
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	X		
	hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.4*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	\boxtimes		
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).	X		
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)			
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5 microgram/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.			
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.lenovo.com/social_responsibility/us/en/materials.html	\boxtimes		
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes		
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)			
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	\boxtimes		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).			
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	S 🔀		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\boxtimes		
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			\boxtimes
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium an hexavalent chromium by weight of these together.	d 🔀		
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	al 🔀		

Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

Model number *	Erazer X315	MT:90AY 90B0		
Issue date *	2014.07.01		Logo	lenovo.

Product	environmental attributes - Market requirements - Environmental conscious design Re	quire	men	t met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes		
P7	Design			
	Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable	\boxtimes		
P7.2*	Plastic materials in covers/housing have no surface coating.	\boxtimes		
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.	\boxtimes		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	X		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes		
P7.8*	Upgrading can be done using commonly available tools		$\overline{\Box}$	$\overline{\Box}$
P7.9.	Spare parts are available after end of production for: 5 years			Ī
P7.10	Service is available after end of production for: 5 years			$\overline{}$
	Material and substance requirements			
P7.11*	Product cover/housing material type:			
	Material type: PC Material type: Steel			
P7.12	Electrical cable insulation materials of power cables are PVC free.		\boxtimes	
P7.13	Electrical cable insulation materials of signal cables are PVC free		\boxtimes	
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		Ī	Ī
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See	Ħ	X	П
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4:	\boxtimes		
	Marking:			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components):			
	TBBPA (additive) , TBBPA (reactive) , Other; chemical name: , CAS #:	\boxtimes		
	Tobi A (additive) , Tobi A (reactive) , Other, Chemical Hame. , OAS #.			
	Alt. 2			
	Chemical specifications of flame retardants in printed circuit boards (without components) >25g according	\boxtimes		
	ISO 1043-4: Brominated Epoxy Resin See P14			
P7.18	Alt. 1			
	Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%:	Ш		\boxtimes
	Comment: No legal limits exist, this is a market requirement.			
	1. Chemical name: , CAS #:			
	2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #:			
	Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:	\square		
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,	$\overline{\mathbf{X}}$		
	R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			Ш
P7.20	Of total plastic parts' weight >25g, recycled material content is 8%. (contains keyboard, mouse and power			
	code)			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.	_		<u></u>
P7.22	Light sources are free from mercury If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg	Ш	Ш	\boxtimes
P8	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg Batteries mg			
P8.1*	Battery chemical composition:			\square
P8.2	Batteries meet the requirements of the following voluntary program/s:			

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

Model number *	Erazer X315	MT:90AY 90B0		
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Product environmental attrib	outes - Market r	equirements ((continued)	Requirement	
Item				Yes No	n.a.
P9 Energy consumption					
9.1 For the product the following	- ·				
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 *	
Category I3					
Short Idle State - WOL Enabled	<i>35.14</i> W	<i>35.15</i> W	35.12 W	Use for Energy Star V6.0 registration(P _{ShortIdle})	
Long Idle State - WOL Enabled	33.87 W	<i>33.59</i> W	33.90 W	Use for Energy Star V6.0 registration	
Sleep (S3) - WOL Enabled	1.93 W	1.93 W	2.10 W	Use for Energy Star V6.0 registration (P _{sleep})	
Off (S5) - WOL Enabled	0.47 W	0.48 W	0.65 W	Use for Energy Star V6.0 registration (Poff)	
Category D1	T	T	T	1	
Short Idle State - WOL Enabled	46.29 W	46.55 W	46.90 W	Use for Energy Star V6.0 registration(P _{ShortIdle})	Ш
Long Idle State - WOL Enabled	45.83 W	45.64 W	45.44 W	Use for Energy Star V6.0 registration	<u> </u>
Sleep (S3) - WOL Enabled	1.91 W	1.91 W	2.11 W	Use for Energy Star V6.0 registration (P _{sleep})	Ш
Off (S5) - WOL Enabled	0.48 W	0.48 W	0.65 W	Use for Energy Star V6.0 registration (Poff)	
Category D2	1 40 70 14	40.50\4/		Tu (5 0) 100 11 11 12	<u> </u>
Short Idle State - WOL Enabled	49.79 W	49.58 W	50.14 W	Use for Energy Star V6.0 registration(P _{ShortIdle})	Ш
Long Idle State - WOL Enabled	48.65 W	48.56 W	49.39 W	Use for Energy Star V6.0 registration	
Sleep (S3) - WOL Enabled	1.97 W	1.97 W	2.11 W	Use for Energy Star V6.0 registration (P _{sleep})	Щ
Off (S5) - WOL Enabled	0.48 W	0.48 W	<i>0.65</i> W	Use for Energy Star V6.0 registration (Poff)	
EPS No-load	W	W	W		
(External power supply / charger plugged in the wall outlet but disconnected from the product.)					
TEC	kWh/week	kWh/week	kWh/week		
Typical Energy Consumption					
ETEC * Annual Energy Consumption	Cat I3: 108.31; CatD1:204.87; CatD2:219.33 kWh/year	Cat I3: 104.96; CatD1:205.42; CatD2:218.57 kWh/year	Cat I3:114.09 ; CatD1:206.99 CatD2:222.11 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.45 + P _{sleep} x 0.05 + P _{ShortIdle} x 0.35 + P _{LongIdle} x 0.15)	
	P Off Mode/\$5)	- WOL Enabled:	P. : Sleen Mode/9	S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Display resolution* : Mega	pixels	- WOL Enabled,	i sieep. Oleep inode (e	VOL Enabled, Trails, rule State - WOL Enabled	
	es per minute				
Default time to enter energy save	•				
P9.2* Information about the			ith the product		片
P9.3* The product meets the				gram/e·	
ENERGY STAR® ver Others specify:					
P10 Emissions					
Noise emission – De		ISO 9296			
P10.1 Mode Mod	le description		Declared A-weighted	Declared A-weighted	
			sound power	er Sound pressure level L_{pAm} (db)	
			level $L_{W A d}$ (Desktop (only if product is not	
				operator attended)	1_
	IDD:Idle		* 4.0 * 4.1	28 29	1
Operation * H	IDD: Operating		4.1	29	┧╙
Measured according to	o: X ISO7779	ECMA-74	L	I	1
	Other	(only if not cove		with L _{pAm} measurement distance m)	
P10.2 The product meets the	e acoustic noise re				\boxtimes

Model number *	Erazer X315	MT:90AY 90B0		
Issue date *	2014.07.01		Logo	lenovo.

Product 6	environmental attributes - Market requirements (continued)	Require	ment	met		
Item		Yes	No	n.a.		
	Chemical emissions from printing products					
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard, other specify:			\boxtimes		
P10.4	Typical emission rate (print phase) is (mg/h):			\boxtimes		
	Dust Ozone Styrene Benzene TVOC					
P10.5	Chemical emission requirements of the following voluntary program/s are met for :			\boxtimes		
	Dust Ozone Styrene Benzene TVOC					
	Electromagnetic emissions					
P10.6	6 Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:					
P11	Consumable materials for printing products					
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).			\boxtimes		
P11.2*	* Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.					
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			\boxtimes		
P12	Ergonomics for computing products					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			\boxtimes		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.					
P13	Packaging and documentation					
P13.1*	Product packaging material type(s): <i>carton</i> weight (kg): 1.37					
	Product packaging material type(s): <i>EPE</i> weight (kg): <i>0.29</i>					
P13.2*	Product packaging material type(s): weight (kg): Product plastic packaging is free from PVC.			_		
	1 1 0 0			<u> </u>		
P13.3*	Specify media for user and product documentation (tick box):			Ш		
D10.4*	Electronic , Paper , Other .					
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0%			Ш		
P14	Additional information (See Note B4)					
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, information contained in this document. All information provided by supplier in this document is provided base knowledge available at the time of completion, and supplier shall have no obligation to update such informatio provided here is approximate and provided for informational purposes only. See a Lenovo Account Represent information.	d on sup n. The ir	plier's iforma			
P9	See Energy Star Qualified Notebooks & Tablet Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CO					

Note B4: 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 B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2,3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

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 H50-55	Logo
Model Number	90AY 90B0	_
Issue Date	2014-07-01	lenovo.
Additional information		

P7.1.1	Product environmental attributes							
(d)	Year of manufacture:	Availible on product labe						
(e)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display:							
	Cat. B 101.47 Cat. C 110.73 Cat. D 108.06							
(f)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are enabled: Cat. B 121.89							
	Cat. C 144.51 Cat. D 149.15							
(g)	idle state power demand (Watts);	30.07						
(h)	sleep mode power demand (Watts);	0.84						
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	0.84						
(j)	off mode power demand (Watts);	0.48						
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.48						
(I)	Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):							
	10% 20% 50% 100%							
(m)	External power supply efficiency (if applicable):	N/A						
	10% 20% 50% 100% Average ;							
	or Level:							
(o)	The minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):							
(f)	Test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic disto the electricity supply system, — information and documentation on the instrumentation, set-up and c used for electrical testing: Test voltage in V and frequency in Hz 230V/50Hz Total harmonic distortion of the electricity supply system \$2% Information and documentation on the instrumentation, set-up and circuits used for electrical testing							
	Instrument Range Used Or *** Make and Model **							
	AC Power Source 1~280VAC;1~550HZ;1000V NF;EC1000S; SN:9152124							

	1		1	A.					
		Digita	al Watch	Full range	CASIO; HS-70W; SN:208Q08R				
		Powe	er Meter	0~600V;0~20A	YOKOGAWA;WT210;SN:91M94456				
		Hygroth	ermograph	15~35°C/15~90%	testo; 608-H1,SN:1034895602				
			anemometer	0~20m/s,-20~70°C	Testo:425:SN:02591883				
		Light N	Measuring	1°;1-300cd/m²	Konica Minolta;LS-110;				
(p-1)			ment methodolo	gy used to determine infor	rmation mentioned in points (I) - internal PSU				
	effic	iency:		80 PLUS® Pro	gram				
(p-2)		The measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:							
				N/A					
(p-3)		The measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries: N/A							
(p-4)		The 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:							
				IEC 6230	1				
(q)	Seq	uence of s	steps for achieving	g a stable condition with resp	pect to power demand::				
			F	Power on -> Wait 5 minutes	->Stable condition				
(r)	Des	cription of	how sleep and/or	off mode was selected or p	rogrammed:				
			Ве	gin menu -> Power -> Sele	ct sleep or off mode				
(s)		uence of e	events required to	reach the mode where the e	equipment automatically changes to sleep and/or				
		Contro	ol Panel->Power	Options-> Change Setting	s-> Restore default settings for this plan				
(t)		The duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): 30 minutes							
(u)		The 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 (in minutes): 45 minutes							
(v)	The length of time before the display sleep mode is set to activate after user inactivity (in minutes): 15 minutes								
(w)	Info	rmation or	n the energy-savir	ng potential of power manage	ement functionality:				
` ′			5 ,		•				
				N/A					
(x)	Use	r informati	ion on how to ena	ble the power management	•				
				Refer to User (Guide				
Addition Yes	Noteb No	ook Batte n/a	This notebook	computer is operated by hat	tery/ies that cannot be accessed and replaced by	a non-professional			
162	INO	11/a	user.	computer to operated by bat	and replaced by	a non professional			
			The battery	[ies] in this product c	annot be easily replaced by users then	nselves			
Additional information									