



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

Annex B2 - Product environmental attributes Workstations and Servers

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.

Brand *	Lenovo	Log	0
Company name *	Lenovo		_
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Additional information	The latest version of this document can be found at:		
	http://www.lenovo.com/ecodeclaration		

	based on product specification or test results based obtained from sample testing), that the product nts given in this declaration.
Type of product *	Workstation
Commercial name *	ThinkStation P320 SFF
Model number *	30BJ,30BK,30BS
Issue date *	2017/3/6
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other
Additional information	ENERGY STAR® Qualified; EPEAT Gold Rating, GREENGUARD certified

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About Annex B2

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

Model nu	ımber *	30BJ,30BK,30BS	Logo	Lon		
Issue dat	te *	2017/3/6		Lend		J _{tM}
Product	environ	mental attributes - Legal requirements		Require	men	t met
Item				Yes	No	n.a.
P1		ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	E B1)	\boxtimes		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloro concenti	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no maration values.	naximum			
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych vl (PCT) in preparations (see legal reference).				
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carl Intaining at least 48% per mass of chlorine in the SCCP (see legal reference).	bon atoms in th	ne 🔀		
P1.6*	(see lega	th direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	k 🛚		
P1.7*		Article 33 information about substances in articles is available at (add URL or mail vw.lenovo.com/social_responsibility/us/en/environment.html	contact):			
P2	Batterie	s				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	the disposal			
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadm e)	nium. (See lega	al 🔀		
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	•	duct is CE-marked to show conformance with applicable legal requirements (see leg claration of Conformity can be requested at (add link or e-mail address):	gal reference).			
P3.2*	The prod	duct complies with the Eco design requirements for energy-related products, all reference).				
	, ,	d information is; given in item P15 or added to this document, available at (add URL):				
P5	Product	packaging				
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercur ent chromium by weight of these together.	y, cadmium a	nd 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature relegal reference).	of the material	(s) 🔀		
P5.3*	The pro	duct packaging material is free from ozone depleting substances as specified (see legal reference). nt: Legal reference has no maximum concentration values.	in the Montre	eal 🔀		

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.

Treatment information

Information for recyclers/treatment facilities is available (see legal reference).

P6.1*

Model number *	30BJ,30BK,30BS	Logo	Lonovo
Issue date *	2017/3/6		LEI IOVO.

Product	environmental attributes - Market requirements (See General NOTE GN below)			
		equire	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
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 > 100 g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\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).	\boxtimes		
	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	\boxtimes		
P7.9	Spare parts are available after end of production for: 5 years			
P7.10	Service is available after end of production for: 5 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: <i>plastic</i> Material type: <i>metal</i> Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.			
P7.13	Insulation materials of internal electrical cables are PVC free.		\boxtimes	
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.			
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)			
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:			
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: Brominated Epoxy Resin, CAS #:			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "			\boxtimes
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:	П		
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	$\overline{\Box}$	Ħ	
	assigned the following Risk phrases; and Hazard statements:			
	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):	\boxtimes		
	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 %. or b) The weight of recycled material is 194.7 g.			

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.

woder numb			BK,30BS			Logo	Lenovo	.
Issue date *		2017/3/6					Lellov	тм
Product en	nvironm	nental at	tributes - Market re	equirements (contin	nued)		Requiremen	nt met
Item				4	, ,		Yes No	n.a.
	Material	and subs	stance requirements	(continued)				
		•		I in the product (See NO	OTE B7):			
				less than 0,1 mg/lamp.				\boxtimes
	mercur Batteries		specify: Number of lan	nps: and maximu	ım mercury content per	lamp: mg		
			omposition: Lithium N	langanese Dioxide				
			tion (See NOTE B8)					
		roduct the		s or energy consumption				
Energy mode			Power level at 100 V AC	Power level at 115 V AC	230 V AC	Reference/Stand modes and test	dard for energy method *	
Peak (On-ma	ax)		118.91 W	123.52 W	122.73 W	Full load		
Category								
Short Idle St Enabled	tate - W	OL	41.42 W	42.09 W	42.97 W	Use for ENERG registration (P		
Long Idle St Enabled	tate - WC	DL	30.77 W	35.44 W	30.23 W	Use for ENERG registration (P _i		
Sleep (S3) -	WOL Er	abled	1.73 W	1.59 W		Use for ENERG registration(Ps/		
Sleep (S3) -	WOL Di	sabled	W	W	W	Reference		
Off (S5) - W0	OL Enab	led	0.76 W	0.73 W		Use for ENERG registration(Pol		
Off (S5) - W	OL Disa	bled	W	W	W	Use for ErP		
			W	W	W	Reference		
			W	W	W	Reference		
EPS No-load	1		W	W	W			
(External power supplication of the control of the		olugged in the		, , ,	VV			
PTEC *	nnected from t	he product.)	21.62 W	22.57 W	22.14 W			
Typical Energ	gy Consi	umption						
ETEC * Annual Energ	gy Consi	umption	kWh/year	kWh/year		$+ P_{sleep} \times 0.35 + P_{short Idle} \times 0.30$	00) x (P _{off} x 0.25 P _{long_ldle} x 0.10+	
					Mode(S3) - WOL Enabled	; P _{idle} : Idle State -	WOL Enabled	
				Efficiency Marking Pro	tocol) *:			
Display resol			egapixels					
			ve mode: 25 minutes					<u>Ц</u>
				on is provided with the p	oroduct.			
			class (monitors only):					
	Emissio Noise en		Declared according to	ISO 9296 (See NOTE	B9)			
	Mode		Node description	7.00 0200 (000 NOTE	Statistical upper limit	A-weighted soun	d power level, L _{WA}	c (B)
	ldle	*	idle		* 3.6			
(Operatio		oper		* 3.6			
(Other mo	de D	eclared A-weighted soun	d pressure level (dB) $L_{p{\sf Am}}$	26 (operator position	desktop – idle)		
	Other mo	de D	eclared A-weighted soun	d pressure level (dB) $L_{p m Am}$	26 (operator position	desktop – operati	ing)	
N	Measure		ng to: X ISO 7779	ECMA-74				
			Other	(only if not covered by	ECMA-74)			

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;

 $see \ \underline{\text{http://www.ecma-international.org/publications/standards/Ecma-370.htm}}$

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

Model nu	mber *	30BJ,30BK,30BS	S				Logo	Lenc	WO	
Issue dat	e *	2017/3/6						Lenc	, VO	тм
Product	environn	nental attributes	s - Market requirer	nents (cor	ntinued)			Require	ment	met
Item								Yes	No	n.a.
		nagnetic emissio								
P10.4	program	(s):	e requirement for low	frequency e	lectromagnetic field	ds of the foll	lowing voluntar	у 🗌		
P12		nics for computir								
P12.1*	•		nomic requirements of			-	gies.			\boxtimes
P12.2*	The phys	sical input device n	neets the requirement	s of ISO 999	95 and ISO 9241-4	10.			\boxtimes	
P13		ng and document								
P13.1*	Product	packaging materia packaging materia packaging materia	l type(s): <i>EPE</i>	weight (kg weight (kg weight (kg	g): 0.35					
P13.2*	Product	plastic primary pac	kaging is free from P	/C.				\boxtimes		
P13.3*		luct primary corruger recovered fiber of	gated fiberboard pack content: 70 %	kaging, spec	cify the contained	percentage	of minimum	post-		
P13.4*		media for user and ronic, ⊠Paper, ☐	product documentation Other	on (tick box):						
P13.5	Ùser and		item if paper documer tation on paper media							
	Element	hlorine-free al chlorine-free ed chlorine-free								
P14	Volunta	ry programs								
P14.1			uirements of the follow	ving voluntar	y program(s):					
	Eco-labe	Y STAR® el: Greenguard el: EPEAT	Criteria version: 6. Criteria version: Criteria version:	1	Date: Oct-2014 Date: Date:	Product	category: Worl category: category:	kstation		
P15		nal information (S								
P9			pecific configuration		•					
	informati knowled provided informati	on contained in thi ge available at the here is approxima on.	representations, guara s document. All inforn time of completion, ar ite and provided for in	nation provided and supplier solutional provided in the supplier solution and supplier	led by supplier in the shall have no obligate purposes only. See	nis documer ation to upda a Lenovo A	nt is provided bate such inform	pased on supposed in	plier's format	ion
P9			Notebooks & Tablet C index.cfm?fuseaction=				code=CO			

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

- Workstation/Server -

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:

D7 2 1 Draduct environmental ettributes

Workstation, mobile workstation, desktop thin client, small-scale server and computer server

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

Commercial name	ThinkStation P320 SFF	Logo	
Model Number	30BJ,30BK,30BS		Longvo
Issue Date	2017/3/6		Lenovo.
Additional information	ENERGY STAR® Qualified; EPEAT Gold Rating, GREENGUARD co	ertified	

(d)	Year of manufacture:			Available on production
e)	Internal/external power supply			
	FSP210-20TGBAB: 10% 81.0 84.69%	20% 83.81% 50% 85.39%	100% 84.86% Average	
	HK310-71PP: 10% 78.08% PA-2221-3VC: 10% 78.33% PCE025-EL1G: 10% 85.80%	20% 84.22% 50% 86.95% 10	% 83.34% Average 84.63% 0% 85.09% Average 85.42% 00% 91.26% Average 91.67%	
(f)	Test parameters for measurer — test voltage in V and freque — total harmonic distortion of — information and documenta	ency in Hz the electricity supply system	and circuits used for electrical testing:	
	Test voltage in V and frequen Total harmonic distortion of th			
	Information and documentation			
	Instrument	Range Used	Make and Model **	
	Туре	Or ***		
	AC Power Source	1~280VAC;1~550HZ;1000VA.	NF;EC1000S; SN:9152124	
	Digital Watch	Full range	CASIO; HS-70W; SN:208Q08R	
	Power Meter	0~600V;0~20A	YOKOGAWA;WT210;SN:91M944 560	
	Hygrothermograph	15~35℃/15~90%	testo; 608-H1,SN:1034895602	
	Thermal anemometer	0~20m/s,-20~70°C	Testo;425;SN:02591883	
	Light Measuring	1°;1-300cd/ m²	Konica Minolta;LS-110;	
(g)	Maximum power (Watts)			84.93
(h)	Idle state power (Watts)			52.28
(i)	Sleep mode power (Watts)			
(1)	Sieep mode power (watts)			1.67
(j)	Off mode power (Watts)			0.72
(l-1)	Measurement methodology us 80 PLUS test method	sed to determine information mention	ned in points (e):	
(I-2)	Measurement methodology us Point P9.1 in the Product IT E		ned in maximum, idle, sleep, off mode	power as defined in
	IEC 62623 / IEC EN50564:20	11 measurement methodology		
Additio	onal information			