

EU ErP (Ecodesign in Europe) Regulations for Storage Products (Lot 9)

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What is ErP and What is Lot 9

- ◆ ErP is DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products.
 - ◆ ErP requires “implementing measures” to be created for each product category.
 - ◆ ErP is a CE mark regulation, and the CE mark on a product indicates compliance with the appropriate implementing measure for the ErP regulation.
- ◆ The CE mark is a requirement for shipment into the EU.
- ◆ Lot 9 is the implementing legislation for server and storage products for the ErP Directive.
 - ◆ The requirements in Lot 9 begin on March 1, 2020 for all products sold in the EU from that date forward.

What is the Scope of Lot 9

➤ Scope of Lot 9

- ◆ Online data storage products with greater than 3 drives and up to 400 drives.
 - › 'data storage product' means a fully-functional storage system that supplies data storage services to clients and devices attached directly or through a network. Components and subsystems that are an integral part of the data storage product architecture (e.g., to provide internal communications between controllers and disks) are considered to be part of the data storage product.
 - › Drives includes hard disk drives and solid state drives.
- ◆ Based on the definition of data storage product, this includes the back end switches and routers.
- ◆ This does not include the front end switches.
- ◆ This does not impact FRUs except for the PSU efficiency requirement.



Specific Ecodesign Requirements

- ▶ Minimum PSU Efficiency and Power Factor Limits.
- ▶ Material Ease of Disassembly for Repair or Reuse Requirements.
- ▶ Availability of a Secure Data Deletion Tool for 8 Years After the Last Sale.
- ▶ Availability of Firmware (Including Security Updates) for 8 Years after the Last Sale.
- ▶ Specific Information About the Product on the Website for 8 Years After the Last Sale.
- ▶ Specific Information for Recyclers for 8 Years After the Last Sale.

PSU Requirements

➤ **Table 1 Minimum PSU efficiency and power factor requirements from 1 March 2020**

	Minimum PSU efficiency				Minimum power factor
	10%	20%	50%	100%	
% of rated load	10%	20%	50%	100%	50%
Multi output (Gold)	-	88%	92%	88%	0.90
Single output (Platinum)	-	90%	94%	91%	0.95

➤ **Table 2 Minimum PSU efficiency and power factor requirements from 1 January 2023**

	Minimum PSU efficiency				Minimum power factor
	10%	20%	50%	100%	
% of rated load	10%	20%	50%	100%	50%
Multi output (Platinum)	-	90%	94%	91%	0.95
Single output (Titanium)	90%	94%	96%	91%	0.95

Material Ease of Disassembly

- From 1 March 2020, manufacturers shall ensure that joining, fastening or sealing techniques do not prevent the disassembly for repair or reuse purposes of the following components, when present:
- data storage devices;
 - memory;
 - processor (CPU);
 - motherboard;
 - expansion card/graphic card;
 - PSU;
 - chassis;
 - batteries.

Secure Data Deletion Tool

- From 1 March 2020, a functionality for secure data deletion shall be made available for the deletion of data contained in all data storage devices of the product.
- Secure data deletion means the effective erasure of all traces of existing data from a data storage device, overwriting the data completely in such a way that access to the original data, or parts of them, becomes infeasible for a given level of effort.
- We should be able to point them to a commercially available product for this function.



- From 1 March 2021, the latest available version of the firmware shall be made available from two years after the placing on the market of the first product of a certain product model for a minimum period of eight years after the placing on the market of the last product of a certain product model, free of charge or at a fair, transparent and non-discriminatory cost. The latest available security update to the firmware shall be made available from the time a product model is placed on the market until at least eight years after the placing on the market of the last product of a certain product model, free of charge.

- ◆ From 1 March 2020 the following product information on online data storage products shall be provided in the instruction manuals for installers and end-users (when present with the product), and on the free-access websites of manufacturers, their authorised representatives and importers from the time a product model is placed on the market until at least eight years after the placing on the market of the last product of a certain product model:
 - product type;
 - manufacturer's name, registered trade name and registered trade address at which they can be contacted;
 - product model number;
 - year of manufacture;
 - PSU efficiency at 10 % (if applicable), 20 %, 50 % and 100 % of rated output power, with the exception of direct current online data storage products, expressed in % and rounded to the first decimal place;
 - power factor at 50% of the rated load level, with the exception of direct current online data storage products, rounded to three decimal places;
 - declared operating condition class (ASHRAE Class); it shall also be indicated that 'This product has been tested in order to verify that it will function within the boundaries (such as temperature and humidity) of the declared operating condition class';
 - information on the data deletions tool(s) including instructions on how to use the functionality, the techniques used and the supported secure data deletion standard(s), if any.



Recycler Information

- ♦ From 1 March 2020, the following product information shall be made available from the time a product model is placed on the market until at least eight years after the placing on the market of the last product of a certain product model free of charge by manufacturers, their authorised representatives and importers to third parties dealing with maintenance, repair, reuse, recycling and upgrading of servers (including brokers, spare parts repairers, spare parts providers, recyclers and third party maintenance) upon registration by the interested third party on a website provided:
 - indicative weight range (less than 5g, between 5g and 25g, above 25g) at component level, of the following critical raw materials:
 - Cobalt in the batteries;
 - Neodymium in the HDDs;
 - instructions on the disassembly operations referred to in point 1.2.1 of this Annex, including, for each necessary operation and component:
 - the type of operation;
 - the type and number of fastening technique(s) to be unlocked;
 - the tool(s) required.

ASHRAE Operating Conditions

Operating condition class	Dry bulb temp °C		Humidity range, non-condensing		Max dew point (°C)	Maximum rate of change (°C/hr)
	Allowable range	Recommended range	Allowable range	Recommended range		
A1	15- 32	18-27	-12°C Dew Point (DP) and 8% relative humidity (RH) to 17°C DP and 80% RH	-9°C DP to 15°C DP and 60% RH	17	5/20
A2	10-35	18-27	-12°C DP and 8% RH to 21°C DP and 80% RH	Same as A1	21	5/20
A3	5-40	18-27	-12°C DP and 8% RH to 24°C DP and 85% RH	Same as A1	24	5/20
A4	5-45	18-27	-12°C DP and 8% RH to 24°C DP and 90% RH	Same as A1	24	5/20