



Product Compliance Datasheet

**MARKETING NAME.....Dell PowerEdge™ R440
Dell EMC PowerEdge™ R440**

REGULATORY MODEL..... E45S

REGULATORY TYPE..... E45S001

EMC EMISSIONS CLASS..... A

EFFECTIVE DATE.....September 26, 2017

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I. Statement of Compliance

This equipment has been determined to be compliant with the applicable standards, regulations, and directives for the countries where the equipment is marketed. The equipment is affixed with regulatory marking and text as necessary for the country/agency. Dell manufacturers and markets Multimedia Equipment (MME), Information Technology Equipment (ITE), Audio Visual Equipment (A/V), Industrial, Scientific, Medical Equipment (ISM) or combinations of these. Generally, equipment Safety and EMC compliance is based on International IEC and CISPR standards and their national equivalent along with national standards for Radio (wireless), and Energy. Dell products have been verified to comply with the EU RoHS Directive 2011/65/EU. Dell equipment does not contain any of the restricted substances in concentrations and applications not permitted by the RoHS Directive. EMC Emissions Class refers to one of the following use environments:

- EMC Class B equipment is intended for use in residential/domestic environments but may also be used in nonresidential/non-domestic environments.
- EMC Class A equipment is intended for use in non-residential/non-domestic environments. Class A equipment may also be utilized in residential/domestic environments but may cause interference and require the user to take adequate corrective measures.

For Safety and EMC compliance, this equipment has been assigned a unique regulatory model and regulatory type that is imprinted on the equipment regulatory labeling to provide traceability to the regulatory approvals noted on this datasheet. This datasheet applies to any equipment that utilizes the assigned regulatory model and type including marketing names other than those listed on this datasheet. ErP compliance is tied to the CE mark. REACH (Registration, Evaluation, Authorization and Restriction of Chemicals, 1907/2006) is the European Union's (EU) chemical substances regulatory framework. Dell complies with the REACH directive. For information on SVHC (Substances of Very High Concern), see www.dell.com/REACH. Compliance documentation, such as certification or Declaration of Compliance for the equipment is available upon request to product_compliance@dell.com. Please include equipment identifiers such as marketing name, regulatory model, regulatory type and country that compliance information is needed in request.

II. Global Environmental Information

Environmental (Voluntary Marks)		
Country	Approval	Compliance
Global	ENERGY STAR (Configuration Dependent)	ENERGY STAR 2.1
China	CECP	Yes
China	CEC	Yes

III. Power Cords and User Documentation

Dell products are provided with the power cord and user documentation suitable for the intended country of delivery. Products that are relocated to other countries should use nationally certified power cords and plugs



to ensure safe operation of the product. Contact Dell to determine if alternate power cords or user documentation in other languages is available for your market.

IV. Trade (Import/Export) Compliance Data

For any questions related to importing & exporting classification of Dell products, please obtain information from the following link: www.dell.com/import_export_compliance or send request to WW_Export_Compliance@dell.com.

V. Product Dimensions and Weight

Depth, mm/cm	Width, mm/cm	Height, mm/cm	Weight, kg
692.62 mm (without bezel / 4 and 10 HDDs system)	482.0 mm (with rack latched)	42.8 mm	17.64 Kg (Max. / 4 HDDs system)
641.85 mm (without bezel / 8 HDDs system)	434.0 mm (without rack latched)		16.04 Kg (Max. / 8 HDDs system)
			16.81 Kg (Max. / 10 HDDs system)

VI. Performance Data

ErP Lot 3 & Lot 26 information is located in section XIV Appendix A

For additional information on ENERGY STAR models refer to the following databases:

<http://www.dell.com/en-us/work/learn/power-and-cooling-energy-star>

USA: <https://www.energystar.gov/productfinder/>

EU: <http://www.eu-energystar.org/db-currentlists.htm>

* **Energy Consumption** results are based solely upon the laboratory testing of the **System Configuration** listed above. Energy consumption is tested at 230 Volts / 50 Hz.

Energy Consumption*

Energy efficiency benefits the environment and lowers the total cost of equipment ownership by reducing power consumption. Dell offers energy calculators that help estimate power needs, potential emissions avoidance and potential cost savings. Click [here](#) for Dell's Client Energy Savings Calculator, Data Center Capacity Planner, and Monitor Power Savings Calculator. Information on Energy Efficiency is available [here](#)

* This document is informational only and reflects laboratory performance. Your product may perform differently, depending on the software, components and peripherals you ordered. Accordingly, the customer should not rely upon this information in making decisions about electrical tolerances or otherwise. No warranty as to accuracy or completeness is expressed or implied.

For more details visit www.dell.com/environmental_information

VII. Product Materials Information



Information on Dell's material use is available [here](#).

Dell's Restricted Material for Use guidance document is available [here](#).

- The case material is, > metal <
- This product contains 0% post-consumer recycled plastic/closed loop recycled plastics (Measured as a percentage of total amount of plastic (by weight) in the product as per guidance in EPEAT standard as applies to plastics parts)

Mechanical plastic parts ¹ > 25 g are BFR/PVC free	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Marking of plastics parts greater than 25 grams is in accordance with ISO 11469 (see below)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Printed circuit boards (without components) >25g are BFR PVC free ²	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Insulation materials of external electrical cables are PVC free	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Insulation materials of internal electrical cables are PVC free	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Product is BFR/PVC Free (Accessories & Options may not be BFR/PVC-Free, refer to spec ENV0199)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Flame Retardants Used in Motherboard

Part	Flame Retardant
Motherboard	TBBPA

Flame Retardants Used in Mechanical Plastic Parts > 25 grams

Resin Material Name	Marking per ISO 11469:2016	Flame Retardant Marking per ISO 1043-4 (i.e. FR(16), FR(40), etc.)	Flame Retardant (i.e. TBBPA, triaryl phosphate ester, etc.)	List applicable R-Phrase(s) or Hazard Statement(s) per EU Directive 67/548/EEG or 1272/2008
AIR SHROUND	ISO11469:2016	FR(40)	Organo Phosphate	N/A

Mercury Information

Number of bulbs	Average per bulb
0	< mg

Additional information:

- RoHS and REACH declaration - see product material information section at: www.dell.com/environmental_information
- Products MSDS (Material Safety Data Sheets): Batteries: [Battery MSDS Documentation and Declaration](#)

¹ Mechanical plastic part: plastic parts that do not internally carry an electrical signal such as housings, brackets, bezels, latches, etc. that form the basic structure of the product and/or have mechanical functions. Plastic parts such as fans, connectors, printer fuser assemblies, etc. are not considered "mechanical plastic parts" in the context of this specification. Plastics parts do not 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 (Per Dell Spec ENV0424)

² Dell will adopt the BFR/CFR/PVC-free definition as set forth in the "INEMI Position Statement on the Definition of 'Low-Halogen' Electronics (BFR/CFR/PVC-Free)." Plastic parts contain <1000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1000 ppm (0.1 percent) of chlorine if the Cl source is from CFRs, PVC or PVC copolymers. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine totaling less than 1,500 ppm (0.15 percent), with maximum chlorine of 900 ppm (0.09 percent) and maximum bromine of 900 ppm (0.09 percent)



VIII. Packaging

Information on Dell's sustainable packaging effort available [here](#).

Additional materials restricted in Packaging as per Dell's Restricted Material Guidance document found [here](#).

Packaging Materials	Total Weight, (kg)	Sustainable Material Content ³ (e.g Recycled content *, bio-based, Sustainable Forested materials)	% Sustainable Material		
			APJ region	DAO region	EMEA region
Corrugated Fiberboard	3.92	Recycled Content	Min 50%	Min 50%	Min 50%
LDPE (Including EPE Foam)	0.82	Recycled Content	0-80%	0-80%	0%
Molded paper pulp	N/A	Recycled content	100%	100%	100%
HDPE (including thermoformed) *	N/A	Recycled Content	0-80%	0-80%	0%
Molded Bamboo	N/A	Non-wood, biobased material	100%	100%	100%
Wheat Straw	N/A	Non-wood, biobased material	100%	100%	100%
Mushroom	N/A	Non-wood, biobased material	100%	100%	100%
LDPE Bags	N/A	NA	0%	0%	0%
EPS	N/A	NA	0%	0%	0%

IX. Batteries

Below is a listing of batteries that could be present in the product:

Battery Description – Batteries	Battery Type	Battery Weight (kg)
CR-2032 coin cell	Lithium	0.003
Rechargeable Battery x cell (NVDIMM Battery)	Lithium Ion	0.289

X. Design for Environment

Dell systems are, when applicable, designed for easy assembly, disassembly, and servicing.

For more information on product Recyclability please visit www.dell.com/environmental_information

³ Non-wood, biobased material may include, but is not limited to: bagasse, bamboo, mushroom, straw, agricultural waste or byproduct.

* Recycled content in packaging material is supplier dependent.



XI. Recycling / End-of-Life Service Information

Take back and recycling services are offered for this product in certain countries. If you want to dispose of system components, please visit www.dell.com/recyclingworldwide and select the relevant country.

XII. Helpful Links

- **Environmental Policy**
<http://i.dell.com/sites/content/corporate/corp-comm/en/Documents/dell-global-environmental-policy.pdf>
- **Environment Website**
www.dell.com/environmental_information
- **Corporate Sustainability Report**
<http://www.dell.com/Learn/us/en/uscorp1/report?c=us&l=en&s=corp&delphi:gr=true>
- **ISO 14001 Certification**
<http://i.dell.com/sites/content/corporate/corp-comm/en/Documents/dell-iso14001-worldwide.pdf>
- **Materials Restricted for Use**
http://www.dell.com/downloads/global/corporate/envIRON/restricted_materials_guid.pdf
- **Chemical Use Policy**
<http://i.dell.com/sites/doccontent/corporate/environment/en/Documents/chemical-use-policy.pdf>
- **Product Carbon Footprint**
http://content.dell.com/us/en/corp/d/corp-comm/environment_carbon_footprint_products
- **RoHS Compliance**
www.dell.com/rohsinfo
- **REACH Compliance**
www.dell.com/REACH
- Recycling Information
www.dell.com/recycling
- Supplier Responsibility
<http://content.dell.com/us/en/corp/d/corp-comm/standards-for-suppliers.aspx>



A Appendix A: ErP Lot 3 Product Energy Consumption Information

ErP Lot 3 (EU No 617/2013)

The ErP Lot 3 regulation includes requirements for certain product specific information to be provided by the manufacturer. This is applicable to Desktops, Integrated Desktops (All-in-One), Notebooks, Tablets, Slates, Notebook Thin Clients, Desktop Thin Clients, Workstations, Mobile Workstations, Computer Servers, and Small Scale Servers.

ErP Lot 3 provides certain exclusions based upon product type, screen size, and/or the amount of power consumed in idle mode. Product energy and acoustic information might be reported for products that are out of scope of ErP Lot 3 for informational purposes only.

Maximum Power (Watts)	322.50
Idle Power (Watts)	94.70
Sleep Power (Watts)	N/A
Off Power (Watts)	N/A

Power Supply Model #	Internal or External	Link to efficiency report
AC450E-S1	Internal	http://www.plugloadsolutions.com/psu_reports/DELL%20INC. AC450E-S1 450W ECOS%203982_Report.pdf
D450E-S0	Internal	http://www.plugloadsolutions.com/psu_reports/DELL,%20INC. D450E-S0 450W SO-791_Report.pdf
D550E-S1	Internal	http://www.plugloadsolutions.com/psu_reports/DELL,%20INC. D550E-S1 550W SO-812_Report.pdf
L550E-S1	Internal	http://www.plugloadsolutions.com/psu_reports/DELL L550E-S1 550W SO-808_Report.pdf

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Declared Noise Emissions in accordance with ISO 9296 (tested in accordance with ISO 7779)

Servers:

Declared A-weighted sound power level of the Server	4.5 bels
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