



Technical Documentation for EU Regulation 2019/424 laying down ecodesign requirements for servers and data storage product pursuant to Directive 2009/125/EC

2020-1-26

The following information is based on IBM's knowledge as of the date of this document, which may be based on its records and information from third parties. This documentation applies to finished products that IBM newly puts on the market in the European Union and other jurisdictions which require this Technical Documentation as of the above date.

Product Information			
Machine Type(s)	Model(s)	Part Number	Product Type
9836, 9838	425, U25	-	Server or Online Data Storage
			Online Data Storage

Manufacturer's name, registered trade name and registered trade address:



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New Orchard Road Armonk, New York 10504

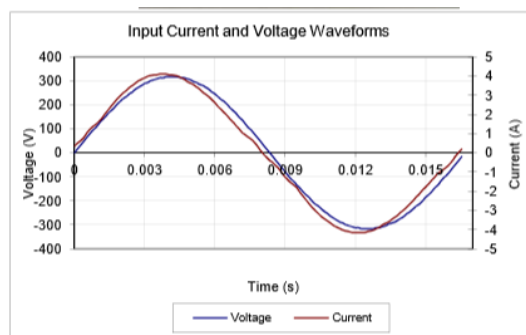
Year of manufacture: – 2020

Power Supply Unit (PSU) efficiency and power factor:

Ecos ID #	SO-628
Manufacturer	IBM
Model Number	700-013496-XXXX
Serial Number	11S69Y5924Y1PASS38C004
Year	2013
Type	1U
Test Date	11/13/13

Rated Specifications	Value	Units
Input Voltage	100-127 / 200-240	Volts
Input Current	6.9	Amps
Input Frequency	50/60	Hz
Rated Output Power	1,300	Watts

Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.



Input AC Current Waveform (ITHD = 5.21%, 50% Load)

I _{RMS} A	PF	I _{THD} (%)	Load (%)	Fraction of Load	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A)		Output Watts	Efficiency %
							12.2V	12Vsb		
0.78	0.80	14.34	10%	Low	143	1.32	12.19/10.49	12.01/0.25	131	91.33%
1.35	0.89	10.27	20%	Light	275	1.32	12.19/20.9	12.01/0.49	261	94.78%
3.08	0.98	5.21	50%	Typical	692	2.40	12.18/52.3	11.96/1.23	652	94.22%
6.21	0.99	5.63	100%	Full	1414	14.04	12.16/104.39	11.91/2.46	1299	91.83%

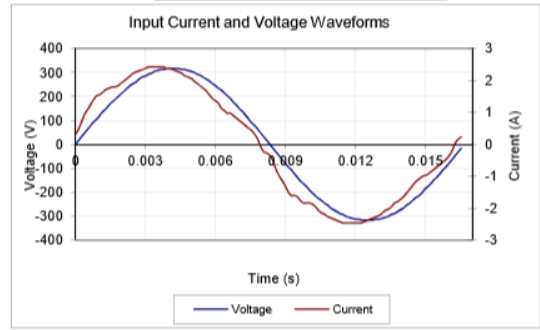
* Fan power is not included in the efficiency calculations



Ecos ID #	SO-743
Manufacturer	IBM
Model Number	700-013700-XXXX
Serial Number	11S94Y8141YSDV0144A00R
Year	2014
Type	1U
Test Date	05/14/14

Rated Specifications	Value	Units
Input Voltage	100-127 / 200-240	Volts
Input Current	8.9 / 4.5	Amps
Input Frequency	50 / 60	Hz
Rated Output Power	750	Watts

Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.



Input AC Current Waveform (ITHD = 6.88%, 50% Load)

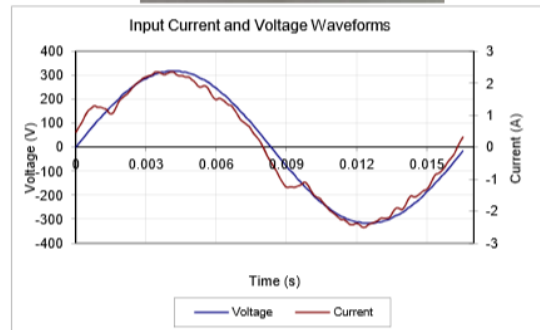
I _{RMS} A	PF	I _{THD} (%)	Load (%)	Fraction of Load	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A)		Output Watts	Efficiency %
							12.2V	12Vsb		
0.55	0.70	15.26	10%	Low	88	0.84	12.27/5.86	12.06/0.29	75	85.47%
0.81	0.88	17.59	20%	Light	164	0.84	12.27/11.75	12.05/0.58	151	92.29%
1.79	0.98	6.88	50%	Typical	402	0.96	12.26/29.41	12.02/1.44	378	94.00%
3.57	0.99	5.83	100%	Full	813	3.36	12.25/58.79	11.96/2.87	755	92.79%

* Fan power is not included in the efficiency calculations

Ecos ID #	SO-706
Manufacturer	IBM
Model Number	DPS-750AB-28 A
Serial Number	11S94Y8143Y1PASS41M04U
Year	2014
Type	1U
Test Date	03/11/14

Rated Specifications	Value	Units
Input Voltage	100-127 / 200-240	Volts
Input Current	8.6 / 4.2	Amps
Input Frequency	47-63	Hz
Rated Output Power	750	Watts

Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.



Input AC Current Waveform (ITHD = 10.09%, 50% Load)

I _{RMS} A	PF	I _{THD} (%)	Load (%)	Fraction of Load	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A)		Output Watts	Efficiency %
							12.2V	12Vsb		
0.41	0.89	24.84	10%	Low	84	0.71	12.18/5.89	12.4/0.29	75	89.16%
0.74	0.96	19.11	20%	Light	164	0.71	12.18/11.87	12.39/0.57	152	92.78%
1.75	0.99	10.09	50%	Typical	398	0.71	12.19/29.37	12.39/1.44	376	94.38%
3.53	1.00	7.92	100%	Full	809	4.76	12.19/58.76	12.38/2.88	752	92.96%

* Fan power is not included in the efficiency calculations

Declared operating condition class:

Ensure that your operating and non-operating environments falls within the ASHRAE class A2 environment.

See link for detailed environment requirements: [Operating environment requirements](#)

This product has been tested in order to verify that it will function within the boundaries of the declared operating condition class.

Secure data functionality URL:

[IBM Security Key Lifecycle Manager:](#)

https://www.ibm.com/support/knowledgecenter/SSWPVP_3.0.1/com.ibm.skim.doc/overview/top/landing-overview.html



Data-at-rest encryption:

https://www.ibm.com/support/knowledgecenter/STJKMM_12.0.3/fs_a9x_po_ch_encryption.html

Standards used:

The storage system secures all written data with industry-standard AES-256 encryption for data-at-rest.

IBM maintains a product environmental specification, IBM Engineering Specification 46G3772 - Baseline Environmental Requirements for Supplier Deliverables to IBM which mandates part and product compliance to relevant worldwide regulations. The specifications are located for supplier access at: <http://www.ibm.com/ibm/environment/products/> and <http://www-03.ibm.com/procurement/proweb.nsf/ContentDocsByTitle/United+States~Information+for+suppliers>.

Suppliers are required to certify compliance to IBM product environmental specifications by completing the IBM Product Content Declaration (PCD), located at: <http://www.ibm.com/ibm/environment/products/>. Once completed, the PCD form is submitted to IBM, loaded into product management databases and accessed for compliance review by product. IBM's Product Environmental Profile process and tool documents and reviews product compliance prior to release to the market. The documentation presented here is a result of this review and process.

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