



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

2019-12-24

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
5331, 5332, 5333, 5334	984, 985, 986, 84E, 85E, 86E	-	Server or Online Data Storage Online Data Storage

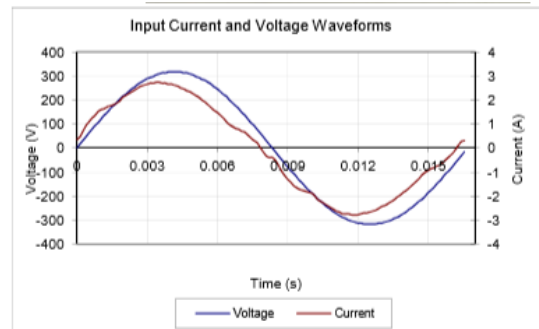
Manufacturer's name, registered trade name and registered trade address:



Year of manufacture: – 2019

Power Supply Unit (PSU) efficiency and power factor:

Ecos ID #	SO-541
Manufacturer	IBM
Model Number	7001691-XXXX
Serial Number	11S94Y8092YK10812BA007
Year	2012
Type	1U
Test Date	04/25/13



Input AC Current Waveform (ITHD = 5.39%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-127 / 200-240	Volts
Input Current	10.0/5.0	Amps
Input Frequency	50/60	Hz
Rated Output Power	900	Watts

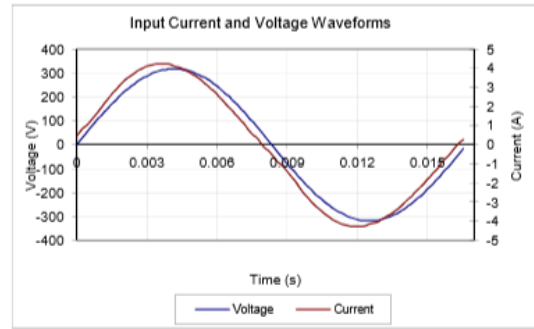
Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.

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		
0.58	0.76	15.36	10%	Low	102	0.84	12.28/7.15	12.07/0.25	91	88.92%
0.92	0.92	13.03	20%	Light	194	0.84	12.27/14.22	12.06/0.49	180	92.85%
2.13	0.98	5.39	50%	Typical	481	0.84	12.26/35.74	12.04/1.22	453	94.16%
4.29	0.99	6.74	100%	Full	978	2.88	12.26/71.5	11.99/2.43	905	92.57%

* Fan power is not included in the efficiency calculations



Ecos ID #	SO-542
Manufacturer	IBM
Model Number	7001692-XXXX
Serial Number	11S94Y8090YK10812AZ003
Year	2012
Type	1U
Test Date	04/25/13



Input AC Current Waveform (ITHD = 3.91%, 50% Load)

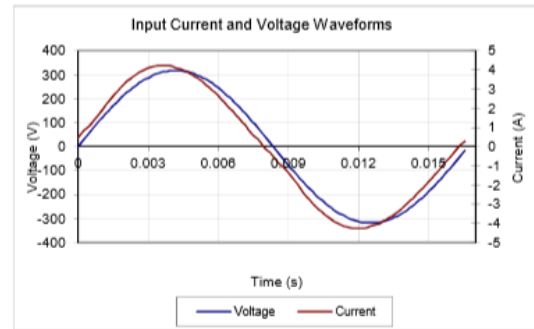
Rated Specifications	Value	Units
Input Voltage	100-127 200-240	Volts
Input Current	10-8	Amps
Input Frequency	50/60	Hz
Rated Output Power	1,400	Watts

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

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	0.86	16.03	10%	Low	155	0.84	12.28/11.25	12.24/0.25	141	90.93%
1.39	0.94	9.64	20%	Light	302	0.84	12.28/22.5	12.21/0.49	282	93.52%
3.30	0.99	3.91	50%	Typical	748	1.56	12.27/56.26	12.11/1.23	705	94.21%
6.71	0.99	3.75	100%	Full	1533	4.56	12.25/112.54	11.94/2.45	1408	91.85%

* Fan power is not included in the efficiency calculations

Ecos ID #	SO-542.1
Manufacturer	IBM
Model Number	700-013875-0000
Serial Number	11S94Y8090YK10812AZ003
Year	2012
Type	1U
Test Date	04/25/13



Input AC Current Waveform (ITHD = 3.91%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-127 200-240	Volts
Input Current	10-8	Amps
Input Frequency	50/60	Hz
Rated Output Power	1,400	Watts

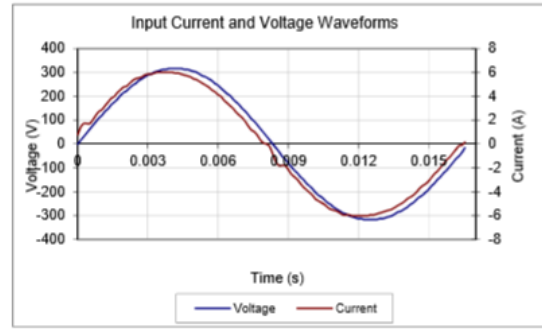
Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz.

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	0.86	16.03	10%	Low	155	0.84	12.28/11.25	12.24/0.25	141	90.93%
1.39	0.94	9.64	20%	Light	302	0.84	12.28/22.5	12.21/0.49	282	93.52%
3.30	0.99	3.91	50%	Typical	748	1.56	12.27/56.26	12.11/1.23	705	94.21%
6.71	0.99	3.75	100%	Full	1533	4.56	12.25/112.54	11.94/2.45	1408	91.85%

* Fan power is not included in the efficiency calculations



Ecos ID #	SO-1097
Manufacturer	IBM
Model Number	700-014245-0000
Serial Number	11S00LP861YL10KY64B03L
Year	2016
Type	1U
Test Date	05/05/16



Input AC Current Waveform (ITHD = 2.67%, 50% Load)

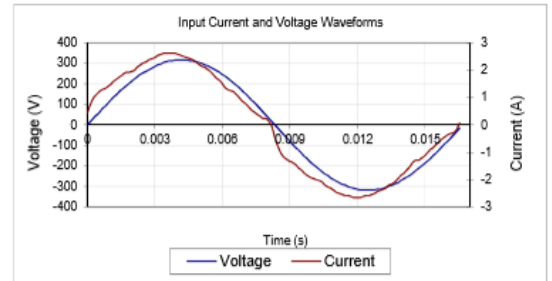
Rated Specifications	Value	Units
Input Voltage	100-127, 200-240	Volts
Input Current	11.1, 11.5	Amps
Input Frequency	50/60	Hz
Rated Output Power	2,000	Watts

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

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	12.2Vsb		
1.01	0.94	11.13	10%	Low	217	8.52	12.2/16.21	12.19/0.25	201	92.31%
1.90	0.97	7.30	20%	Light	425	8.52	12.2/32.44	12.19/0.49	402	94.60%
4.62	0.99	2.67	50%	Typical	1057	8.52	12.19/81.05	12.17/1.23	1003	94.89%
9.45	1.00	2.11	100%	Full	2171	8.59	12.17/162.03	12.14/2.46	2002	92.24%

* Fan power is not included in the efficiency calculations

Ecos ID #	SO-1003
Manufacturer	IBM
Model Number	TDPS-800FB A
Serial Number	CCQT1538000260
Year	2015
Type	1U
Test Date	9/28/15



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

Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	9.4	Amps
Input Frequency	47-63	Hz
Rated Output Power	800	Watts

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

I _{RMS} A	PF	I _{THD} (%)	Load (%)	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A)			Output Watts	Efficiency %
						12V	5V	5Vsb		
0.82	0.86	11.85%	10%	92.45	40.43	12.01/5.21	5.01/3.34	5.01/0.21	80.34	86.91%
0.89	0.86	11.32%	20%	174.24	40.43	12/10.39	5/6.67	5/0.42	160.16	91.92%
1.91	0.97	6.88%	50%	424.30	40.43	11.99/26	4.99/16.64	4.99/1.05	399.93	94.26%
3.78	0.99	6.38%	100%	858.90	40.43	11.96/51.92	4.97/33.18	4.96/2.09	796.36	92.72%

* Fan power is not included in the efficiency calculations

Declared operating condition class:

Ensure that your declared operating condition class falls within the ASHRAE class A1 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:

https://www.ibm.com/support/knowledgecenter/ST5GLJ_8.3.3/com.ibm.storage.ssic.help.doc/f2c_appx_v_erifydataremoval.html

IBM Security Key Lifecycle Manager:

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



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