Technical Documentation for Ukraine Technical Regulation on Ecodesign Requirements for Computers and Computer Servers, Resolution No. 737

2/21/2021

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 Ukraine and other jurisdictions which require this Technical Documentation as of the above date.

Product Information			
Machine Type(s)	**Model(s)**	**Part Number**	**Product Type**
9040	MR9	-	Computer server

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

Year of manufacture
2021

Noise levels (declared A-weighted sound power level of the computer)

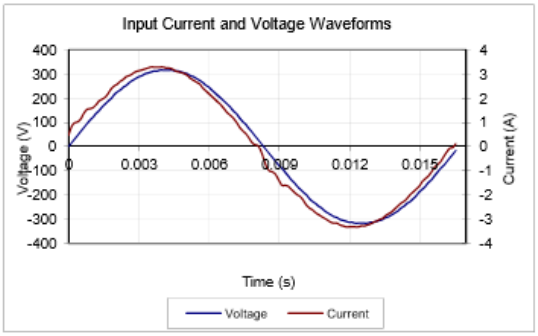
Production description (9040-MR9)	Declared mean A-weighted sound power level, $L_{WA,m}$ (B)	
	Operating	Idling
– Typical Configuration: Four 8-core or 12-core processors, 2 TB memory. – Nominal workload.[8] – 25°C (77°F) environment at 500 m (1640 ft) elevation.	7.4[7]	7.4[7]
– Typical Configuration: Four 8-core or 12-core processors, 2 TB memory. – Nominal workload.[8] – 25°C (77°F) environment at 500 m (1640 ft) elevation. – With acoustical doors.[9]	6.9	6.9
– Maximum Configuration: Four 8-core or 12-core processors, 16 TB memory. – Heavy workload.[8] – 25°C (77°F) environment at 500 m (1640 ft) elevation.	8.3[7]	7.4[7]
– Maximum Configuration: Four 8-core processors, 16 TB memory. – Heavy workload in turbo mode.[8] – 27°C (80.6°F) environment at 500 m (1640 ft) elevation.	9.4[7]	7.6[7]
– Maximum Configuration: Four 8-core processors, 16 TB memory. – Heavy workload in turbo mode.[8] – 27°C (80.6°F) environment at 500 m (1640 ft) elevation. – With acoustical doors.[9]	8.6[7]	7.1[7]
– Maximum Configuration: Four 12-core processors, 16 TB memory. – Heavy workload in turbo mode.[8] – 27°C (80.6°F) environment at 500 m (1640 ft) elevation.	8.7[7]	7.6[7]
– Maximum Configuration: Four 8-core processors, 16 TB memory. – Heavy workload in turbo mode.[8] – 35°C (95°F) environment at 950 m (3117 ft) elevation.	9.7[7]	7.9[7]
– Maximum Configuration: Four 8-core processors, 16 TB memory. – Heavy workload in turbo mode.[8] – 35°C (95°F) environment at 950 m (3117 ft) elevation. – With acoustical doors.[9]	8.8[7]	7.3[7]

Internal/external power supply efficiency

Ecos ID #	SO-732
Manufacturer	IBM Corporation
Model Number	MPS1025
Serial Number	YL10KFF23034
Year	2014
Type	CUSTOM
Test Date	04/17/14

Rated Specifications	Value	Units
Input Voltage	**100-127 / 200-240**	Volts
Input Current	**12-7**	Amps
Input Frequency	**50/60**	Hz
Rated Output Power	**1,025**	**Watts**

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



Input AC Current Waveform (ITHD = 3.03%, 50% Load)

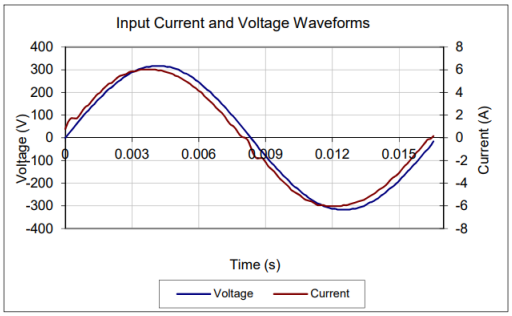
I_{RMS} A	PF	I_{THD} (%)	Load (%)	Fraction of Load	Input Watts	External Fan (W)*	DC Terminal Voltage (V)/ DC Load Current (A) 12.3V	12.3Vsb	Output Watts	Efficiency %
0.60	0.84	39.26	10%	**Low**	117	16.92	12.32/6.67	12.3/1.66	103	**87.66%**
1.02	0.96	27.40	20%	**Light**	226	16.92	12.32/13.4	12.3/3.32	206	**91.22%**
2.40	0.99	3.03	50%	**Typical**	548	16.92	12.33/33.47	12.29/8.29	515	**94.00%**
4.83	1.00	2.04	100%	**Full**	1110	16.92	12.34/66.97	12.27/16.58	1030	**92.78%**

* 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

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.



Input AC Current Waveform (ITHD = 2.67%, 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) 12.2V	12.2Vsb	Output Watts	Efficiency %
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

Maximum power (watts)
2340 watts

Idle State power (watts)
1446 watts

Sleep mode power (watts)
Not applicable for computer servers

Off mode power (watts)
63 watts

Test parameters	Properties
Test voltage and frequency	230 V ac at 50 Hz or 60 Hz
Total harmonic distortion of the electricity supply system	The maximum harmonic content of the input voltage waveform is equal to or less than 2%. The qualification is compliant with EN 61000-3-2.
Information and documentation on the instrumentation setup and circuits that are used for electrical testing	SPEC SERT suite version 2.x. ECOVA Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies
Measurement methodology that is used to determine information in this document	SPEC SERT suite version 2.x. ECOVA Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies

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