

SINGLE VOLTAGE EXTERNAL POWER SUPPLY TEST REPORT

Report No.: 211101758SHA-001

Issued: 2021-11-16

Applicant: JENSON ENTERPRISE CO.,LTD

Applicant Address: Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN Guangdong 523000

Manufacturer: JENSON ENTERPRISE CO.,LTD

Manufacturer Address: Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN Guangdong 523000

Product Name: Furniture Power Distribution Unit

Model Name: JN02-03-22

Brand Name: NA

Name plate specifications	Input	Output
Voltage (V)	125V	5
Current (A)	12	2
Power (W)	NA	10
Frequency (Hz)	60	DC

Testing Standard: Energy Performance Of External Ac-Dc And Ac-Ac Power Supplies [CSA C381.1:2017 Ed.2]

Sample Received: 2021/11/11

Test performed: 2021/11/12

Testing Location: Intertek Testing Services Shanghai Limited
Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China

Conclusion: From the results of the testing on the submitted sample(s), we are of the opinion that the submitted sample(s) COMPLY WITH the requirements of Canada's Energy Efficiency Regulations for External Power Supplies.

Note:

1. This report shall not be reproduced, except in full, without written approval of the laboratory. This test results relate only to the items tested.
2. The results contained in the report are for technical evaluation only and are applicable only to the specific test specimen referenced within the report.
3. Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.
4. This report is only as test report, not used to apply certificate or register in the name of Intertek.

Prepared by:

Approved by:

Danica Pei

Eric Shao

Danica Pei
Engineer

Eric Shao
Reviewer

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TECHNICAL INFORMATION

DC Output cord length and size: NA

Size of the entire UUT: 123.97mm(L) * 42.79mm(W) * 42.72mm(H)

Built-in switch on the UUT: No

Product powered by UUT: General Use

Test Equipment

Equipment Name	Make/Model	Number	Calibration Date	Due Date
AC source	61512	EC 4156	April 13, 2021	April 12, 2022
Digital Power Meter	WT310E	EC 6106	March 16, 2021	March 15, 2022

TEST PROCESS:

The tests are carried out in a room that has an air speed close to test sample of $\leq 0.5\text{m/s}$, and the ambient temperature is maintained at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$. The input voltage shall be within ± 1 percent of the above specified voltage. The input frequency shall be within ± 1 percent of the specified frequency. The THD of the input voltage shall be ≤ 2 percent, up to and including the 13th harmonic. The crest factor of the input voltage shall be between 1.34 and 1.49.

The test sample was operated at 100% of nameplate current output for at least 30 minutes immediately prior to conducting efficiency measurements. After this warm-up period, if the AC input power does not drift by more than 5% from the maximum value observed, the UUT can be considered stable and then the measurements were recorded at the end of the 5 minutes period.

If AC input power is not stable over a 5-minute period, then follow the guidelines established by CAN/CSA-C62301 for measuring average power or accumulated energy over time for both input and output power. Subsequent load conditions were measured under the same 30 minutes stability guidelines.

The unit under test shall be tested at the loading conditions listed below, derated per the proportional allocation method presented in the following section.

Loading Conditions for Unit Under Test:

Loading Condition 1: 100% of Derated Nameplate Output Current $\pm 2\%$.
 Loading Condition 2: 75% of Derated Nameplate Output Current $\pm 2\%$.
 Loading Condition 3: 50% of Derated Nameplate Output Current $\pm 2\%$.
 Loading Condition 4: 25% of Derated Nameplate Output Current $\pm 2\%$.
 Loading Condition 5: 0%.

Input and output power measurements shall be conducted in sequence from Loading Condition 1 to Loading Condition 4, as indicated above. For Loading Condition 5, the unit under test shall be placed in no-load mode, any additional signal connections to the unit under test shall be disconnected, and input power shall be measured.

Measurements of power of 0.50 W or greater are made with an uncertainty of less than or equal to 2 % at the 95 % confidence level. Measurements of power of less than 0.50 W are made with an uncertainty of less than or equal to 0.01 W at the 95 % confidence level.

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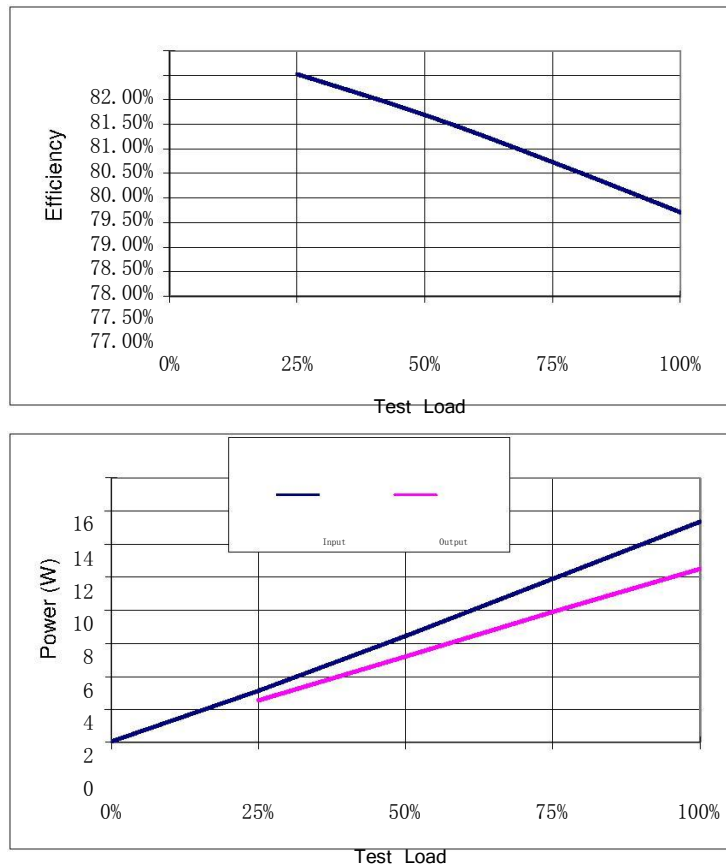
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TEST RESULTS

Sample 1: Test voltage is 115V @ 60Hz

Percent of nameplate current	0%	25%	50%	75%	100%
Rms Output Current (mA)		500.0	1000.0	1500.0	2000.0
Rms Output Voltage (V)	5.130	5.120	5.205	5.268	5.258
Active Output Power (W)		2.560	5.205	7.902	10.516
Rms Input Voltage (V)	115	115	115	115	115
Active Input Power (W)	0.06	3.14	6.45	9.91	
13.36 Total Harmonic Distortion (THD _V) (%)		0.482	0.700	0.886	1.075
1.292					
Total Harmonic Distortion (THD _A) (%)	389.7	192.9	161.3	140.3	
124.9					
True Power Factor (W/VA)	0.175	0.456	0.508	0.257	
0.578 Power Consumed by EUT (W)		0.060	0.580	1.245	2.008
2.844 Efficiency		81.53%	80.70%	79.74%	
78.71% Average Efficiency				80.17%	

Figures:



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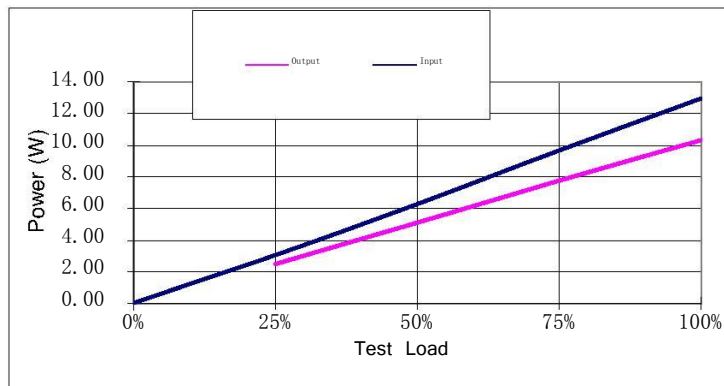
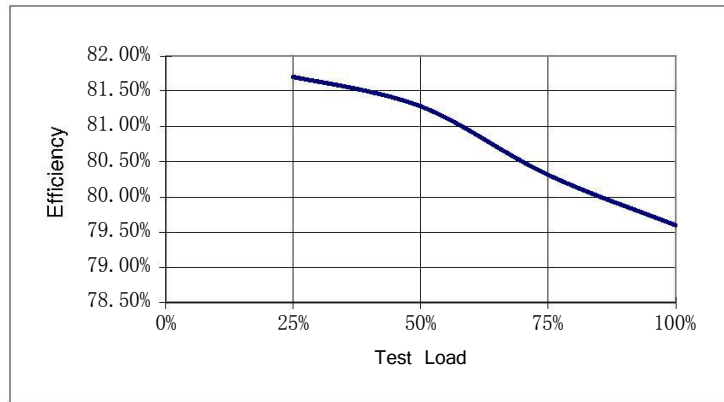
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Sample 2: Test voltage is 115V @ 60Hz

Percent of nameplate current	0%	25%	50%	75%	100%
Rms Output Current (mA)		500.0	1000.0	1500.0	2000.0
Rms Output Voltage (V)	5.043	5.033	5.121	5.188	5.162
Active Output Power (W)		2.517	5.121	7.782	10.324
Rms Input Voltage (V)	115	115	115	115	115
Active Input Power (W)	0.06	3.08	6.3	9.69	12.97
Total Harmonic Distortion (THD) V%	0.471	0.639	0.858	1.051	1.149
Total Harmonic Distortion (THD) A%	346.260	199.860	169.790	144.470	129.050
True Power Factor (W/VA)	0.182	0.444	0.493	0.537	0.567
Power Consumed by EUT (W)	0.060	0.564	1.179	1.908	2.646
Efficiency		81.70%	81.29%	80.31%	79.60%
Average Efficiency		80.72%			

Figures:



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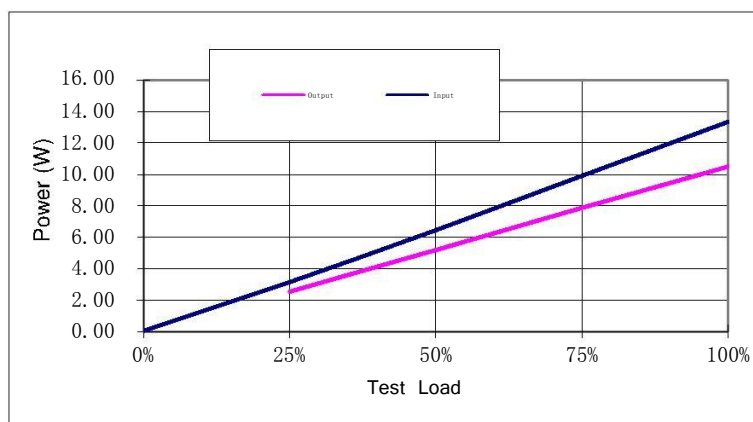
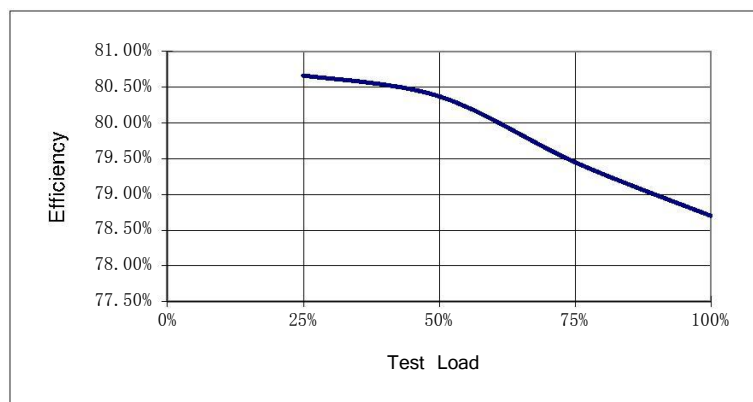
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Sample 3: Test voltage is 115V @ 60Hz

Percent of nameplate current	0%	25%	50%	75%	100%
Rms Output Current (mA)		500.0	1000.0	1500.0	2000.0
Rms Output Voltage (V)	5.268	5.098	5.192	5.249	5.253
Active Output Power (W)		2.549	5.192	7.874	10.506
Rms Input Voltage (V)	115	115	115	115	115
Active Input Power (W)	0.07	3.16	6.46	9.91	13.35
Total Harmonic Distortion (THD) V%	0.465	0.638	0.856	1.033	1.167
Total Harmonic Distortion (THD) A%	377.6	195.1	165.8	142.6	127.2
True Power Factor (W/VA)	0.195	0.449	0.501	0.543	0.573
Power Consumed by EUT (W)	0.070	0.611	1.268	2.037	2.844
Efficiency		80.66%	80.37%	79.45%	78.70%
Average Efficiency		79.80%			

Figures:



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Test Result Summary (115V @ 60Hz):

Sample Number	Active Efficiency	No-Load Power
Sample 1	80.17%	0.060
Sample 2	80.72%	0.060
Sample 3	79.80%	0.070
Sampling size	3	3
Mean of sample	80.23%	0.063
Sample standard deviation	0.47%	0.006
UCL/1.05	N/A	0.074
LCL/0.95	83.23%	N/A
Declarable Value	80.23%	0.07
MEPS (level IV)	70.72%	0.50
level V	73.37%	0.30
level VI	78.70%	0.10

According to the ENERGY STAR® protocol:

The samples tested comply with level: VI

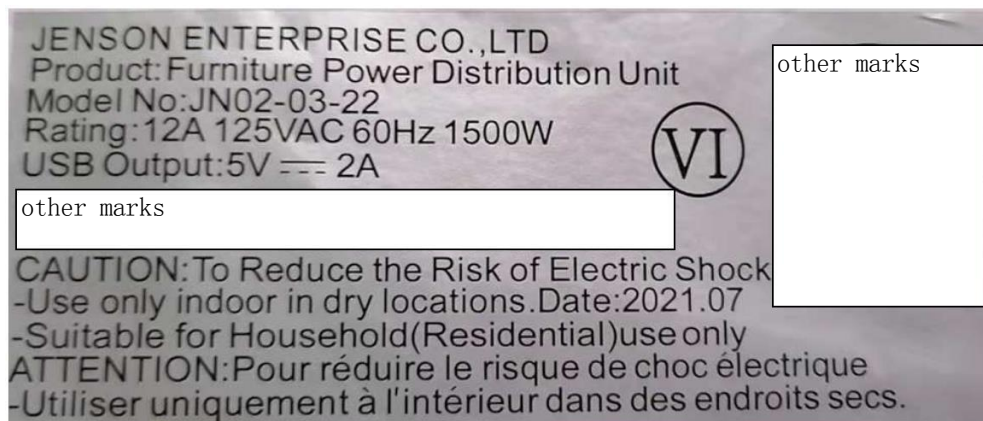
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Label:



Note: label above is draft version.