



TEST REPORT
C381.1-17
Test Method for Calculating the Energy Efficiency of Single-Voltage
External Ac-Dc and Ac-Ac Power Supplies

Report Reference No. 434406/EN

Tested by
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Approved by
 (printed name and signature) Kenny Ho 

Date of issue 2021/4/23

Total number of pages 10

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 China

Testing location As above

Applicant's name GlobTek, Inc.

Address 186 Veterans Dr. Northvale, NJ 07647 USA

Test specification:

Standard International Efficiency Marking Protocol ver.3.0
 C381.1-17: Energy performance of external ac-dc and ac-ac power
 supplies
 Title 10 CFR part 429 and Appendix Z to Subpart B of Title 10 CFR
 Part 430 for External Power Supply.

Test procedure Appendix Z to Subpart B, Part 430 of Title 10 to the United States
 Code of Federal Regulations, entitled Uniform Test Method for
 Measuring the Energy Consumption of External Power Supplies

Test Report Form No. C381.1-17_A

Test Report Form(s) Originator Nemko Shenzhen

Master TRF 2019-10

This test report is based on the content of the internal test program. The test program considered selected clauses of the
 a.m. standard(s) and experience gained with product testing. It was prepared by Nemko Shenzhen Ltd.

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Test item description	ITE POWER SUPPLY
Trademark	G GLOBTEK, INC.
Manufacturer	same as the applicant
Factory	1.Name: GlobTek, Inc. Address: 186 Veterans Dr. Northvale, NJ 07647 USA 2.Name: GlobTek (Suzhou) Co., Ltd Address: Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou,JiangSu 215021, China
Model and/or type reference	GTM961200P10812-T3, GTM961200P10812-T3A , GTM961200P10812-T3TAB, GTM961200P10812-T2 , GTM961200P10812-T2A
Rating(s) (V; Hz)	Input:100-240V~,50-60Hz,1.5A Output:12.0Vdc,9.0A,108W

Copy of marking plate



Summary of testing:

This EUT comply with efficiency requirement of Title 10 CFR part 429 and Appendix Z to Subpart B of Title 10 CFR Part 430 for External Power Supply.

This EUT comply with efficiency requirement of C381.1-17: Energy performance of external ac-dc and ac-ac power supplies.

Possible test case verdicts:

- test case does not apply to the test object.....: N/A (Not applicant)
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement.....: F (Fail)

Testing:

Date of receipt of test item.....: 2021-04-09

Date (s) of performance of tests: 2021-04-16

General remarks:

The test results presented in this report relate only to the object tested.

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"(See Annex #)" refers to additional information appended to the report.

Throughout this report a point is used as the decimal separator.

Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods

General product information:

The rated output power (P_o) of the EUT=108 W(for output :12.0Vdc,9.0A)

	Result	Limit for NrCan directive
Vin=	115V 60Hz	Mark VI
No load condition power consumption (W)	0.043	0.21
Average active efficiency	88.98%	88.00%
Supplementary Information: No-Load condition power consumption of $\text{MAX}(0.02, 0.043)=0.043\text{W}$		
Supplementary Information: average value efficiency of $\text{Min}(89.16\%, 88.98\%)=88.98\%$		
Remark: International Efficiency Marking Protocol ver.3.0		

Below models are same in charger circuit.

Model:

GTM961200P10812-T3

GTM961200P10812-T3A

GTM961200P10812-T3TAB

GTM961200P10812-T2

GTM961200P10812-T2A

The models are identical except different AC inlet.

Tested Model: GTM961200P10812-T3

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Clause	Requirement + Test	Result - Remark	Verdict

Ref. No	Test equipment	Manufacturer	Model	Serial number	Calibration due date
NSZ2018	Digital AC Power Source	All power	APW-150N	N/A	2021-12-21
NSZ2014	EUP Power Meter	Xitron	2801	28010907016	2021-12-21
NSZ2046	DC Electric Load	ARRAY	3711A	A06BH02067	2021-12-21
NSZ2050	Ambient Recorder (Wifi)	Corintech	EL-WiFi-TH+	N/A	2021-12-30

Test conditions			—
Ambient temperature in °C	See the test result table.		—
Information describing the test set-up used at each load condition.....	--		—

Test configuration			—
Nominal test supply voltage (V)	115Vac		—
Nominal total harmonic distortion of supply voltage waveform	<2%		—
Test frequency (Hz)	60 Hz		—
Any notes regarding the operation of the product :	--		—
Did the EPS have a built-in ON/OFF switch on the input?	No		—
Was the output voltage selectable?.....	No		—
Setting used when performing tests	--		—
Output cable length (to the nearest cm)	120cm+/-3cm		—

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Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Test results						P
Vin=115V60Hz UUT1						
	No load	Power Modes				
Percent of nameplate current	0%	10%	25%	50%	75%	100%
DC output current (A)	0	N/A	2.25	4.5	6.75	9
DC output voltage (V)	12.29	N/A	12.22	12.14	12.05	11.98
DC output power (W)	0.00	N/A	27.50	54.63	81.34	107.82
Max AC input voltage (V)	115.07	N/A	115.07	115.07	115.07	115.07
Min AC input voltage (V)	115	N/A	115	115	115	115
Max temperature	24	N/A	24	24	24	24
Min temperature	23.1	N/A	23.1	23.1	23.1	23.1
AC input power (W)	0.02	N/A	30.98	60.67	90.99	121.92
Voltage total harmonic distortion THD	0.259	N/A	0.180	0.212	0.346	0.507
Current total harmonic distortion THD	12.749	N/A	27.624	22.197	23.689	16.316
Real Power factor also called True PF	0.04	N/A	0.984	0.964	0.963	0.507
Crest Factor	1.421	N/A	1.421	1.421	1.421	1.421
Power consumed by UUT	0.02	N/A	3.49	6.04	9.6525	14.1
Efficiency		N/A	88.75%	90.04%	89.39%	88.44%
Uncertainty	0.0000	N/A	0.0639	0.1443	0.2577	0.4117
Uncertainty limit	0.0608	N/A	0.6196	1.2134	1.8198	2.4384
Supplementary Information: average value efficiency of 100%,75%,50%,25%=89.16%						

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Clause	Requirement + Test	Result - Remark	Verdict

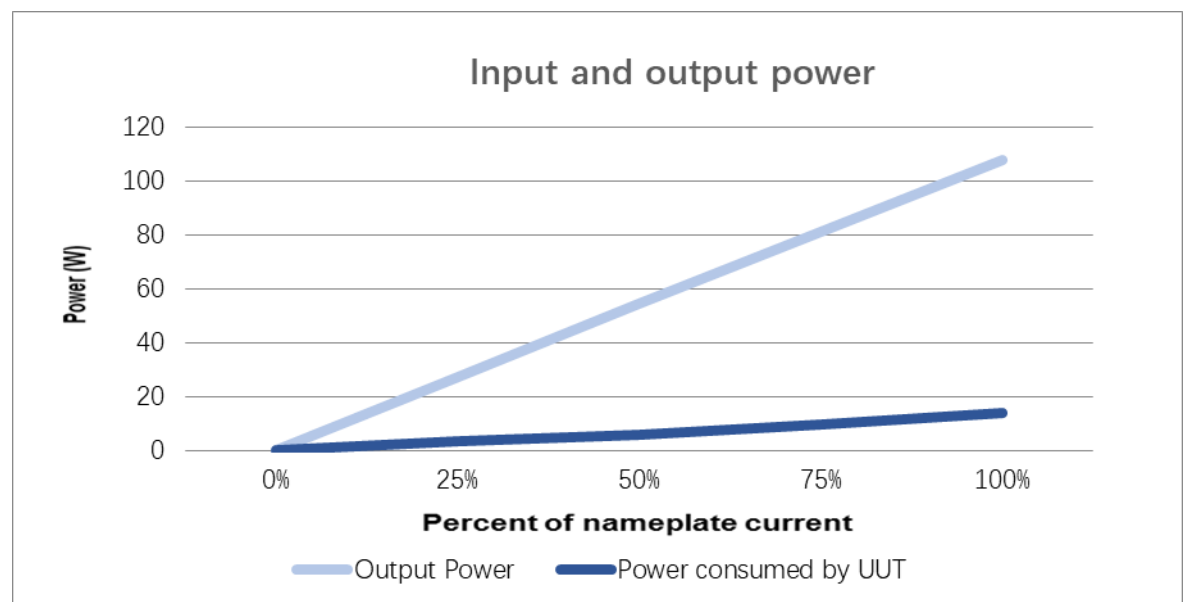
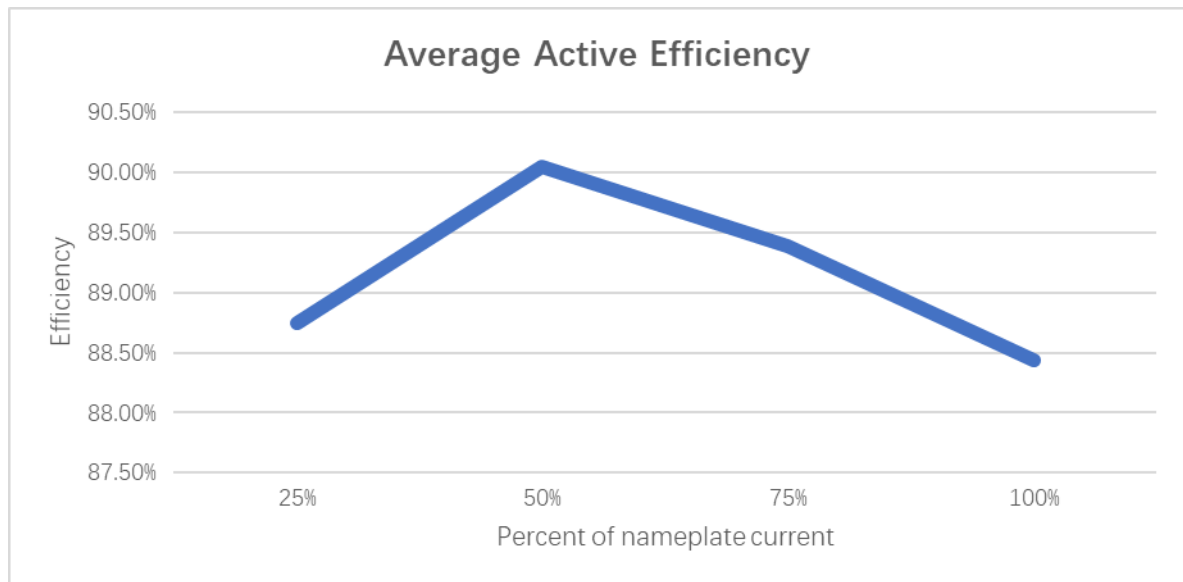
TABLE: Test results						P
Vin=115V60Hz UUT2						
	No load	Power Modes				
Percent of nameplate current	0%	10%	25%	50%	75%	100%
DC output current (A)	0	N/A	2.25	4.5	6.75	9
DC output voltage (V)	12.29	N/A	12.22	12.14	12.05	11.98
DC output power (W)	0.00	N/A	27.50	54.63	81.34	107.82
Max AC input voltage (V)	115.07	N/A	115.07	115.07	115.07	115.07
Min AC input voltage (V)	115	N/A	115	115	115	115
Max temperature	24	N/A	24	24	24	24
Min temperature	23.1	N/A	23.1	23.1	23.1	23.1
AC input power (W)	0.043	N/A	31.02	60.62	90.81	123.11
Voltage total harmonic distortion THD	0.252	N/A	0.180	0.22	0.346	0.441
Current total harmonic distortion THD	13.4836	N/A	27.43	22.37	24.03	16.63
Real Power factor also called True PF	0.011	N/A	0.94	0.96	0.96	0.98
Crest Factor	1.421	N/A	1.421	1.421	1.421	1.421
Power consumed by UUT	0.04	N/A	3.53	5.99	9.4725	15.29
Efficiency		N/A	88.64%	90.12%	89.57%	87.58%
Uncertainty	0.0001	N/A	0.0640	0.1441	0.2569	0.4185
Uncertainty limit	0.2107	N/A	0.6204	1.2124	1.8162	2.4622
Supplementary Information: average value efficiency of 100%,75%,50%,25%=88.98%						

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Clause	Requirement + Test	Result - Remark	Verdict
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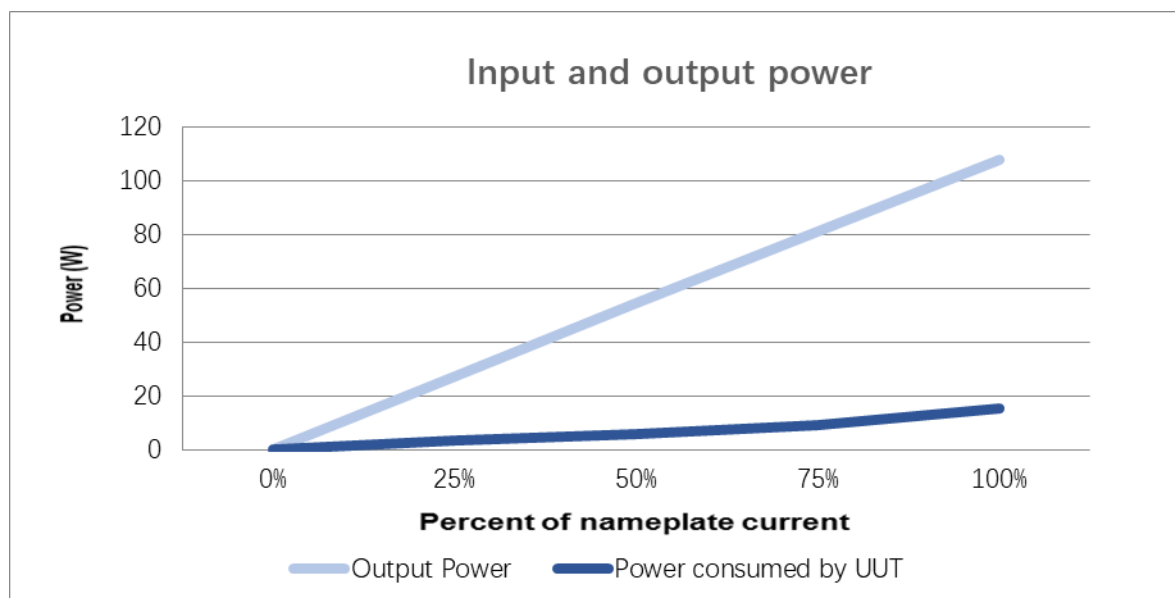
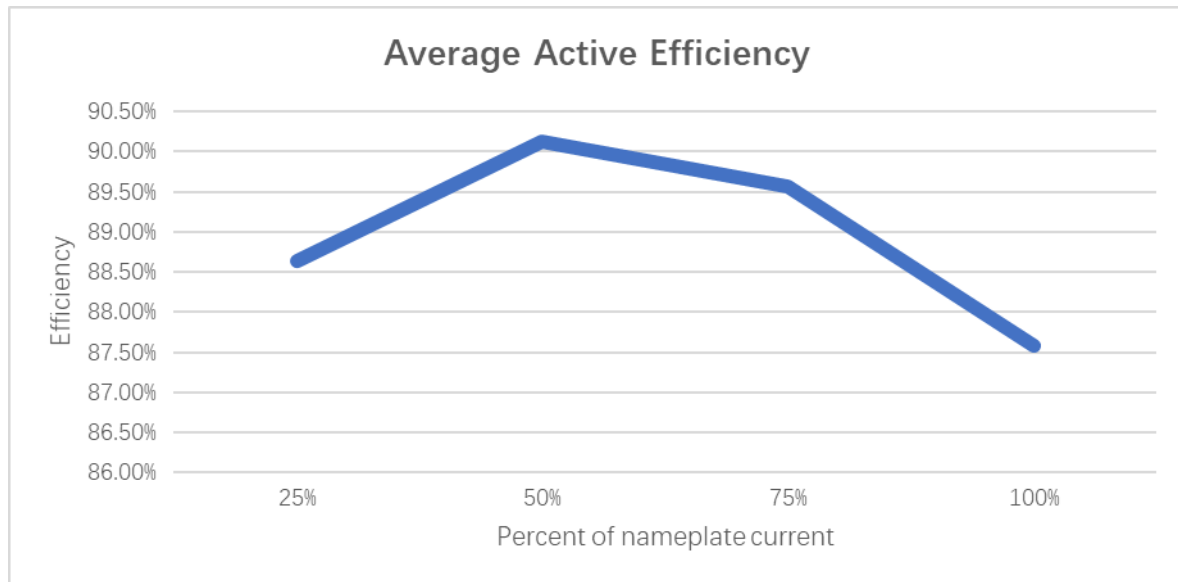
Graph Analysis (UUT1)

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Graph Analysis (UUT2)

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Annex 1 - Photo



View of model of GTM961200P10812-T3

---End of report---