



TEST REPORT

Report No...... : WTU16U1164619S
Applicant..... : GlobTek, Inc.
Address..... : 186 Veterans Dr. Northvale NJ 07647 USA
Manufacturer..... : GlobTek (Suzhou) Co., Ltd
Address..... : Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China
Product Name..... : Power supply
Model No..... : See model list on page 2 & 3
Ratings..... : See model list on page 2 & 3
Standards..... : IEC60529:1989+A1:1999+A2:2013
Test Category..... : Entrusted Test
Test Item..... : IP42 Test
Date of Receipt sample..... : 2016-11-01
Date of Test..... : 2016-11-01 to 2016-11-7
Date of Issue..... : 2016-11-7
Test Report Form No...... : WST-60529-31B
Test Result..... : Pass*

***Remarks:**

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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List of test items:

No.	Test Items	Requirement + Test	Result
1	IP42 Test	IEC60529:1989+A1:1999+A2:2013	Pass

Subcontract

Whether parts of tests for the product have been subcontracted to other labs:

Yes No

If Yes, list the related test items and lab information:

Test items: ---

Lab information: --

Remarks:

1. All models have the same structure except output voltage and current, please see model list as below.

2. Rated input of the all models are 100-240V~, 50-60Hz, and the difference between GT-46120, GTM96060, GTM96180, GT-46180, GT-46240, GTM41076/ GT-41052/ GT-41080/ GT-41081/ GT-41135/GT-43007/ GT-41062/ GT*41080/ GTM41134-***/ GTM43033-*** series as below list:

Model	Descriptions
GTM41076-06VV-X.X series	were VV can be any rated output voltage between 5 and 30 Vdc and X.X is optional for specifying output voltage deviations, -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.
GT-41052-AABB-X.X series	"AA" is the rated output wattage designation, with a maximum value of "15"; "BB" is the standard rated output voltage designation, with values between "05" to "48"; and, -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.
GT-41080-WWVV-X.X series	WW is the rated output wattage designation, with a maximum value of "18". VV is the standard rated output voltage designation, with a maximum value of "48". -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different, Actual voltage range is 9 - 48 volts only.
GT-41081-WWVV-X.X series	WW is the rated output wattage designation, with a maximum value of "18"; VV is the standard rated output voltage designation, with a maximum value of "09"; -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.
GT-41135-WWVV-X.X series	WW is the rated output wattage designation, with a maximum value of "12"; VV is the standard rated output voltage designation, with a maximum value of "48"; -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.
GT-43007-WWVV-X.X series	WW is the rated output wattage designation, with a maximum value of "40.8"; VV is the standard rated output voltage designation, with a maximum value of "24"; -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.
GT-41062-AABB-X.X series	AA denotes the maximum rated wattage, either "13" or "18", BB denotes the standard maximum rated voltage, which may be 5.0-24.0 Vdc as shown in the ratings table, -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.



GT*41080-**** series	The 1st “*” part can be ‘M’ or ‘-’ or ‘H’ for market identification and not related to safety.
	The 2nd “*” part denotes the rated output wattage designation, which can be “01” to “18”, with interval of 1.
	The 3rd “*” part denotes the standard rated output voltage designation, which can be “07”, “11”, “17.9”, “30”, “38” and “48”. Each standard rated output voltage designation corresponds to a transformer model. Each transformer model is identical in insulation construction including clearance and creepage except number of turns per coil.
	The 4th “*” part is optional, which can be “-0.1” to “-12” with interval of 0.1 to denote voltage deviation or blank to indicate no voltage different. The result by subtracting the deviation value from the standard rated output voltage denotes the rated output voltage, with a range of 5 – 48 volts.
GTM41134-*** series	M can be "M" or "-" for market identification and not related to safety
	The 1st “*” denote the rated output wattage designation, which can be “01” to “06”, with interval of 1.
	The 2nd “**” denote the standard rated output voltage designation, which can be “03”, “04”, “06”, “12”, “15”, “18”, “24”, “36” or “48”.
	The last “**” is optional deviation, subtracted from standard output voltage, which can be “-0.1” to “-11.9” with interval of 0.1, or blank to indicate no voltage different.
GTM43033-*** series	M can be "M" or "-" for market identification and not related to safety
	The 1st “*” part denotes the rated output wattage designation, which can be “01” to “06”, with interval of 1.
	The 2nd “**” part denotes the standard rated output voltage designation, which can be “03”, “04”, “06”, “12”, “15”, “18”, “24”, “36” or “48”. These standard rated output voltage designations correspond to three transformer models. Each transformer model is identical in insulation construction including clearance and creepage except number of turns per coil.
	The 3rd “**” part is optional, which can be “-0.1” to “-11.9” with interval of 0.1 to denote voltage deviation or blank to indicate no voltage different. The result by subtracting the deviation value from the standard rated output voltage denotes the rated output voltage, with a range of 3 – 48 volts.
GT-46120-WWVV-X.XX-WZ*****	<p>WW is the standard output wattage, with a maximum value of 12".</p> <p>VV is the standard rated output voltage designation, with a maximum value of "48", which can be 05,06,09,12,15,24,36,48.</p> <p>-X.XX denote the output voltage differentiator, subtracting X.XX volts from standard output voltage VV in 0.01V increments, the actual output voltage range is 5-48V, blank is to indicate the no voltage different.</p> <p>Z denote type of plug and can be E for European plug, U for British plug, blank for North American/Japan/Taiwan plug, C for Chinese plug, A for Australia plug.-WZ can be optional, when it is blank, denote to be with replaceable plug.</p> <p>Each * = 0-9 or A-Z or ()[] - or blank for marketing purposes.</p>
GT-46180-WWVV-X.XX*****	<p>WW is the standard output wattage, with a maximum value of "18",</p> <p>VV is the standard rated output voltage designation, with a maximum value of "24";which can be 05,09,12,15,18,24.</p> <p>-X.XX denote the output voltage differentiator, subtracting X.X volts from standard output voltage VV in 0.01V increments, the actual output voltage rang is 5-24V, blank is to indicate the no voltage different.</p> <p>Each * = 0-9 or A-Z or ()[] - or blank for marketing purposes.</p>



<p>GT*41134***** and GT*96060*****</p>	<p>The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety. The 2nd "*" part can be "-" or "CC", "-" = Constant Voltage Model, CC = Constant Current Model. The 3rd "*" denotes the rated output wattage designation, which can be "01" to "06", with interval of 1. The 4th "*" denotes the standard rated output voltage designation, which can be "03", "04", "06", "12", "15", "18", "24", "36" or "48". The 5th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.1" to "-11.9" with interval of 0.1, or blank to indicate no voltage different. The 4th "*" and 5th "*" together denote the output voltage, with a range of 3.3 - 48 volts. The 6th "*" = Blank means directly plug in model series, The last * denote any six character = 0-9 or A-Z or () [] or – or blank for marketing purposes.</p>
<p>GT**_*****</p>	<p>The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety. The 2nd "*" can be 96180. The 3rd "*" denotes the rated output wattage designation, which can be "01" to "36", with interval of 1. The 4th "*" denotes the standard rated output voltage designation, when the 2nd "*" = 96180 which can be "07", "11", "17.9", "30", "38", "48", "54" or "56"; The 5th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.01" to "-12.0" with interval of 0.01, or blank to indicate no voltage different. The 4th "*" and 5th "*" together denote the output voltage, with a range of 5 - 56 volts. The 6th "*" = blank, it means wall plug in with interchangeable blade. The last * denote any six character = 0-9 or A-Z or () [] or – or blank for marketing purposes.</p>
<p>GT-46240-WWVV-X.XX*****</p>	<p>WW is the standard output wattage, with a maximum value of "24", VV is the standard rated output voltage designation, with a maximum value of "24"; which can be 12, 15 and 24. -X.XX denote the output voltage differentiator, subtracting X.X volts from standard output voltage VV in 0.01V increments, the actual output voltage rang is 12-24V, blank is to indicate the no voltage different. Each * = 0-9 or A-Z or () [] - or blank for marketing purposes.</p>

3.Full tests have been carried out on model GTM41076-0630



Test Item :

Tests for protection against solid foreign objects: IP4X

Test Method:

The tests should be carried out under the standard atmospheric condition.

The atmospheric conditions during tests are as follows:

Temperature range: 15 °C to 35 °C. Relative humidity: 25% to 75%.

The test wire of 1.0 mm ϕ insert into any openings of the enclosure with a force of $1N \pm 10\%$.

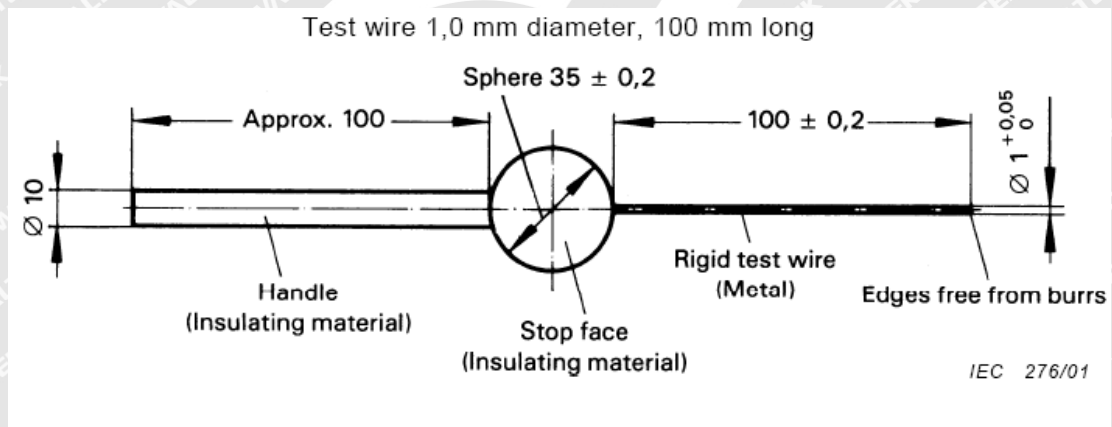
Acceptance Conditions:

The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts.

The protection is satisfactory if the access probe 1.0 mm diameter shall not pass through the any opening.

Test Result:

Pass Fail



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Test Item:

Tests for protection against ingress moisture: IPX2

Test Method:

The tests should be carried out under the standard atmospheric condition. The atmospheric conditions during tests are as follows:

Temperature range: 15 °C to 35 °C; Relative humidity: 25% to 75%.

The tests are conducted with fresh water. The water temperature should not differ by more than 5 K from the temperature of the specimen under test. If the water temperature is more than 5 K below the temperature of the specimen a pressure balance shall be provided for the enclosure.

The test is made with a device which produces a uniform flow of water drops over the whole area of the enclosure. An example of such a device is shown in figure 3 a). The turntable on which the enclosure is placed has a rotation and the eccentricity (distance between turntable axis and specimen axis) is approximately 100 mm. The turntable on which the enclosure is placed does not turn. The enclosure under test is placed in its normal operating position under the drip box, the base of which is larger than that of the enclosure. Except for enclosures designed for wall or ceiling mounting, the support for the enclosure under test should be smaller than the base of the enclosure. An enclosure normally fixed to a wall or ceiling is fixed in its normal position of use to a wooden board having dimensions which are equal to those of that surface of the enclosure which is in contact with the wall or ceiling when the enclosure is mounted as in normal use.

Water flow rate is 3 ± 0.50 mm/min. The enclosure is tested for 2.5 min in each of four fixed positions of tilt. These positions are 150° on either side of the vertical in two mutually perpendicular planes. The total duration of test is 10 min.

NOTE: When the base of the drip box is smaller than that of the enclosure under test, the latter may be divided into several sections, the area each section being large enough to be covered by the dripping water. The test is continued until the whole area of the enclosure has been sprinkled for the specified time.

Acceptance Conditions:

After testing in accordance with the appropriate requirements, the enclosure shall be inspected for ingress of water.

It is the responsibility of the relevant Technical Committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.

In general, if any water has entered, it shall not:

- be sufficient to interfere with the correct operation of the equipment or impair safety;
- deposit on insulation parts where it could lead to tracking along the creepage distances;
- reach live parts or windings not designed to operate when wet;
- accumulate near the cable end or enter the cable if any.

If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.

For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.

Test Result:

Pass Fail

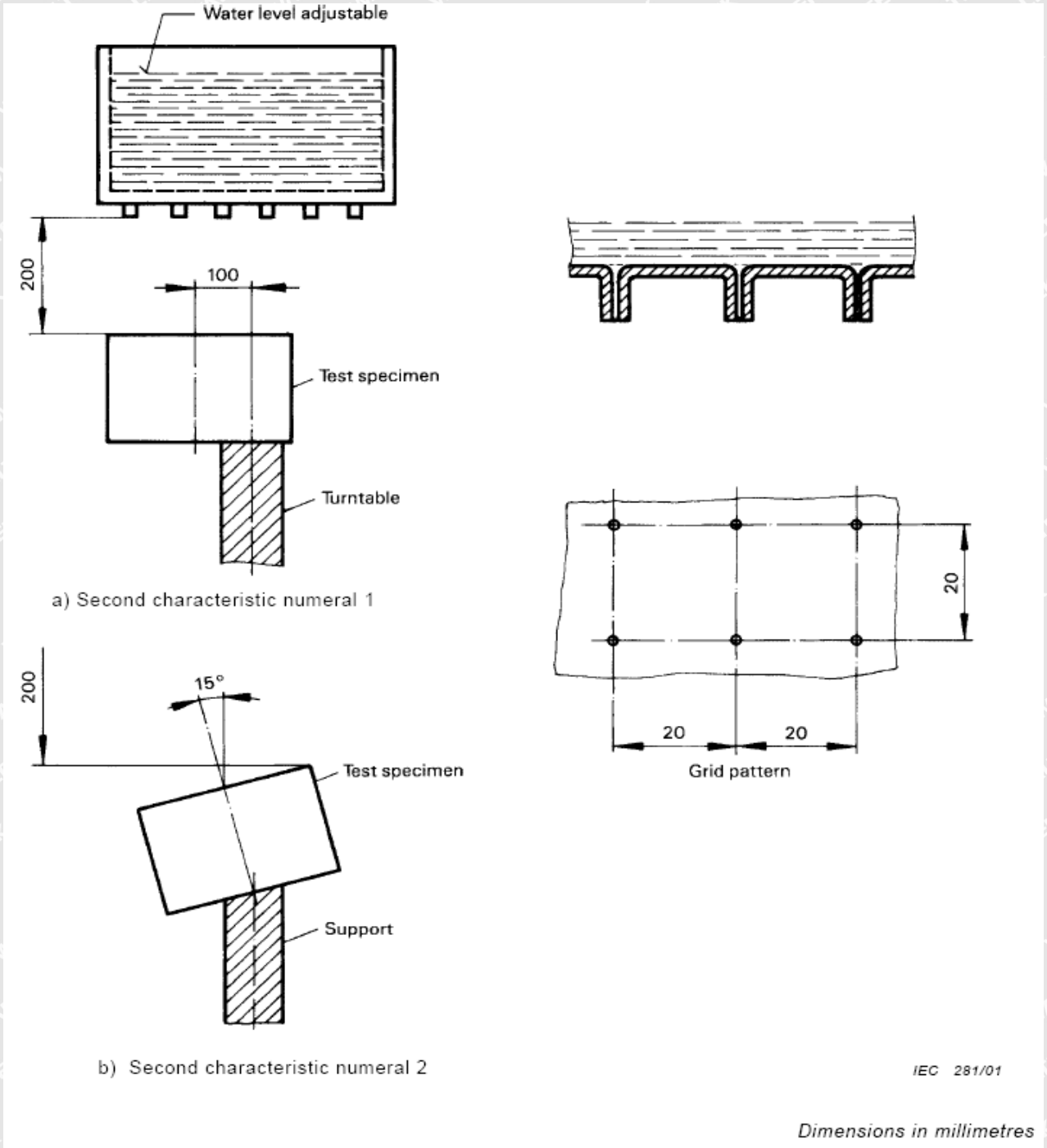


Figure 3 – Test device to verify protection against vertically falling water drops (drip box)



Photo Documentation :

Model: GTM41076-0630



Photo 1

Model: GTM41076-0630



Photo 2



During the IPX2 test



Photo 3

After the IPX2 test



Photo 4



After the IPX2 test

Photo 5

Model: GTM41076-0630



Photo 6



Equipment Used during Test :

Equipment	Model/Type	Cal. Date
Temperature & Humidity Datalogger	THG312	2016-02-28
Power Meter	QINZHI 8775A	2016-03-04
Dielectric & Insulation Resistance Tester	CHROMA 9012	2016-03-04
Probe	HANYANG FZ-1107-A	2016-03-16
Force Gauge	ALGOL NK-300	2016-03-04
Protection against water test device	HAIYU HY-IPX1-6	2016-03-04

=====End of Test Report =====



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