

# Poročilo o preskusu / Test Report

Št. / No.:

T211-0450/12

Datum / Date:

2012-10-08

Proizvod / Product

Power supply

Model: GT-21089-WWVV-X.X-T3 series GTM21089-WWVV-X.X-T3 series

Enclosure: TR9CA2600KCP-Y(R)

Naročnik/ Applicant

GlobTek, Inc

186 Veterans Dr. Northvale, NJ 07647 / USA

Proizvajalec / Manufacturer

GlobTek, Inc

186 Veterans Dr, Northvale, NJ 07647 / USA

Blagovna znamka / Trade Mark

GlobTek

Standardi - predpisi / Standards - regulations

IEC 60529:2001

Listov / Pages

3

Vrsta preskusa /Test procedure

IP40, IP41

Št. Merjencev / No. of Items tested

1

Mapa predmeta št. / Subject File No.

C20121557

Kraj preskusa / Place of test

SIQ - Slovenian Institute of Quality and Metrology, Tržaška 2, 1000 Ljubljana, Slovenia

Opomba / Remark

1

## Zaključek / Conclusion

Tested product complies with the requirements of stated standards for protection degree IP 40.

The test results relate only to the items tested.

Date of receipt of test items: 2012-07-16

Date of performance of tests:2012-07-16 to 2012-09-19

(Tested product not complies with the requirements of stated standards for protection degree IP 41)

Testni laboratorij je akreditiran pri Slovenski akreditaciji, reg.št.:LP-009 / Testing Laboratory is accredited by Slovenian Accreditation, Reg. No. LP-009

Odgovoren za preskušanje / Responsible for the test
Mirkol Čeko

Vodja področja / Department Manager

dr. Miha Otrin

Slovenski institut za kakovost in meroslovje • Slovenian Institute of Quality and Metrology Tržaška cesta 2, SI-1000 Ljubljana, Slovenia • t: +386 1 4778 100 • f: +386 1 4778 444 • e: info@siq.si • http://www.siq.si Razmnoževanje poročila, razen v celoti, ni dovoljeno / This report shall not be reproduced except in full -0450/12

Stran / Page

1 TEST EQUIPMENT

- Rigid test wire diameter of 1 mm as specified by the standard (2013-01-22),
- Test device for verification of protection against vertically falling water drops-drip box-SIQ,
- High voltage tester ELABO Type 92-1G3 (2013-01-14)

Note: The date of the recommended recalibration is given for each measuring instrument (in brackets).

## 2 EQUIPMENT UNDER TEST (EUT)

Power supply, model GT-21089-WWVV-X.X-T3 series and GTM21089-WWVV-X.X-T3 series, enclosure TR9CA2600KCP-Y(R) was subjected to testing for IP41 degree of protection (Figures 1 and 2).



Figure 1 Figure 2

### IP41 numeric description:

<u>The first characteristic numeral X</u>: indicates the degree of protection against access to hazardous parts and against solid foreign objects. Test equipment for degree 4 is rigid test wire of 1 mm diameter. The protection is satisfactory if the rigid wire does not fully penetrate and adequate clearance is kept.

The second characteristic numeral Y indicates the degree of protection provided by enclosures with respect to harmful effects on the equipment due to the ingress of water (degree 1-protected against dripping water). If any water has entered shall have no harmful effects.

#### 3 TEST CONDITIONS

During the testing the sample was equipped with appliance connector.

# 3.1 Test for protection against solid foreign objects-IP4X (IEC 60529, tables 2 and 7, sub-cl. 13.2)

Procedure:

- Environmental temperature 23<sup>o</sup>C,
- Rigid test wire diameter of 1 mm (as specified by the standard) is pushed against any openings of the enclosure with the force of 1 N,
- Non-operating condition

Conclusion: The rigid test wire was not penetrated into the enclosure.

3 (3) Št. / No. Stran / Page

#### Tests for protection against ingress of water-IPX1 (IEC 60529, table 8, sub-cl. 14.2.1) 3.2

### Procedure:

- Test device, drip box-as specified in standard,
- Water flow rate: 1 mm/min,
- The test sample was placed on the turntable under the drip box in most unfavourable normal position (Figure 3),
- Duration of the exposure: 10 minutes,



Figure 3: Test position

**Conclusion:** After the water test there was water on the connector pins.

#### 3.3 Electric strength test

Immediately following the water test the dielectric strength test with 4000 V a.c. has been conducted between primary and secondary terminals and between primary terminals and enclosure. The voltage was applied and maintained for a period of one minute between the points indicated. The test did NOT pass.

# **CONCLUSIONS**

After the exposure was concluded, the visual examination of the sample was performed. Results were obtained as follows:

- The rigid test wire was not penetrated into the enclosure
- After the IPX1 test there was water on connector pins.
- After the IPX1 test the dielectric strength test did NOT pass.

Result: Following the acceptance conditions, the equipment under test sustained the test conditions for IP40 degree of protection.