



Slovenski institut za  
kakovost in meroslovje  
Slovenian Institute of  
Quality and Metrology

# Poročilo o preskusu / Test Report

Št. / No.:

T211-0481/12

Datum / Date:

2012-10-08

<b>Proizvod / Product</b> Power supply Model: GT-41131-WVVV-X.X series, GTM41133-WVVV-X.X series, GT-41060-WVVV-X.X series, GTM41060-WVVV-X.X series, GTM41070-WVVV-X.X series Enclosure: WR9QE2000C9P-N(RVB)	<b>Listov / Pages</b> 4
<b>Naročnik / Applicant</b> GlobTek, Inc 186 Veterans Dr, Northvale, NJ 07647 / USA	<b>Vrsta preskusa / Test procedure</b> IP40, IP41
<b>Proizvajalec / Manufacturer</b> GlobTek, Inc 186 Veterans Dr, Northvale, NJ 07647 / USA	<b>Št. Merjencev / No. of Items tested</b> 1
<b>Blagovna znamka / Trade Mark</b> GlobTek	<b>Mapa predmeta št. / Subject File No.</b> C20121557
<b>Standardi – predpisi / Standards – regulations</b> IEC 60529:2001	<b>Kraj preskusa / Place of test</b> SIQ - Slovenian Institute of Quality and Metrology, Tržaška 2, 1000 Ljubljana, Slovenia
	<b>Opomba / Remark</b> /

## 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

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## 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-41131-WWVV-X.X series, GTM41133-WWVV-X.X series, GT-41060-WWVV-X.X series, GTM41060-WWVV-X.X series and GTM41070-WWVV-X.X series, enclosure WR9QE2000C9P-N(RVB) was subjected to testing for IP41 degree of protection (Figures 1 and 2).



Figure 1



Figure 2

### IP41 numeric description:

The first characteristic numeral X: 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 exchangeable plug and connected to socket outlet, see Figure 3. The exchangeable plug part with the socket outlet was not subject of the test. Test results do not relate to the whole power supply but only to the enclosure (without the exchangeable plug part).



Socket  
outlet

Figure 3: sample unit

**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>0</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.

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

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 (Figures 4 and 5),
- Duration of the exposure: 10 minutes,



Figure 4: Test position

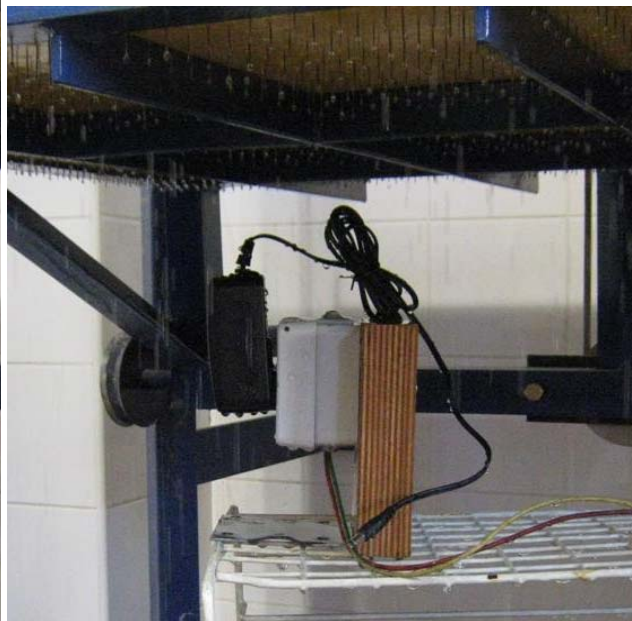


Figure 5: Test position

**Conclusion:** After the water test there was water on the appliance pins (Figure 6).





Figure 6

#### 4 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 appliance pins.

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