



Slovenski institut za  
kakovost in meroslovje

Slovenian Institute of  
Quality and Metrology

# Poročilo o preskusu / Test Report

Št. / No.:

T211-0462/12

Datum / Date:

2012-10-08

| Proizvod / Product                                                                                                                                                              | Listov / Pages                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Power supply<br>Model:<br>GT-41130-WVVV-X.X-T2 series, GT-43006-WVVV-X.X-T2 series<br>GT-41062-WVVV-X.X-T2 series, GT-41082-WVVV-X.X-T2 series<br>Enclosure: TR9KE2000CCP-N(RV) | 3                                                                                       |
| Naročnik / Applicant                                                                                                                                                            | Vrsta preskusa / Test procedure                                                         |
| GlobTek, Inc<br>186 Veterans Dr, Northvale, NJ 07647 / USA                                                                                                                      | IP40, IP41                                                                              |
| Proizvajalec / Manufacturer                                                                                                                                                     | Št. Merjencev / No. of Items tested                                                     |
| GlobTek, Inc<br>186 Veterans Dr, Northvale, NJ 07647 / USA                                                                                                                      | 1                                                                                       |
| Blagovna znamka / Trade Mark                                                                                                                                                    | Mapa predmeta št. / Subject File No.                                                    |
| GlobTek                                                                                                                                                                         | C20121557                                                                               |
| Standardi – predpisi / Standards - regulations                                                                                                                                  | Kraj preskusa / Place of test                                                           |
| IEC 60529:2001                                                                                                                                                                  | SIQ - Slovenian Institute of Quality and Metrology, Tržaška 2, 1000 Ljubljana, Slovenia |
|                                                                                                                                                                                 | Opomba / Remark                                                                         |
|                                                                                                                                                                                 | /                                                                                       |

## 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-41130-WWVV-X.X-T2 series, GT-43006-WWVV-X.X-T2 series, GT-41062-WWVV-X.X-T2 series and GT-41082-WWVV-X.X-T2 series, enclosure TR9KE2000CCP-N(RV) 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 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>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 (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.

## 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 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.