Test Report issued under the responsibility of:

TEST REPORT

IEC 60950-1
Information technology equipment – Safety – Part 1: General requirements

Report Number. .....:	1510044STO-001
Date of issue .....:	9 September 2015
Total number of pages	82 pages
Applicant's name.....:	TDK-Lambda Corporation
Address .....:	2704-1 Settaya-machi, Nagaoka-shi, Niigata, 940-1195 JAPAN
Test specification:	
Standard .....:	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure .....:	CB Scheme
Non-standard test method .....:	N/A
Test Report Form No.....:	IEC60950_1F
Test Report Form(s) Originator ....:	SGS Fimko Ltd
Master TRF .....:	Dated 2014-02

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

TEST REPORT issued by an Accredited Testing Laboratory. Accredited by Swedac, no 1003, ISO/IEC 17025.

General disclaimer:

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description .....:	AC to DC Converters
Trade Mark .....:	TDK-Lambda
Manufacturer.....:	TDK-Lambda Corporation
Model/Type reference .....:	SWT30-***/***, SWT40-***/***, SWT65-***/***, SWT100-***/*** (see also "*Models*" page 3-5)
Ratings .....:	See page 2

Ratings .....:	**SWT30-***/***** Input: AC 100-120V~, 0.9A / AC 200-240V~, 0.45A, 50/60Hz Class I Output: O/P1: DC 5V⎓ , 2.0A, O/P2: DC 12-15V⎓ , 1.2-1.5A O/P3: DC -5-(-15)V⎓ , 0.3A **SWT40-***/***** Input: AC 100-120V~, 1.11A / AC 200-240V~, 0.55A, 50/60Hz Class I Output: O/P1: DC 5V⎓ , 3.0A, O/P2: DC 12-15V⎓ , 1.5-2.0A O/P3: DC -5-(-15)V⎓ , 0.3A **SWT65-***/***** Input: AC 100-120V~, 1.71A / AC 200-240V~, 0.86A, 50/60Hz Class I Output: O/P1: DC 5V⎓ , 6.0A, O/P2: DC 12-15V⎓ , 1.8-2.5A O/P3: DC -5-(-15)V⎓ , 0.5A **SWT100-***/***** Input: AC 100-120V~, 2.9A / AC 200-240V~, 1.9A, 50/60Hz Class I Output: O/P1: DC 5V⎓ , 3.0A, O/P2: DC 12-15V⎓ , 1.5-2.0A O/P3: DC -5-(-15)V⎓ , 0.3A

Intertek Semko AB
Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden
Telephone +46 8 750 00 00, Fax +46 8 750 60 30
www.intertek.se
Registered in Sweden: No: SE556024059901, Registered office: As address

Testing procedure and testing location:		
☒ **CB Testing Laboratory:**	**Intertek Semko AB**	
Testing location/ address ..... :	Torshamnsgatan 43, P.O. Box 1103, SE-164 22 Kista, SWEDEN	
☐ **Associated CB Testing Laboratory:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :	Josef Ismail	
Approved by (name + signature)..... :	Anna Karin Cedergren	
☐ **Testing procedure: TMP/CTF Stage 1:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :		
Approved by (name + signature)..... :		
☐ **Testing procedure: WMT/CTF Stage 2:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :		
Witnessed by (name + signature) ..... :		
Approved by (name + signature)..... :		
☐ **Testing procedure: SMT/CTF Stage 3 or 4:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :		
Witnessed by (name + signature) ..... :		
Approved by (name + signature)..... :		
Supervised by (name + signature) ..... :		

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Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
See General remarks.	See page 2

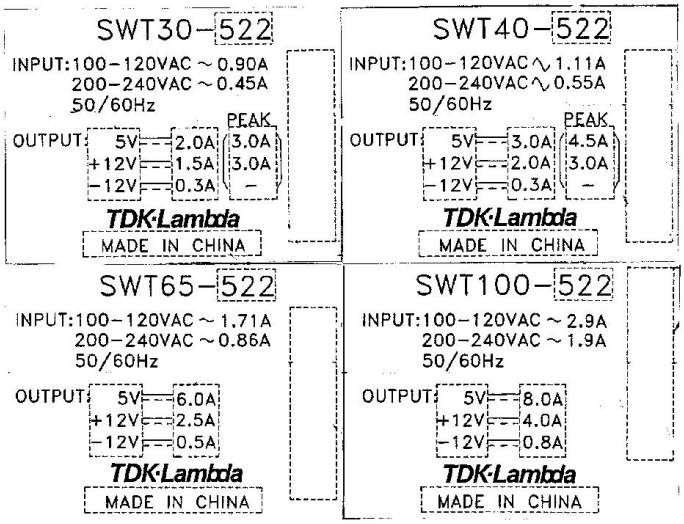
Summary of compliance with National Differences:

☒ The product fulfils the requirements of EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013.

Group- and national differences for the CENELEC countries have been considered during the testing.

Copy of marking plate: (examples)

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Models included within the scope of this report

	O/P 1		O/P 2		O/P 3		
Model :	Volts	Amps	Volts	Amps	Volts	Amps	Total Power
SWT30-522	5.0	2.0	12	1.5	-12	0.3	31.6
SWT30-5FF	5.0	2.0	15	1.2	-15	0.3	32.5
SWT30-525	5.0	2.0	12	1.5	-5	0.3	29.5
SWT40-522	5.0	3.0	12	2.0	-12	0.3	42.6
SWT40-5FF	5.0	3.0	15	1.5	-15	0.3	42.0
SWT40-525	5.0	3.0	12	2.0	-5	0.3	40.5
SWT65-522	5.0	6.0	12	2.5	-12	0.5	66
SWT65-5FF	5.0	6.0	15	1.8	-15	0.5	64.5
SWT65-525	5.0	6.0	12	2.5	-5	0.5	62.5
SWT100-522 &/VL	5.0	3.0	12	2.0	-12	0.3	42.6
SWT100-5FF	5.0	3.0	15	1.5	-15	0.3	42.0
SWT100-525	5.0	3.0	12	2.0	-5	0.3	40.5

SWT 30, SWT40, SWT65 and SWT100 series followed by –522 or –525 or –5FF indicating the output voltages.
The models listed above may include one or more of the suffix's as shown below.
/A indicating models fitted with enclosures.
/SY indicating a change in R5 rating, non-critical component change.
/TG or /TG1 or /FG indicating "Y" capacitors not fitted or reduced values of "Y" capacitors up to 3300pF.
SWT100-522/VL indicating special customer enclosure.

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Test item particulars.....:	
Equipment mobility.....:	[] movable [] hand-held [] transportable [] stationary [x] for building-in [] direct plug-in
Connection to the mains.....:	[] pluggable equipment [] type A [] type B [x] permanent connection [] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition.....:	[x] continuous [] rated operating / resting time:
Access location .....:	[] operator accessible [] restricted access location [x] for building into a host equipment
Over voltage category (OVC) .....:	[] OVC I [x] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	± 10% (By request of the manufacturer)
Tested for IT power systems .....:	[] Yes [x] No
IT testing, phase-phase voltage (V) .....:	N/A
Class of equipment .....:	[x] Class I [] Class II [] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	N/A (for building-in)
Pollution degree (PD) .....:	[] PD 1 [x] PD 2 [] PD 3
IP protection class .....:	IPX0
Altitude during operation (m) .....:	<2000
Altitude of test laboratory (m) .....:	<2000
Mass of equipment (kg) .....:	<0.100
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing.....:	See "*General remarks*" below
Date of receipt of test item.....:	-
Date (s) of performance of tests.....:	-

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
The test results and all data in this report are derived from previously issued Test Reports No. 1017512 dated 28 July 2010, 1100620, dated 21 January 2011 and 1218121 dated 19 September 2012, issued by Intertek Semko AB. A new report has been issued due to update of the standard IEC 60950-1, to include Am 2: 2013. No additional test has been conducted.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

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Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☒ **Yes** ☐ **Not applicable**
When differences exist; they shall be identified in the "*General product information*" section.	
Name and address of factories..... :	TDK-Lambda (Malaysia) Sdn. Bhd. PLO33 Locked Bag No. 110 Kawasan Perindustrian Senai 81400 Senai Johor, Darul Takzim, **MALAYSIA** TDK-Lambda Corporation Nagaoka Technical Center 2704-1 Settaya-machi, Nagaoka, Niigata 940-1195, **JAPAN** Wuxi TDK-Lambda Electronics Co., Ltd. No.6 Xing Chuang Er lu Wuxi Jiangsu, 214028 **CHINA**

Abbreviations used in the report:

- normal conditions	**N.C.**	- single fault conditions	**S.F.C**
- functional insulation	**OP**	- basic insulation	**BI**
- double insulation	**DI**	- supplementary insulation	**SI**
- between parts of opposite polarity	**BOP**	- reinforced insulation	**RI**

Indicate used abbreviations (if any)

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General product information:

Important information:
This power supply unit is intended for building-in purpose. During installation inside the end-used product, all the relevant safety requirements in accordance with this standard shall be considered and re-evaluated.

1. As a component part, compliance with the standard will be based upon installation in the final application. This product must be installed within a host equipment, accessible to authorised competent personnel only.

2. All dynamic testing was conducted with the units loaded to their specified output current. These products have reinforced insulation between primary and secondary circuits and have a SELV output.

3. In general, no tests have been conducted on polymeric materials used in the construction of these products. Information was provided by the client with regard to the classification of the polymeric materials. Acceptance of these materials is based on these declarations. (See Table 4.7 (Resistance to Fire) of this Report for details).

4. A suitable electrical, mechanical and fire enclosure shall be provided in the end equipment.

5. This product is Class 1 and must be connected to protective earth of the end equipment by the four mounting points on the base PCB. It must be professionally installed in accordance with the prevailing electrical wiring regulations and the safety standards covered herein.

6. The terminals and connectors have not been evaluated for field wiring.

7. ALL UNITS: The maximum operating temperature was declared to be 50°C at 100% load. Standard units were open frame, convection cooled type power supplies and /A units were cased units. For all models, the maximum operating temperature is subject to the orientation, see handbook for details.

8. Model SWT 100-522/VL: The declared maximum operating temperature was declared to be 40°C at 100% load. The unit was an enclosed, convection cooled type power supply

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