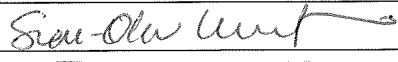
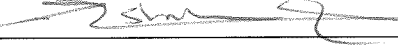


Test Report issued under the responsibility of:



TEST REPORT	
IEC 60950-1	
Information technology equipment – Safety – Part 1: General requirements	
Report Number.....	1017658
Date of issue.....	26 August 2010
Total number of pages.....	58
CB Testing Laboratory.....	Intertek Semko AB
Address.....	Torshammsgatan 43, P.O. Box 1103, SE-164 22 Kista, SWEDEN
Applicant's name.....	TDK-LAMBDA Corp Nagaoka Technical Center
Address.....	2701 Togawa Settaya Nagaoka-shi, Niigata 940-1195 JAPAN
Manufacturer's name.....	TDK-Lambda Corporation
Address.....	2701 Togawa Settaya Nagaoka-shi, Niigata 940-1195 JAPAN
Test specification:	
Standard.....	IEC 60950-1:2005 (2:nd Edition); Am 1:2009 Group and national differences for the CENELEC countries (EN60950-1:2006 + A11 + A1)
Test procedure.....	CB Scheme
Non-standard test method.....	N/A
Test Report Form No.....	IEC60950_1B
Test Report Form(s) Originator.....	SGS Fimko Ltd
Master TRF.....	Dated 2010-04
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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 item description.....	AC-DC Power supply
Trade Mark.....	TDK-Lambda
Manufacturer.....	TDK-Lambda Corporation
Model/Type reference.....	PFE1000F-**
Ratings.....	AC100-240V~, 16A, 50/60Hz (See page 6)

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Intertek Semko AB
Testing location/ address..... :		Torshamnsgatan 43, P.O. Box 1103, SE-164 22 Kista, SWEDEN
<input type="checkbox"/>	Associated CB Laboratory:	
Testing location/ address..... :		
Tested by (name + signature)		Sven-Olov Lundsjö 
Approved by (name + signature)		Shan Sohrabiyani 
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address..... :		
Tested by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address..... :		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address..... :		
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature) ... :		
<input type="checkbox"/>	Testing procedure: RMT	
Testing location/ address..... :		
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature) ... :		

List of Attachments (including a total number of pages in each attachment):

Page 1-45	IEC 60950-1 Test Report.
Page 46-56	European group differences and national differences
Page 57-58	Photos

Summary of testing:

See page 6 "General Product Information"

Tests performed (name of test and test clause):

See test report


Testing location:

See page 2

Summary of compliance with national differences

Group differences and national differences for the CENELEC countries according to: EN 60950-1:2006 /A11:2009/A1:2010 have been checked and verified.

Copy of marking plate

<ul style="list-style-type: none"> • AC(N) • AC(L) 	<p>PFE1000F-28</p> <p>INPUT:100-240VAC 16A 50/60Hz</p> <p>OUTPUT:28V \equiv 36A</p>  <p>AC-DC</p> <p>ENGINEERING SAMPLE</p> <p>TDK-Lambda</p>	<ul style="list-style-type: none"> -S • • +S PC • • TRIM +ON/OFF • • IOG -ON/OFF • • ENA AUX • • COM -V • -V • -V • +V • +V • +V •
	<p>R • +BC • -BC •</p>	<p>MADE IN JAPAN</p>

Test item particulars	
Equipment mobility	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains	<input type="checkbox"/> pluggable equipment <input type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input checked="" type="checkbox"/> not directly connected to the mains
Operating condition.....	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> for building into a host equipment
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	100-240Vac +6%, -10%
Tested for IT power systems	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

IT testing, phase-phase voltage (V)	N/A
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	N/A (for building-in)
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPx0
Altitude during operation (m)	2000
Altitude of test laboratory (m)	50
Mass of equipment (kg)	0.5

Possible test case verdicts:

- test case does not apply to the test object
- test object does meet the requirement
- test object does not meet the requirement

Testing

Date of receipt of test item..... : -

Date(s) of performance of tests..... : See page 6 "General Product Information"

General remarks:

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 testing laboratory.
 "(see Enclosure #)" refers to additional information appended to the report.
 "(see appended table)" refers to a table appended to the report.

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

Manufacturer’s Declaration per sub-clause 6.2.5 of IECIEE 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.....	Comment: Will be provided by the manufacturer upon requesting by the authorities.
--	--

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) : **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 2701 Togawa, Settaya, Nagaoka, Niigata, 940-1195, JAPAN

Wuxi TDK-Lambda Electronics Co., Ltd.
 Lot 107 Wuxi Singapore Ind. Park, Xing Chuang Erlu Wuxi Jiangsu, 214028, CHINA

General Product Information:

Test results in this report are based on the previously issued test report from BSI with ref. No. 249/7273581. Based on reports from SET Laboratory with report number SMTN0154.

A new test report has been issued due to the upgrade of test standard and some minor editorial modifications.

1. This product is an AC to DC power module converter.
2. 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. These AC to DC converters have reinforced insulation between the input and the output. The outputs of these products are energy hazards. All models with an output greater than 28V are considered to be non-SELV. As such, the instructions for use must refer to these energy hazardous outputs and non-SELV outputs in that the outputs must not be accessible to the operator. The installer must also provide protection against inadvertent contact by a service engineer.
3. All dynamic testing was conducted with the units loaded to their specified output current. All external components were fitted in accordance with the manufacturers instructions.
4. These products, can be used in any orientation providing the baseplate temperature does not exceed 100°C with the following exception. PFE1000-28 and -48 rating is 85°C baseplate temperature at input voltages below 170Vac, see derating curve within the handbook specification. This temperature limit governs the maximum working ambient temperature.
5. The input and output connectors are not acceptable for use as field wiring terminals.
6. The baseplate must be properly bonded to the main protective earthing contact in the end use product.
7. The fuse rating used for testing was F25AH, 250V. The handbook recommends an input fuse rating of F25AH, 250V. The breaking capacity and voltage rating may be subject to the end use application.
8. To maintain the SELV output under fault conditions for outputs less than 28V, the output must be connected to earth in the final application.

Explanation of the " ** " in the type designations.

Models included	Input		Output	
	AC V ~	A (max)	DC V ---	A (max)
PFE1000F-12	100-240	16	12	60
PFE1000F-28	100-240	16	28	36
PFE1000F-48	100-240	16	48	21

All models may include suffix /T which indicates no threads in the corner studs.

All models may include suffix /FG which indicates the removal of secondary to earth capacitors to allow an electric strength test of 1500Vdc between the secondary output and earth.

Any combination of suffix maybe used./C : 1 trim pin to adjust both output voltages and height of power module is 10.2mm.

/L : 1 trim pin to adjust both output voltages.

/H : Height of power module is 10.2mm

/W : Trim range channel 2 +10%, -40%.