Test Report issued under the responsibility of:

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

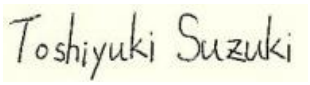
Report Reference No ..... :	E122103-A190-CB-2
Date of issue ..... :	2016-12-15
Total number of pages ..... :	108
CB Testing Laboratory ..... :	UL Japan, Inc.
Address ..... :	4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan
Applicant's name ..... :	TDK-LAMBDA CORP
Address ..... :	NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA 940-1195 JAPAN
Test specification:	
Standard ..... :	IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1F
Test Report Form originator ..... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2014-02

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.

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 ..... :	Switching Power Supply for Building-in
Trade Mark ..... :	TDK-Lambda
Manufacturer ..... :	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA 940-1195 JAPAN
Model/Type reference ..... :	HWS1000L-X /YYYYYYY, SWS1000L-X /YYYYYYY, where X can be 3, 5, 12, 15, 24, 36, 48, or 60. And, /YYYYYYY can be /RF, /RFHC, /RFCO2, /HC, /HCCO2, /CO2, /RFHCCO2, /LLF, /LLFCO2, /LNF1 (only for X is 48) or blank HWS1000L-X /BATz, where X can be 36 or 60. And, z can be 3 digit max which consist of 0 to 9 and/or A to Z or blank.
Ratings ..... :	Input: 100-240 Vac, 13A, 50/60 Hz. Output: HWS1000L-3, SWS1000L-3, +3.3Vdc, 200A; HWS1000L-5, SWS1000L-5, +5Vdc (+4 - +6Vdc), 200A max; HWS1000L-12, SWS1000L-12, +12Vdc (+9.6 - +14.4Vdc), 88A max; HWS1000L-15, SWS1000L-15, +15Vdc (+12 - +19.5Vdc), 70A max; HWS1000L-24, SWS1000L-24, +24Vdc (+19.2 - +28.8Vdc), 44A max; HWS1000L-36, SWS1000L-36, +36Vdc (+28.8 - +43.2Vdc), 29A max; HWS1000L-48, SWS1000L-48, +48Vdc (+38.4 - +56Vdc), 22A max; HWS1000L-60, SWS1000L-60, +60Vdc (+48 - +66 Vdc), 17A max

Testing procedure and testing location:		
[x]	**CB Testing Laboratory**	
	Testing location / address .....:	UL Japan, Inc. 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan
[ ]	**Associated CB Test Laboratory**	
	Testing location / address .....:	
	Tested by (name + signature) .....:	Tetsuo Iwasaki, Project Handler 
	Approved by (name + signature)....:	Toshiyuki Suzuki, Reviewer 
[ ]	**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) .....:	
	Approved by (name + signature)....:	
	Supervised by (name + signature) .:	
[ ]	**Testing Procedure: RMT**	
	Testing location / address .....:	
	Tested by (name + signature) .....:	
	Approved by (name + signature)....:	
	Supervised by (name + signature) .:	

List of Attachments

National Differences (57 pages)

Enclosures (49 pages)

Summary Of Testing

Unless otherwise indicated, all tests were conducted at UL Japan, Inc. 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan.

Tests performed (name of test and test clause)	**Testing location / Comments**

Input: Single-Phase (1.6.2)

Heating (4.5.1, 1.4.12, 1.4.13)

Ball Pressure (4.5.5, 4.5)

Electric Strength (5.2.2)

Power Supply Output Short-Circuit/Overload (5.3.7)

Summary of Compliance with National Differences:

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AR, AT, AU, BE, BG, BY, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IN, IT, JP, KR, MY, NL, NO, NZ, PL, PT, RO, SA, SE, SG, SI, SK, UA, US

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

Copy of Marking Plate - Refer to Enclosure titled Marking Plate for copy.