



Test Report issued under the responsibility of:



IEC 60601-1
Medical electrical equipment
Part 1: General requirements for basic safety and essential performance

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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 60601-1: 2005 + CORR. 1:2006 + CORR. 2:2007 + AM1:2012
(or IEC 60601-1: 2012 reprint)

Test procedure: CB Scheme

Non-standard test method: N/A

Test Report Form No.: IEC60601_1J

Test Report Form Originator: UL(US)

Master TRF: 2014-07

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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:	Built in Power Supply	
Trade Mark:	Refer to Marking Label enclosure	
Manufacturer:	Same as Applicant	
Model/Type reference:	Models HWS1000L-X /YYYYYYYY, SWS1000L-X /YYYYYYYY, where X can be 3, 5, 12, 15, 24, 36, 48, or 60; and /YYYYYYYY can be /RF, /RFHC, /RFCO2, /HC, /HCCO2, /CO2, /RFHCCO2, /LLF, /LLFCO2, /BATz (z = blank or 3 digit max which consist of 0 to 9 and/or A to Z) or blank.	
Ratings:	Input: 100-240 VAC, 50/60 Hz, 13 A Outputs: - HWS1000L-3, SWS1000L-3; 3.3 Vdc, 200 A - HWS1000L-5, SWS1000L-5; 5 Vdc, max. 200 A (4-6 Vdc, max. 200 A and 1000 W) - HWS1000L-12, SWS1000L-12; 12 Vdc, max. 88 A (9.6-14.4 Vdc, max. 88 A and 1056 W) - HWS1000L-15, SWS1000L-15; 15 Vdc, max. 70 A (12-19.5 Vdc, max. 70 A and 1050 W) - HWS1000L-24, SWS1000L-24; 24 Vdc, max. 44 A (19.2-28.8 Vdc, max. 44 A and 1056 W) - HWS1000L-36, SWS1000L-36; 36 Vdc, max. 29 A (28.8-43.2 Vdc, max. 29 A and 1044 W) - HWS1000L-48, SWS1000L-48; 48 Vdc, max. 22 A (38.4-56 Vdc, max. 22 A and 1056 W) - HWS1000L-60, SWS1000L-60; 60 Vdc, max. 17 A (48-66 Vdc, max. 17 A and 1020 W) NOTE: Ratings in the parentheses are for reference only. These are not indicated on the device rating label.	
Testing procedure and testing location:		
<input checked="" type="checkbox"/> CB Testing Laboratory:		
Testing location/ address:	UL Japan, Inc. 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan	
<input type="checkbox"/> Associated CB Testing Laboratory:		
Testing location/ address:		
Tested by (name + signature):	Jun Orito	
Approved by (name + signature):	Tsutomu Abe	
<input type="checkbox"/> Testing procedure: TMP/CTF Stage 1:		
Testing location/ address:		

Tested by (name + signature):		
Approved by (name + signature):		
<hr/>		
<input type="checkbox"/> Testing procedure: WMT/CTF Stage 2:		
Testing location/ address:		
Tested by (name + signature):		
Witnessed by (name + signature):		
Approved by (name + signature):		
<hr/>		
<input type="checkbox"/> 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):		
<hr/>		

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

Refer to Appendix A of this report. All attachments are included within this report.

Summary of testing

Tests performed (name of test and test clause):

Testing location:

Refer to the Test List in Appendix B of this report if testing was performed as part of this evaluation.

Summary of compliance with National Differences

List of countries addressed: Austria, USA, Canada, United Kingdom, Sweden

Copy of marking plate

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.

Refer to the enclosure(s) titled Marking Plate in the Enclosures section in Appendix A of this report for a copy.