

Test Report issued under the responsibility of:



## TEST REPORT IEC 60950-1 Information technology equipment – Safety –

### Part 1: General requirements

Report Number:	15077086 002

Date of issue.....: 20.03.2017

Total number of pages .....: 15

Applicant's name .....: TDK-Lambda Corp. Nagaoka Technical Center

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

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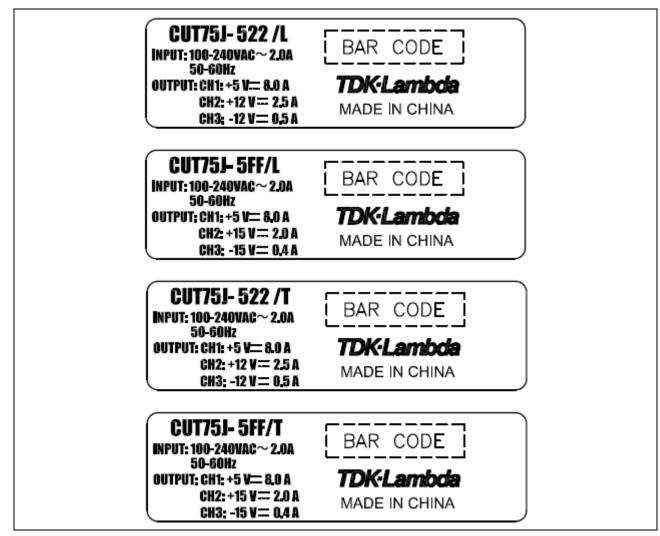
Test item description: Switchin	g Power Supply			
Trade Mark TDK-Lambda				
Manufacturer : Same as	applicant			
	zzzxxxxxx; CUT75J-zzzxxxxxx 22 or 5FF; xxxxxxx = T, B, L, A, F, Q, other alphanumeric er, symbol or blank)			
Refer to	page 8 for definition of variables			
Ratings: See the	model list on page 7 for details			
Testing procedure and testing location:				
CB Testing Laboratory:	TÜV Rheinland Shanghai Co., Ltd.			
Testing location/ address:	No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China			
Associated CB Testing Laboratory:				
Testing location/ address:				
Tested by (name + signature):	Sunny Sun			
Approved by (name + signature):	Roy Chen			
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):				
	I			
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):				

List of Attachments (including a total number of pages in each attachment):								
N/A	N/A							
Summary of testing:								
Tests performed (name of test and test clause): Testing location:								
No further test is considered necessary.	TÜV Rheinland Shanghai Co., Ltd.							
	No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China							
Summary of compliance with National Differences								
List of countries addressed:								
EU Group Differences, EU Special National Conditions, CA, US.								
Explanation of used codes:								
CA=Canada; US = United States of America.								
The product fulfils the requirements of EN 60950-1:2006+A11+A1+A12+A2, UL 60950-1:2007 R10.14 and CAN/CSA C22.2 No. 60950-1-07+A1:2011+A2:2014.								

#### 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. <New Models> CUT75J-522 BAR CODE INPUT: 100-240VAC~ 2.0A 50-60Hz TDK·Lambda OUTPUT: CH1: +5 V== 8.0 A CH2: +12 V == 2.5 A MADE IN CHINA CH3 12 V = 0.5 A CUT75J-5FF BAR CODE INPUT, 100-240VAC~ 2,0A 50-60Hz TDK·Lambda OUTPUT: CH1: +5 V .... 8.0 A CH2: +15 V = 2.0 A MADE IN CHINA CH3: -15 V == 0.4 A CUT75J- 522 /A BAR CODE INPUT: 100-240VAC~ 2.0A 50-60Hz TDK•Lambda OUTPUT: CH1: +5 V== 8.0 A CH2: +12 V == 2.5 A MADE IN CHINA CH3: 12 V = 0.5 A CUT75J-5FF/A BAR CODE INPUT: 100-240VAC $\sim$ 2.0A 50-60Hz TDK•Lambda OUTPUT: CH1: +5 V.... 8.0 A CH2: +15 V = 2.0 A MADE IN CHINA CH3: 15 V == 0.4 A CUT751-522 /B BAR CODE NPUT: 100-240VAC $\sim$ 2.0A 50-60Hz OUTPUT: CH1: +5 V= 8.0 A TDK•Lambda CH2: +12 V = 2.5 A MADE IN CHINA CH3; 12 V = 0.5 A CUT75]- 5FF/B BAR CODE INPUT: 100-240VAC $\sim$ 2.0A 50-60Hz TDK•Lambda OUTPUT: CH1: +5 V= 8.0 A CH2: +15 V == 2.0 A MADE IN CHINA

CH3: 15 V = 0.4 A

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Test item particulars:	See below				
Equipment mobility:	[] movable [] hand-held [] transportable [] stationary [x] for building-in [] direct plug-in				
Connection to the mains:	<ul> <li>[x] pluggable equipment [x] type A [x] type B</li> <li>[x] permanent connection</li> <li>[] detachable power supply cord</li> <li>[] non-detachable power supply cord</li> <li>[] not directly connected to the mains</li> </ul>				
Operating condition:	[x] continuous [] rated operating / resting time:				
Access location:	[] operator accessible [x] restricted access location				
Over voltage category (OVC):	[] OVC I [x] OVC II [] OVC III [] OVC IV [] other:				
Mains supply tolerance (%) or absolute mains supply values	±10%				
Tested for IT power systems	[x] Yes [] No				
IT testing, phase-phase voltage (V)	For Norway, 230V				
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)	16 (20 for US/CSA)				
Pollution degree (PD)	[] PD 1 [x] PD 2 [] PD 3				
IP protection class	IPX0				
Altitude during operation (m)	Up to 3000				
Altitude of test laboratory (m)	Approx 50				
Mass of equipment (kg)	≅0.4kg Max. (with chassis and cover)				
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:					
Date of receipt of test item:	N/A				
Date(s) of performance of tests:	N/A				
General remarks:					
<ul> <li>"(See Enclosure #)" refers to additional information appended to the report.</li> <li>"(See ATTACHMENT #)" refers to additional information appended to the report.</li> <li>"(See appended table)" refers to a table appended to the report.</li> </ul> Throughout this report a  comma /  point is used as the decimal separator.					

#### Page 7 of 15 Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02: The application for obtaining a CB Test Certificate X Yes includes more than one factory location and a Not applicable declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....: When differences exist; they shall be identified in the General product information section. Name and address of factory (ies) ...... 1. Wuxi TDK-Lambda Electronics Co., Ltd. No. 6 Xing Chuang Er Lu, Wuxi, Jiangsu 214028,

2. Zhangjiagang Hua Yang Electronics Co., Ltd. Zhao Feng Industrial Zone, Leyu Town, Zhangjiagang, Jiangsu 215622, P. R. China

P. R. China

#### General product information:

Refer to report 15077086 001 for details.

See Model List below for details.

	Rate	ed Input ra	ating	Rated Output V1			Rated Output V2			Rated Output V3		
Model	Input (Va.c.)	Freq (Hz)	Input (A)	Min. output	typical output	Max. output	Min. output	typical output	Max. output	Min. output	typical output	Max. output
CUT75-	100- 240		2.0	5.0 Vd.c.	5.0 Vd.c.	5.25 Vd.c.	+12 Vd.c.	+12 Vd.c.	+12 Vd.c.	-12 Vd.c.	-12 Vd.c.	-12 Vd.c.
522xxxxxxx CUT75J- 522xxxxxxx	Or 200- 240	50-60	Or 1.0	8.0A	8.0A	7.62A	2.5A	2.5A	3.0A	0.5A	0.5A	1.0A
	Total output power is 76VA max.											
CUT75-	100- 240		2.0	5.0 Vd.c.	5.0 Vd.c.	5.25 Vd.c.	+15 Vd.c.	+15 Vd.c.	+15 Vd.c.	-15 Vd.c.	-15 Vd.c.	-15 Vd.c.
5FFxxxxxx CUT75J- 5FFxxxxxx	Or 200- 240	50-60	Or 1.0	8.0A	8.0A	7.62A	2.0A	2.0A	2.5A	0.4A	0.4A	1.0A
Total output power is 77.5VA max.												

Operating temp.: up to +70°C (operating temperature depending on equipment's load, mounting position, for details refer to instruction manual).

#### Description of change(s):

- 1. Add new model CUT75J-zzzxxxxxx
- 2. Re-new critical components list.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1	N/A	The new model is identical to original model CUT75- <b>zzzxxxxxx</b> , no construction differences. No further test is considered necessary.
2	N/A	See table 1.5.1 in bold for details.

#### History of amendments and modifications:

Ref. No. 15077086 001, dated 2015-03-16 (original test report) Ref. No. 15077086 002, dated 2017-03-20 (1<sup>st</sup> Modification)

CUT75-zzzxxxxxx; CUT75J-zzzxxxxxx         (zzz = 522 or 5FF; xxxxxx = T, B, L, A, F, Q, other alphanumeric character, symbol or blank)         Variable:       Range of variable:       Content:         zzz       522 or 5FF       Denotes for different models         xxxxxxx       T       Denotes power supply with terminal block         B       Denotes power supply with base plate under PWB         L       Denotes power supply with chassis under PWB         A       Denotes power supply with cover & chassis         F       Denotes power supply endut voltage without adjustable component <th colspan="7">Definition of variable(s):</th>	Definition of variable(s):								
Variable:         Range of variable:         Content:           zzz         522 or 5FF         Denotes for different models           xxxxxxx         T         Denotes power supply with terminal block           B         Denotes power supply with base plate under PWB           L         Denotes power supply with cover & chassis           F         Denotes fixed output voltage without adjustable component           Q         For CQC approval           other alphanumeric character, symbol or blank         For market purposes, no construction differences and no safety impact.           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           -Short-circuited         s-c         -No component damage         CD           -Overloaded         o-l         -Test repeated, similar result         RT           -Internal protection operated         IP         -No indication of dielectric breakdown         NB	CUT75- <b>zzzxxxxxx</b> ; CUT75J- <b>zzzxxxxxx</b>								
zzz       522 or 5FF       Denotes for different models         xxxxxxx       T       Denotes power supply with terminal block         B       Denotes power supply with base plate under PWB         L       Denotes power supply with chassis under PWB         A       Denotes power supply with cover & chassis         F       Denotes power supply with cover & chassis         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       -Normal conditions       N.C.         -Normal conditions       N.C.       -Single fault conditions       S.F.C         -Functional insulation       DI       -Supplementary insulation       BI         -Double insulation       DI       -Supplementary insulation       SI         -Between parts of opposite polarity       BOP       -Reinforced insulation       RI         -Short-circuited       o-c       -Component damage       NCD         -Overloaded       o-l       -Test repeated, similar result       RT         -Internal protection operated       IP       -No indication of dielectric breakdown       NB         -Input       i/p       -Cheesecloth remained intact       NC <td colspan="7">(<b>zzz</b> = 522 or 5FF; <b>xxxxxxx</b> = T, B, L, A, F, Q, other alphanumeric character, symbol or blank)</td>	( <b>zzz</b> = 522 or 5FF; <b>xxxxxxx</b> = T, B, L, A, F, Q, other alphanumeric character, symbol or blank)								
XXXXXXX       T       Denotes power supply with terminal block         B       Denotes power supply with base plate under PWB         L       Denotes power supply with chassis under PWB         A       Denotes power supply with cover & chassis         F       Denotes fixed output voltage without adjustable component         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       -Normal conditions       N.C.       -Single fault conditions       S.F.C         -Functional insulation       OP       -Basic insulation       Bl         -Double insulation       DI       -Supplementary insulation       SI         -Between parts of opposite polarity       BOP       -Reinforced insulation       RI         -Short-circuited       s-c       -No component damage       CD         -Open-circuited       o-c       -Component damage       CD         -Overloaded       o-I       -Test repeated, similar result       RT         -Input       i/p       -No indication of dielectric breakdown       NB	Variable:	Range of variable:		Conter	nt:				
B       Denotes power supply with base plate under PWB         L       Denotes power supply with cover & chassis         A       Denotes power supply with cover & chassis         F       Denotes fixed output voltage without adjustable component         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       -Normal conditions       N.C.         -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         -Short-circuited       o-c       -Component damage       NCD         -Open-circuited       o-l       -Test repeated, similar result       RT         -Internal protection operated       IP       -No indication of dielectric breakdown       NB         -Input       i/p       -Cheesecloth remained intact       NC	zzz	522 or 5FF		Denote	es for different models				
L       Denotes power supply with chassis under PWB         A       Denotes power supply with cover & chassis         F       Denotes fixed output voltage without adjustable component         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       -Normal conditions       N.C.         -Functional insulation       OP       -Basic insulation       BI         -Double insulation       DI       -Supplementary insulation       SI         -Between parts of opposite polarity       BOP       -Reinforced insulation       RI         -Short-circuited       o-c       -Component damage       NCD         -Overloaded       o-l       -Test repeated, similar result       RT         -Internal protection operated       IP       -No indication of dielectric breakdown       NB         -Input       i/p       -Cheesecloth remained intact       NC	xxxxxx	Т		Denote	es power supply with terminal block				
A       Denotes power supply with cover & chassis         F       Denotes fixed output voltage without adjustable component         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       Single fault conditions       S.F.C         -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         -Short-circuited       o-c       -Component damage       CD         -Open-circuited       o-l       -Test repeated, similar result       RT         -Internal protection operated       IP       -No indication of dielectric breakdown       NB         -Input       i/p       -Cheesecloth remained intact       NC		В		Denote	es power supply with base plate under P	WB			
F       Denotes fixed output voltage without adjustable component         Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         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         -Short-circuited       s-c       -No component damage       NCD         -Overloaded       o-l       -Test repeated, similar result       RT         -Internal protection operated       IP       -No indication of dielectric breakdown       NB         -Input       i/p       -Cheesecloth remained intact       NC		L		Denote	es power supply with chassis under PWE	3			
Q       For CQC approval         other alphanumeric character, symbol or blank       For market purposes, no construction differences and no safety impact.         Abbreviations used in the report:       -Normal conditions       N.C.         -Normal conditions       N.C.       -Single fault conditions         -Functional insulation       OP       -Basic insulation         -Double insulation       DI       -Supplementary insulation         -Between parts of opposite polarity       BOP       -Reinforced insulation         -Short-circuited       s-c       -No component damage         -Open-circuited       o-c       -Component damage         -Overloaded       o-I       -Test repeated, similar result         -Internal protection operated       IP       -No indication of dielectric breakdown         -Input       i/p       -Cheesecloth remained intact       NC		A		Denote	es power supply with cover & chassis				
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-Constant temperatures were obtained CT -The unit can recover auto when removing the abnormal condition RA	-Functional insulationOP-Double insulationDI-Between parts of opposite polarityBO-Short-circuiteds-cc-Open-circuitedo-cc-Overloadedo-l-Internal protection operatedIP-Inputi/p-Outputo/p		P	-Basic insulation -Supplementary insulation -Reinforced insulation -No component damage -Component damage -Test repeated, similar result -No indication of dielectric breakdown -Cheesecloth remained intact -Tissue paper remained intact -The unit can recover auto when remove	BI SI RI NCD CD RT NB NC NT ng the				