




Test Report issued under the responsibility of



<b>TEST REPORT</b> <b>IEC 60950-1: 2005 (2nd Edition) and/or EN 60950-1:2006</b> <b>Information technology equipment – Safety –</b> <b>Part 1: General requirements</b>	
Report Reference No. ....:	2520400-3336-0023 ( 109316 ) CB/DE1- 40099
Tested by (name + signature) .....	Jürgen Bärwinkel 
Approved by (name + signature).....:	Frank Richter 
Date of issue.....:	2008-09-29
<b>CB Testing Laboratory</b> .....	VDE Testing and Certification Institute
Address.....:	Merianstrasse 28, D-63069 Offenbach, Germany
Testing location / procedure .....	CBTL <input type="checkbox"/> RMT <input type="checkbox"/> SMT <input type="checkbox"/> WMT <input checked="" type="checkbox"/> TMP <input type="checkbox"/>
Testing location / address.....:	TDK Innoveta Inc. 3320 Matrix Drive, Suite 100, Richardson, Texas 75082, USA WMT (TDAP File no. 2520400-9501-0001)
<b>Applicant's name</b> .....	TDK Innoveta Inc.
Address.....:	3320 Matrix Drive, Suite 100, Richardson, Texas 75082, USA
<b>Test specification:</b>	
Standard .....	IEC 60950-1:2005 (2 <sup>nd</sup> Edition) and/or EN 60950-1:2006
Test procedure .....	CB –scheme, VDE
Non-standard test method.....:	N/A
<b>Test Report Form No.</b> .....	IECEN60950_1C
Test Report Form(s) Originator .....	SGS Fimko Ltd
Master TRF.....:	2006-06
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<b>Test item description</b> ..... :	DC-DC Power Supply for IT-Equipment
Trade Mark .....	
Manufacturer .....	TDK Innoveta Inc.
Model/Type reference .....	iQG Series (See model matrix Appendix 1)
Ratings.....	See model matrix Appendix 1
Input:	DC 36 - 60 V (SELV), or DC 36 – 75 V (TNV-2), max. 10 A
Output:	SELV (see attached model matrix)
Component / Case Temperature	Max. 124 °C at Baseplate

**Copy of marking plate:**

See Appendix 2

<b>Summary of testing:</b>		
Clause 1.5	Components .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 1.6	Power interface.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 1.7	Markings and instructions.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.1	Protection from electric shock and energy hazards.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.2	SELV circuits .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.3	TNV circuits .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.4	Limited current circuits .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 2.5	Limited power sources.....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 2.6	Provisions for earthing and bonding .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 2.7	Overcurrent and earth fault protection in primary circuits .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.8	Safety interlocks.....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 2.9	Electrical insulation .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 2.10	Clearances, creepage distances and distances through insulation	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 3.1	Wirings .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 3.2	Connection to an a.c. mains supply or a d.c. mains supply.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 3.3	Wiring terminals for connection of external conductors.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 3.4	Disconnection from the mains supply.....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 3.5	Interconnection of equipment.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 4.1	Stability.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 4.2	Mechanical strength .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 4.3	Design and construction .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 4.4	Protection against hazardous moving parts.....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 4.5	Thermal requirements.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 4.6	Openings in enclosures .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 4.7	Resistance to fire.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 5.1	Touch current and protective conductor current.....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Clause 5.2	Electric strength.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 5.3	Abnormal operating and fault conditions .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 6	Connection to telecommunication networks.....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Clause 7	Connection to cable distribution systems .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Annex B	Motor Tests under abnormal conditions .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Annex C	Transformers .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Annex G	Alternative Method for determining minimum clearances .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Annex M	Criteria for telephone ringing signals .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Annex U	Insulated winding wires for use without interleaved insulation .....	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A

<b>Test item particulars</b> .....	
Equipment mobility.....	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> stationary <input type="checkbox"/> fixed <input type="checkbox"/> transportable <input checked="" type="checkbox"/> for building-in
Connection to the mains.....	<input type="checkbox"/> pluggable equipment <input type="checkbox"/> direct plug-in <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> for building-in
Operating condition.....	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> short-time <input type="checkbox"/> intermittent
Over voltage category .....	<input type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV
DC mains supply .....	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Earthed <input type="checkbox"/> Unearthed
Mains supply tolerance (%) .....	Unit is rated 0% Tolerance
Tested for IT power systems .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IT testing, phase-phase voltage (V) .....	---
Class of equipment .....	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input checked="" type="checkbox"/> Not classified
Mass of equipment (kg) .....	
Pollution degree .....	<input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class .....	IP---
<b>Possible test case verdicts</b>	
- test case does not apply to the test object .....	N/A (Not Applicable)
- test object does meet the requirement .....	P (Pass)
- test object does not meet the requirement .....	F (Fail)
<b>Testing</b> .....	
Date of receipt of test item.....	2008-09-22
Date(s) of performance of tests.....	2008-09-22 to 2008-09-29
<b>General remarks:</b>	
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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	

**Factory** (for information only)

Name.....: TDK Innoveta Inc.

Address.....: 3320 Matrix Drive, Suite 100, Richardson, Texas 75082, USA

Name.....: NEMIC-LAMBDA (M) SDN. BHD.

Address.....: PL033 Kawasan perindustrian Senai, Locked Bag No. 110 81400 Senai, Johor, Malaysia

**General information:**

Complete details of construction and testing as well as supporting documentation such as photographs are included in the attachment.

**General product information: / Conditions of Installation:**

DC-DC Power Supply for building-in, ratings see page 2.

The units were tested with a maximum continuous output.

The power modules are not internally fused. An external input line normal blow fuse with a maximum value of 15 A is required.

The Electrical and Fire Enclosures are to be provided by the end product.

The equipment shall be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the end-use application.

**The power supply series provides Basic insulation based on DC 75 V (TNV-2), between input and output.**

Units are components within customer's end-use system. Input to converters is DC 36 – 60V (SELV) or DC 36 – 75 V (TNV-2).

- A. If the input meets all requirements for ELV, then the output may be considered ELV
- B. If the input meets all requirements for SELV, then the output may be considered SELV
- C. If the input meets all requirements for TNV-2, then the output may be considered TNV-2

**Model Differences:**

See attached model matrix (Appendix 1)

The label includes: Optional "-R" appended to product code to indicate ROHS compliance.

eg. iQGXXXXXX-### -R Series

