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REPORT

ON

COMPONENT - POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIPMENT INCLUDING INCLUDING ELECTRICAL BUSINESS EQUIPMENT
COMPLEMENTARY LISTED TO
POWER SUPPLIES, AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY EQUIPMENT

TDK-LAMBDA CORP
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DESCRIPTION

PRODUCT COVERED:

USR, CNR: Component-Type Switching Power Supply, Model RTW300W Series, for use in Information Technology Equipment.

RTW300W Series models are represented as follows:

RTWx-y or RTWx-y# or RTWx-y* or RTW05-60RH-FP

x = 1 to 3 digit number which may include a period

y = 1 to 3 digit number which may include a period or the letter R and which may be followed by the letter K

= A, B, D, J, L, M or U

* = C, E, G, H, N, S, T or V

ELECTRICAL RATING:

Input:	Type A:	100-240 V ac, 3.6-1.8 A, 50-60 Hz
	Types B-G:	100-240 V ac, 4.0-2.0 A, 50-60 Hz
	RTW05-60RH-FP:	200-240 V ac, 2.0 A, 50-60 Hz
Output:	Type A:	1.8-3.6 V dc, 70 A max., 231 W max.
	Type B:	3.5-6.0 V dc, 60 A max., 300 W max.
	Type C:	6.0-14.4 V dc, 25 A max., 300 W max.
	Type D:	10.5-18.0 V dc, 20 A max., 300 W max.
	Type E:	16.5-26.4 V dc, 13 A max., 312 W max.
	Type F:	19.6-33.6 V dc, 11 A max., 308 W max.
	Type G:	33.6-55.0 V dc, 6.5 A max., 312 W max.
	RTW05-60RH-FP:	5Vdc (4.3-5.0Vdc), 60A (64A max., 320W max.)

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

*USR, CNR - Indicates investigation to UL 60950-1, 2nd Edition, **2014-10-14** (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, **2014-10** (Information Technology Equipment - Safety - Part 1: General Requirements).

USR, CNR - Indicates investigation to UL 62368-1, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements) and CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements).

Use: For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - When installed in the end-use equipment, consideration shall be given to the following:

*1. These power supplies have been judged on the basis of the required creepage and clearance distances specified in the US and Canadian (Bi-National) Standard for Safety of Information Technology Equipment UL 60950-1, 2nd Edition, **2014-10-14** (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, **2014-10** (Information Technology Equipment - Safety – Part 1: General Requirements), subclause 2.10, **and UL 62368-1, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements), CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements), Clause 5.4,** which covers the end-use product for which the component was designed.

2. These power supplies shall be installed in compliance with the enclosure, mounting, creepage, clearance, casualty, marking and segregation requirements of the end-use application.

*3. The necessity of re-conducting the Touch Current Test is to be determined during end-product evaluation.

4. These power supplies have only been evaluated for use in a Pollution Degree 2 environment.

5. A Heating Test should be conducted in the end-product. Consideration should be given to measuring the temperature on power electronic components, inductors and transformer windings when the power supply is installed in the end-use equipment. Transformers T1, T2 and Inductor L4 utilize a Class B electrical insulation system.

6. The terminal blocks are not acceptable for field connections and are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of connections relative to secureness, insulating materials and temperature shall be considered.

7. These power supplies should be properly bonded to earth ground in the end-use product, as this unit was investigated for Class I construction. The bonding terminal has not been investigated as a protective earthing terminal.

8. The secondary outputs of these power supplies are SELV and are at hazardous energy levels.

*9. These power supplies have been evaluated for use in Class I equipment, as defined in UL 60950-1, 2nd Edition, **2014-10-14** (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, **2014-10** (Information Technology Equipment - Safety - Part 1: General **Requirements), and UL 62368-1, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements), CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements).** An additional evaluation should be made if the power supply is intended for use in other than Class I equipment.

*10. These power supplies were evaluated under the assumption that the power source is a TN-S system, as defined by UL 60950-1, 2nd Edition, **2014-10-14** (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, **2014-10** (Information Technology Equipment - Safety - Part 1: General Requirements).

11. Consideration should be given to the accessibility of hazardous primary circuits and outputs in the end-use product.

12. These power supplies are provided with over-current protection on one side of the input line. Consideration should be given to protecting both sides of the line if one side is not considered to be neutral.

13. Power supply models without a cover have been evaluated for use in a 50°C ambient temperature at full rated power. Power supply models with a cover have been evaluated for use in a 40°C ambient temperature at full rated power.

14. Inductors L1, L2 and L3 have been evaluated as suitable for 120°C.

15. Inductors L501 and L601 have been evaluated as suitable for 130°C.

16. Clearance and creepage distances in the end product should be based on 337 V rms, 614 V pk.