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REPORT
On

COMPONENT - POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIPMENT
Astec International Limited Philippines Branch Quezon City 1110, Philippines

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| File E186249 Vol. 1 | Sec. 239 | Page 1 | Issued: 2006-08-15 <br> and Report |  | Revised: 2010-06-17 |
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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR Component - Switching Power Supply, Models DS650-3-002, DS650-3-003 and DS650-3 for use in Information Technology Equipment.

## ELECTRICAL RATINGS:

| MODEL | INPUT |  |  |
| :---: | :---: | :---: | :---: |
| DS650-3-002 | $\begin{aligned} & 100-240 \mathrm{~V} \mathrm{AC} \\ & 10 \mathrm{~A} \\ & 50 / 60 \mathrm{~Hz} \end{aligned}$ | $\begin{aligned} & +5 \mathrm{~V} \text { aux } \\ & +12 \mathrm{~V} \text { dc } \end{aligned}$ | 4 A max <br> 53 A max |
| $\begin{aligned} & \text { DS 650-3-003 } \\ & \text { and DS650-3 } \end{aligned}$ | $\begin{aligned} & 100-240 \mathrm{~V} \mathrm{AC} \\ & 10 \mathrm{~A} \\ & 50 / 60 \mathrm{~Hz} \end{aligned}$ | $\begin{aligned} & +3.3 \mathrm{~V} \text { aux } \\ & +12 \mathrm{~V} \mathrm{dc} \end{aligned}$ | 6 A max <br> 53 A max |

## *TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

*General - The units are for use in product where the acceptability of the combination is determined by Underwriters Laboratories Inc.
*Both USR and CNR indicate investigation to the Standard for Safety of Information Technology Equipment, UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1-07.

Conditions of Acceptability - When installed in the end-use equipment, the following are the considerations to be made:
*1. These components have been judged on the basis of the required creepages and clearances in the Second Edition of the Standard for Safety of Information Technology Equipment, UL 60950-1, CAN/CSA C22.2 No. 60950-1-07, Sub-clause 2.10, which covers the end-use product for which the component was designed. The functional insulations have been evaluated by conducting Component Failure Test per Sub-clause 5.3.4 (c) of UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1-07.
2. These power supplies have only been evaluated for use in a pollution degree 2 environment.
*3. These power supplies were evaluated with the assumption that the power source is a TN-S system as defined by UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1-07.
4. A suitable fire, mechanical and electrical enclosure shall be provided by end use equipment.
5. These power supplies have been evaluated for use in Class I equipment as defined in UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-107 and shall be properly earthed or bonded to earth in the end-use. An additional evaluation shall be made if the power supplies are intended for use in other than Class I equipment.
6. For Model DS650-3-002, +12 V output of the power supply is unearthed energy hazard SELV, while +5 Vaux is unearthed non-energy hazard SELV. Sub-clause 2.2.3.1 per UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1-07 were used to maintain the insulation of SELV from primary circuits.
7. For Models DS650-3-003 and DS650-3, +12 V output of the power supply is unearthed energy hazard SELV, while + 3.3 Vaux is unearthed non-energy hazard SELV. Sub-clause 2.2.3.1 per UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1- were used to maintain the insulation of SELV from primary circuits.
8. This power supply has been evaluated for use in $25^{\circ} \mathrm{C}$ and $50^{\circ} \mathrm{C}$ ambient.
9. Transformers, T103, T104, T131, T107 and T402 employ Class F electrical insulation system.
10. The input and secondary output connectors have not been evaluated for field connections.
11. These power supplies are classified Level 5 as defined by UL 60950-1, Second Edition and CAN/CSA C22.2 No. 60950-1-07.
12. Power supply handle is made of plastic with rated temperature of $85^{\circ} \mathrm{C}$. However, if can be replaced with metal an additional thermal test should be considered in the end-system (applicable for Models DS650-3-002 and DS650-3 only).
13. Model DS650-3 has been evaluated for use up to $50^{\circ} \mathrm{C}$ at reverse (from Handle to output connector) and forward (from output connector to Handle) fan airflow conditions at 650 W maximum combined output power.

