File E186249

* Project **4787440003**

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REPORT

On

*COMPONENT - POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIPMENT

Astec International Limited Philippines Branch
Quezon City 1110, Philippines

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component - Switching Power Supply, Model LPQ142 for use in Information Technology Equipment.

ELECTRICAL RATINGS:

| MODEL | INPUT | OUTPUT |
|---|---|---|
| *LPQ142 | 100 - **240** V ac | FORCED AIR |
| | 3 A | V1: DC + 3.3 to + 5.7 V, 25 A MAX |
| | 50 / 60 Hz | V2: DC + 12 to + 12.7 V, 6 A MAX |
| | OR | V3: DC – 12 to - 15.0 V, 1.5 A MAX |
| | DC 120 Vmin – 370 Vmax | V4: DC + 3.3 to + 25.0 V, 4.5 A MAX |
| | 3 A | CONVECTION COOLING |
| | | V1: DC + 3.3 to + 5.7 V, 12 A MAX |
| | | V2: DC + 12 to + 12.7 V, 5 A MAX |
| | | V3: DC – 12 to - 15 V, 1 A MAX |
| | | V4: DC + 3.3 to + 25 V, 1.5 A MAX |

Maximum continuous output power is 145 W with or without cover at min. 30 CFM forced air

Maximum continuous output power is 145 W with cover and build-in fan.

Maximum continuous output power is 80 W without cover at convection cooling.

Maximum continuous output power is 60 W with cover at convection cooling.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE’S USE):

General – The unit is 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**, revision dated October 14, 2014,** CAN/CSA C22.2 No. 60950-1-07**, Second Edition, revision dated October 14, 2014.**

Conditions of Acceptability – When installed in the end-use equipment, the following are the considerations to be made:

*1. This component has 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, Second Edition**, revision dated October 14, 2014,** CAN/CSA C22.2 No. **60950-1-07, Second Edition, revision dated October 14, 2014,** Sub-clause 2.10, which covers the end-use product for which the component was designed. The functional insulation have been evaluated by conducting Component Failure Tests per sub-clause 5.3.4 (c) of UL 60950-1, Second Edition**, revision dated October 14, 2014,** CAN/CSA C22.2 No. 60950-1-07**, Second Edition, revision dated October 14, 2014.**

2. This power supply has only been evaluated for use in Pollution Degree 2 environment.

*3. This power supply was evaluated with the assumption that the power source is a TN-S system as defined by UL 60950-1, Second Edition, **revision dated October 14, 2014, and** CAN/CSA C22.2 No. **60950-1-07, Second Edition, revision dated October 14, 2014.**

4. A suitable enclosure shall be provided by end use equipment.

5. The secondary outputs of the power supply are unearthed non-energy hazard SELV. Sub-clause 2.2.3.1 per UL 60950-1, Second Edition, **revision dated October 14, 2014, and** CAN/CSA C22.2 No. 60950-1-07, **Second Edition, revision dated October 14, 2014,** were used to maintain the insulation of SELV from primary circuits.

6. This power supply has been evaluated for use in Class I equipment as defined in UL 60950-1, Second Edition**, revision dated October 14, 2014,** CAN/CSA C22.2 No. 60950-1-07**, Second Edition, revision dated October 14, 2014** and shall be properly earthed or bonded to earth in the end-use. An additional evaluation shall be made if the power supply is intended for use in other than Class I equipment.

7. This power supply has been evaluated for use in 25ºC and 50°C ambient. Total output power is derated by 2.5%/degree from 50°C to 70°C ambient.

8. Transformer T4 employs Class F electrical insulation system.

9. The secondary DC output connector has not been evaluated for field connections.

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10. This power supply is classified as Level 3 as defined by UL 60950-1, Second Edition, revision dated October 14, 2014, CAN/CSA C22.2 No. 60950-1-07, Second Edition, revision dated October 14, 2014.

11. This power supply has not been evaluated for end system mounting. Creepage and clearance requirements between primary parts of power supply and system chassis shall be considered in the end system.

12. This power supply has only been evaluated under a specific ventilation set-up. See ILL. 3 for details.

13. The reliability of protective bonding conductor in U-Base shall be evaluated per clause 2.6 of UL 60950-1, Second Edition, dated October 14, 2014, CAN/CSA C22.2 No. 60950-1-07, Second Edition, dated October 14, 2014.