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2016-03-23

UL TEST REPORT AND PROCEDURE

Standard: UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements) **Certification Type:** Component Recognition CCN: QQGQ2, QQGQ8 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment) Power Supply, Built-In DC/DC Product: Model: UxQ Series, may or may not be followed by an alphanumeric suffix indicating non safety related options. Rating: UxQ-A/B-C x indicates L or C (same as ULQ with minor component changes) or V (ULQ Series with baseplate option) or Q (ULQ Series with baseplate option and 4:1 (Q12, Q48) input range). A - Output voltage 0.1 to 48 Vdc B - Output current 0 to 40 A C - Input Voltage D12 - 9 to 18 Vdc D24 - 18 to 36 Vdc D48 - 36 to 75 Vdc Q12 - 9 to 36 Vdc Q48 - 18 to 75 Vdc Maximum output power (A*B) not to exceed 132W. (See model differences for all combinations) MURATA POWER SOLUTIONS INC **Applicant Name and Address:** 11 CABOT BLVD MANSFIELD MA 02048-1137 UNITED STATES

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Robert Leon Reviewed by: Walid Beytoughan

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Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

The products covered by this report are single output, dc/dc converters. They are provided with input and output connectors (pins) for connection to a source of supply and to the load. All components are mounted on a printed wiring board.

Model Differences

Model series are identical to each other with the exception of minor component changes and a baseplate option. See ratings for details.

UVQ-1.5/40-D24 1.5 40 60 24 18-36 2.84 UVQ-2.5/35-D24 2.5 35 87.5 24 18-36 4.14 UVQ-2.5/40-D48 2.5 35 87.5 48 36-75 2.37 UVQ-3.3/30-D24 3.3 30 99 24 18-36 4.58 UVQ-3.3/35-D48 3.3 30 99 48 36-75 2.7 UVQ-5/20-D24 5 20 100 24 18-36 4.53 UVQ-5/20-D48 5 20 100 48 36-75 2.31 UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-2.5/40-D48 2.5 35 87.5 48 36-75 2.37 UVQ-3.3/30-D24 3.3 30 99 24 18-36 4.58 UVQ-3.3/35-D48 3.3 30 99 48 36-75 2.7 UVQ-5/20-D24 5 20 100 24 18-36 4.53 UVQ-5/20-D48 5 20 100 48 36-75 2.31 UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-3.3/30-D24 3.3 30 99 24 18-36 4.58 UVQ-3.3/35-D48 3.3 30 99 48 36-75 2.7 UVQ-5/20-D24 5 20 100 24 18-36 4.53 UVQ-5/20-D48 5 20 100 48 36-75 2.31 UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-3.3/35-D48 3.3 30 99 48 36-75 2.7 UVQ-5/20-D24 5 20 100 24 18-36 4.53 UVQ-5/20-D48 5 20 100 48 36-75 2.31 UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
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UVQ-5/20-D48 5 20 100 48 36-75 2.31 UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-12/8-D24 12 8 96 24 18-36 4.4 UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-12/10-D48 12 10 120 48 36-75 2.78 UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-15/7-D24 15 7 105 24 18-36 4.85
UVQ-15/7-D48
UVQ-18/5.6-D24 18 5.6 100.8 24 18-36 4.69
UVQ-18/6-D48 18 6 108 48 36-75 2.5
UVQ-24/4.5-D24 24 4.5 108 24 18-36 5.03
UVQ-24/4.5-D48 24 4.5 108 48 36-75 2.49
UVQ-48/2.5-D24 48 2.5 120 24 18-36 7.52
UVQ-48/2.5-D48 48 2.5 120 48 36-75 2.71
UCQ-3.3/40-D48 3.3 40 132 48 36-75 4.21
UCQ-5/25-D48 5.0 25 125 48 36-75 3.90

Technical Considerations

Equipment mobility : for building-in
 Connection to the mains : N/A
 Operating condition : continuous