Certificate Number Report Reference Issue Date 20161012-E151252 E151252-A130 2016-OCTOBER-12

Issued to: MURATA POWER SOLUTIONS INC 11 CABOT BLVD MANSFIELD MA 02048-1137 UNITED STATES

This is to certify that representative samples of

Component-Power Supplies for Information Technology
Equipment Including Electrical Business Equipment
See addendum page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety:UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07,
Information Technology Equipment - Safety - Part 1:
General Requirements.Additional Information:See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: **N**, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

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Bruce Mahrenholz, Director North American Certification Program



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Certificate Number Report Reference Issue Date 20161012-E151252 E151252-A130 2016-OCTOBER-12

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

DC-DC Converters, Models NMEaabby or CMEaabby or CRE1Saabby

where aa = Input Voltage; bb = Output Voltage and y = is any combination of alphanumeric characters, -, or blank representing non-safety related options.

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Bruce Mahrenholz, Director North American Certification Program



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20161026- E151252 Certificate Number E151252-A82-UL **Report Reference Issue Date** 2016-OCTOBER-26 MURATA POWER SOLUTIONS INC Issued to: 11 CABOT BLVD, MANSFIELD MA 02048-1137 **COMPONENT - POWER SUPPLIES, INFORMATION** This is to certify that TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL representative samples of BUSINESS EQUIPMENT "See Addendum page" Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate. UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07 -Standard(s) for Safety: Information Technology Equipment - Safety - Part 1: General Requirements. Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: **N**, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

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Bruce Mahrenholz, Director North American Certification Program UL LLC



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Certificate Number Report Reference Issue Date 20161026- E151252 E151252-A82-UL 2016-OCTOBER-26

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models/Product:

DC-DC Converter

NKEaabbggy or CRE1Saabbggy or CMEaabbggy, where:

aa=Input Voltage (03-3.3Vdc, 05=5.0Vdc, 12Vdc) bb=Output Voltage (03=3.3V, 05=5.0V, 09=9.0V, 12=12.0V, 15=15.0V) gg=2 to 4 letters indicating package style y=is any combination of alphanumeric characters, - or blank representing non-safety related options

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Bruce Mahrenholz, Director North American Certification Program



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20170215-E151252 Certificate Number E151252-A71-UL **Report Reference Issue Date** 2017-FEBRUARY-15 MURATA POWER SOLUTIONS INC Issued to: 11 CABOT BLVD, MANSFIELD MA 02048-1137 **COMPONENT - POWER SUPPLIES, INFORMATION** This is to certify that TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL representative samples of BUSINESS EQUIPMENT Refer to Addendum page for Models/Product Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate. UL 60950-1, 2nd Edition, 2011-12-19 and CAN/CSA C22.2 Standard(s) for Safety: No. 60950-1-07 - Information Technology Equipment -Safety - Part 1: General Requirements Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: **N**, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

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Bruce Mahrenholz, Director North American Certification Program UL LLC



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Certificate Number Report Reference Issue Date

20170215-E151252 E151252-A71-UL 2017-FEBRUARY-15

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

DC-DC Converters MTE1Saabby (where, aa= Input Voltage, bb= Output Voltage and y= may be blank or any alphanumeric characters designating non-safety critical options.)

CRE1Saabby

(where, aa= Input Voltage, bb= Output Voltage and y= may be blank or any alphanumeric characters designating non-safety critical options.)

Barnelly

Bruce Mahrenholz, Director North American Certification Program



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