CERTIFICATE OF COMPLIANCE

Certificate Number Report Reference Issue Date

20131015-E145156 E145156-20131011 2013-OCTOBER-15

Issued to: ISKRA SISTEMI, D D STEGNE 21 1000 LJUBLJANA SLOVENIA

This is to certify that representative samples of

COMPONENT - ACROSS-THE-LINE CAPACITORS, ANTENNA-COUPLING COMPONENTS LINE-BYPASS COMPONENTS AND FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT See Addendum Page

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

Standard(s) for Safety: Additional Information:

See Addendum Page See the UL Online Certifications Directory at <u>www.ul.com/database</u> for additional information

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. 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 Recognizion 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. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada: **N** and 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.

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 Recognized Component Mark on the product.

William R. C.

William R. Carney, Director, North American Certification Programs

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CERTIFICATE OF COMPLIANCE

Certificate Number 2 Report Reference E Issue Date 2

20131015-E145156 E145156-20131011 2013-OCTOBER-15

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

Standard(s) for Safety:- Standard(s) for Safety :-Fixed Capacitors for Use in Electronic Equipment – Part 14 Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains :- UL 60384-14# And CSA E60384-14:09 Fixed capacitors for use in electronic equipment –Part 1 Generic specification:- CSA E60384-1:03

- including National Differences For UL 60384-14 Safety Requirements for Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains

Models :- Class X1 Wound Film Type Capacitors, Models KNB1540, KNB1542 and KNB1543 series with capacitance from 0.0022 μ F to 0.47 μ F with tolerance ±10% or ±20%. See CONSTRUCTION DETAILS for Model designation and rated capacitance.

William R.C.

William R. Carney, Director, North American Certification Programs



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| | | | | | |

DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component - Class X1 Wound Film Type Capacitors, Models KNB1540, KNB1542 and KNB1543 series with capacitance from 0.0022 μF to 0.47 μF with tolerance ±10% or ±20%. See CONSTRUCTION DETAILS for Model designation and rated capacitance.

RATINGS:

| Class | Voltage | Lower | Upper | Capacitance | Climatic | Passive |
|-------|---------|-------------|-------------|--------------|----------|--------------|
| | Rating | Category | Category | Tolerance | Category | Flammability |
| | (V ac) | Temperature | Temperature | (%) | | Category |
| | | (°C) | (°C) | | | |
| X1 | 440 | -40 | 100 | ±10% or ±20% | 56 | В |

ABBREVIATIONS:

USR - Recognized, indicates investigation to UL 60384-14, First Edition, with revisions up to and including March 31, 2010.

CNR - Recognized, indicates investigation to CSA E60384-1-03, Second Edition, February 2003 and CSA E60384-14:09, Second Edition, March 2009.

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TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

Conditions of Acceptability -

These components have been investigated and are intended for use in Electronic Equipment for Electromagnetic Interference Suppression and Connection to the Supply Mains where the acceptability of the combination is determined by UL LLC.

- 1. These components are intended to be installed within a suitable enclosure in the end use application.
- 2. Electrical spacings between uninsulated live parts of opposite polarity shall comply with the requirements of the end-use product.
- 3. These components are intended for use in 50/60 Hz circuits up to a nominal voltage, 440 V ac.
- 4. These capacitors have been evaluated for 56 days Damp-Heat Steady State Test in an ambient of $40\pm2^{\circ}$ C, 93 ± 3 % RH, the acceptability shall be determined in the end use application.