

## Ultra wide 8:1 input range DC-DC converter designed for railway applications



► The UCR100 series of DC-DC converters are specifically designed for railway power conversion and battery applications. The UCR units offer customers ease of installation and better energy efficiency ratings than comparable models. Typically a single UCR module can take the place of up to 5 competitive alternative modules currently used in customers' existing applications. The series can also improve overall system reliability through the use of the input holdup option that requires just a single capacitor to provide up to 10 ms holdup.

The UCR100 series provides tight line and load regulation together with control features such as remote On/Off, a +/- 10% output trim and a remote sense of 10%.

The active current share option allows multiple UCR converters to connect in parallel to support higher output currents or to achieve higher system reliability through redundancy.

### UCR100 Series

#### Applications include:

- Railway rolling stock
- Telecom
- Railway wayside switchgear
- Trainline controls
- Railway communications systems
- Railcar emergency lighting systems
- Industrial control systems with unstable DC input voltages

#### Product Features

- Eurocard 3U x 4TE format
- Input range of 16.8V - 137.5V
- Single outputs: 5V, 12V, or 24V
- EN50155, EN50116, IEC60571, RIA12, IEC/EN/UL60950-1 compliant
- High efficiency - up to 90%
- Remote On/Off control
- Adjustable output trim +/-10%
- Remote Sense compensation 10%

Root Model Number	Voltage Out	Power	Range Volts	Efficiency Typical
UCR100-050-T72-C	5.1V	100W	16.8-137.5V	87%
UCR100-120-T72-C	12V	120W		86.5%
UCR100-240-T72-C	24V	105.6W		90%

# UCR100 : ULTRA WIDE 8:1 INPUT RANGE DC-DC CONVERTER DESIGNED FOR RAILWAY APPLICATIONS

Date: Oct 18, 2012

Murata today launched the UCR100 series of DC-DC converters from Murata Power Solutions designed specifically for railway power conversion and battery applications. Accommodating an ultra wide 8:1 input range, from 16.8 to 137.5 VDC, the UCR100 series comprises 3 single output models providing 5, 12, or 24 VDC outputs. Additional model-specific options include current share, holdup and an adjustable undervoltage lockout feature.

Packaged in a Euro Cassette format measuring 3U x 4TE x 165 mm, the UCR100 series is footprint and pin compatible with competitive product offerings. The UCR units offer customers ease of installation and better energy efficiency ratings than comparable models. Typically a single UCR module can take the place of up to 5 alternative modules currently used in customers' existing applications. The series also can improve overall system reliability through use of the input hold up option that requires just a single capacitor to provide up to 10 ms holdup.

These highly efficient units, typically up to 90%, create less heat than other power supplies and ensuring no extra forced air cooling is required. They are packaged in a ruggedized enclosure and conformally coated in order to achieve high standards of reliability and resistance to the effects of moisture. Mounting methods can be in a 19" rack or bolted to a bulkhead. The UCR100 series provides tight line and load regulation together with control features such as remote On/Off, a +/- 10% output trim and a remote sense of +/- 10%.

The active current share option allows multiple UCR converters to connect in parallel to support higher output currents or to achieve higher system reliability through redundancy.

The UCR100 series conforms to all relevant transportation industry safety standards including EN50155, EN50116, IEC60571, RIA12 and IEC/EN/UL60950-1.

## About Murata Power Solutions

Murata Power Solutions ([www.murata-ps.com](http://www.murata-ps.com)) is headquartered in Mansfield, Massachusetts, with over 1,300 employees worldwide. Murata Power Solutions designs, manufactures and distributes DC-DC Converter, AC-DC Power Supply, Magnetic and Digital Panel Meter product lines, and offers these products in custom, standard and modified-standard variations. Murata Power Solutions products are typically used within electronic applications serving major global market sectors including telecommunications, computing and industrial controls.

Murata Power Solutions is a division of Murata Manufacturing Co., Ltd. ([www.murata.com](http://www.murata.com)), a worldwide leader in the design, manufacture and sale of electronic components and power supply modules. Murata's devices are found in a wide range of applications including consumer and automotive electronics, and wireless devices. The company has employees and manufacturing facilities throughout the world.



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