



New Eighth-brick 240 Watt DC-DC Converter Achieves 94.5% Efficiency



▶ The fully isolated RBE-12/20-D48 series accepts a 36 to 75 Volt DC input voltage range (48 VDC nominal) and converts it to a fixed 12Vdc output. Wideband output ripple and noise is a low 100mV (typical), peak-to-peak. The RBE is supplied in a low-profile DOSA standard eighth-brick package measuring 58.4 x 22.9 x 10.2 mm (2.3 x 0.9 x 0.4 inches).

With an efficiency of 94.5%, most applications with forced air cooling will not require an external heat sink. For applications where there is no forced air cooling or the operating temperature range is high, an optional baseplate is available that will allow for attaching a heat sink.

Product Features

- •High efficiency up to 94.5% typical
- •Industry standard DOSA eighth-brick package
- On/Off control (Negative or Positive logic)
- •Input-output isolation of 2250Vdc (Basic Insulation)
- •Certified to meet UL/EN 60950-1, CSA-C22.2 No. 60950-1, 2nd edition safety approvals

RBE Series

Applications include:

- Network switches
- Network routers
- Distributed Bus Architecture
- Mobile applications
- Battery powered devices
- Robotics
- Test equipment
- Low-medium power broad market applications

Root Model No.	Output Voltage	Total Power (W)	Input Voltage Range	Efficiency Typical
RBE-12/20-D48	11.7V	234W	36-75V	94.5%



RBE: EIGHTH-BRICK 240 WATT DC-DC CONVERTER ACHIEVES 94.5% EFFICIENCY

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Murata Power Solutions today announced the RBE series of fully isolated DC-DC converters, designed for a broad range of applications including 12 VDC intermediate bus architectures or distributed power-based applications used in servers, wireless base-stations, data storage, telecom switches and networking equipment. The RBE-12/20-D48 model will deliver a regulated 12V output @ 240 Watts from a nominal 48 VDC input. With an efficiency of 94.5%, most applications with forced air cooling will not require an external heat sink. For applications where there is no forced air cooling or the operating temperature range is high, an optional baseplate is available that will allow for attaching a heat sink. The RBE DC-DC converter has been designed to meet the requirements of the Distributed power Open Standards Alliance (DOSA) eighth-brick configuration measuring 58.42 x 22.86 x 10.16 mm (2.3 x 0.9 x 0.4 inches).

The standard module is a through hole mounted package, configured as an open frame converter with 4.6mm pins and negative logic. Optional configurations include various pin lengths to eliminate secondary process for trimming pins, positive logic control, conformal coating and the baseplate for conduction cooling applications.

Protection features include thermal shutdown with auto restart (hiccup), over current/short circuit protection with auto restart, and input under voltage lockout. The converter is fully isolated to 2250 VDC with a basic insulation system meeting the requirements for PoE applications and is compliant with the internationally recognized safety standards UL/EN/IEC 60950.

About Murata Power Solutions

Murata Power Solutions (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), 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.

