



NEW PRODUCT NOTIFICATION

11 July 2018

Flex Power Modules expands innovative BMR480 DC/DC advanced bus converter series with 1300 Watt rated version

- Based upon the company's leading-edge and patented Hybrid Regulated Ratio (HRR) topology, the new addition to the range delivers up to 1300W at 12V in a standard quarter-brick footprint incorporating a PMBus digital interface. This represents a 44% increase in power over previous 12V/900W model
- Efficiencies of up to 97.4% offer significant annualized energy and cooling savings
- Higher efficiencies in turn result in higher system reliability and greater longevity
- Market-leading credentials make it suitable for a range of information and communication technologies (ICT) applications

Flex Power Modules today announced an addition to the BMR480 DC/DC advanced bus converter series for high-end and high-power applications. The BMR48001x6/005 delivers 12V DC at up to 1300W of power and 108.3A.

Packaged in the industry-standard quarter-brick-format measuring 2.30 x 1.45 x 0.57 inches (58.4 x 36.8 x 14.48mm), the BMR48001x6/005 achieves an impressive power density of more than 680W/in³. This is achieved in part by optimizing its operation across the input voltage range of 45V to 60V to produce a regulated 12V output, employing the company's patented Hybrid Regulated Ratio (HRR) technology between 51V and 45V. Over 15 patents have been filed in relation to the BMR480 series, many of which are directly related to efficiency improvements and design techniques for lowering power dissipation. As a result, the DC/DC converter is able to offer 97.4% efficiency when operating from a 53V input voltage and delivering 100% output current.

Compared with other members of the BMR480 series, the BMR48001x6/005 delivers around 0.5% higher efficiency at 1000W, making it a viable upgrade for existing installations, as well as a high-efficiency solution for new designs.



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“Annualized over 24/7 operation, an improvement of 0.5% equates to over 40kWh power reduction for every module in the system,” explained Olle Hellgren, Head of Business and Product Management at Flex Power Modules. “Depending on the cooling solutions employed throughout a facility, a typical rule of thumb might suggest that every 1W of power wasted as heat typically requires 0.5W of energy to cool, so the total power saved is 60kWh per year from every module. If we multiply that saving by the number of blade servers in a typical data center, the benefits add up significantly.”

The BMR480 series is perfect for intermediate bus conversion (IBC), dynamic bus voltage (DBV) and distributed power architectures (DPAs), and is designed to power high-end and high-power applications supplied by front end AC/DC rectifiers, typically favored by the ICT sector. Networking and telecom equipment, industrial equipment, and server and storage applications can also benefit from the efficiency and reliability of the BMR480 series.

The module comes as standard fitted with a baseplate, which can be connected to a heatsink or cold plate for use in more challenging thermal environments. Even when operating in high ambient temperature environments with limited airflow, the efficiency of the BMR48001x6/005 helps to minimize power dissipation, and maximize system reliability.

Dynamic load compensation and support for the latest version of the PMBus communication specification are complemented by the Flex Power Designer software tool (<https://flexdigitalpowerdesigner.com>), giving power architects total flexibility during system design and enabling them to deliver power systems with the highest energy efficiency. Other product features of the BMR48001x6/005 include a DOSA standard 7-pin digital header, 1500V input/output isolation, monotonic start-up, remote control, and a range of protection capabilities including over-temperature, output-short-circuit and output-over-voltage.

The new module has been designed and manufactured by Flex Power Modules to deliver the levels of quality and confidence that are required by power system designers to develop long-term and high-performance reliable platforms.



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About Flex Power Modules

Flex Power Modules, a division of Flex (NASDAQ: FLEX), designs and manufactures scalable power supply solutions that improve the operational efficiencies of advanced data center, IT information and communications networks. Flex Power Modules' products provide a complete on-board system solution for cloud, storage and server applications and address customer challenges while delivering superior quality, cost and performance at scale.

About Flex

Flex is the Sketch-to-Scale™ solutions provider that designs and builds Intelligent Products for a Connected World™. With approximately 200,000 professionals across 30 countries, Flex provides innovative design, engineering, manufacturing, real-time supply chain insight and logistics services to companies of all sizes in various industries and end-markets. For more information, visit flex.com or follow us on Twitter @Flexintl. Flex – Live Smarter™

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