

PRIME POWER Converters Ltd

New AC/DC Module range from Mornsun offers reduced cost with increased specification

Mornsun is pleased to announce the launch of two new ranges of AC/DC Modules. Using Mornsun's own, specially designed, control chip along with innovative production processes has resulted in the latest LDE and LHE series providing improvements in performance, size and cost.

The compact LDE series features single output converters with output powers of 3W, 5W, 6W, 10W, 15W and 20W. These converters accept both AC and DC inputs with an AC input range of 85 – 264V (47-63Hz) and a DC input range of 100 – 370V. All modules have a minimum input to output isolation of 4KV AC for 1 minute and are Class II protected.

The single output voltages available in this product series include 3.3V, 5V, 9V, 12V, 15V and 24V. Typical output voltage accuracy is $\pm 2\%$ with line regulation of $\pm 0.5\%$ (full load) and load regulation (0-100% load) of $\pm 1\%$, all modules have a minimum load requirement of 0%. Outputs feature low ripple & noise of typically 50mV (pk-pk, 20Mhz bandwidth) and they have multiple output protections including continuous self-recovering short circuit protection, over-current protection and over-voltage protection. The operating temperature range of these converters is -40°C to $+70^{\circ}\text{C}$ and cooling is via free air convection.

The use of the specially designed control chip, which integrates various functions, has resulted in a volume reduction of around 20% over previous models.

The LHE series features single output converters with output powers of 5W, 10W, 15W, 20W and 25W. These converters accept both AC and DC inputs with an AC input range of 85 – 264V (47-63Hz) and a DC input range of 100 – 370V. All modules have a minimum input to output isolation of 4KV AC for 1 minute and are Class II protected.

The single output voltages available in this product series includes 3.3V, 5V, 9V, 12V, 15V, 24V and 48V. Typical output voltage accuracy is $\pm 2\%$ with line regulation of $\pm 0.5\%$ (full load) and load regulation (0-100% load) of $\pm 1\%$, all modules have a minimum load requirement of 0%. Outputs feature low ripple & noise of 50mV (pk-pk, 20Mhz bandwidth) typical and they have multiple protections including continuous self-recovering short circuit protection, over-current protection and over-voltage protection.

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Both ranges have been designed to meet the latest safety and EMC requirements. All models meet the safety requirements of IEC62368, EN62368 and UL62368 and EMC requirements according to CISPR32/EN55032 Class B.

They offer high reliability, MTBF 300K hr's (MIL-HDBK-217F@ 25°C). Reliability testing includes high temperature operation testing, low temperature operation testing, temperature cycle testing, thermal shock testing, and vibration testing. The reliability of these devices is enhanced by a fully automated manufacturing process which ensures high precision and repeatability with the result being a more cost-effective product.

The high reliability and cost effective LDE and LHE modules are ideal for a wide range of applications, including instrumentation and metering, industrial instrumentation and control, telecommunications and IOT devices.

