Power Integrations announces industry’s first LED-driver design for replacement of 100 W A19 incandescent bulbs

Power Integrations announced an LED-driver reference design for high-power LED bulb replacement. The driver can deliver the power required for a 100W incandescent bulb replacement in an A19 form factor - an industry first. DER-322 describes a non-isolated, 93% efficient, high-power-factor (PF) LED driver designed to drive a nominal LED string voltage of 78 V at 230 mA from an input voltage range of 195 VAC to 265 VAC (47 Hz – 63 Hz). The LED driver utilizes the very low-profile LNK460VG from the LinkSwitch-PL family of ICs from Power Integrations.

DER-322 fits neatly inside the A19 form factor, is EN61000-3-2 C (D) compliant and easily passes THD limits. With a PF above 0.95,it suits commercial as well as consumer applications. With PFC and CC conversion combined into a single switching stage, the design has a very low component count, which enables miniaturization, lowers cost and increases reliability. It also eliminates short-lived electrolytic input bulk capacitors.

Comments Andrew Smith, product marketing manager at Power Integrations: “With an 8-10% efficiency advantage over older solutions, DER-322 provides a compelling option for lighting engineers working toward the landmark achievement of a commercially viableA19-sized replacement for the 100 W incandescent bulb. With LED efficacies continuing to improve, this important milestone will soon be within reach. In the meantime, the LinkSwitch-PL family of ICs easily enables production of cost-effective replacements for 60W and75 W bulbs.”

Suitable for an A19 incandescent bulb replacement-driver but also reconfigurable as

a T8 tube replacement driver, DER-322 is of interest to designers of both high-end LED lighting and those working on cost optimization of bulbs for retail sale. The reference design may be easily modified to support TRIAC dimming. The engineering report for DER-322 is freely downloadable from Power Integrations website at http://www.powerint.com/sites/default/files/PDFFiles/der322.pdf [1]

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Links:
[1] http://www.powerint.com/sites/default/files/PDFFiles/der322.pdf