NEWS
April 29, 2015

ERICSSON'S NEW POWER CONVERTER OPTIMIZED FOR PARALLEL OPERATION

- New high-density DC/DC power converter optimized for parallel operation
- Easy paralleling ability and scalable up to three units reduces time-to-market and delivers power levels of up to 2200W for high-data-demand network boards
- Advanced Hybrid Regulated Ratio technology and Droop Load Sharing boost performance to meet high-power board demands

Ericsson has introduced a new DC/DC converter module based on the company's innovative and proprietary power topology known as Hybrid Regulated Ratio (HRR) technology. The latest member of the PKM-NH series, the PKM4817LNH has been optimized for parallel operation to power 2200W boards in extreme-data-demand applications in the datacom industry.

Offering 800W of power per unit, up to three PKM4817LNH modules can be connected in parallel to achieve a total deliverable power of 2200W. Parallel mode uses Droop Load Sharing, which means the output voltage has a typical droop characteristic, whereby the output voltage slightly decreases when the load is increasing, while staying within system voltage limits.

Ericsson's advanced HRR topology combines two power-control methods – voltage-regulation and ratio-regulation – and guarantees high performance across the 45V to 60V input voltage ranges commonly used in datacom systems that are powered by front-end rectifiers. HRR offers excellent response to line and load transients and guarantees the output voltage will remain stable and immune from voltage deviations that are due to power disturbances on the system bus. This means it retains intermediate bus voltage integrity within the tolerance band required by power system architects.

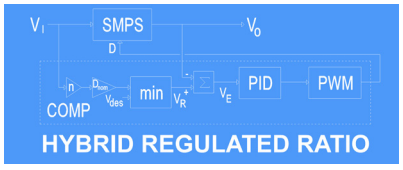
Patrick Le Fèvre, Marketing and Communication Director, Ericsson Power Modules, says: "The ability to operate these advanced high-power-density DC/DC converters in parallel meets the increasing need in the datacom industry for ever higher power with boards now

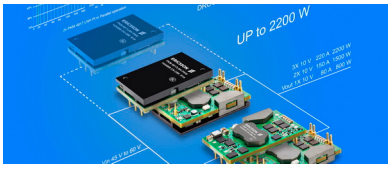
reaching 2kW. The combination of Ericsson's HRR technology and the ability to easily parallel these new modules makes it possible to deliver the necessary high-density power required in extreme data traffic applications."

Available in a quarter-brick format with a footprint of 57.9 x 36.8 x 11.4mm, the PKM4817LNH operates with an input voltage range of 45V to 60V and delivers an output voltage of 10V-11V at 80A within the operational system voltage between 51V and 60V. Below 50V, in regulated-ratio mode, the output voltage self-adjusts for optimal operation and secures a stable voltage of 9.0V to 11V, even if the system bus voltage delivered via the front-end rectifier is operating abnormally. Obtaining a stable and regulated voltage while the system bus runs its normal operational voltage becomes a highly important capability to avoid traffic disruption, as well as providing enough time for system monitors to take required action and either turn on redundant power units or potentially shut down part of the system.

A product of Ericsson's "design-for-efficiency" principle, the PKM4817LNH also has a typical efficiency of 97.1 percent at 60 percent load and offers flat-curve characteristics from 20A to 70A, reducing power losses to a very low level and making a significant contribution to the reduction of energy consumption.

The PKM4817LNH meets 2250V I/O functional isolation requirements and includes a number of I/O protection and operational features including input overvoltage suppression, soft-start for handling of high capacitance loads, delayed hiccup over-current protection, over-temperature protection, over-voltage and under-voltage lockout.





NEWS
April 29, 2015

FOR FURTHER INFORMATION, PLEASE CONTACT

Patrick Le Fèvre, Marketing and Communication Director, Ericsson Power Modules

Phone: +46-10-716 95 07

Reference: E0196(A)

If printing an Internet address please use Power Modules homepage and/or phone number to our International sales office:

Europe, Middle East & Africa: +46-10-716 96 20

Asia Pacific: + 86-21-5990 3258

Japan: +81 80 3363 3987

Americas: +1-972-583 6910 or +1-972-583 5254

About Ericsson Power Modules

www.ericsson.com/powermodules