

Brushless Heavy-Duty Alternator Tested

Raser Technologies Inc., an energy technology company that develops and licenses advanced electric motor, controller and related technologies, has announced test results of its Symetron™ alternator technology designed for heavy-duty trucks and commercial vehicles.

The Symetron™ enhanced alternator demonstrated up to 56 percent improvement in power output over a state-of-the-art, heavy-duty alternator tested at a customer's facility. The Symetron™ alternator showed a consistent improvement in power output over the entire operating range of the alternator with a peak output of 235 amps compared to 164 amps for the stock alternator. The dramatic improvement in performance was achieved without increasing alternator size. The customer's testing followed the industry standard J-56 test protocol to evaluate alternator performance.

In addition to higher output under normal operating temperatures, the Raser alternator demonstrated that its advantage over the stock unit was even more significant in high heat operating environments. The Symetron™ alternator demonstrated up to 56 percent improvement in power output when tested in elevated heat conditions.

The Symetron™ “brushless” alterna-

tor design also satisfies a growing trend away from traditional brushed alternators, which are less reliable and require additional periodic maintenance to replace worn brushes, toward more reliable brushless alternators.

230 amp



The improved performance of the Symetron™ enhanced alternator was due, in part, to a proprietary Intelligent Voltage Regulator (IVR) developed by Raser. This proprietary design shows the potential to improve performance on a wide variety of alternators through an intelligent, dynamic operation. In addition to brushless “claw pole”-style alternators, Raser is working on additional advanced alternator designs based on its own innovations in research and development.

“We believe that our innovations as applied to the heavy-duty truck market will also offer benefits to the automotive segment,” said Raser Chief Technology Officer Timothy Fehr. “We will be offering the Symetron™ alternator technologies to OEMs and vehicle manufacturers over the coming months as we move toward commercialization.”