

Sheetak Introduces Advanced Thermoelectric Generators for Reliable Power Generation

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AUSTIN, TX, UNITED STATES, October 16, 2025 /EINPresswire.com/ -- Sheetak Introduces Advanced Thermoelectric Generators for Reliable Power Generation

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Sheetak Inc., a U.S.-based leader in advanced thermal management, has introduced its new portfolio of [thermoelectric generators \(TEGs\)](#), engineered to convert waste heat directly into reliable electrical power. The new product line extends Sheetak's proven expertise in solid-state thermal management into efficient energy harvesting, providing engineers with compact, maintenance-free power generation modules designed for demanding industrial, aerospace, and remote monitoring applications.

As industries push toward greater energy efficiency and autonomous systems, engineers face increasing pressure to capture and utilize waste heat while reducing dependence on batteries and external power sources. Traditional [energy harvesting solutions](#) often involve moving parts, require regular maintenance, or fail under extreme environmental conditions. For applications in remote locations, industrial processes, or space-constrained systems, these limitations create





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reliability challenges and increase operational costs.

Sheetak's focus on advancing thermoelectric science allows the company to deliver solid-state power generation solutions purpose-built for real-world constraints. Manufactured entirely in the United States at Sheetak's Austin headquarters, the new TEG line integrates advanced semiconductor processing with rigorous quality control to ensure consistent performance across wide temperature gradients. This domestic manufacturing approach eliminates supply chain uncertainties while providing customers with rapid prototyping and application-specific

customization.

The thermoelectric generator product line from Sheetak operates across a wide range of temperatures and temperature differences. These TEGs produce open-circuit voltages from 7.8 to 43.2 volts, with matched-load voltages between 3.9 and 21.6 volts and output power ranging from 2.6 to 13.7 watts when operating at a 150°C hot-side temperature and a 100°C temperature differential. The products can be configured and optimized for diverse applications and thermal environments. Six standard models, with dimensions from 20 x 20 x 2.3 mm to 40 x 40 x 2.3 mm, allow integration into space-constrained systems while maintaining high thermal efficiency and electrical performance. Each device is precisely manufactured for predictable operation, with matched-load power outputs optimized for practical system integration. Extensive thermal cycling tests confirm long-term reliability in continuous-operation environments where maintenance access is limited.

"By integrating thermoelectric generation directly into systems with waste heat, we are enabling more autonomous, sustainable designs," said Brandon Noska, Director of Sales and Application Engineering. "Our new TEG line brings matured device architecture and manufacturing rigor, giving system designers confidence in deploying solid-state power generation in challenging environments."

Sheetak's leadership in thermoelectric power generation is grounded in decades of materials expertise and an extensive intellectual property portfolio. With approximately 30 patents and ongoing research in next-generation thermoelectric technology, Sheetak combines foundational science with responsive U.S. manufacturing. This approach provides customers with a durable technological edge and a reliable domestic partner for energy harvesting innovation.

For more information on Sheetak's thermoelectric generators or to discuss application-specific requirements, visit www.sheetak.com or contact the engineering team directly at info@sheetak.com.

About Sheetak

Based in Austin, Texas, Sheetak develops advanced thermoelectric, solid-state cooling, and energy harvesting technologies for high-performance electronics. With expertise in thermoelectric materials, device engineering, and U.S.-based manufacturing, Sheetak provides precision thermal management solutions for applications in photonics, telecommunications, aerospace, defense, computing, and industrial systems. By supporting shorter development cycles and faster lead times, Sheetak helps customers bring products to market with greater efficiency.

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