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## 24V INPUT EIGHTH- AND QUARTER-BRICK DC/DC CONVERTERS RAISE PERFORMANCE BAR TO NEW LEVEL

*Up to 91% efficient and only 7.6mm (0.3in) high  
Eighth-brick offers power density in excess of 6W/cm<sup>3</sup> (106W/in<sup>3</sup>)*

21 September, 2004 - - Artesyn Technologies has added 24V input eighth-bricks and quarter-bricks to its industry-leading Typhoon™ family of board mounted DC/DC converters. The converters offer unprecedented efficiencies and power densities – setting a new performance standard for the industry.

The new product series initially comprises two 20A eighth bricks and two 30A quarter bricks, offering single isolated outputs of 1.8V and 3.3V. All four converters provide more useable power than any equivalent competitive unit on the market – the 1.8V@30A quarter brick, for example, is over 7% more efficient than its nearest rival, dissipating 46% less power. This translates directly into more power being made available to the load, easier thermal management and higher reliability.

Artesyn's 24V input Typhoon brick converters are primarily intended for 27V wireless base stations, space-critical telecom applications and general 24V industrial electronics systems. They are also ideal for use in legacy 24V microwave and optical fibre equipment. The converters' nominal 24V input accommodates any voltage in the range 18 to 36V, making them suitable for distributed power architecture (DPA) systems with either 24V or 28V DC power distribution buses.

These latest 24V input Typhoon eighth- and quarter-bricks employ a full wave coupled-inductor topology in conjunction with a patented processor-controlled synchronous rectifier circuit to maximise conversion efficiency. Both the eighth- and quarter-brick 1.8V output models provide exceptionally high full load efficiencies of 91%, and the 3.3V models are in the same league at 90%. Unlike competitive products which frequently exhibit hotspots around the power stage components, all Typhoon converters are designed to have an evenly distributed thermal profile across their surface. This has the key advantage that the converters have virtually the same thermal derating characteristics regardless of their mounting orientation, further increasing their design flexibility. The 24V input eighth- and quarter-brick converters are designed for operation over an ambient temperature range of -40 to +85°C without a heatsink and are suitable for both convection cooled and forced air environments.

Typhoon 24V input eighth-brick and quarter-brick converters feature an open frame, single board construction designed for horizontal, through-hole mounting. They have very low above-board profile of just 7.6mm (0.3in), enabling them to be used under mezzanine cards and in systems involving very tight card pitches. The eighth-bricks have an industry-standard 58.4 x 22.9mm (2.3 x 0.9in) footprint and use the same pin-out as quarter-bricks, enabling designers to easily incorporate higher performance, more cost-effective converters in existing products, without changing board layout. The 24V input quarter bricks have an industry-standard 58.4 x 36.8mm (2.3 x 1.45in) footprint.

The output of each converter can be adjusted from 80 to 110% of nominal using a single trim resistor, enabling designers to accommodate a variety of supply needs with a single converter and facilitating voltage margin testing in systems. Design-in flexibility is further enhanced by the fact that the converters have no minimum load requirement, and provide a true monotonic start-up characteristic under both normal and pre-biased load conditions. The converters feature differential remote sense and remote on/off facilities, as well as undervoltage lockout and non-latching overvoltage protection. They are also fully protected against short-circuit and overtemperature conditions, with automatic recovery.

The converters carry a full set of international safety approvals, including UL/cUL60950 and EN60950-1 VDE. They also feature basic insulation, with functional (operational) isolation tested to 2250VDC, facilitating use in IEEE802.3af (Power-over-Ethernet) applications.

Artesyn's 24V input Typhoon brick converters are available for immediate delivery. In quantities of 1000, unit prices range are US\$54.45 for the 20A eighth bricks, and US\$78.95 for the 30A quarter bricks. Standard lead-time is stock to 8-10 weeks ARO. For further information about Artesyn's new 24V input eighth and quarter brick converters, please visit: [http://www.artesyn.com/powergroup/new\\_brick\\_launch.htm](http://www.artesyn.com/powergroup/new_brick_launch.htm)

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**Photo:** [Download 300dpi JPEG images](#)

**Caption:** Artesyn Technologies' Typhoon 24V input eighth-brick and quarter-brick converters offer unprecedented efficiencies and power densities – setting a new performance standard for the industry.

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**About Artesyn Technologies, Inc.**

Artesyn Technologies, Inc., headquartered in Boca Raton , FL., is a world leader in designing and manufacturing power conversion solutions for industry-leading OEMs in communications and IT infrastructure markets and is one of the foremost providers of controllers and WAN/protocol software for worldwide telecom and datacom systems and real-time communication applications. The Company has a global sales reach with design and manufacturing facilities in Asia Pacific, Europe and North America . Artesyn is a public company whose common stock is traded on the NASDAQ stock market under the symbol ATSN. For more information about Artesyn Technologies and its products, please visit the Company's web site at <http://www.artesyn.com>.