

Press Release



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NovaTorque Gen2.0 PremiumPlus+™ Motors Named a Winner of the 50th Annual R&D 100 Awards

Award recognizes the 100 most technologically significant products introduced over the past year

Fremont, CA — (June 20, 2012) — Today NovaTorque, Inc.'s (www.novatorque.com) Gen2.0 PremiumPlus+™ Electronically Commutated Permanent Magnet (ECPM) motors were recognized by the editors of R&D Magazine as one of the 100 most technologically significant products introduced in the marketplace over the past year. NovaTorque motors utilize low-cost ferrite magnets in an innovative flux-focusing design to deliver the superior efficiency of rare-earth permanent magnet motors at a price that is competitive with induction motors.

“The team at NovaTorque has put a tremendous amount of effort and ingenuity into the unique patented flux-focusing stator and rotor hub geometry that is at the heart of our PremiumPlus+ motor design, and we are obviously delighted to be recognized by R&D magazine for the efficiency results we’ve been able to achieve,” says Emily Liggett, NovaTorque’s Chief Executive Officer. “Our vision is that this radically new, cost effective and far more energy efficient [electric motor design](#) will be as ubiquitous tomorrow as the common AC induction motor is today.”

Since 1963, the R&D 100 Awards have been a benchmark of excellence in identifying revolutionary technologies newly introduced to the market. Many of these have become household names, helping shape everyday life for many Americans. These include the flashcube (1965), the automated teller machine (1973), the halogen lamp (1974), the fax machine (1975), the liquid crystal display (1980), the Kodak Photo CD (1991), the Nicoderm anti-smoking patch (1992), Taxol anticancer drug (1993), lab on a chip (1996), and HDTV (1998).

Winners of the R&D 100 Awards are selected by an independent judging panel and the editors of *R&D Magazine*. The publication and its online portal serve research scientists, engineers, and other technical staff members at high tech industrial companies and public and private laboratories around the world. Winners will be recognized at the R&D 100 Awards Banquet on Nov. 1, 2012, in Orlando, Florida. A list of winning innovations is on the R&D 100 Awards website, www.rdmag.com.

Driven by variable frequency drives, Gen2.0 PremiumPlus+™ ECPM motors boast motor-only rated point efficiencies of 93.0 percent and 92.0 percent for 3hp and 5hp versions respectively, far exceeding the levels achieved with induction motors. By comparison, 3hp and 5hp NEMA Premium® induction motors, when driven by variable frequency drives, achieve a motor-only efficiency of between 88.5 and 90.0 percent. Additionally, unlike induction motors, NovaTorque's PremiumPlus+ ECPM motors maintain their high efficiency and high torque over a very broad speed and load range.

“Electric motors are everywhere, and nearly half of the electricity produced in the world is used to drive electric motors. In fact the International Energy Agency estimates that ‘the potential exists to cost effectively improve the energy efficiency of electric motor systems by 20% to 30%,’” explains Liggett. “Adoption of their recommendations, all easily economically justified, would result in a savings of \$110 billion/year in energy costs and a reduction in 1.3 billion tons of CO2 emissions each year. These are significant numbers with enormously positive potential consequences, both economic and environmental. Further, they are based on what was considered the current state of art – premium efficient induction motors driven by variable frequency drives.”

NovaTorque's innovative technology provides the real potential to significantly increase those savings. Importantly, due to its unique patented flux-focusing stator and rotor hub geometry, the NovaTorque motor produces this performance with an all-ferrite (versus rare earth) magnet design. The ability to use ferrite magnets allows NovaTorque to price its motors to compete effectively with induction motors. This means OEMs can now economically deliver permanent magnet motor efficiency with their systems.

NovaTorque PremiumPlus+™ motors are packaged in standard NEMA frame sizes and mounting dimensions for easy substitution. Due to their high power density, NovaTorque motors are available both in the mounting frame size typical for induction motors, as well as one frame size smaller. NovaTorque PremiumPlus+™ motors are compatible with readily available variable frequency drives (VFDs) from most leading manufacturers, including ABB, Yaskawa, Mitsubishi, Fuji, Hitachi, Toshiba, Danfoss, Siemens and others.

Learn more in [Achieving High Electric Motor Efficiency](#), a technical White Paper written by NovaTorque Chief Technical Officer, John Petro, and in this third party [comparison performance report](#) of NovaTorque's motors by ADM Associates as presented to the Sacramento Municipal Utility District.

For qualifying Original Equipment Manufacturers (OEMs), NovaTorque offers a cost free opportunity to [evaluate and test](#) the company's Gen 2.0 PremiumPlus+™ motors for 60 days.

ABOUT R&D MAGAZINE

Since its founding in 1959 as *Industrial Research*, *R&D Magazine* has served research scientists, engineers and technical staff at laboratories around the world, providing timely, informative news and useful technical articles that broaden readers' knowledge of the research and development industry and improve the quality of their work. *R&D Magazine* is a publication of Advantage Business Media (www.advantagebusinessmedia.com).

ABOUT NOVATORQUE, INC.

Based in Fremont, CA, NovaTorque is a producer of brushless permanent magnet electric motors. The Company is dedicated to delivering the superior energy efficiency of permanent magnet motors at price points more comparable to the common AC induction motor. NovaTorque accomplishes this through an innovative, flux-focusing, design that allows for the use of ferrite rather than rare-earth magnets.

For more information visit www.novatorque.com, call 510.933.2700, or email info@novatorque.com.