LONGWELLâ??s Biomimetic EC Fan Achieves 73-82% Static Efficiency with 4-6 dB(A) Noise Reduction

Descrizione

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COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

Nature-inspired backward-curved EC platform delivers 8â??12% energy savings and fast lead times for HVACR, data-center cooling and air-handling-unit applications

NINGBO, China, July 3, 2026 /PRNewswire/ â?? Ningbo Longwell Electric Technology Co., Ltd. (LONGWELL), a leading EC fan manufacturer and air-moving solutions provider, today unveiled its biomimetic EC fan platform. The nature-inspired impeller design achieves 73â??82% static efficiency while operating significantly quieter than conventional fans, serving HVAC OEMs, AHU builders, data-center cooling integrators and engineers seeking a reliable alternative to premium European EC fans without redesigning equipment.

Advanced Biomimetic Design

At the core of the LWBE3G platform is a biomimetic backward-curved EC impeller that improves static efficiency by 5â??8 percentage points over conventional designs, delivering 8â??12% energy savings at equal airflow. It operates 4â??6 dB(A) quieter, reduces high-frequency noise content by more than 50%, and extends stall margin by 25â??30%. Each design is validated by in-house whole-unit CFD analysis. EC drives integrate 0â??10V, PWM, Modbus RTU and BACnet MS/TP control protocols with 12 protection functions and an L10 bearing life of 60,000 hours at 40Â°C.

The platform holds CE, UL 507, cUL and ETL certifications, along with RoHS/REACH compliance, ISO 9001/14001/45001 and EN 50155 standards. Air performance is tested to AMCA 210 / ISO 5801, with CRP registration in progress.

Proven Field Performance

EI SRL - P.IVA IT16017671005

In a 2024 European AHU retrofit project, the LWBE3G450-188PT-09 saved approximately 30% energy at 8,660 mÂ³/h and over 2,000 Pa. The LWBE3G560-188PT-01 delivered 16,039 mÂ³/h â?? matching the 16,000-class ebm-papst R3G560 for direct 1:1 replacement without air chamber modifications. Lead times run 1â??3 days for samples and 15â??30 days for production, compared to 14â??22 weeks typical of imported premium EC fans.

â??We are competing on impeller physics, not just price,â?• said Bruce Li, Chief Executive Officer of LONGWELL. â??When the aerodynamics are this efficient and this quiet, switching becomes an easy engineering decision.â?•

About LONGWELL

Founded in 1990 and based in Yuyao, Ningbo, LONGWELL designs and manufactures EC and AC fans and motors, exporting to more than 30 countries. Learn more at longwellfans.com.

Performance figures reflect specific test conditions; final selection should be confirmed by duty point, voltage/control, mounting and project validation. The competitor reference is for dimensional interchange only and does not imply affiliation or endorsement.

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Categoria

1. Comunicati

Tag

1. ImmediaPress

Data di creazione
Luglio 3, 2026
Autore
redazione