



LG COMPONENT SOLUTIONS UNVEILS COMPRESSOR AND MOTOR INNOVATIONS

*Energy-Efficient HVAC Components Showcased at
AHR Expo, World's Largest HVAC Conference*

ATLANTA, Feb. 13, 2023 – Global innovator LG Electronics unveiled its latest line of compressor and motor innovations at the 2023 AHR Expo, hosted at the Georgia World Congress Center, this week.

The AHR Expo is the premier event for Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) professionals and industry leaders, like LG, as an extensive list of attendees from across the globe attend the annual event. Manufacturers, distributors and suppliers of all sizes attend the expo to share new ideas, innovations, and showcase the future of HVACR technology.

At AHR Expo, the LG Electronics USA Component Solutions team underscored LG's "Innovation for a Better Life" mission by sharing how LG is adapting to [regulatory changes](#) and innovating to stay ahead of the curve for low-global warming potential (GWP) refrigerant requirements set to take effect in 2025. LG also featured products with applications for air movement, residential, commercial, and auto and RV customers at the event. A few of the company's products on display at the AHR Expo 2023 included:

LG Gen 3 Scroll Compressor

LG's Gen 3 Scroll Compressor is the latest in a series of innovations from LG Component Solutions. The Gen 3 Scroll Compressor tailors its focus to reliability and performance, providing significant improvements to motor efficiency and friction reduction. LG's commitment to innovation and adapting to changing regulations are at the front and center of the Gen 3 model. The Gen 3 is compatible with the latest GWP refrigerants, such as R32 and R454B, to ensure that it is a responsible choice for multifamily, mixed-use, and other spaces. The Gen 3 compressor model is roughly the same size as LG's previous model, the Gen 2. That means original equipment manufacturers (OEMs) will not be required to redesign their current systems to upgrade to and install the Gen 3 Scroll Compressor.

LG Two-Stage Scroll Compressor

LG Component Solutions' two-stage modulating compressor operates at two displacements, allowing it to function in 1st stage/savings mode in moderate environments, and then in 2nd stage/power mode in high-demand situations. By reducing displacement, the two-stage modulating compressor runs longer and more efficiently than its single-stage counterpart. A two-stage scroll compressor reduces cycling by running at lower capacities at certain times to avoid rapid heating and cooling of the space while maintaining



the capability to run at full capacity when needed. This two-stage approach allows a more consistent temperature to be maintained closer to the set point, maximizing efficiency and minimizing energy loss compared to a one-stage model. Additionally, LG's two-stage scroll compressor features an external solenoid valve, allowing for easier troubleshooting and replacement, making this product ideal for residential and commercial use.

LG UniRotary Compressor

LG's UniRotary™ Compressor boasts new, innovative features that allow for more-reliable restarts and exceptional durability. Rotary compressors typically do not offer the durability required for unitary applications, as harsh restarts take a toll on their motors, and can lead to frequent failures. LG Component Solutions designed the UniRotary™ Compressor for more reliable performance in a split and packaged system. An optimized overload protector and reinforced mechanical parts protecting against high loads help create increased reliability for all applications. The technology also helps to prevent high/low-pressure equalization when the compressor is set to “off” by taking advantage of residual cooling, thereby improving the SEER rating.

LG EC Motor (Indoor & Outdoor)

LG's EC Motor (ECM) has been developed for indoor and outdoor applications with the expertise and industry knowledge of a global HVAC manufacturer. Its powerful motor platform boasts a capacity of 1/3 to 1 horsepower (HP) for compatibility across a wide range of applications such as condensing units, air handlers, furnaces, and other related air-ventilation components. The ECM is designed to maximize output power by concentrating magnetic flux in comparison to a conventional ECM. This concentration and its other unique design features allow LG's ECM to reach greater levels of efficiency. LG improved the cogging torque of its ECM to reduce noise and vibration in comparison to a conventional motor. These ECMs are designed to make use of LG's accumulated technological know-how to create opportunities for the ECM to be used in place of existing motors with excellent compatibility and performance.

LG Fan BLDC Motor (Indoor & Outdoor)

LG offers efficient BLDC motors suitable for various types of HVAC fan applications. The BLDC motor designs maximize their efficiency and torque at the same core motor size. . The LG BLDC fan motor is also molded with Bulk Molding Compound (BMC), which helps to reduce noise and vibration. Its applications as an air conditioning and fan product include indoor and outdoor air conditioning units, ceiling cassettes, window air conditioners, air purifiers, and fan coil units.

To learn more about LG Component Solutions innovations that help leading manufacturers deliver efficient and reliable HVAC systems to their partners, visit <https://www.lg.com/global/business/compressor-motor>.



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About LG Component Solutions

The LG Electronics Component Solutions business is a leading innovator in the global HVAC market, manufacturing innovative solutions to provide efficiency and energy-saving technologies to residential and commercial consumers for more than 60 years. From household appliances all the way up to commercial HVAC solutions, LG's product line offers something for everyone in need of state-of-the-art compressor and motor technology. LG Component Solutions has produced over one billion compressor and motor units since it began motor production in 1962. LG Component Solutions USA is based in Alpharetta, Ga. For more information, please visit <https://www.lg.com/global/business/compressor-motor>.

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