

Silent Generator Set vs Open Type: Evaluating Acoustic Performance and CE Certification Benefits

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[/EINPresswire.com/](https://EINPresswire.com/) -- The modern industrial landscape demands power solutions that harmonize high-performance output with environmental responsibility. As urban densification and stringent noise regulations become the norm, the role of the [Reliable Silent Generator Set Supplier in China](#) has transitioned from a mere equipment provider to a critical partner in operational compliance. Central to this evolution is the choice between two primary configurations: the Silent Generator Set and the Open Type. While the Silent Generator Set is engineered for sound-sensitive environments, understanding the technical trade-offs and certification advantages is essential for procurement professionals seeking long-term reliability and safety.



Sound Suppression vs Operational Accessibility

The most immediate distinction between silent and open-type generator sets lies in their physical architecture and acoustic profile. Open-type generators are typically mounted on a rigid steel frame without an integrated enclosure. This design offers the advantage of unimpeded airflow and easy maintenance access, making them ideal for dedicated engine rooms where noise levels are managed by the building's own insulation.

In contrast, a silent generator set utilizes a sound-attenuated enclosure, often referred to as a canopy. This structure is not merely a protective shell but a sophisticated piece of acoustic engineering. At the core of [Longen](#) power's technical innovation is the use of high-density fire-retardant sound-absorbing materials and a multi-stage intake and exhaust silencer system. These systems work in tandem to reduce the sound pressure level significantly—often to as low as 70-75 dB(A) at a 7-meter distance. For industries operating near residential areas, hospitals, or

high-end commercial spaces, the silent configuration is the only viable path to maintaining continuous power without violating local noise ordinances.

Acoustic Engineering vs Raw Power Delivery

Evaluating the performance of these units requires looking beyond the decibel count. An open generator's cooling efficiency is naturally high because the engine is exposed to ambient air. To match this performance within a confined, soundproof space, technical precision in airflow dynamics is required. Silent units must incorporate specialized cooling fans and internal ducting to ensure that despite the acoustic baffling, the engine operates within its optimal temperature range.

Longen Power, a high-tech enterprise and listed company (stock code: 032018), has integrated advanced R&D into its canopy designs. Their silent sets, ranging from 10kVA to 1250kVA, utilize optimized internal layouts that prevent heat recirculation. This engineering ensures that the acoustic performance does not come at the cost of the engine's lifespan or fuel efficiency. By balancing the "Acoustic vs Power" equation, these units provide a stable energy source for critical applications, such as the backup power provided for the Pyeongchang Winter Olympics, where environmental conditions were extreme and reliability was non-negotiable.

Technical Innovation

The competitive edge in modern power generation is found in the intersection of utility and technology. Conventional open-type sets are often viewed as a commodity, but the shift toward silent technology represents a move toward integrated smart power. Modern silent units are increasingly equipped with digital control systems that monitor not just engine health, but also canopy integrity and internal ambient conditions.

Longen's commitment to technical innovation is evidenced by its portfolio of invention and utility model patents. Their silent generator sets are designed with a modular approach, allowing for easier transport and installation compared to traditional site-built soundproofing. The canopies are treated with high-grade anti-corrosion powder coating, ensuring that the acoustic performance remains consistent even in harsh outdoor environments. This focus on durability means the total cost of ownership is reduced, as the equipment is protected from the elements while simultaneously protecting the surrounding environment from noise pollution.

CE Certification

In the global market, particularly within the European Union and other regulated territories, the presence of CE certification is a fundamental requirement. CE marking signifies that a generator set meets essential health, safety, and environmental protection standards. For silent generator sets, this certification is particularly rigorous, as it encompasses not only electrical and mechanical safety but also outdoor noise emission levels (Directive 2000/14/EC).

Choosing a CE-approved generator set provides several benefits to the end-user. First, it ensures that the equipment has undergone standardized testing for electromagnetic compatibility (EMC),

meaning it will not interfere with other electronic systems on-site. Second, it guarantees that the mechanical components, including the canopy and fuel systems, adhere to strict leak-prevention and structural integrity guidelines. As a professional manufacturer with ISO9001:2015 quality management system credentials and an official UN supplier status, Jiangsu Longgen Power Technology Co., Ltd. ensures that every unit—whether a standard open type or a complex silent set—adheres to these international benchmarks.

Strategic Selection for Industrial Resilience

The decision between a silent generator set and an open type should be guided by the specific site requirements and regulatory environment. For industrial plants with isolated generator rooms, the open type offers cost-effective, high-capacity power. However, for the vast majority of modern infrastructure projects, the silent generator set provides a versatile, "plug-and-play" solution that simplifies the permitting process and enhances the safety profile of the facility.

By choosing a manufacturer that integrates R&D, manufacturing, and international service, enterprises can ensure their power systems are supported throughout their lifecycle. Whether serving as an OEM factory for HYUNDAI or providing turnkey solutions for global projects, the emphasis remains on verifiable quality and engineering excellence. The integration of CE certification and advanced acoustic performance is no longer a luxury but a standard for resilient, future-proof industrial operations.

For more information on high-performance power solutions and technical specifications, please visit: <https://www.long-gen.com/>

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