

Kato Engineering

Turbine Generators

For Steam and Gas Turbines



IPG Applications



Oil & Gas Applications



KATO
Engineering Inc.

Leroy Somer North America

Kato Engineering Turbine Generators

From geothermal power plants to manufacturing facilities to the petroleum industry, the ruggedly constructed Kato generators have proven their worth in hundreds of steam and gas turbine applications in demanding environments around the globe.

Kato Engineering turbine generators are designed for both efficiency and durability for use in demanding industrial applications. They operate with extremely low levels of vibration, can be easily sound attenuated and require minimal maintenance.

For high efficiency, Kato turbine generator cores are constructed with high-grade magnetic steel. The turbine designs also emphasize reduction of losses from friction and windage.

An extremely stiff construction and sleeve bearings help meet low vibration requirements. Kato Engineering also has a pair of state-of-

the-industry seismic test bases and monitoring equipment to ensure accurate measurement of vibration levels. The bearings and a circulating oil system boost Kato turbine generator reliability.

We offer a wide range of cooling options and, for petroleum applications, Kato Engineering can also meet hazardous area (Zone II, Division 2) and API-546 requirements.

From designing for specific requirements to helping with startup to assisting with maintenance in the field, Kato has an experienced and dedicated engineering team to support its turbine products.



Generator Specifications

Kato turbine generators range from 750 kW to 15 MW. Kato's specially-designed insulation system used on these generators guarantees a high level of protection against chemicals and moisture and a long generator life. We offer the following specifications:

Power rating: 750 kW - 15 MW

Frequency: 60 Hz or 50 Hz, three phase

Speed @ 50/60 Hz: 1500/1800 RPM

Rotor and stator insulation: Class F or Class H with void-free 100% solids resin, vacuum-pressure impregnation

Efficiency: 88% to 97.5% depending on kW rating, operating speed and voltage. All Kato product uses a high grade electrical steel for high efficiency.

Enclosures: Open drip proof is standard, with the following options available:

- Air filtered
- Air-to-air heat exchanger cooled (TEAAC/CACA)
- Air-to-water heat exchanger cooled (TEWAC/CACW)
- Weather protected II
- IP 22, IP 23, IP 25, IP 44, IP 54
- Sealed windings

Accessories included:

- Low temperature space heater (<200° C) for Class I, Division 2 areas
- RTDs in the windings and bearings
- Voltage regulator
- PMG
- Flexible mounting configuration
- Differential CTs
- CCCT

Available options (partial list):

- Surge capacitors
- Lightning arrestors
- Rotor monitoring
- Sound attenuation



Air-to-water heat exchanger cooled generator for marine applications.



WPII generator for outdoor use.

Parts and Service

We at Kato Engineering know how important our customer's power needs are. That is why we have experienced field service personnel on call 24 hours a day, every day of the year.

As well as repair and on-site rebuilding, we can assist you with installation and startup and perform scheduled maintenance or training. We stock a variety of parts for quick delivery.

We provide technical manuals in electronic and hard-copy formats. These manuals include operation, maintenance and illustrated parts breakdown.

Our knowledgeable and friendly staff is always ready to answer your questions, send a needed component or arrange a site visit anywhere in the world.



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