Kato Engineering
Subsidiary of Emerson

kato-eng.com

Product Design

6P6-3300 Generator

The standard for drilling rig power

1365 kW, 1950 kVA

0.7 PF, 600 V

1200 RPM

80º C rise @ 50º C ambient

Continuous duty

Phase balance of 1%

Waveform: line-to-line, no-load-to-full-load 2% single harmonic, 3% THD

Open drip-proof enclosure

Length: 100 in.
Height (from mounting feet to top of junction box): 31 in.
Weight: 11,260 lbs.

Two bearing

Two per phase RTDs in the stator windings

Space heater

Meets ABS MODU requirements for pitch and roll (optional ABS and DNV certification is available)

Driven by a CAT engine

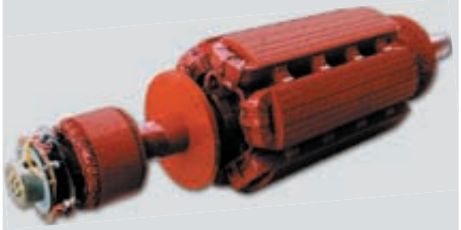
Two-year warranty

Thousands of these and similar units are in operation in petroleum applications worldwide. They are used in all climates and conditions, from burning deserts of the Middle East to the frozen waters of the North Sea. Many drilling rigs are still operating today with Kato generators manufactured over 30 years ago.

KATO Engineering Inc.

Leroy Somer North America

Product Features



Stator: Kato uses Class H insulation for the stator with a Class B temperature rise for an efficient and compact generator with a long operating life. Mica turn taped magnet wire is used in the stator coils to provide nearly twice the instantaneous surge withstand capacity as glass-covered magnet wire.

And while other insulation systems can survive a large surge impulse, the key to insulation life is withstanding repetitive surges. Mica insulation is more resilient to repetitive surges and impulses created by inverter-fed drives and other spike inducing devices. Kato's turn insulation exceeds specifications required by IEE-522 and IEC 34-15. Laboratory tests prove Kato's stator ground insulation instantaneous breakdown value exceeds 10,000 V while turn-to-turn insulation surge or spike impulse resistance is over 60,000 V.

Rotor: Copper amortisseur windings are standard on the Kato rotor to lessen damper cage heating caused by non-linear loads. Strong and corrosion resistant, the rotor can withstand high rotational force and salt-laden environments.

Kato's stator, rotor and all other windings are part of a full vacuum-pressure impregnation (VPI) epoxy system that was developed 30 years ago and continues to be improved. While other brands use a bake-varnish system for the rotor and exciter windings, Kato's insulation system provides more consistent protection against any premature winding failure caused by harsh drilling environments.

Endbrackets: Both the drive and opposite-drive endbrackets on Kato machines are torchcut steel assemblies with replaceable hardened-steel sleeves inserted between the endbell and the outer bearing race.

This system allows for easy and economical rebuilding by rig personnel, nearly eliminating the need to send the complete generator to an outside service shop. The opposite-drive endbracket has an insulator between the sleeve and bearing so no shaft currents flow through the bearing and pit the anti-friction balls.

Bearings: Both the drive and opposite-drive bearings are anti-friction, grease-lubricated, wide-race type. They exceed a 100,000 hour L10h bearing life. Grease can be completely purged any time.

Old grease and any excess grease is pushed out through a bottom purge vent and is forced under the unit. The fresh grease is sealed inside the bearing cavity. The seal keeps out moisture while holding fresh grease inside. The cavity is large, resulting in a longer greasing interval, but there is absolutely no danger of overgreasing the bearings.

Junction box: The main junction box is side mounted with customer access located on the bottom side. Heavy duty buss bars are mounted on a rigid insulator, which is bolted to the top of the junction box.

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