AC Motor Performance Services Remote Monitoring and Diagnostics

Today GE’s GEGARD™ Insulation System delivers rated performance. Operators are challenged to maintain a continuous, reliable operation, while meeting or exceeding service life expectations. Validating programs helps you minimize the risk of failure, material failures and downtime. The GEGARD™ Insulation System helps to ensure that you get the life from your asset you deserve. This system meets all the requirements of modern electric motors. Materials & processes help to ensure that the life from your asset you deserve. This system meets all the requirements of modern electric motors.

The combination of materials and processes provides a typical Corona Inception Voltage (CIV) for motors operating on inverter power. This system exceeds NEMA MG1-31 Voltage (which is 3.1 times the nameplate voltage) for motors operating on inverter power. This system meets all the requirements of modern electric motors.

Guaranteed Ultimate Performance on Inverter Power

GEGARD™ Insulation System

• Continuous technical support through GE’s Monitoring and Diagnostic Center
• 30+ year experience in the electrical industry
• Project management tools

Insulation used in the GEGARD™ Insulation System offers a complete portfolio of experience that GE has in creating and executing innovative products are:

Local Presence Backed by the Power of a Global GE Organization

• Generators up to 75 MVA
• Power and Energy • Marine • Other Process Industries
• Project management tools

• Motors from 1 to 100,000 HP (0.75 to 75,000 kW)
• Oil & Gas • Cement • Pulp and Paper

GE’s Monitoring and Diagnostic Center

• Power and Energy • Marine • Other Process Industries
GEGARD™ Insulation System

Guaranteed Ultimate Performance in Inverter Power

This system meets NEMA MG-1, IEC 61800-5-1 & Division 2 requirements for inverters operating on motors. This system's excellent resistance to chemical degradation, as well as superior inverter-related characteristics, provides long life for motors operating on inverters. The use of advanced varnishing and impregnation processes helps to ensure that GE can deliver the best value in its product.

The use of class F, class H, and class C materials results in an insulation system that provides: Non-hygroscopic, non-fungus, and non-carbonizing varnish.

Varnish is either applied via a Dip and Bake, or Vacuum Pressure Impregnation (VPI) process. The combination of materials and varnish is non-hygroscopic, anti-fungus. The insulation system is comprised of class F materials and the inverters. The insulation system is voltage (which is 3.1 times the nameplate voltage) for motors operating on inverters. This system exceeds NEMA MG1-31enda and IEEE 841, GOST, DIV 2, CSA, API 541, 546, 547, and TEWAC. These industry standards and certifications exist and are operative! It is located in the Edison Historical Collection in Fort Wayne, IN 46802. GEGARD™ Insulation System guarantees ultimate performance in inverter power applications.

Motors Product Line

We have manufactured motors for over 125 years. GE, A$D Ultra, X$D Ultra, GEGARD 1800™, GEGARD 2400™, Energy $aver™, Quantum™, Pegusus™, and ValueLine™ are trademarks of General Electric Company. For more information, please contact your GE sales representative. www.gemotors.com

Expect More...
X$D Ultra® Extra Severe Duty
AC Induction/NEMA
Thr ee-year warranty
NEMA Pr emium Efficiency
Frame sizes: 143T–449T
Alternate 50 Hz data on
Freq uency: 60 Hz
Speed: 1200–3600 RPM
Class H insulation
NEMA Pr emium Efficiency
TEFC (IP55)
V oltage: 230/460, 575 V
Speed: 900–3600 RPM

Energy $aver®
NEMA , CSA, IEEE 112 B
Speed: 1200–3600 RPM

Energy $aver® and X$D Custom
Hundr eds of custom features
NEMA Pr emium Efficiency
Frame sizes: 143T–449T
Five-year warranty
NEMA Pr emium Efficiency
Division 2 application
IEEE 45, GM 7E-TA, IEEE 112B
Frame sizes: 184T–365T
Class H insulation
Frame sizes:  143T–449T
TEFC (IP55)
Freq uency: 60 Hz
V oltage: 230/460, 460, 575 V
Power: 0.75–300 HP

KGS Plus-High Torque  Extra
Class F insulation
NEMA , API 541, API 547, IEEE 841
V oltage: 400–4160 V
Power: 100–800 HP

ODP , WPI, WII, TEFC, XP
Cl ass F insulation
IEC, IEEE 841, IEEE 45
V oltage: 200–4160 V
Power: 2–800 HP

Voltage Induction
Freq uency: 60 Hz
V oltage: 230/460 V, 460 V
Speed: 1200–3600 RPM

Voltage Induction
Freq uency: 50 Hz or 60 Hz
Speed: 333–1800 RPM
Power: 500–8500 HP

Pegasus™ MHV Wound Rotor
IEC frames 500–710
WPI, WPII, TE AAC, TEWAC
Power: 1000–10500 HP (750–7830 kW)

Quantum™ LMV Severe Duty Low
Zone II, ABS , GOST-R
IE3 Efficiency
IEC, IEEE 841, IEEE 45, ATEX and IEC Exn
Frame size: 90S–280H
Speed: 750–3000/900–3600 RPM

Synchronous Motors and Generators
S tandards: NEMA, CSA, IEEE, IEC, API 546

American Standard: Standard motors

Bobbin sets: High end insulation standards, 100% copper, IACS, top line materials

Enclosur es IDP, TEWAC
V oltage: up to 13800 V
Power: 2000–37500 kVA

Synchronous Hydro Generators
S tandards: NEMA, CSA

API 546, NEMA , IEC, IEEE
Frame size: tw o sizes – 800 mm
Speed: 167–428 RPM
Power: 5–500 HP

CD6000-CD6900
DPFG, DPFG-BV , TE
Armatur e voltage: 500, 600

Brush Assembly
Brushholders
Exciters
Fans
Converter assemblies
Thyristors
Thermostats
Speed limit switches
Rotor and stator s
Oil rings
Sleev e bearings

Synchronous Motors and Generators
S tandards: NEMA, CSA

API 541, API 547, IEEE 841
Class H insulation TREC coils
Armatur e voltage: 230, 460
Speed: 340–1025 RPM
Power: 5–500 HP

Synchronous Motors and Generators
S tandards: NEMA, CSA

Armatur e voltage: 500, 600

Large AC Synchronous Motors
S tandards: NEMA, CSA

Armatur e voltage: 300/150, 240/120
Speed: 300–3600 RPM
Power: 1–500 HP

Horizontal and Vertical Applications:
Synchronous Hydro Generators

TREC® Field Coils

Brush Assembly
Brushholders
Exciters
Fans
Converter assemblies
Thyristors
Thermostats
Speed limit switches
Rotor and stator s
Oil rings
Sleev e bearings

Genuine GE Parts
Superior Product Quality
• Highest quality raw materials and materials combinations using the latest manufacturing processes
• Full complement of spare parts are available for the entire range of motors

Fiv e-year warranty

For information about this product, please contact your local GE representative.

GE’s FastTrack Motor Modifications Shop
• GE fast track motor modifications for 200 classes of GE motors. GE fast track motor modifications
• GE’s fast track motor modifications for 200 classes of GE motors. GE fast track motor modifications
• GE’s fast track motor modifications for 200 classes of GE motors. GE fast track motor modifications

World Class Service

Customer s minimize downtime with an adequate spare parts inventory plan for the 200 motors

A full complement of spare parts are available for the entire line of GE motors

Genuine GE parts built to original designs, using the latest materials and manufacturing processes

Used in all GE mill-duty motors,
Encapsulated outer shell makes coils rugged
Superior heat migration with a high-precision

Materials and manufacturing processes

A t a glance detail of the
winding.

Commutators/Collectors
Coils
Ammor tisseur
Exciters
A mpoule voltmeter
Filaments
Contactors
Relays
Clutch and brake
Solenoids
Power transformers
Lighting transformers
S uch as A $D Ultra
X$D Ultra®
X$D Ultra®
X$D Ultra®
AC Motor Performance Services Remote Monitoring and Diagnostics

Today, GE offers an array of motor service and diagnostic programs that deliver maximum performance and reliability. GE’s experienced AC motor service team has skill and knowledge in the full range of motor monitoring, testing, maintenance and outage support, offering a complete portfolio of services that improve productivity. GE’s diagnostics team can identify potential failures of industrial machines and can significantly reduce unplanned outages. 

GEGARD™ Insulation System

GEGARD™ Insulation System has been proven to offer a number of significant benefits.

• Corona Inception Voltage (CIV) of 2400 volts peak with a rise time of 0.1 microseconds.
• Impregnation (VPI) process. The combination of materials and processes provides a typical cure of 0.1 microseconds.

GE’s Monitoring and Diagnostic Center

• GE has the resources and expertise to create, and build products and solutions that improve productivity. Founded by Thomas Edison in 1879, General Electric continues to innovate new product technologies to meet and exceed customer expectations.

Motors Product Line

GE has manufactured motors for over 125 years. GE Energy’s Motors product line includes motors designed for use in a wide variety of applications, including but not limited to: cement, metals, pulp and paper, mining, and more.

Standards and certifications

GE is dedicated to design excellence and complies with industry standards, including but not limited to: NEMA, IEC, API 541, 546, 547, and others such as NEMA, IEC, API, among others: NEMA, IEC, API, WPI, WPII, TEFC, TEAAC, and more.

For more information, please contact your GE sales representative.

www.gemotors.com
Parts: 800 458 0451

GE Energy

Expect More...
AC Motor Performance Services
Remote Monitoring and Diagnostics

Today, GE offers an AC motor performance service that operators and maintenance personnel can rely on, helping ensure reliable operation of your motor and minimizing unplanned outages. Whether you need assessment, consultation, repair, or services, GE’s experienced team can assist you to ensure your motor’s continued reliability.

The GE Advantage

- Comprehensive performance analysis
- Evaluation of your motor’s performance
- Assessment of your critical applications
- Consultation for better maintenance plans
- GE’s experienced team

GE can help you enhance your motor’s performance and extend its lifecycle.

The GE GEGARD™ Insulation System

The GE GEGARD™ Insulation System is comprised of highly advanced materials and processes that provide superior performance and life extension. It is used to create a strong, durable, and highly effective insulation system for motors, ensuring reliability and extended service life.

The GE GEGARD™ Insulation System offers:

- State-of-the-art materials
- Advanced processes
- Improved performance
- Extended service life

Benefits of the GE GEGARD™ Insulation System:

- Improved performance
- Increased reliability
- Extended service life
- Cost savings

The GE GEGARD™ Insulation System is ideal for motors operating in the following environments:

- Zone 1 or 2, ATEX
- Hazardous locations

The GE GEGARD™ Insulation System is available for use with motors from a variety of manufacturers, including:

- NEMA
- IEC
- API 541 and 547, CSA
- ABS
- ATEX
- IEC Exn Zone

The GE GEGARD™ Insulation System is validated to ensure compliance with global standards and certifications, including but not limited to:

- NEMA
- IEC
- API 541 and 547, CSA
- ABS
- ATEX
- IEC Exn Zone

The GE GEGARD™ Insulation System is available in a variety of options, including:

- TREC©
- ValueLine™
- Polyseal

Contact GE for more information or to discuss your specific needs.

For more information, please contact your GE sales representative.

www.gemotors.com

Parts: 800 458 0451

800 541 7191

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