



GE INDUSTRIAL MOTORS
a WOLONG company

Small Industrial Motors

Durability, Reliability and Efficiency at the Heart of Industrial Operations

Small Machines Make A Big Impact

INDUSTRIAL PROCESSING COST SAVING CHALLENGE

Electric motors make
an average of

70%

total power cost*

\$87k

 /Hour

Average cost of
unplanned downtime for
a typical industrial processing plant**

Multiple suppliers, designs and specifications tying up resources.

Frequent unplanned maintenance disrupting operations requiring replacement motors onsite.

Older low efficient motors eating profits.



Higher Efficiency and Less Downtime

\$930k /Year

Energy savings
uncovered during
a plant motor audit
and resulting frame agreement***

Frame agreements increase supply and specification efficiency freeing up resources.

Less unplanned maintenance and downtime with more robust motor designs.

1% energy efficiency gains translates to less than two year payback.

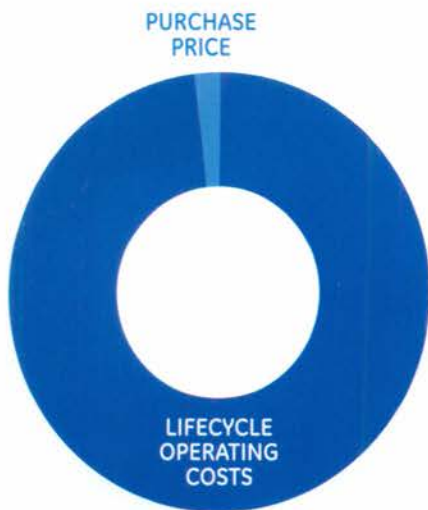
Application Considerations

TOTAL COST OF OWNERSHIP

CONSIDER LIFECYCLE OPERATING COSTS FIRST

The initial cost of an electric motor makes up 5% or less of the total cost of operation. So all aspects of the motor operation should be considered when purchasing motors.

- Energy Consumption
- Efficiency
- Ease of Maintenance
- Reliability
- System Criticality
- Lifecycle
- Environmental Impact



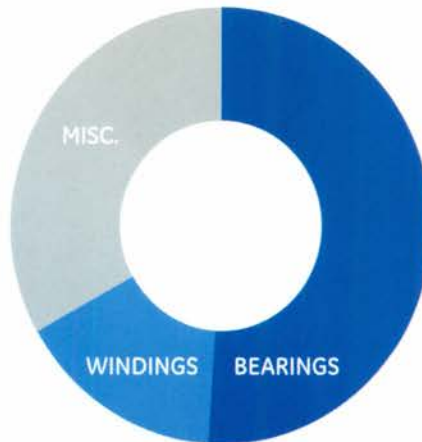
WE ADDRESS THE MOST COMMON REASONS FOR MOTOR FAILURE

BEARINGS

- Heat
- Contamination
- Vibration
- Misalignment
- Lubrication Issues
- Electrical Discharge
- Stress, Load, Fatigue

STATOR WINDINGS

- Heat
- Load
- Inverters
- Contamination
- Voltage Issues



COMMON INDUSTRIAL APPLICATION REQUIREMENTS

Each petroleum, chemical, power generation, pulp/paper, mining, metal, mineral, water/wastewater, and general process application has unique torque, speed, voltage, enclosure, temperature, and industry standard requirements that must be designed into motors.



Pumps



Compressors



Blowers



Heat Exchangers



Mixers



Conveyors



Crushers



Augers

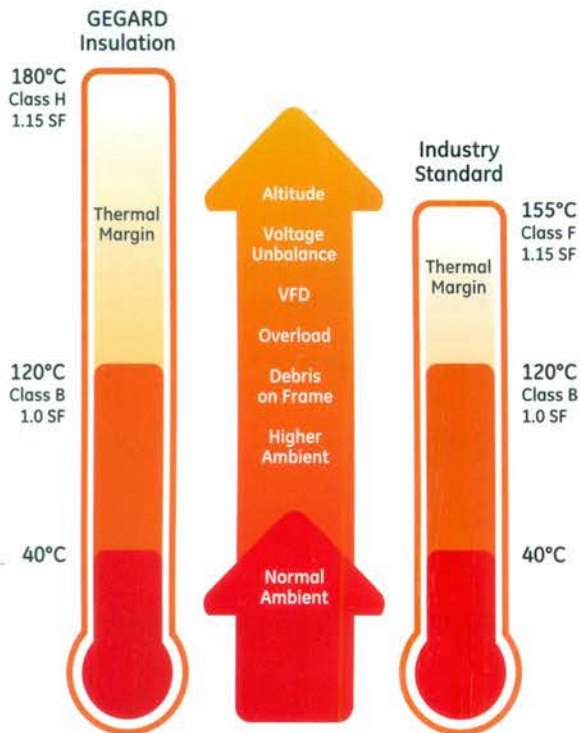


Durable and Reliable Technology

ALL LOW VOLTAGE MOTORS ARE NOT BUILT THE SAME

GEGARD™ INSULATION OFFERS ADDED PROTECTION IN SEVERE APPLICATIONS

Our Class H GEGARD insulation system is designed to excel in variable frequency drive applications where lesser designs often short circuit and cause overcurrent trips.



Larger Thermal Margin = Longer Motor Life

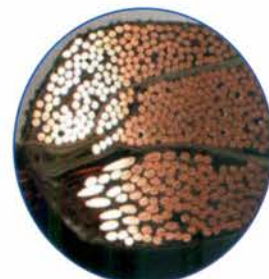
GUARDING AGAINST BEARING FAILURE

Common shaft currents create voltage spikes that reach bearings causing them to vibrate in operation. Over a short period, this vibration (fluting) will degrade bearings to the point of failure. We include bearing insulation for higher ratings and Aegis™ shaft grounding rings are optional on all ratings.



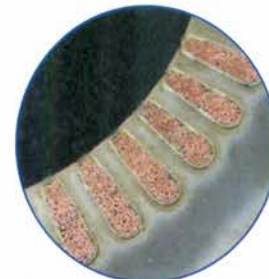
ROTATIONAL VARNISH APPLICATION

Motor coils are rotationally varnished with a "Trickle Treat" process while an electric current is passed through the windings to ensure a penetrating, thorough and even coating. This proven process fills air gaps that could cause corona inception damage during operation.



WIRE BONDING

Resin penetrates deep into tightly packed coil wire creating a strong bond that guards against end-turn vibration.



MOISTURE PROTECTION

Contaminants can't penetrate carefully and tightly packed stator coils bonded by deep resin penetration into the slots.

Product Portfolio

RUGGED, RELIABLE AND EFFICIENT LOW VOLTAGE MOTORS

SEVERE DUTY NEMA IE3

NEMA PREMIUM EFFICIENT



This versatile and robust design is ideal for a wide range of challenging industrial applications and environments.

MODELS

- XSD Ultra
- XSD Ultra 841
- Energy Saver

TECHNICAL CAPABILITIES

0.75–300 HP, 900–3600 RPM
230/460, 460, 575 V, Freq. 60 Hz
Alternate 50 Hz data on nameplate
TEFC (IP55) and ODP
Frame sizes: 143T–449T
NEMA, UL, CSA, IEEE 45, IEEE 841, IEEE 112B, GM 7E-TA
Division 2 applications
C-Face and high-torque
Design "C" models available.
VFD ready with GEGARD Class H (XSD Ultra) or Class F (ES) insulation
Five (XSD Ultra) or Three (ES) Year Warranty

SEVERE DUTY IEC IE3

RUGGED AND RELIABLE



Based on the XSD Ultra mechanical and electrical design for the global market. Ideal for extreme environments.

MODEL

- XSD Ultra 841 IEC

TECHNICAL CAPABILITIES

0.55–220 kW,
750–3000/900–3600 RPM
200 V, 400 V, 400/690, 690 V / 50 Hz
230/460, 460, 575, 690 V / 60 Hz
TEFC (IP55)
Frame size: 90S–280H
IEC, IEEE 841, IEEE 45, ATEX, and IEC Exn
Zone II, ABS
VFD ready with GEGARD Class H insulation
Five Year Warranty

EXPLOSION PROOF NEMA IE3

PROTECTS SYSTEMS IN
HAZARDOUS ZONES



This enclosure has been specially designed to contain any sparking for hazardous environments where volatile gases may be present.

MODEL

- XSD Ultra XP
- Energy Saver XP

TECHNICAL CAPABILITIES

1–300 HP, 900–3600 RPM
230/460, 460, 575 V, Freq. 60 Hz
Alternate 50 Hz data on nameplate
TEFC (IP55)
Frame sizes: 143T–449T
NEMA, UL, CSA, IEEE 112B
Division 1, Class I - Groups C, D
Class II - Groups F, G
Five (XSD Ultra) or
Three (ES) Year Warranty

ADJUSTABLE SPEED NEMA

EXCELS IN CONSTANT TORQUE
APPLICATIONS



Optimized performance in metal processing, plastic extrusion, winders, test stands, crane and hoist and material handling.

MODEL

- ASD Ultra

TECHNICAL CAPABILITIES

1.5–300 HP, 1800 RPM
230/460, 460, 575 V, Freq. 60 Hz
TEFC, TEBC, TENV (IP55)
Frame sizes: 143TC–449T
NEMA, IEEE 841, IEEE 112B
VFD ready with GEGARD
Class H insulation
Five Year Warranty

Proven Technology

LARGE INSTALLED BASE IN EXTREME INVERTER-DUTY APPLICATIONS

HEAT EXCHANGER NEMA IE3

STABLE, RELIABLE, EFFICIENT



Specially rated and ideally suited for harsh outdoor heat exchange applications.

MODEL

- XSD Ultra 661

TECHNICAL CAPABILITIES

0.75–300 HP, 900–3600 RPM
460, 575 V, Freq. 60 Hz
TEFC (IP55)
Frame sizes: 184T–449
NEMA, UL, CSA, API 661, IEEE 841,
IEEE 45, GM 7E-TA, IEEE 112B
CE, ATEX Zone 2
Division 2 application
VFD ready with GEGARD
Class H insulation
Five Year Warranty

VERTICAL PUMP NEMA IE3

INVERTER-DUTY AND EFFICIENT



Combines extra severe duty engineering with advanced thrust and cooling technologies.

MODELS

- Ultra Series Vertical
- Large Custom Vertical

TECHNICAL CAPABILITIES

3–1000HP, 600–3600 RPM
460, 575, 2300/4160 V
60Hz or 50Hz
WPI and TEFC Enclosures
Hollow and Solid Shaft
Normal, High, and Extra High Thrusts
Frame Size: 182–5013
API 610 12th Edition
P-Base mountings
VFD ready with GEGARD
Class H insulation
Three Year Warranty

MEDIUM VOLTAGE NEMA

SEVERE DUTY, LONG LASTING



Designed to operate in extreme Petrochemical, Power Generation, Mining and general process environments and applications.

MODELS

- Quantum LMV

TECHNICAL CAPABILITIES

100–1750 HP, 900–3600 RPM,
460, 575, 2300/4000 V,
Freq. 60 and 50 Hz.
TEFC
Available in IEEE 841 config.
Frame sizes: 440–8200
NEMA, CSA, UL, IEEE 112B, AEx nA
API 547 and 541, Division 2, Zone 2
Class F insulation
Three Year or
Five Year Warranties (IEEE 841)

DIRECT CURRENT

RELIABLE WORKHORSES



A reliable lifeline to driven equipment and backbone for production and operation.

MODELS

- Kinamatic
- CD6000 Series
- Mill Duty

TECHNICAL CAPABILITIES

1–500 HP, 300–3600 RPM
Armature voltage: 180, 240, 500
Field voltage: 300/150, 240/120
DPFG, DPGF-BV, TE,
Explosion proof
TREC coils on large frames
Two Year Warranty
(CD6000 Series)
500–2000 HP, 300–1750 RPM
Armature voltage: 500, 600
(Mill Duty)
5–500 HP, 340–1025 RPM
Armature & Field voltage: 230, 460
Meets AIST standard