

GE Energy

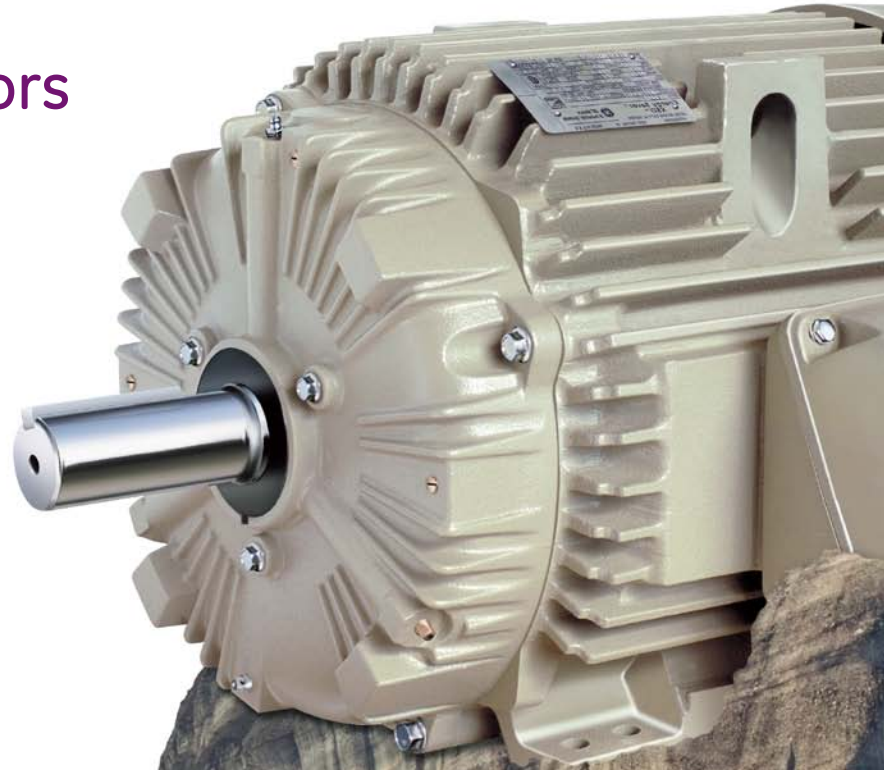
**DRIVE CENTRE**   
Industrial Automation Systems Integrators

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# X\$D Ultra<sup>®</sup>

NEMA Premium  
Extra Severe Duty Motors

TEFC  
143-449 Frame  
0.75-300 HP  
230/460V, 460V, 575V  
60 Hz



Expect more.

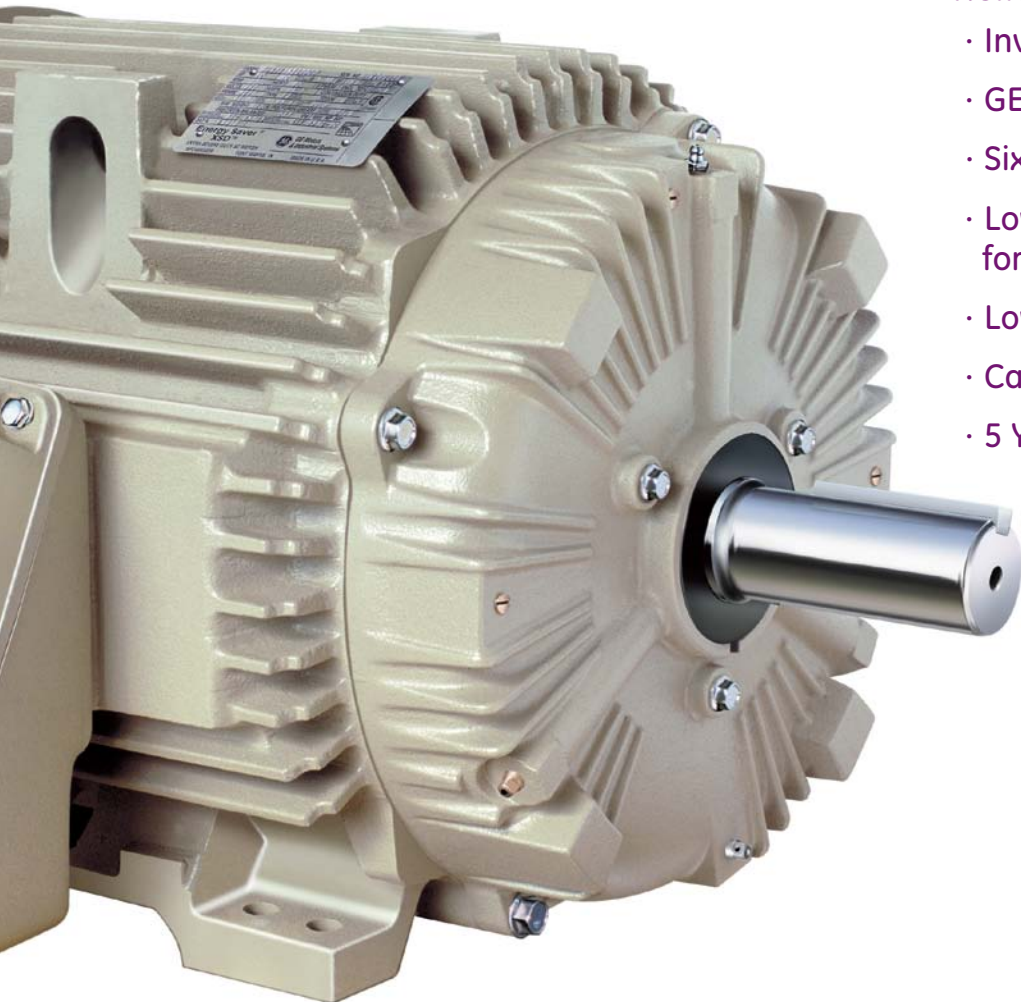
a product of  
**ecomagination**



imagination at work

# Expect more from your motor

The GE X\$D Ultra<sup>®</sup> meets the demands of your application with efficient, long-lasting and reliable performance. Built to the highest industry standards, it will exceed your expectations for years to come—you can count on GE.



## Key features

### Efficiency

- NEMA Premium Efficiency

### Reliability

- Inverter duty capability
- GEGARD2400™ insulation system
- Six Star Bearing System™
- Low vibration / provisions for monitoring
- Low Class B temperature rise
- Cast iron construction
- 5 Year Warranty

### Safety

- 4-point Cast-in lifting lugs
- Extended grease fittings

# Get more for your application

Maximizing your investment means getting the most from the motors you choose.

More than just getting the job done, motors must be dependable, rugged and built to last.

Your application demands the best, and GE delivers.

## Industries

- Petrochem / Oil & Gas
- Mining
- Metals
- Utilities & Power Generation
- Water / Wastewater
- General Process Industries
- Pulp & Paper

## Applications

- Fans, pumps, compressors, conveyors and many others

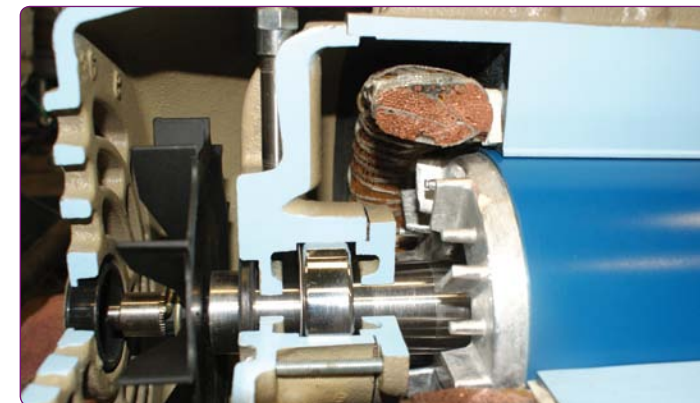


# X\$D Ultra motors— built to a higher standard

## Six Star Bearing System™

Bearings, the life force of a motor, are what keep the X\$D Ultra running smoothly. These features protect and lubricate the bearings, adding to the durability and longevity of the X\$D Ultra.

- Single shielded bearings on both ends open toward the grease cavity to allow maximum opportunity for grease circulation.
- Cast-iron bearing caps with gaskets retain lubrication and protect the bearing system from contaminants.



- Low temperature rise designs— 15% cooler on average than IEEE standards— increase bearing life.
- Overall vibration of 0.04 ips peak results in smooth, reliable operation and extends bearing life.



**Rotor assembly balanced to ISO 1940 Grade 1.0 for low vibration.**

**The vibration level is 50% lower than the requirement of IEEE 841 - 2009 Standard and 3.75 times better than NEMA Standard balance.**

- 130,000 hour L10 direct connected and 50,000 hour L10a belted bearing life increases uptime and decreases repair costs.
- Full charged lubrication system with a temperature resistant polyurea grease suitable for a wide temperature range (-40°C to +130°C).

## Safety

- Safer lifting is possible with a four point lifting system versus a single eyebolt. Cast-in lifting lugs eliminate eyebolts that may strip, shear, get lost or be improperly selected.
- Extended grease fittings for easy and safe access.



# Extra severe duty construction gives you more assurance

The X\$D Ultra has a rugged, all cast iron construction with corrosion resistant SAE Grade 5 hardware. A recessed steel reinforced neoprene slinger is used on both the drive end and opposite drive end for better protection from outside elements (IP55).



**Oversized, gasketed conduit box with lead separation gasket and conduit box cover gasket restricts moisture and contaminants from entering the motor.**

**Epoxy ester paint system stands up to corrosive environments and meets the IEEE 841 paint requirements.**



**Stainless Steel combination breather/drain allows condensation to drain from the motor.**

**Embossed 316 stainless steel nameplate on the motor contains alternate 50Hz data.**



# Premium energy efficient motors deliver more bottom line savings

## NEMA Premium Efficiency

One of the greatest benefits of the X\$D Ultra is its efficiency rating. X\$D Ultra motors exceed all NEMA minimum guaranteed efficiency levels, and GE guarantees the minimum efficiency levels stamped on the nameplate.

X\$D Ultra motors comply with the US Energy Independence and Security Act which requires general purpose motors to meet or exceed all NEMA Premium nominal efficiency levels based on NEMA MG1 table 12-12 as of December 19, 2010.

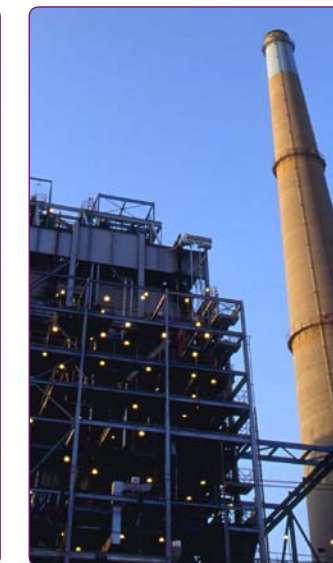
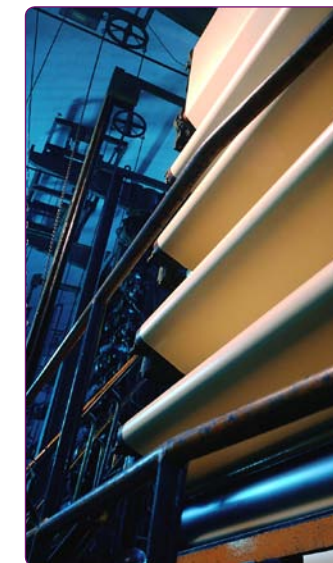
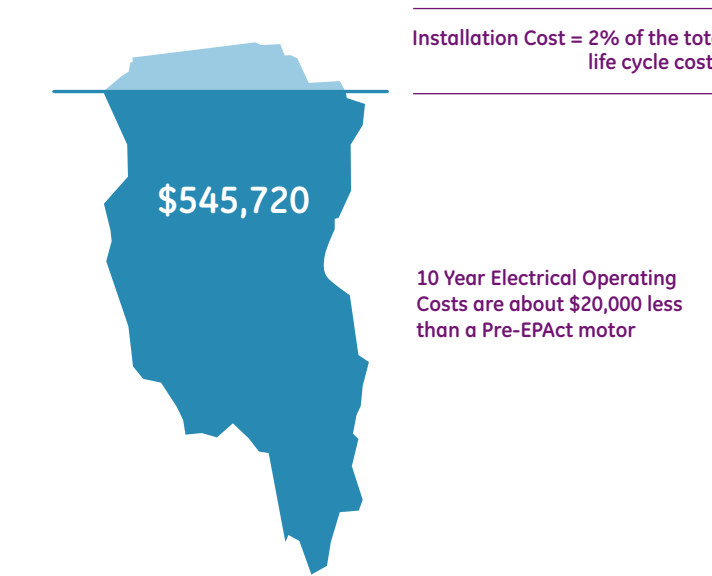


- A new 100HP 1800RPM X\$D Ultra motor can pay for itself in energy savings in 1.5 years if used to replace an equivalent Pre-EPA motor.\*
- Finned endshield for improved heat dissipation and long bearing life (324-449 frames).
- The GE Premium efficiency design lowers annual energy cost and extends motor life without any sacrifice in NEMA B performance.

\* Statements based on 8400 hr/yr runtime and \$0.065/kWh electrical cost.

## What could you save?

How about \$20,000 and 150 metric tons of CO<sub>2</sub> per motor over a 10 year period.



# GE reliability means more uptime operation

## Insulation System

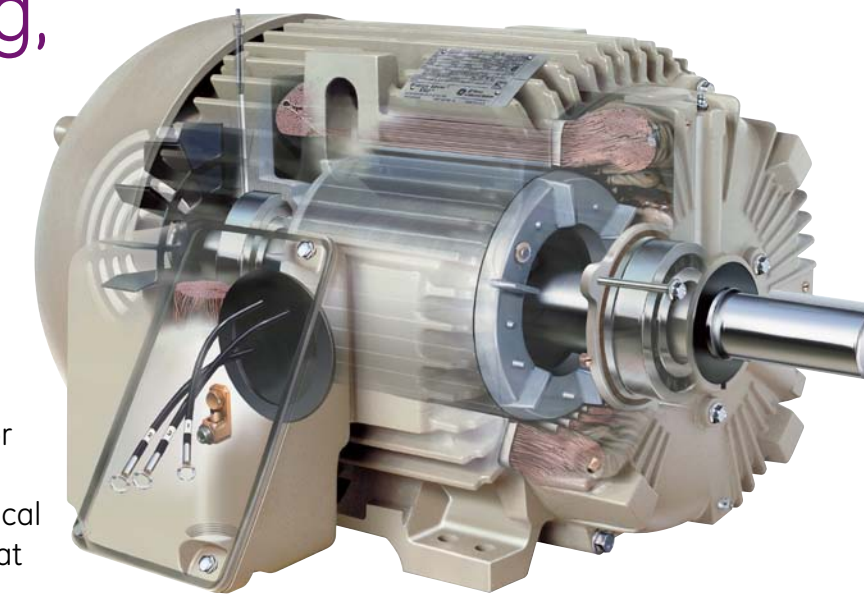
GEGARD2400™ insulation systems feature Class H insulation materials and a 1.25 service factor. This system increases motor protection against IGBT drive voltage spikes up to 2400 volts @ 0.1 microsecond rise time, which exceeds NEMA MG1-31 standards. All motors are tested to verify the corona inception voltage prior to shipment.

- Low temperature rise designs maximize the bearing and winding life of the motors.

# Better built, better performing, better motors.

GE X\$D Ultra®  
NEMA Motors—  
You can expect more.

5-year manufacturer warranty is standard for the X\$D Ultra motors. This comprehensive warranty program covers mechanical, electrical and efficiency performance. Further proof that you can expect more from GE.



Find out more about GE X\$D Ultra® NEMA Motors at:  
[www.gemotors.com](http://www.gemotors.com)



With **ecomagination**, GE imagines and builds innovative solutions that help customers meet environmental challenges and improve their operating performance, while also benefiting the company and the world. As a global leader in energy, technology, manufacturing and infrastructure, GE is uniquely suited to help solve environmental dilemmas— today and for generations to come.

If a U.S. industrial user replaces one 100HP 1800RPM Pre-EPAct motor with an X\$D Ultra, greenhouse gas emissions can be reduced by as much as 15 metric tons per year.\*

\* Statements based on 8400 hr/yr runtime and \$0.065/kWh electrical cost.

For more information, contact your GE sales representative.

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