

# *Tashida*

For the most demanding applications

## ***Severe Duty NEMA Motors*** ***ELITE Series***



[tashida.com](http://tashida.com)

# Severe Duty NEMA Motors

## ELITE Series

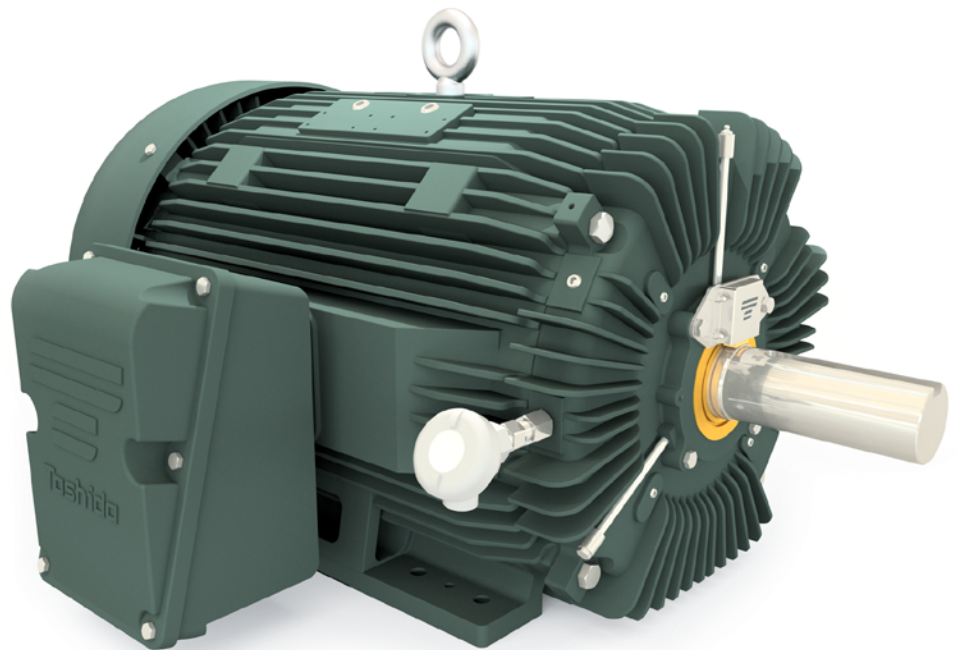
### Extended Reliability

#### Performance and protection for any application

Tashida Elite series Severe Duty motors are suited for harsh industrial environments where reliability and highest operating efficiency is desired, they are built with heavy-duty cast iron enclosure.

Robust, durable motor construction protects rotating and electrical components to provide extended operating life in industrial applications exposed to dusty, dirty, wet, outdoor, and possibly high vibration environments.

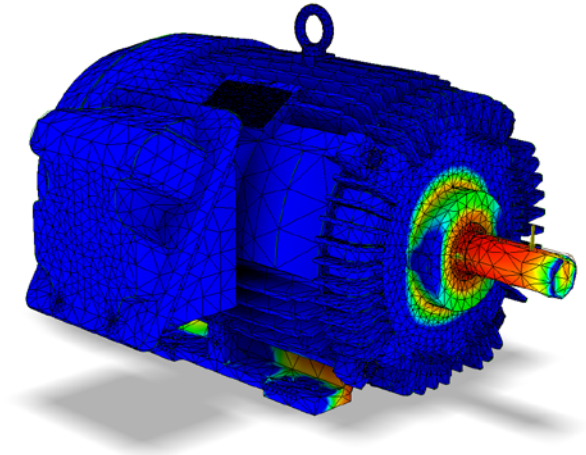
These motors are capable of withstanding extremely low and high temperatures and will operate at high altitude where the air is thinner or at sea level conditions where salt corrosion eats up the equipment.



## Designed to Increase Service Life

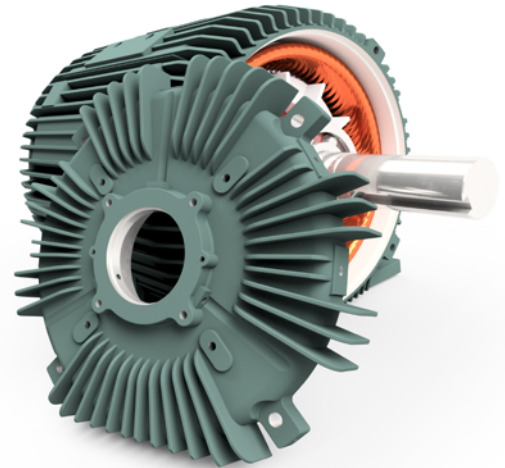
### Rugged construction for longer service life

Tashida Elite motors have a cast iron frame and bearing housings that offer ruggedness, reliability, performance, and efficiency. The design provides high structural strength using Finite Element Analysis (FEA) to strategically place material within each component to resist the effects of stress and vibration. Materials for resistance to corrosion are amply used throughout for long life in a wide variety of industrial applications.



### Mechanical design

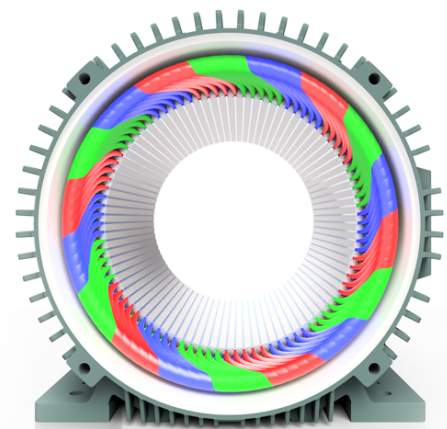
When you look at the sturdy design of these motors, you know immediately they are more than standard NEMA motors. Tashida Elite motors have a robust cast iron design to increase stability and eliminate common mechanical failures. The durable construction includes increased ribbing in the end bells, maximum surface area at connection points, and deep bearing pockets.



### Optimized electrical design

Tashida Elite motors are designed to provide superior performance and energy efficiency. Their advanced electromagnetic design meets and often exceeds the MEMA Premium requirements per NEMA MG-1 table 12-12.

When a motor is run on a VFD, its windings need to withstand sharp voltage spikes coming from the VFD. NEMA requires Inverter Duty motors to withstand a maximum of 1860V. Tashida designs its motors to withstand 2000V spikes, protecting them against VFD harm.

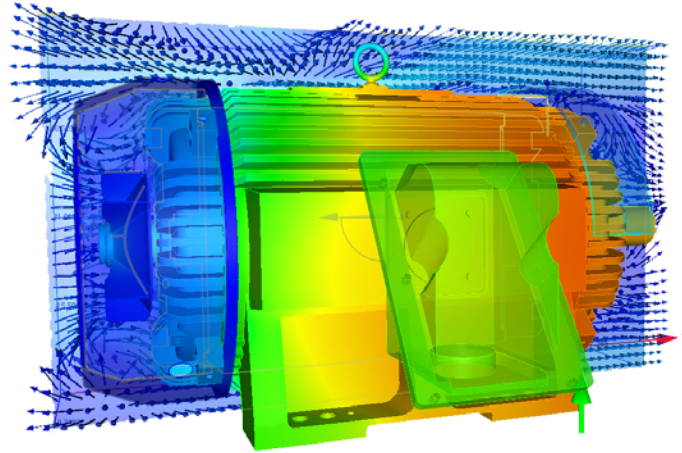


# Designed to Increase Service Life

## Cooling system

Tashida's advanced cooling system is based on minimizing heat sources within the motor and then quickly dissipating any remaining heat. This highly refined system includes:

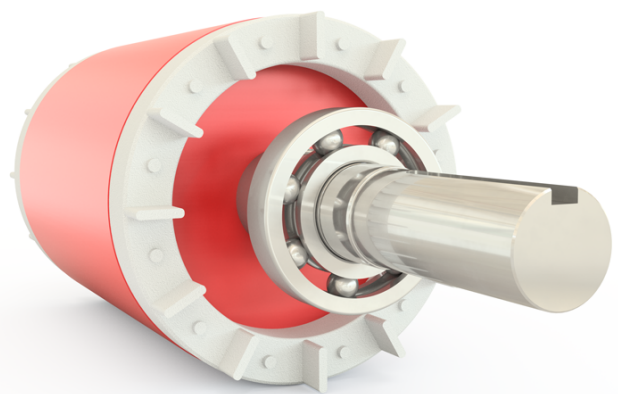
- An engineered finned cast iron frame design that provides optimum heat dissipation. The heavy frame (mass) helps to dissipate the heat.
- High flow volume cooling fan and special contour fan cover work together to provide superior air flow over frame and bearing housings.
- A low-loss stator and rotor designed to work together to minimize heat generation.



## Bearing system

Studies have shown that the motor bearing system is one of the most important elements to ensure long service life. Tashida Elite motors feature:

- Oversized 300 series bearings on both the drive end and non-drive. Oversized bearings allow Tashida's motors to last up to ten times longer than motors built with smaller bearings.
- Bearings in 143T-256T frames are sealed (lubricated for life). Larger frame sizes feature provisions for lubrication and a removable grease relief plug.
- Precision machined cast iron bearing inner-caps are included on 404T frame and larger.
- Bearing housings and frame mating surfaces are precision machined for precise tolerances.
- Dynamically balanced rotor assembly exceeds NEMA MG-1 requirements.



## Data, Facts, and Details

### A new generation of motors

Reducing your cost of operation in severe environments, Tashida Elite motors have been developed to provide the rugged performance and long service life you have come to depend on plus exceptional operating efficiencies to further reduce your company's cost of ownership.

- UL Recognized Component System
- 6 / 12 Leads for Wye-Delta Starting
- UL Ground Inside Main Terminal Box
- Oversized T-Box Volume
- Neoprene Lead Gasket Between T-Box and Frame
- Oversized 300 Series Bearings
- L10 Bearing Life
- ABMA C3 Bearings Clearance
- Polyurea Grease (Mobil Polyrex EM)
- ASTM Grade 25 Grey Iron Frame and Brackets
- C-5 Rated Electrical Steel
- Paint System Surpassing 96 Hour Salt Spray Test
- Designed and Manufactured According to NEMA MG-1



# Motor Features

## General Features

Enclosure	TEFC (Totally Enclosed Fan Cooled)
Power Range	0.75 - 700HP
Voltage (60Hz)	230/460V - 460V
Voltage (50Hz)	190/380V - 380V
Speed (60Hz)	3600, 1800, 1200 Rpm
Speed (50Hz)	3000, 1500, 1000 Rpm
Frame Sizes	143T - 5810

## Electrical Features

Insulation Class	Class F (155°C), Class H Materials
Inverter Duty	Yes, Per NEMA MG-1 Part 31
Temperature Rise	Class B (80°C) @ 1.0 SF
Service Factor	1.15
Efficiency	NEMA Premium
NEMA Design	Design B
Duty Type	S1

## Mechanical Features

Bearings Type	Anti-friction
Sealed Bearings	143T to 256T Frame
Regreasable Bearings	284T to 5810 Frame
Drains	Yes, Lowest Point of Frame
Degree Of Protection	IP55 / IP56
Fan Material	Non-Sparking & Non-Corrosive
Fan Cover Material	Steel / Cast Iron
Terminal Box Material	Cast Iron
Terminal Box Rotation	90° Degree Increments
Nameplate Material	Stainless Steel (304)
Environment	Class I, Division 2, Groups A, B, C, D



# ***Boosting the industry of the future***

**tashida.com**