

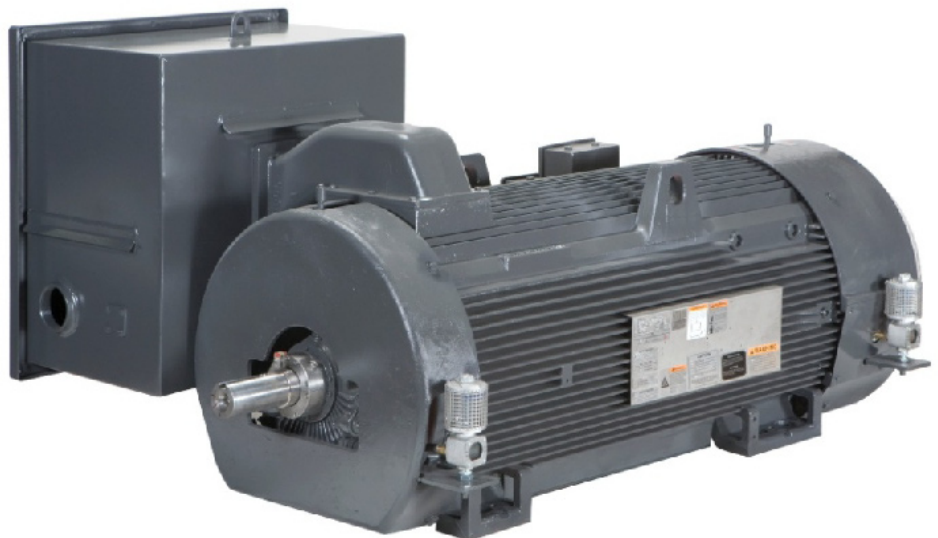
# Horizontal Titan<sup>®</sup> III Motors

Designed to API 547 Standards

**F**or years the Oil & Gas Industry has been looking for a standardized API<sup>®</sup> 541 motor for general-purpose applications to minimize the requisition complexity without sacrificing the motor quality. The solution is the API 547 - a rigorous standard written to ease the specifying and ordering of large, severe-duty motors and enable quicker delivery times than usually expected with API 541.

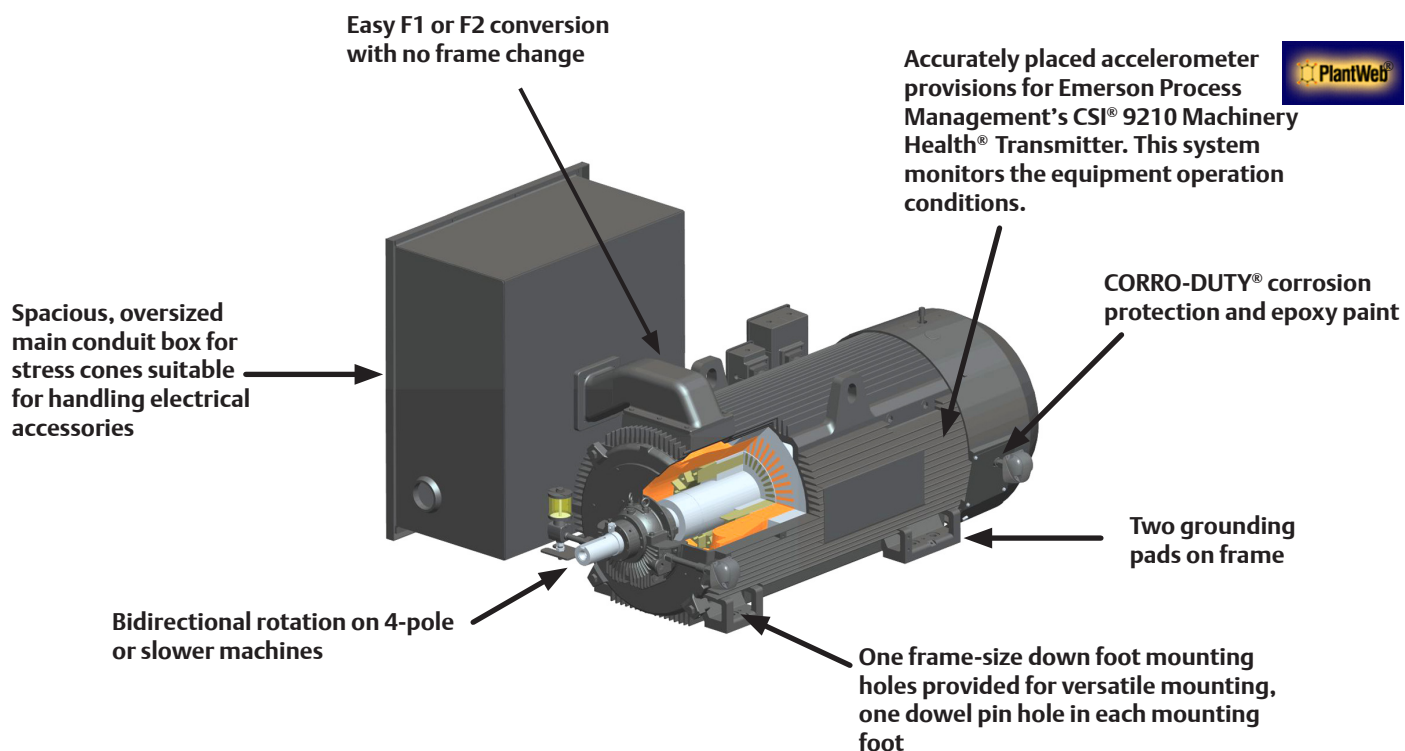
Emerson, known for quality and dependability through the US Electric Motors Brand, has utilized its Motor Technology Center (research center in St. Louis, MO) and manufacturing facilities in Mena, AR to develop the new Horizontal Titan<sup>®</sup> III Motor - designed to the rigid API 547 Standards. This standardized and highly efficient motor is ideal for use in the Oil & Gas Industry in applications such as fans, compressors, centrifugal pumps and blowers. The solution is simple. EMERSON. CONSIDER IT SOLVED.<sup>™</sup>

- **API 547 Specification**
- **Made in USA**
- **High Efficiency**
- **250-600 Horsepower**
- **TEFC Enclosures**
- **Sleeve Bearings Standard with Anti-Friction Bearings as an option**



## Advanced API 547 Features

Emerson's team of engineers has applied more than 100 years of motor expertise and the Motor Technology Center's cutting-edge laboratories to ensure its API 547 contains advanced features that meet rigid standards.



The following options give Emerson the opportunity to tailor an API 547 motor that meets your needs. Optional accessories include:

- Mounting of customer-supplied half-coupling
- Auxiliary nameplate
- Copper bar rotor
- High or low ambient temperatures -- the ability to operate in temperatures below -25°C or +40°C
- Special shaft extension
- High altitude – the ability to operate in altitudes above 3300 feet above sea level
- Oil sump heaters (required on sleeve-bearing motors operating in ambient temperatures of -15°C or less)

## Commitment to Standards

**E**merson's API 547 motors are meticulously designed and built with quality methods and premium materials to provide reliable power condensed into a compact, rugged package. Computational Fluid Dynamics, Electrical and Structural Finite Element Analysis, and Emerson's proprietary technologies are all used to understand the design dynamics, optimize motor performance, model stressful operating conditions and engineer out variability. Not only must all components meet API Q1 quality measures, but these motors must also meet Emerson's own extensive test criteria, which ensure consistent delivery of excellent products.

**Emerson tests all of its motors, production equipment and materials. A test and report of test results come standard with each API 547 motor. The test consists of measurements of the following:**

- No-load current, power and speed
- Locked rotor current
- High potential
- Insulation resistance
- Stator resistance
- Bearing insulation
- Bearing temperature rise
- Vibration measurement
- Surge comparison test

**Optional tests and inspections are available, including:**

- Complete test
- Sealed winding conformance test
- Rated rotor temperature vibration test
- Unbalance response test
- Witness tests



## Additional Facts About Our API 547 Motor

### **Bearings**

Sleeve bearings are standard, anti-friction bearings are optional. Both sleeve and anti-friction bearings feature IP55 protection, electrical insulation and a grounding provision. For sleeve bearings, a grounding strap accomplishes grounding, while anti-friction bearings feature a grounding seal on the shaft that also leads to lower maintenance. Emerson's anti-friction bearings also come equipped with zerk fittings at the bearing grease fill and Inpro/Seal<sup>®†</sup> and VBXX<sup>®†</sup> Vapor Blocking Bearing Isolators on both ends of the motor.

### **Vibration Detectors**

Emerson offers optional vibration detectors that measure housing vibration or shaft vibration.

Housing vibration detectors can be used on motors with sleeve or anti-friction bearings. Emerson can supply a variety of choices as well as arrange to accommodate customer-supplied and field-installed vibration detectors.

Shaft vibration detectors can be used only on motors with sleeve bearings. Emerson offers provisions to mount, probes only, and Proximito<sup>®†</sup> probes as well as a keyphaser for proximity probes.

**The following API 547 motors are available at 60 hertz.**

Horsepower	Poles	Volts	Frame
250-500	2	2300/4000	5008-5012
250-600	4	2300/4000	5008-5012
250-450	6	2300/4000	5008-5012
250-350	8	2300/4000	5008-5012

Emerson's API 547 motors carry a two-year limited warranty when used on sine wave power that extends to a maximum of 30 months from the manufacturing date. Extended warranty available for purchase.

<sup>†</sup> All non-Emerson Electric Co. marks shown within this document are properties of their respective owners.

*Emerson, a global leader in the design and manufacture of electrical motors, provides a complete line of general and special purpose electric motors from 1/200 through 5,000 horsepower. Brands such as Emerson<sup>®</sup>, U.S. Motors<sup>®</sup>, and Hurst<sup>®</sup> allow Emerson to support a wide variety of applications including commercial and industrial, appliance, hermetic, automotive, and HVAC. Emerson (NYSE: EMR), based in St. Louis, is a global leader in bringing technology and engineering together to provide innovative solutions to customers through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses.*



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