

SIEMENS

Ingenuity for life



SIMOTICS

Stand Tall with Siemens Vertical Pump Motors

SIMOTICS HP100 and LP100 set the standard for durable, efficient, and versatile operation.

You demand high-quality motors that stand up to the toughest environments and applications, so your processes have longer life and lower costs.

That's why we've designed the SIMOTICS Vertical Solid Shaft (VSS) NEMA Premium motors to exceed standards for efficiency, reliability, durability, and flexibility.

usa.siemens.com/pumpmotors

More operating hours, lower cost. This is what SIMOTICS pump motors do for you.

HP100/LP100 features low vibration levels and rugged all cast iron construction.

The SIMOTICS HP100 and LP100 vertical solid shaft (VSS) motors have thrust capacity and bearing life that exceeds values commonly seen in the industry. This translates to longer life and lower costs.

Built in durability and serviceability

Siemens VSS motors are designed and constructed to provide increased uptime. The rotor is designed and manufactured for reduced vibration to prolong life. Durability is built in with all cast iron frame, end shields, and oversized conduit box. Closed, bolted lifting eyes and the corrosion-resistant epoxy finish enhance durability.

Ease of serviceability also helps you increase uptime. Siemens VSS motors are designed for rapid and economical maintenance. Thrust bearings are located in the non-drive end, so they are easy to access--quickly and with minimal cost--without removing the motor.

Exceeds standards to extend operational life

Siemens VSS motors go beyond the intent of the API 610 standard to completely fulfill the requirements, including thrust bearing type

and location, dimensions and tolerances, low vibration and combined thrust capacity and bearing life at 25,000 hours continuous operation.

The thrust bearings of the VSS motors are located in the non-drive end of the motor even when the API 610 option is not selected. These angular contact bearings are arranged for either maximized up or down thrust, depending on the application and ordering configuration. Since bearings are located in the non-drive end, maximum cooling from the motor fan is achieved. This yields higher thrust capacity and longer life.

Since IEEE 841 applies also to foot-mounted motors, not all sections of the standard apply to vertical motors*. The SIMOTICS VSS motor does, however, meet the applicable requirements or "intent" of IEEE 841 with features such as:



SIMOTICS HP100 and LP100 vertical solid shaft motors are designed for the harsh requirements of the US oil, gas and petrochemical industries.

- Non-Contacting seal on DE (Inpro/Seal®)
- Balance and shaft runout
- Class F insulation with 80°C temperature rise at 1.0 Service Factor by resistance
- Moisture and oil resistant barrier for leads
- Corrosion-resistant, replaceable automatic drainage fittings
- Birth certificate (unwitnessed vibration test)

Efficiency above and beyond requirements

Effective June 1, 2016, The US Department of Energy has set new minimum efficiency regulations for vertical pump motors. Siemens HP100/LP100 motors have guaranteed efficiency ratings that exceed both NEMA Premium and the new US DoE requirements. In fact, Siemens VSS motors have a guaranteed minimum efficiency greater than 5% above the DOE minimum. This translates into higher energy savings and reduced total cost of ownership.

Single family design, high thrust capacity adds flexibility

Siemens VSS motors provide you with more flexibility due to the common footprint for high-thrust HP100 and the extra-high-thrust LP100 motors. The common design dimensions and platform of this single family of vertical motors means that you can replace models with a different thrust capacity motor if needed. Features like the non-reverse ratchet, API 610 or IEEE 841 are

added as options, often in our US modification center.

And with both motors featuring a thrust capacity higher than industry standard, your flexibility is increased through the potential to use a smaller motor in your application. The commonality in the design of the VSS line provides interchangeability and fewer spare parts needed.

Variable frequency drives (VFDs) optimize production and bring the potential for significant energy savings. All SIMOTICS HP100 and LP100 motors are rated for VFD use. The the 20:1 variable torque turndown ratio on these motors allows for low speeds without additional cooling components.

Multiple uses, one common design

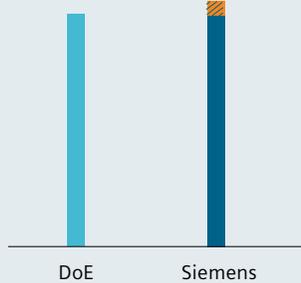
If you're ready to maximize the efficiency, durability, and flexibility of your motors, Siemens has the answer. By exceeding industry standards for efficiency and thrust capacity, the SIMOTICS HP100 and LP100 vertical pump motors allow you to do more with less. And with multiple capacities -- high and extra high thrust, direct on-line and variable speed drive operation -- all within a common motor design, you can get the most out of your pump applications.

SIMOTICS HP100 and LP100 vertical solid shaft pump motors at a glance:

- Low vibration and high thrust capacity for long service life
- Designed to meet or exceed API 610 and IEEE 841 standards
- Surpasses the new minimum US DOE efficiency requirements
- Available from 3 HP to 250 HP

Guaranteed Minimum Efficiency

At least 5% above DoE requirements



Siemens NEMA Premium motors have guaranteed minimum efficiency levels that are at least 5% above the minimum required by the US Department of Energy.

Published by
Siemens Industry, Inc. 2016

Process Industries & Drives
100 Technology Drive
Alpharetta, GA 30005

For more information, please contact
our Customer Support Center.
Phone: 1-800-241-4453
Email: info.us@siemens.com

Order No. NMBR-00105-0316
Printed in the USA

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.