

### Quality Manufacturing

From design to materials to workmanship, quality is built into every Siemens motor, the result of more than 120 years of experience capped with today's advanced quality control procedures used in our Certified Quality Performance Program.

### Comprehensive Service and Support

Siemens warranty, parts and service request call center is available 24/7, providing customers a single point of contact with efficient service and fast response times. Siemens service technicians take pride in finding the right solution, the first time, every time.

### Contact Siemens Services

Telephone: 800-333-7421 (Toll Free)  
423-262-5710 (Outside U.S.)

Online: [www.siemens.com/automation/support-request](http://www.siemens.com/automation/support-request)

### Siemens Motors and Drives – Performance-Matched Systems

Performance-matched variable-speed motors and drives from Siemens make perfect sense. They are designed to work in harmony for ease of selection and start up, as well as long-term reliability and exceptional performance. Whether your application requires variable torque or constant torque capability in general purpose or severe duty environments, there is a Siemens motor / drive system ready to go to work for you.

### Siemens IEC Motors – Worldwide Production for Global Applications

Siemens produces a complete line of IEC motors built in our European factories. The SIMOTICS HV Compact line of motors utilizes torsionally rigid, robust frame design, manufactured from cast iron with external and internal cooling ribs. The SIMOTICS HV Compact line has output up to 7,100 kW.

The SIMOTICS HV MODULAR is available in shaft heights 450mm, 500mm, 560mm, 630mm, 710mm and 800mm from cast iron and fabricated steel frames with fabricated steel heat exchangers. The H-compact Plus is available with outputs up to 19,000kW.

The SIMOTICS HV High-Power, built in Germany, features a high-density and compact design that provides a smaller overall package with an optimized cooling design for exceptional efficiencies. It is available as induction and synchronous and has an output capability beyond 70,000kW.

**Siemens Industry, Inc.**  
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**SIEMENS**  
*Ingenuity for life*

AboveNEMA motors

Critical duty  
motors you can  
depend on -  
Innovation is why

[usa.siemens.com/AboveNEMA](http://usa.siemens.com/AboveNEMA)

## Large motors built to meet the most demanding standards

For over 120 years, Siemens large motors have earned a reputation for high performance, low maintenance and long service life in the world's most demanding applications. It is this reputation combined with unmatched service and support that has made Siemens the leading supplier of motors around the world.

Siemens meets or exceeds recognized standards. Siemens keeps its industry-leading reputation by staying at the forefront of important industry standards such as:

- IEEE 841
- ANSI
- API 541, 4th Edition
- API 541, 5th Edition
- API 547, 1st Edition
- API 547, 2nd Edition
- NEMA
- CSA
- CSA - US
- NEMA Premium® efficiency

### Siemens meets the toughest standards of all – yours

At Siemens, we listen to the needs of our customers and their industry. We then respond with motors that are designed and manufactured to provide maximum value for industries such as:

- Petroleum
- Chemical Processing
- Mining
- Metal Producing and Processing
- Utilities
- Power Generation
- Pulp and Paper



In addition to providing industry-specific solutions, Siemens offers the quality standards to back our promise of the ultimate in large motor value:

ISO 9001 certified quality standards at our Norwood, Ohio, USA Global Motor Manufacturing Facility.

Full load dynamometer testing of motors up to 20,000 HP. It is the best assurance of build quality.

### Quality isn't a goal – It's an absolute requirement.

We subject all motors up to 20,000 HP to full load dynamometer testing. It is the single best assurance of superior build quality.

### Investing in your future

Siemens continues to make major investments to remain the industry leader in large motors. A recent \$10 million facilities upgrade project has been completed at the Norwood, Ohio factory. The investment added more manufacturing and testing space, as well as advances in manufacturing and inspection equipment. The AboveNEMA World-class Manufacturing Facility in Norwood, Ohio earned the prestigious Plant Engineering "Top Plant" award in 2009.



## Stator systems

### A systems approach to high performance, extended service life and value

Siemens engineers evaluated every component that affects the performance and service life in our motors and developed individual systems within them to provide maximum value. In each of these systems, options are available to meet specific application, performance, cost and efficiency requirements. Together, these systems unite to provide a highly engineered, custom-purposed motor, built with highly reliable standard components for maximum value. Siemens offers stator NEMA Class F insulation systems to meet your motor performance needs.

#### Insulation systems

**Form wound** – Siemens Micalastic™ form wound stator insulation system provides the ultimate in electrical protection, mechanical and electrical strength for long service life. It features a highly engineered, sealed epoxy mica design for optimum electrical and ambient operating performance and meets or exceeds NEMA MG1-20 sealed winding standards. Features of this system include:

**Copper coil system** – A heavy polyester or Dacron® glass tape is used for individual strand insulation for coils.

- For high voltage applications, supplemental mica insulation is added for extra protection.
- When ultimate protection against corona damage is required in high voltage applications, conductive armor tape is added to the slot portion of the coil.

#### Stator assembly system

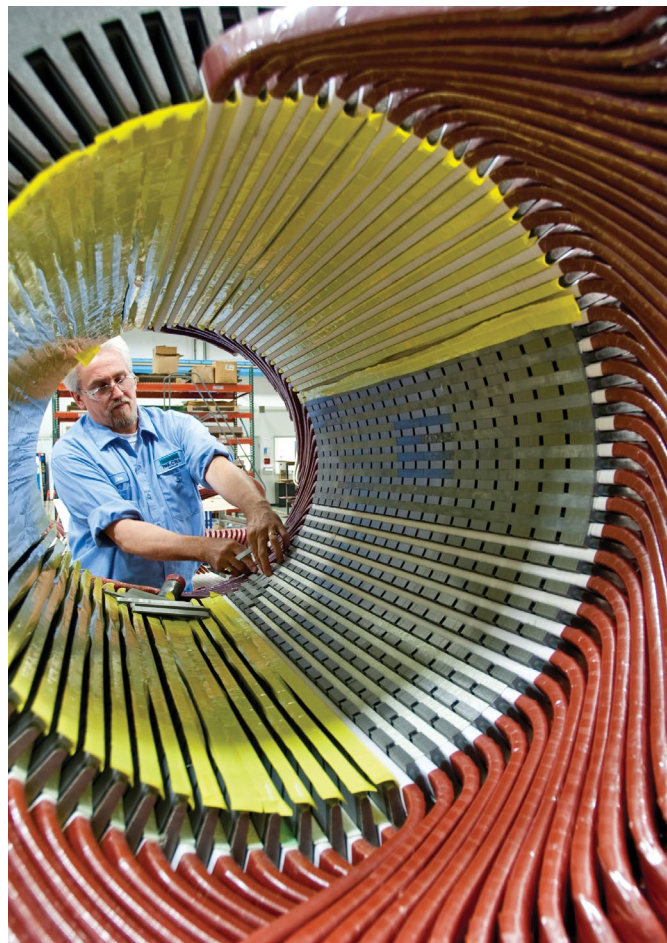
After insulating, coils are assembled into the stator slots with polyester film/fiber slot liners and connected together.

- For high voltage applications, conductive polyester mat slot liners are used to resist the effects of high corona.
- Coil end surge rings, blocking and tying are applied to the finished assembly for maximum strength.

#### Vacuum pressure impregnation (VPI)

Each stator assembly receives VPI treatment to provide exceptional protection against moisture, chemical and electrical damage.

- The VPI process uses high vacuum pressures to draw out air and gasses from the stator assembly and winding.
- After the vacuum is applied, a 100% solid thermosetting epoxy resin is introduced to the stator and fills voids and gaps within the windings with resin.



- While submerged within the resin, the stator is pressurized to several times the atmospheric pressure for maximum insulation penetration and coverage.
- After the VPI process, the stator assembly is high-temperature baked to catalyze the resin to produce a very rugged, solid and sealed stator insulation system.

#### Core systems

For optimum electrical and magnetic performance, stator cores are assembled with laminations punched from high-grade (C5 core plate) silicon steel. These laminations are stacked, keyed, compressed and secured with heavy gauge steel rings to provide a strong, rigid assembly to minimize vibration and noise while assuring a precision air gap.

stator alignment, regardless of high shaft loads for long bearing life and low vibration and harmonics.

- Precision-machined mounting feet surfaces assure long-term accurate alignment with driven equipment to extend bearing life and minimize vibration.

## Rotor system

The rotor is the workhorse of any motor. It must endure and transmit heavy loads, aid in the cooling of the motor and provide high electrical performance. Siemens engineers have designed the rotor system to provide optimal performance for various applications through the use of thoughtful designs and high-grade materials.

#### High strength shafts

Siemens uses generously sized medium carbon steel bar stock for shafts for maximum strength. They are precision ground to assure reduced operating stresses.



#### Innovative cooling system

All rotors feature cooling passageways and vents in the rotor core. The axial vents that are parallel to the shaft, carry cooling air to radial vents in the rotor core that expel heat away from the rotor.

#### Precision balanced

All completed rotors are dynamically balanced at full operating speed to ensure long bearing life and minimize noise and vibration.

#### Two rotor choices to meet your needs

To meet specific application needs, Siemens offers aluminum die cast and fabricated copper rotors.

#### Aluminum die cast rotors

- These rotors are ideal for general-purpose applications.
- Constructed of stacked steel laminations that are compressed, then molten aluminum cast into a solid rotor core. This construction casts bars and end rings into one rugged, solid piece to eliminate the possibility of bond faults or flexing failures at the joints.

#### Fabricated copper bar rotors

- These rotors are ideal for high performance applications and provide exceptional energy efficiency.
- Fabricated from stacked steel laminations that are compressed and then shrink fit onto a keyed shaft. Heavy steel end heads with tooth supports are added to prevent flaring at the ends.
- Copper or copper alloy bars are press fit into rotor slots that are lined with steel shims to assure a tight fit. Large copper end connections are added and joined with silver braze for maximum strength and electrical conductivity.

## Bearing systems

To meet specific application requirements, two types of bearing systems are available.

#### Sleeve bearings

Split sleeve bearings are optional on any motor below 680 frame, and standard on 680 frame and larger motors. These bearings feature:

- Tin-based babbitt liners bonded to bearing bushing shells.
- A large lubricant reservoir provides self-cooling of the lubricant for some motors.
- Dual one-piece rings deliver the lubricant from the reservoir to channeled grooves where it is delivered to the bearing.
- For ease of inspection, the top half of the horizontally split bearing housing can be removed without disturbing the bearing or its alignment. A port is included in the housing to view the bearing condition.
- Flood lubrication is available for these bearings.
- Both sides of these bearings have labyrinth seals and are vented to the atmosphere to prevent lubricant migration.

- Sight gauges are available to monitor lubricant levels and constant level oilers are available.
- When required, bearings are insulated from the housing to prevent damaging shaft currents.

#### Anti-friction bearings

These bearings are standard on 500 and 580 frame motors, as well as 8-pole and slower speed motors. They feature:





- Single-row, open construction, regreasable ball bearings.
- New grease is added through external fittings and expelled grease is relieved through drain ports.
- A large grease reservoir protects the bearings from contaminants while a stationary metal end cap protects the stator end turns from excessive grease.
- Bearings are interference-fit on the shaft and slip-fit between the bearing and the housing to allow thermal expansion.

## Frame system

Depending on the size of the motor or the type of enclosure, motor frames are either high-grade cast iron or fabricated steel. No matter which you choose, each frame features:

- Precision machining of end shields and frame ends provides close tolerance mating. It helps assure precise rotor and

# AboveNEMA Motors – At A Glance

Medallion Series							Advantage Series	
Open Motors (IP23 or IP24)		Enclosed Motors (IP54)				Specialty Products (All Type- per API data sheet)API 541 5th edition*** / API 547		Enclosed Motors (IP54)
					IEEE 841	API		

Construction Features								
Enclosure	ODP / WPI (IC01)	WPII (IC01)	TEWAC (ICW81)	TEFC (IC411)	TEAAC (IC611 or IC616)	IEEE 841	API 541 5th edition*** / API 547	TEFC (IC411)
Degree of Protection	IP23	IP24	IP54 / IP55 (SH630 / SH710)	IP54 / IP55 (SH400-880)	IP54 / IP55 (SH630 / SH710)	IP55	All	IP54
HP Range	200 - 9,000 HP	200 - 20,000 HP	200 - 20,000 HP	200 - 2,000 HP	200 - 14,000 HP	200 - 500 HP	250 - 18,000 HP	150 - 350 HP <sup>1</sup>
Frame Size / Shaft Height	500, 580, 680 & 800	500, 580, 680, 800, SH630 & SH710	580, 680, 800, SH630 & SH710	500, 580, SH400, SH450, SH450-880	580, 680, 800, SH630 & SH710	500 & 580	All	449 & S449
Voltage	380 - 13,200 V (460 - 690 V to 800 HP only)	380 - 13,200 V (380 - 690 V to 800 HP only)	380 - 13,200 V (380 - 690 V to 800 HP only)	380 - 11,000 V (380 - 690 V to 800 HP only)	380 - 13,200 V (380 - 690 V to 800 HP only)	460 - 4,000 V	2,300 - 13,200 V	2300 - 4000 V
Service Factor	1.0, 1.15 (optional)	1.0, 1.15 (optional)	1.0, 1.15 (optional)	1.0, 1.15 (optional)	1.0, 1.15 (optional)	1.0	1.0, 1.5 (optional)	1.0, 1.15 (optional)
Warranty	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	24 months from date of manufacture Deferred and / or Extended Warranty (optional)	36 months from shipment

Construction Materials								
Frame	Cast Iron	Cast Iron - 500 - 800 frames Fabricated Steel - SH630 / SH710	Cast Iron - 580 - 800 frames Fabricated Steel - SH630 / SH710	Cast Iron	Cast Iron - 580 - 800 frames Fabricated Steel - SH630 / SH710	Cast Iron	Cast Iron - 500-SH560 Fabricated Steel - SH630 / SH710	Cast Iron
Bearing Housings*	Cast Iron	Cast Iron - 500 - 800 frames Fabricated Steel - SH630 / SH710	Cast Iron - 580 - 800 frames Fabricated Steel - SH630 / SH710	Cast Iron - 500 - 880 frames Fabricated Steel - SH400 / SH560	Cast Iron - 580 - 800 frames Fabricated Steel - SH400 / SH560	Cast Iron	Cast Iron - 500-580 frames Fabricated Steel - SH630 / SH710	Cast Iron
Main Terminal Box	Cast Iron Fabricated Steel (optional)	Cast Iron - 500 - 800 frames Fabricated Steel (optional) Fabricated Steel - SH630 / SH710	Cast Iron - 580 - 800 frames Fabricated Steel (optional) Fabricated Steel - SH630 / SH710	Cast Iron (Fabricated Steel optional)	Cast Iron - 580 - 800 frames Fabricated Steel (optional) Fabricated Steel - SH630 / SH710	Cast Iron (ANSI Type II with standoff Insulators and oversized to NEMA MG1 optional)	Cast Iron or Fabricated Steel	Fabricated Steel
Auxiliary Boxes	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron - NEMA 4X Stainless Steel - NEMA 4X (optional)	Cast Iron
Shaft	2 Pole - AISI 4140 4 Pole and Slower AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 Pole and Slower AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 Pole and Slower AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 Pole and Slower AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 Pole and Slower AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 pole and Slower - AISI 1045 AISI 4140 (optional)	2 Pole - AISI 4140 4 Pole and Slower - AISI 1045 AISI 4140 (optional)	All S449 & 449T - AISI 4140 449TS - AISI 1045
Rotor	Aluminum Die Cast - 500 / 580 frames** Induction-Brazed Copper Bar - 680 / 800 frames	Aluminum Die Cast - 500 / 580 frames** Induction-Brazed Copper Bar - 680-SH710	Aluminum Die Cast - 580 frame** Induction-Brazed Copper Bar - 680 - SH710	Aluminum Die Cast - 500 / 580 frames** Induction-Brazed Copper Bar - SH400 - SH560	Aluminum Die Cast - 580 frames** Induction-Brazed Copper Bar - 680 - SH710	Aluminum Die Cast	API 541 4th ed: Induction-brazed Copper Bar API 547: Aluminum Die Cast ≤1,000 HP otherwise Induction-brazed Copper Bar (Induction-brazed Copper Bar option available for ≤1,000 HP)	Aluminum Die Cast
Lamination Material	C5 Core Plate	C5 Core Plate	C5 Core Plate	C5 Core Plate	C5 Core Plate	C5 Core Plate	C5 Core Plate	C5 Core Plate
External Cooling Fan	N/A	N/A	N/A	Aluminum - 500 / 580 (other materials available), 2 Pole plastic fan with steel hub - SH400 - SH560, 4 Pole and slower: Plastic - SH400 / SH450, Steel - SH500 / SH560	Aluminum - 580 - 800 Steel - SH630 / SH710 (other materials available)	Bronze Alloy	Aluminum if applicable (other materials optional)	449 - Anti Static Reinforced Polyamide & Polypropylene S449 - Bronze
Fan Cover	N/A	N/A	N/A	Cast Iron - 500 / 580 frames Steel - SH400-SH560	Fabricated Steel	Cast Iron	Fabricated Steel or Cast Iron	Cast Iron
Top Cover / Heat Exchanger / Tube Material	N/A - 500 frames Fabricated Steel - 580 - 800 frames / N/A / N/A	Fabricated Steel - Provisions for Filters / N/A / N/A	Fabricated Steel / Single-tube / Cu/Ni Double-tube Stainless Steel (optional)	N/A	Fabricated Steel / N/A / Aluminum Tubes, Stainless Steel (optional)	N/A	Fabricated Steel / Single-tube / Cu/Ni Double - tube	N/A
Insulation	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI	Form-wound, Class F-VPI
Hardware	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	≤M12 - 300 Series Stainless Steel >M12 - Zinc Plated Carbon Steel (per API 541 4th ed.)	Zinc Plated Carbon Steel

General Information								
Noise Level	90 dB(A) Typical (lower on 4 pole & slower) (<85 dB(A) low noise optional on most ratings)	90 dB(A) Typical (lower on 4 pole & slower) (<85 dB(A) low noise optional on most ratings)	85 dB(A) Typical (on most ratings) (<85 dB(A) low noise optional on most ratings)	90 dB(A) Typical (lower on 4 pole & slower) (<85 dB(A) low noise optional on most ratings)	90 dB(A) Typical (lower on 4 pole & slower) (<85 dB(A) low noise optional on most ratings)	90 dB(A) Typical (lower on 4 pole & slower) (<85 dB(A) low noise optional on most ratings)	(≤85 dB(A) available on most ratings)	89 dB(A) Typical (for 2 pole) 85 dB(A) Typical (or lower on 4 pole & slower)
Vertical Mounting	All Frames	All Frames	No	500 / 580 only	580 / 680 / 800	N/A	Available	N/A
Inverter Operation	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - Consult Siemens for Specifics	VFD Duty - VT 10:1, CT 2:1
Paint	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy, Special Paint (optional)	Two-part Epoxy
Paint Color	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue (other colors optional)	Siemens Motor Blue
Bearing Type	Anti-friction - 500 / 580 frames Sleeve bearings (optional) Sleeve bearings - 680 / 800 frames (Anti-friction available on some ratings)	Anti-friction - 500 / 580 frames Sleeve bearings - 680 / 800 frames 2 & 4 Pole Sleeve bearings - SH630 / SH710 6 Pole and Slower Anti-friction - SH630 / SH710 Sleeve bearings (optional)	Anti-friction - 580 frame Sleeve bearings - 680 / 800 frames 2 & 4 Pole Sleeve bearings - 680-SH710 6 Pole and Slower Anti-friction - SH630 / SH710	Anti-friction - 500 / 580 frame Sleeve bearings (optional) 2 Pole Sleeve bearings - SH400 - SH560 4 Pole and Slower Anti-friction - SH400 - SH560 Sleeve bearings (optional)	Anti-friction - 580 frame Sleeve bearings (optional) Sleeve bearings - 680 / 800 frames 2 & 4 Pole Sleeve bearings - 680-SH710 6 Pole and Slower Anti-friction - SH630 / SH710	Anti-friction bearings	Sleeve bearings	Anti-Friction
Vibration	0.12 IPS or as defined by NEMA (Special balance if required)	0.12 IPS or as defined by NEMA (Special balance if required)	0.12 IPS or as defined by NEMA (Special balance if required)	0.12 IPS or as defined by NEMA (Special balance if required)	0.12 IPS or as defined by NEMA (Special balance if required)	0.08 IPS (except 2 pole motors = 0.10 IPS)	0.10 IPS on HSG / 1.5 mils on shaft	0.12 IPS or as defined by NEMA 0.08 IPS for IEEE 841 (optional)
Hazardous Area	N/A	Class 1, Division 2 (optional)	Class 1, Division 2 (optional)	Class 1, Division 2 (optional)	Class 1, Division 2 (optional)	Class 1, Division 2 (optional)	Class 1, Division 2 (optional)	Class 1, Division 2

Consult Siemens for a complete list of clarifications, exceptions and bills of material that may apply. \*The bearing housings are one-piece with ball bearings and two-piece with sleeve bearings. \*\*Some larger 580 frames are provided with fabricated copper bar rotors. Copper bar rotors are optional for 500 and 580 frames. \*\*\*Motors built to API 541 4th Edition are still available. Preassembled stator core, unitized construction, assembled as interference fit to yoke, <sup>1</sup> Up to 400 HP with Class F temperature rise. ©2019 Siemens Industry, Inc. Subject to change without prior notice. Order No.: LDAM-0006-0519. Printed in USA.

# Application-matched modifications

To meet your exact requirements, Siemens offers a variety of application and performance-matched modifications

## Bearing protection

### Resistance temperature detectors (RTDs)

These detectors are placed under the bearing babbitt and monitor any change in bearing bushing resistance to produce a direct temperature reading. RTDs available are platinum with a nominal 100 ohm resistance.

### Thermocouples

These temperature detectors are available as chromel-constantan (type E).

### Thermometers

Direct reading dial thermometers detect bearing temperatures and are normally mounted on the motor frame.

### Vibration detectors

These detectors provide optimum bearing protection since excessive vibration in the bearings is detected before excessive heat occurs. Detectors are mounted near antifriction bearings and are available with switches and/or 4-20 mA outputs.

### Proximity probes

These are non-contact vibration amplitude sensing proximity probes for sleeve bearing motors. They are eddy current devices that measure distance and change in distance to forewarn of impending bearing problems.

## Stator protection

### Resistance temperature detectors (RTDs)

RTDs can be embedded into stator slots for a direct temperature reading of the hottest area of the motor's windings. RTDs with 100 ohm resistance are standard.

### Thermistors

Thermistors provide a large resistance change in relation to a small temperature change and provide a warning from an overload.

### Surge protection

Capacitors are placed in each phase of the stator with built-in discharge resistors and connected to cabinet-mounted three station class arrestors to prevent surges.

### Differential protection

Six extra long leads for connecting to current transformers are included in an oversized terminal box for differential protection.

### Space heaters

These heaters are energized when the motor is at rest in damp or high humidity environments to reduce internal condensation build-up.



## Special modifications

These modifications and more are available to meet specific requirements:

- Extra quiet enclosures.
- Precision balancing beyond NEMA standards.
- High inertia drives.
- Reduced voltage starting.

## Comprehensive testing

All Siemens motors are tested in accordance to applicable NEMA, ANSI and IEEE standards and results from these tests accompany each motor we ship. In addition to these tests, the following performance tests are also available:

- Complete testing to IEEE 112 in Methods E, E1, F or F1 with a maximum horsepower of 3,000 for F or F1.
- Sound pressure testing to IEEE 85 and NEMA MG1 20 standards.
- Bearing temperature testing.
- Speed versus torque/current testing.
- Polarization index testing per IEEE 45 standards.

## Application-focused engineering support

Making one of our motors the exact right fit for your application is the job of the Siemens large motor engineering team. Our staff of highly trained and experienced motor engineers can help solve the toughest application problems with intelligent solutions. Look to them for:

- Severe operating conditions and loads.
- Variable frequency drive solutions.
- Reducing motor acquisition and operating costs.
- High efficiencies.
- Extending maintenance intervals.
- Methods to extend service life.

