

Product Guide



nema STARTERS

SIEMENS

Global network of innovation



Siemens. Leading the Industry With the Largest Selection of NEMA Starters.

Innovation in electronic motor protection motor starters started here at Siemens.

Proven protection since the early 90's, this NEMA starter with electronic overload has saved millions of motors from being damaged or over heated due to over-currents degrading the motors and shortening its life expectancy. Customer testimonials claim thousands of dollars in savings on motor repairs and motor replacements. They reduced their down time and increase profitability by using the Siemens electronic overload relays.

Rugged and Reliable Starters for Every Application

These starters are built rugged to withstand the most severe and demanding industrial and continuous duty commercial applications in the construction markets. Siemens is the only manufacturer in this industry to offer the most complete and diverse product line in the world of NEMA. This includes standard full NEMA sizes and motor matched half sizes exclusive to Siemens. All are available in the contactor and starter line of products in open style, enclosed non-combination starters, electronic or bimetal overload protection and with a wide selection of accessories and spare parts. These products are readily available at your local Siemens distributor.



NEMA Starters

You choose the application! We've got the starter for you.



Starter with Solid-State Overload – Class 14



Starter with Bi-metal Overload – Class 14



Reversing Starter – Class 22



Two Speed Starter – Class 30

This versatile line offers a motor starter for every application you may have. Full voltage with an electronic or bi-metal overload protection, single speed or two speed, reversing or non-reversing, single phase or 3 phase applications, Siemens offers NEMA starters in sizes ranging from 00 – 8 and half sizes in between. From fractional horsepower to large 900 HP motors, Siemens NEMA starters are the right choice for demanding applications.



Contactors

The family of contactors, reversing and non-reversing, offers all sizes from 00 up to and including 8 in standard NEMA sizes.

Unique motor matched half sizes are available in the standard product line.

Siemens offers vacuum contactors for specific applications up to 400 horsepower at 600 Volts.



Family of Contactors – Class 40



NEMA Size 1 Contactor



Single Auxiliary Contact



NEMA Starter with snap-on contact block



Four Contacts in One Block

Auxiliary Contacts

Snap-on: Installing or removing the auxiliary contacts require no tools. Simply snap the contact block in either side of the contactor and push down to install. Just pull out to remove.

Easy Access: Front mount for easy access to wiring. Saves time.

Pressure Plate Terminals: For ease of wiring and reliable connections.

Superior Contact Reliability: Designed to provide reliable contact conductivity at low power for programmable controller applications.

Multiple Auxiliary Contacts: Up to 8 contacts per contactor or starter of any combinations Normally Open or Closed.

Visual Symbols: For ease of identification, the contacts are labeled with symbols for NO or NC.

Starters: UL listed and CSA certified.



Starter Coils

Snap-in Coils: No tools are required for installing or removing the coil. Press it in to install, open 2 retaining clips to remove.

Wide Variety: Offered in a wide variety of voltages, in both single and dual windings, for a wide range of AC or DC applications.

Single Coil: Same size coil is used for contactor sizes 00 – 2 ½, reduces inventory for spare parts.

Label: Visible jumper connections on labels identify proper voltage connections. Jumpers are supplied if required.

Encapsulation: Protects against dust, vibration resistance and provides heat dissipation.

Saddle Clamp Terminals: Provides wire guide, reliable connection and ease of wiring.



Snap-in Coil

Power Contacts

Easy to Inspect: Power contacts are easy to inspect. No need to remove any wiring, just loosen 2 captive screws on front cover for visual inspection of the contacts.

Removal: Easily removed by twisting contact to the side and pulling it out.

Contact Tips: Large silver cadmium oxide for durability, increased reliability and longer life.

Design: Contacts are designed on a 45° wedge to provide reduced bounce time and faster arc quenching for longer life.

Dropout: Gravity dropout with springs loaded mechanism provides quick and positive opening of contacts.

Standards:

Contacts are tested per NEMA standards for electrical and mechanical life. All contactors and starters are UL listed and CSA certified.



Gravity Dropout



Contact Tips

Overload Relays

Electric Overload Relays

The ESP100[®] overload was the first advanced electronic overload on the market to offer solid state design with superior motor protection. Each overload relay is individually calibrated to provide precise accuracy unmatched on the market.

Standard Features of the ESP100 Overload Relay:

Phase Loss Protection: Trips within 3 Seconds providing greater protection.

Repeat Accuracy: Designed with trip repeat accuracy of +/- 2%.

Thermal Memory: Remembers heat condition of the motor preventing nuisance tripping.

Self Powered: No need for external power source reducing cost of wiring and installation time.

Screw Dial: Setting of full load Amps is easily set to the proper value with a turn of a screwdriver.

Tamper Resistant Cover: Prevents unauthorized personnel from changing setting.

Individually Calibrated: Provides accurate settings and precise adjustment.

Heaterless: No heater elements to install reducing time for installation.

Trip Switch: Tests the actual trip of the overload for proper operation.

Single or Three Phase Wiring: Same device can be wired for single phase or three phase motors.

Ambient Temperature Insensitive: Senses and responds to the current in the motor leads eliminating nuisance tripping.

Straight through Wiring: Provides ease of installation and wiring reducing time and saving money.

Trip Classes: It is available for NEMA class 10, 20 or 30 for variety of applications.

Optional Auxiliary Contact: Normally open or closed and simply snaps on to the overload.



ESP100 Electronic Overload Class 48



Bimetal Overload Relays

Heater Elements: Class 10 or 20 heaters are available for bimetal overload.

Test button: Designed to trip the mechanism to test for the proper operation.

Color coded indicator: Provides visual indication when the overload is tripped.

Manual switch: Can be set for Automatic or Manual trip operation.



Bimetal Overload



Accessories and Parts

Readily available accessories for field or factory additions and modifications, replacement parts for maintaining starters and contactors for longer life and proper operation are available at your local Siemens distributors. An example of select accessories is shown here.



Single Contact Block



Double Contact Block



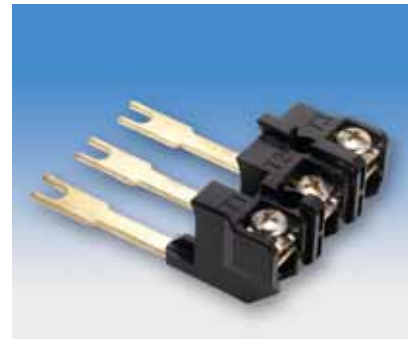
Power Pole



Contact Kit



Surge Suppressor



ESP 100 Overload Lug Extender



Reset Extender for ESP100 Overload

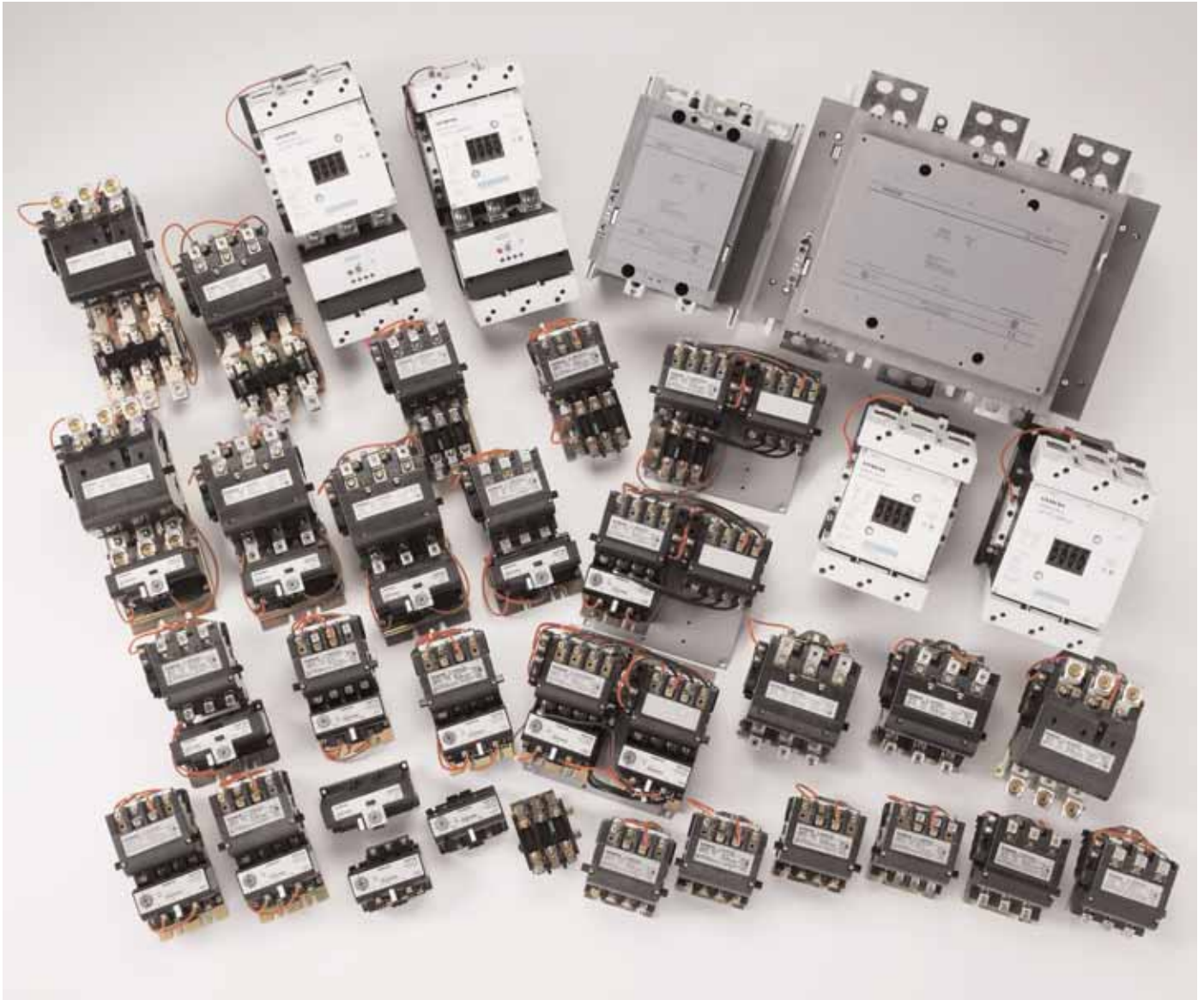


Mechanical Interlock



NEMA Starters and Contactors

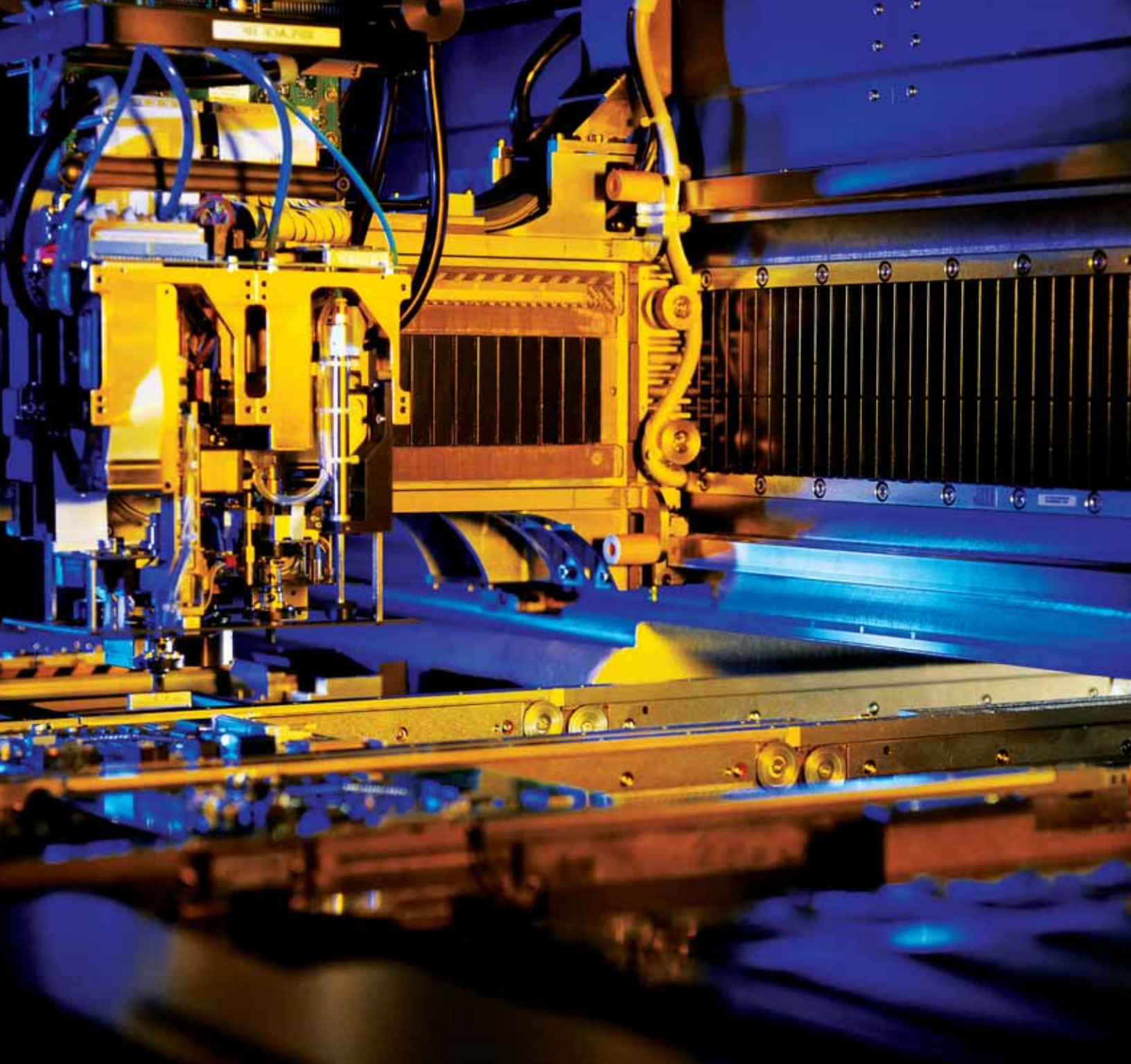
For more information about how Siemens starters can help you enhance your motor protection while simplifying installation and reducing costs, contact your local Siemens sales office or ask your Siemens distributor how to order today.



Refer to the additional brochures listed below for information on other NEMA and general purpose control products. Order on-line via the Siemens Literature Fulfillment System or contact your local Siemens sales office.

- Enclosed NEMA Starters Publication No. NEBR-ENCST-0605
- Manual Motor Controls Publication No. NEBR-MANMC-0605
- Pump Controls Publication No. NEBR-PUMPC-0605
- Lighting & Heating Contactors Publication No. NEBR-LAHCO-0605
- Control Power Transformers Publication No. NEBR-CPTRA-0605





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