

## S811+/S801+ soft starters



# Advanced intelligence. Compact footprint.



The S811+ provides an intuitive user interface.

### High-performance family

The Eaton S811+/S801+ soft starter family delivers solid performance beyond standard protection features found in most soft starters. Choosing a soft starter will increase your productivity and reduce your costs by:

- Eliminating abrupt starts and stops, extending mechanical life of system
- Better control of motor torque, increasing gearbox and bearing life, reducing belt wear and eliminating water hammer
- Lowering inrush, reducing peak demand charges
- Reducing brownouts and decreasing overall energy usage
- Integrating overload protection
- Reducing number of devices, panel size, installation time and assembly costs with internal run bypass contactors

### S811+ key features

Compact, easy to program and easy to install, the S811+ line of soft starters is ideally suited for open, enclosed and motor control center (MCC) applications. Ranging from 11 A to 1000 A, the S811+ provides an array of built-in features designed to address the needs of industrial and OEM customers.

- Sophisticated pump algorithm
- Communication ready—native Modbus® RTU and QCPort with external EtherNet/IP and Modbus TCP communication modules
- Advanced protection capabilities
- Sophisticated monitoring functions: power, power factor, phase currents, phase voltage, device temperature and more
- Selectable warnings available to avoid nuisance tripping
- Streamlined menu structure for programming, easy installation, setup, maintenance and monitoring
- Copy-and-paste keypad user interface
- Pump and 690 V versions (P3S and V3S) include ground fault protection

- Engineered to industry standards:
  - IEC 60947-4-2
  - EN 60947-4-2
  - C-Tick
  - CSA® elevator duty



The S801+ is available with dials and DIP switches for configuration.

# EATON

Powering Business Worldwide

## Key benefits

### Smaller size

The S811+/S801+ units are among the smallest starters in the industry. Reducing enclosure size for new production units, and enabling easier retrofits, minimizes the system costs.



### Severe duty capable

The S811+/S801+ soft starters have been time tested in various applications and environments.

This family features conformally coated boards suitable for harsh environments. Kick-start function enables soft starting of high inertia loads.

### Integrated advanced intelligence

High levels of protection are built into the S811+/S801+ soft starters.

- Protective features: electronic overload, jam, stall, SCR overtemperature, phase loss, phase imbalance, automatic or manual reset, phase reversal, shorted SCR detection, open SCR detection, undercurrent, undervoltage, overvoltage, diagnostics

### Packaged options

Packaged S811+/S801+ units give you more starting torque and more motor current in dramatically reduced enclosures. Enclosed soft starter units are up to 78 percent smaller, and MCC units are up to 63 percent smaller, than competitive offerings.



| Features                     | S811+ | S801+ |
|------------------------------|-------|-------|
| Communications               | ■     |       |
| Pump algorithm option        | ■     |       |
| Dials and DIP switches (CIM) |       | ■     |
| Digital interface (DIM)      | ■     |       |
| Programmable inputs          | ■     |       |
| Analog input                 | ■     |       |
| Programmable relays          | ■     |       |
| Inside the delta             | ■     |       |
| Fault warnings               | ■     |       |
| 690 V option                 | ■     |       |
| Long ramp option             | ■     |       |
| Integrated bypass            | ■     | ■     |
| 24 Vdc control               | ■     | ■     |
| Overload                     | ■     | ■     |

### S811+/S801+ technical data

| Description                          | Specifications                      |
|--------------------------------------|-------------------------------------|
| <b>General information</b>           |                                     |
| Initial torque                       | 0–85%                               |
| Ramp time range                      | 0.5–180 seconds                     |
| Soft stop time range                 | 0–60 seconds                        |
| Kick-start time range                | 0–2 seconds                         |
| Vibration resistance—non-operating   | 3 g                                 |
| Vibration resistance—operating       | 3 g                                 |
| Shock resistance                     | 15 g                                |
| <b>Electrical information</b>        |                                     |
| Operating voltage                    | 200–600 V (T-, V-Frame—up to 690 V) |
| Overload setting (frame)             | 30–100% FLA                         |
| Trip class                           | 5, 10, 20, 30                       |
| <b>Control power requirements</b>    |                                     |
| Voltage range (24 V ±10%)            | 21.6–26.4 V                         |
| Steady-state current                 | 1 A                                 |
| In-rush current                      | 10 A                                |
| <b>Relays Class A and C</b>          |                                     |
| Voltage AC—maximum                   | 230 V                               |
| Voltage DC—maximum                   | 24 V                                |
| Amperes—maximum                      | 3 A                                 |
| <b>Environment</b>                   |                                     |
| Temperature—operating                | –30 °C to +50 °C                    |
| Temperature—storage                  | –50 °C to +70 °C                    |
| Altitude                             | <2000 m                             |
| Humidity                             | <95% noncondensing                  |
| Operating position                   | Any                                 |
| Pollution degree IEC947-1            | 3                                   |
| Impulse withstand voltage IEC947-4-1 | 6000 V                              |

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### Current capacity and dimensions

| Soft starter (partial catalog number) |                 | Maximum current capacity (amperes) | Dimensions in inches (mm) |               |              | Weight lb (kg) |
|---------------------------------------|-----------------|------------------------------------|---------------------------|---------------|--------------|----------------|
| S811+                                 | S801+           |                                    | Width                     | Height        | Depth        |                |
| <b>S811+N37</b>                       | <b>S801+N37</b> | 37                                 | 2.66 (67.6)               | 7.37 (187.2)  | 6.45 (163.8) | 5.8 (2.6)      |
| <b>S811+N66</b>                       | <b>S801+N66</b> | 66                                 | 2.66 (67.6)               | 7.37 (187.2)  | 6.45 (163.8) | 5.8 (2.6)      |
| <b>S811+R10</b>                       | <b>S801+R10</b> | 105                                | 4.38 (111.3)              | 7.92 (201.2)  | 6.64 (168.7) | 10.5 (4.8)     |
| <b>S811+R13</b>                       | <b>S801+R13</b> | 135                                | 4.38 (111.3)              | 7.92 (201.2)  | 6.64 (168.7) | 10.5 (4.8)     |
| <b>S811+T18</b>                       | <b>S801+T18</b> | 180                                | 7.65 (194.4)              | 12.71 (322.8) | 6.47 (164.3) | 48 (21.8)      |
| <b>S811+T24</b>                       | <b>S801+T24</b> | 240                                | 7.65 (194.4)              | 12.71 (322.8) | 6.47 (164.3) | 48 (21.8)      |
| <b>S811+T30</b>                       | <b>S801+T30</b> | 300                                | 7.65 (194.4)              | 12.71 (322.8) | 6.47 (164.3) | 48 (21.8)      |
| <b>S811+U36</b>                       | <b>S801+U36</b> | 360                                | 7.73 (196.3)              | 12.72 (323.1) | 7.16 (181.9) | 48 (21.8)      |
| <b>S811+U42</b>                       | <b>S801+U42</b> | 420                                | 7.73 (196.3)              | 12.72 (323.1) | 7.16 (181.9) | 48 (21.8)      |
| <b>S811+U50</b>                       | <b>S801+U50</b> | 500                                | 7.73 (196.3)              | 12.72 (323.1) | 7.16 (181.9) | 48 (21.8)      |
| <b>S811+V36</b>                       | <b>S801+V36</b> | 360                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V42</b>                       | <b>S801+V42</b> | 420                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V50</b>                       | <b>S801+V50</b> | 500                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V65</b>                       | <b>S801+V65</b> | 650                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V72</b>                       | <b>S801+V72</b> | 720                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V85</b>                       | <b>S801+V85</b> | 850                                | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |
| <b>S811+V10</b>                       | <b>S801+V10</b> | 1000                               | 11.05 (280.7)             | 16.57 (420.9) | 7.38 (187.5) | 103 (46.7)     |