

## 193-EF to E1 Plus™ Electronic Overload Relay or E300™ Electronic Overload Relay

### Why Upgrade or Migrate

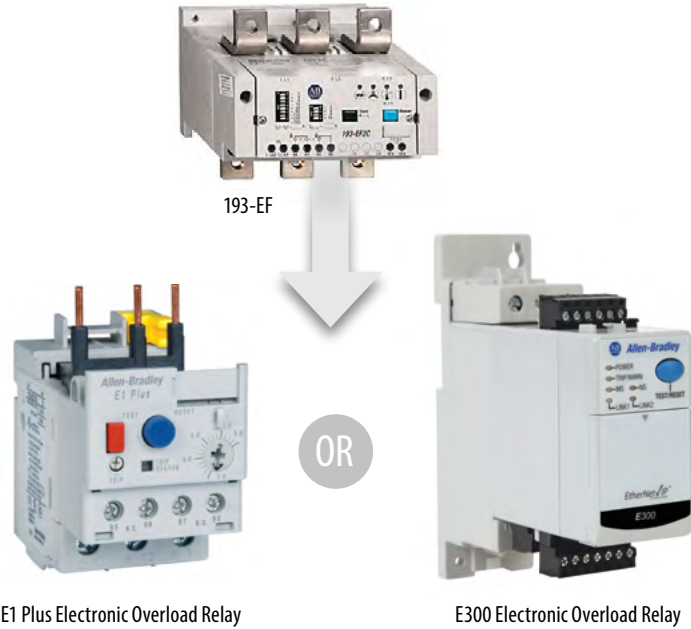
While the 193-EF Solid State Overload Relay has been a valuable part of our motor protection portfolio for many years, this product will no longer be available for sale after April, 2016. Now is the time to migrate to either the E1 Plus™ Electronic Overload Relay or the E300™ Electronic Overload Relay.

### E1 Plus Electronic Overload Relay

- Self powered
- Allows wide current adjustment
- Adjustable trip class
- Low energy consumption
- Three- and single-phase protection
- Current measurement-based protection
- Side-mount expansion modules provide adjustable levels of protection and communication

### E300 Electronic Overload Relay

- Modular design for application customization with sensing, control, and communication modules
- Diagnostic information to monitor motor performance
- Logix integration with add-on profiles, add-on instructions, and faceplates
- Dual port EtherNet/IP



### Identify, Mitigate and Eliminate the Risks of Automation Obsolescence

In today's economy, it is necessary to have migration solutions that help you to achieve increased productivity and lessen your risk of maintaining your legacy equipment. You need to work with a supplier that has the product, service, and industry knowledge to partner with you on an upgrade strategy that will help you maximize your competitive advantage.

Rockwell Automation and its partners will work with you to outline a plan that fits your application needs and long-term goals. We can help you migrate all at once or in phases, at the pace that is comfortable for you and fits your budget.

### Product Lifecycle

Use the [Product Lifecycle Status](#) search tool on the web to find specific lifecycle information by catalog number.



- **ACTIVE:** Most current offering within a product category.
- **ACTIVE MATURE:** Product is fully supported, but a newer product or family exists. Gain value by migrating.
- **END OF LIFE:** Discontinued date announced – actively execute migrations and last time buys. Product generally orderable until the discontinued date.<sup>1</sup>
- **DISCONTINUED:** New product no longer manufactured or procured.<sup>2</sup> Repair/exchange services may be available.

1 - Outages on specific items may occur prior to the Discontinued date. 2 - Limited stock may be available in run-out mode, regionally.



## 193-EF compared to E1 Plus Electronic Overload Relay or E300 Electronic Overload Relay

Catalog Number	193-EF Description	Discontinued Date	Recommended Replacement	Replacement Description
193-EF1*	0.5 . . .400 A current range, phase loss/current imbalance protection, adjustable trip class 2...30	April 15, 2016	<b>193-EE*</b>	0.1 . . .800 A current range, phase loss protection, selectable trip class 10/15/20/30, selectable automatic or manual/auto-manual reset
193-EF2*	0.5 . . .630 A current range, phase loss/current imbalance protection, PTC thermistor monitoring, adjustable trip class 2...30, overcurrent indication	April 15, 2016	<b>193-EE*</b> + <b>193-EPT</b>	0.1 . . .800 A current range, phase loss protection, selectable trip class 10/15/20/30, selectable automatic or manual/auto-manual reset, PTC thermistor protection
193-LB1	External Indication Module	April 15, 2016	<b>193-ERID</b>	E1 Plus Remote Indicator Module
193-RB1	Remote Reset Module	April 15, 2016	<b>193-ERR</b>	E1 Plus Remote Reset Module
193-EF*	0.5 . . .630 A current range, phase loss/current imbalance protection, PTC thermistor monitoring, adjustable trip class 2...30, overcurrent indication	April 15, 2016	<b>193-ESM-*200A-P</b> + <b>193-EIOGP*</b> + <b>193-ECM-ETR</b>	20 . . .200 A current range, Dual port EtherNet/IP, motor diagnostic information, integrated I/O, adjustable trip class 5 . . .30, programmable trip and warning settings, true RMS current/voltage sensing, PTC thermistor protection
193-LB1	External Indication Module	April 15, 2016	<b>193-EOS-SCS</b>	E300 status LEDs and function keys for motor control

## Migration Options

### E1 Plus Electronic Overload Relay

The solid-state design of the E1 Plus Electronic Overload Relay, offered in two models, provides ambient temperature compensation, thermal and phase loss protection and a wide 5:1 adjustment range.

The ED model provides fixed protection while the EE model provides selectable and expandable protection.



#### Ideal Applications

- Conveyors
- Pumps
- Fans



#### Usability

- Wide current range
- Multiple trip class options
- Selectable reset modes
- Additional modules for communications and protection

#### Bulletin 193, ED Model

Current Range	0.1 . . .45 A
Trip Class	10 Fixed
Reset Mode	Manual Only
Side Mount Modules	—

#### Bulletin 193/592, EE Model

Current Range	0.1 . . .800 A
Trip Class	10, 15, 20, 30 Adjustable
Reset Mode	Automatic and Manual
Side Mount Modules	Communication, Protection, Reset

## E300 Electronic Overload Relay

The E300 Electronic Overload Relay provides a flexible design and advanced intelligence. With real-time motor diagnostic information to proactively indicate when a motor is having a problem allowing you to efficiently troubleshoot.



### Ideal Applications

- Water/Wastewater
- Mining
- Petrochemical
- Process



### Usability

- Wide current range
- Advanced performance and diagnostics
- Embedded communications
- Modularity
- Multiple expansion options

### Communication Module\*

193-ECM    EtherNet/IP

### Control Module

193-EIO

Control Voltage	I/O		I/O and Protection	
	Inputs	Relay Outputs	Inputs	Relay Outputs
110...120V AC 50/60 Hz	4	4	2	2
220...240V AC 50/60 Hz	4	3	2	2
24V DC	6	3	4	2

### Sensing Module

592/193-ESM

Sensing Options:

- Voltage/Current/Ground Fault
- Current/Ground Fault
- Current

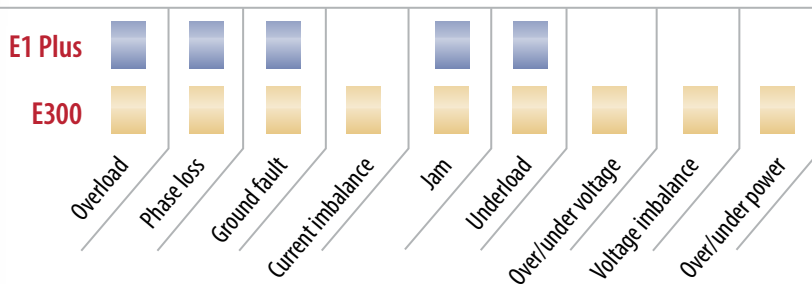
Current Range:

- 0.5...30 A
- 6...60 A
- 10...100 A
- 20...200 A

\* Must order all three modules to create a complete overload relay.

## E1 Plus to E300 Feature Comparison\*

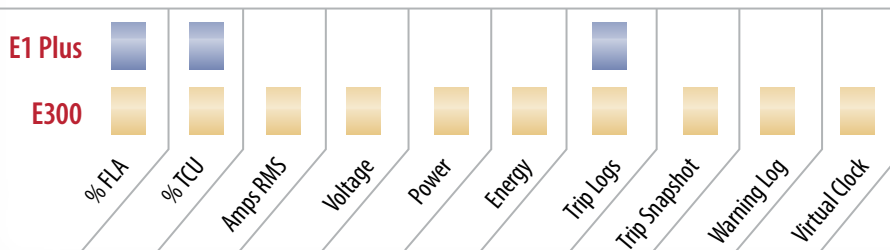
### Protection Features



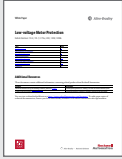
### Integration Features



### Diagnostics Features



\* E1 Plus, EE model used in comparison charts.



## Learn more about Motor Protection Solutions:

Low Voltage Motor Protection White Paper  
193-WP008A-EN-P

[http://literature.rockwellautomation.com/idc/groups/literature/documents/wp/193-wp008\\_-en-p.pdf](http://literature.rockwellautomation.com/idc/groups/literature/documents/wp/193-wp008_-en-p.pdf)



Motor Protection Solutions Family Brochure  
193-BR029B-EN-P

[http://literature.rockwellautomation.com/idc/groups/literature/documents/br/193-br029\\_-en-p.pdf](http://literature.rockwellautomation.com/idc/groups/literature/documents/br/193-br029_-en-p.pdf)



### Local Distributor

Visit our website to find your global Distributor.

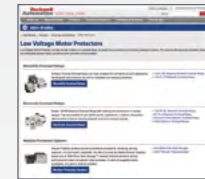
[www.rockwellautomation.com/distributor](http://www.rockwellautomation.com/distributor)



### On-Line Product Directory

Our portfolio of motor protection devices are designed to protect your manufacturing investments.

<http://www.rockwellautomation.com/go/pd/motor-protectors>



### The Connected Enterprise

Learn more about the Connected Enterprise transforms real-time data, from intelligent assets and multi-disciplined control from a plant, or a remote site into actionable information.

[www.rockwellautomation.com/go/lit/ce](http://www.rockwellautomation.com/go/lit/ce)



### Product Selection Toolbox

Our powerful range of product selection and system configuration tools assist you in choosing and applying our products.

[www.rockwellautomation.com/en/e-tools](http://www.rockwellautomation.com/en/e-tools)



Allen-Bradley, Listen. Think. Solve., and Rockwell Automation are trademarks of Rockwell Automation, Inc. Trademarks not belonging to Rockwell Automation are property of their respective companies.

**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

#### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846