

E100 Electronic Motor Overload Relay



Basic Motor Control and Protection

Features and Benefits

- 5:1 wide current adjustment range to cover a variety of motor applications in a single device
- Trip class 10, 15, 20 and 30 (selectable) to cover a wide range of motor applications, 10 and 20 in the basic version
- 48% footprint reduction using pass-thru solution
- Agency recognized certification strategy across portfolio
- Accurate and repeatable settings to help minimize commissioning time
- Higher efficiency and low heat dissipation versus traditional eutectic or bimetal relays
- Pass-thru minimizes number of power terminal connections
- Built-in thermal memory and phase loss detection helps protect your motor investment



Overview

The new Allen-Bradley™ E100™ Electronic Motor Overload Relay can help customers better protect their motors and avoid unplanned downtime due to motor failure. As the next generation of Allen-Bradley basic-tier electronic overload relays for our scalable solution portfolio, it more accurately measures a motor's current load, models its temperature and can de-energize the motor to help minimize potential equipment damage due to overheating.

The E100 overload relay is part of the Rockwell Automation integrated motor control system. It can mount directly to bulletin 100-C IEC, 100-E IEC, 300 NEMA (energy-saving), and 500 NEMA contactors up to 100 A. The E100 basic model has two user-adjustable trip class settings of 10 and 20.

Optional accessories and expansion modules can extend the functionality of the E100 overload relays, enhancing motor overload protection while maintaining a cost-effective solution.

Additional Capabilities with Accessories:

- Jam & Ground Fault Protection
- Electronic Remote Reset
- Status Indication Display
- Anti-Tamper Shielding

The E100 is part of a comprehensive motor protection relay portfolio to provide you with a scalable solution for your motor protection needs. In addition to the E100, AB.com has additional information on the bulletins E200™ and E300™ electronic overload relay solutions as well.



Catalog Numbers

| Current Range [A] | Direct Mounting Contactor | Catalog Number |
|-------------------|---------------------------------------|----------------|
| 0.1 - 0.5 | 100-C | 193-1EEAB |
| 0.2 - 1.0 | 100-C | 193-1EEBB |
| 1.0-5.0 | 100-C | 193-1EECB |
| 3.2 - 16 | 100-C | 193-1EEDB |
| 5.4 - 27 | 100-C | 193-1EEEB |
| 5.4 - 27 | 100-C | 193-1EEED |
| 11 - 55 | 100-C | 193-1EEFD |
| 20 - 100 | 100-C | 193-1EEGE |
| 0.1 - 0.5 | 100-C | 193-1EFAB |
| 0.2-1.0 | 100-C | 193-1EFBB |
| 1.0-5.0 | 100-C | 193-1EFCB |
| 3.2 - 16 | 100-C | 193-1EFDB |
| 5.4 - 27 | 100-C | 193-1EFEB |
| 5.4 - 27 | 100-C | 193-1EFED |
| 11 - 55 | 100-C | 193-1EFFD |
| 20 - 100 | 100-C | 193-1EFGE |
| 0.1-0.5 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEAF |
| 0.2-1.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEBF |
| 1.0-5.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EECF |
| 3.2-16 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEDF |
| 5.4-27 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEEF |
| 1.0-5.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EECG |
| 5.4-27 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEEG |
| 11-55 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEFG |
| 13.2-66 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEQH |
| 20-100 | 100-E or Bulletin 300 (Energy Saving) | 193-1EEGJ |
| 0.1-0.5 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFAF |
| 0.2-1.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFBF |
| 1.0-5.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFCF |
| 3.2-16 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFDF |
| 5.4-27 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFEF |
| 1.0-5.0 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFCEG |
| 5.4-27 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFCEG |
| 11-55 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFFG |
| 13.2-66 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFQH |
| 20-100 | 100-E or Bulletin 300 (Energy Saving) | 193-1EFGJ |
| 0.1-0.5 | Bulletin 500 | 592-1EFAT |
| 0.2-1.0 | Bulletin 500 | 592-1EFBT |
| 1.0-5.0 | Bulletin 500 | 592-1EFCT |
| 3.2-16 | Bulletin 500 | 592-1EFDT |
| 0.2-1.0 | Bulletin 500 | 592-1EFBC |
| 1.0-5.0 | Bulletin 500 | 592-1EFCC |
| 3.2-16 | Bulletin 500 | 592-1EFDC |
| 5.4-27 | Bulletin 500 | 592-1EFEC |
| 11-55 | Bulletin 500 | 592-1EFFC |
| 20-100 | Bulletin 500 | 592-1EFGD |

| Current Range [A] | Mounting Style | Catalog Number |
|-------------------|----------------------------|----------------|
| 30 - 150 | External CT Configurations | 193-1EFHZ |
| 40 - 200 | External CT Configurations | 193-1EFJZ |
| 60 - 300 | External CT Configurations | 193-1EFKZ |
| 100 - 500 | External CT Configurations | 193-1EFLZ |
| 120 - 600 | External CT Configurations | 193-1EFMZ |
| 160 - 800 | External CT Configurations | 193-1EFNZ |
| 80 - 400 | External CT Configurations | 193-1EFWZ |
| 1 - 5 | Pass - Thru | 193-1EECP |
| 3.2 - 16 | Pass - Thru | 193-1EEDP |
| 5.4 - 27 | Pass - Thru | 193-1EEEP |
| 11 - 55 | Pass - Thru | 193-1EEFP |
| 20 - 100 | Pass - Thru | 193-1EEGP |
| 1 - 5 | Pass - Thru | 193-1EFCP |
| 3.2 - 16 | Pass - Thru | 193-1EFDP |
| 5.4 - 27 | Pass - Thru | 193-1EFEP |
| 11 - 55 | Pass - Thru | 193-1EFFP |
| 20 - 100 | Pass - Thru | 193-1EFGP |

Accessories

| Accessory | Catalog Number |
|---|----------------|
| Base Unit Anti-Tamper Shield | 193-1BC8 |
| Universal Protection Module | 193-1EGJ |
| Protection Accessory Anti-Tamper Shield | 193-1EMC |
| 240V AC Remote Reset Solenoid | 193-1EMRA |
| 120V AC Remote Reset Solenoid | 193-1EMRD |
| 24V DC Remote Reset Solenoid | 193-1EMRZ |
| DIN Rail/Panel Adapter Frame B | 193-1EPB |
| DIN Rail/Panel Adapter Frame D | 193-1EPD |
| DIN Rail/Panel Adapter Frame E | 193-1EPE |
| External Reset Adapter | 193-1ERA |
| ERID Adapter | 193-1ERR |
| Remote indication Display with Reset | 193-ERID |
| Remote Indication Display - No Reset | 193-1ERIDN |
| Accessory Panel/DIN Mounting Kit | 193-1EIKIT1 |
| Accessory Install Kit & Spare TBs | 193-1EIKIT2 |
| Three 300:5 UL Rated Current Transformers | 193-CT-UL-300A |
| Three 600:5 UL Rated Current Transformers | 193-CT-UL-600A |
| Three 300:5 CE Rated Current Transformers | 193-CT-CE-300A |
| Three 400:5 CE Rated Current Transformers | 193-CT-CE-400A |

Connect with us.    

rockwellautomation.com

expanding **human possibility**[™]

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

Allen-Bradley, E100, E200, E300 and expanding human possibility are trademarks of Rockwell Automation, Inc.
Trademarks not belonging to Rockwell Automation are property of their respective companies. EtherNet/IP is a trademark of ODVA, Inc.

Publication 193-PP002D-EN-P - November 2022 | Supersedes Publication 193-PP002B-EN-P - March 2020

Copyright © 2022 Rockwell Automation, Inc. All Rights Reserved. Printed in USA.