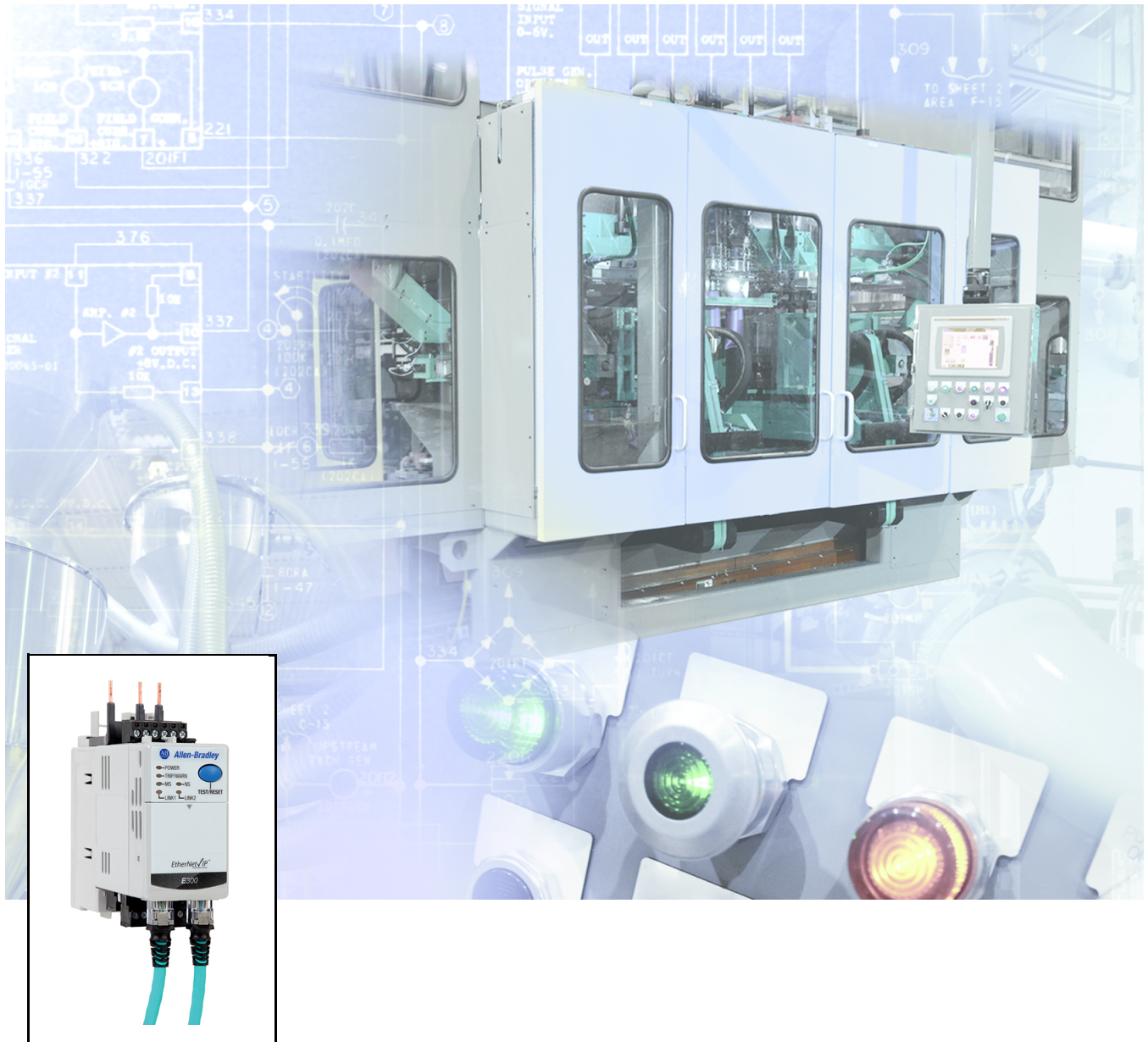


E300 Electronic Overload Relay

Bulletin Numbers 193, 592



LISTEN.
THINK.
SOLVE.®

Bulletin 193/592-E300 Overview

The E300 Electronic Overload Relay is the newest technology for overload protection. Its modular design, communication options, diagnostic information, simplified wiring, and integration into Logix technology make this the ideal overload for motor control applications in an automation system.

E300 Electronic Overload Relays provide the following benefits:

- Intelligent motor control (EtherNet/IP enabled)
- Scalable solution
- Diagnostic Information
- Integrated I/O
- Adjustable trip class 5...30
- Wide current range
- Test/Reset button
- Programmable trip and warning settings
- True RMS current/voltage sensing (50/60 Hz)
- Protection for single- and three-phase motors

NOTE: Your order must include 1) the Cat. No. of the sensing module, control module, and communication module selected, and 2) if required, Cat. No. of any accessories.

Standards Compliance and Certifications

Standards Compliance	Certifications
UL508	UL Listed
UL1053 (Class I and Class II)	CE Marked
UL 60947-1	CSA Certified
UL 60947-4-1	CCC
EN 60947-1	KCC
EN 60947-4-1	
CSA22.2, No. 14	
CSA22.2, No. 60947-1	
CSA22.2, No. 60947-4-1	
GB 14048.4	

Product Overview

The E300 relay consists of three modules: sensing, control and communications. You have choices in each of the three with additional accessories to tailor the electronic overload for your application's exact needs.

Sensing Module

Sensing Options

- Voltage/current/ground fault
- Current/ground fault
- Current

Current Range [A]

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

Control Module

Control Voltage	I/O		I/O and Protection ⁽¹⁾	
	Inputs	Relay Outputs	Inputs	Relay Outputs
110...120V AC, 50/60 Hz	4	3	2	2
220...240V AC, 50/60 Hz	4	3	2	2
24V DC	6	3	4	2

(1) Includes PTC thermistor and external ground fault.

Communication Module

- EtherNet/IP

Expansion Digital I/O

You can add up to four additional expansion digital modules to the E300 relay expansion bus.

- 4 inputs/2 relay outputs
- 24V DC
- 120V AC
- 240V AC

Expansion Analog I/O

You can add up to four additional expansion analog modules to the E300 relay expansion bus.

- 3 universal analog inputs/1 analog output
- 0...10V
- 0...5V
- 1...5V
- 0...20 mA
- 4...20 mA
- RTD (2-wire or 3-wire)
- 0...150 Ω
- 0...750 Ω
- 0...3000 Ω
- 0...6000 Ω (PTC/NTC)

Description	Mounting Options	Current Range [A]	For Use With	Cat. No.
Voltage/Current/Ground Fault	IEC Contactors	0.5...30	100-C09...C23	193-ESM-VIG-30A-C23
			100-C30...C55	193-ESM-VIG-30A-C55
		6...60	100-C30...C55	193-ESM-VIG-60A-C55
		10...100	100-C60...100-C97	193-ESM-VIG-100A-C97
		20...200	100-D115...100-D180	193-ESM-VIG-200A-D180
	DIN Rail / Panel Mount Power Terminals	0.5...30	All contactors	193-ESM-VIG-30A-T
		6...60		193-ESM-VIG-60A-T
		10...100		193-ESM-VIG-100A-T
		20...200		193-ESM-VIG-200A-T
	DIN Rail / Panel Mount Power Terminals. Directly replaces 193-ECPM_	0.5...30		193-ESM-VIG-30A-E3T
		6...60		193-ESM-VIG-60A-E3T
		10...100		193-ESM-VIG-100A-E3T
	DIN Rail / Panel Mount Pass-thru	0.5...30	External current and potential transformers	193-ESM-VIG-30A-CT
	NEMA Contactors	0.5...30	NEMA Size 0...2	592-ESM-VIG-30A-S2
		6...60		592-ESM-VIG-60A-S2
		10...100	NEMA Size 3	592-ESM-VIG-100A-S3
		20...200	NEMA Size 4	592-ESM-VIG-200A-S4

Control Modules

Description	No. of Inputs/Outputs	Rated Control Voltage [V]	Cat. No.
I/O Module	6 in/3 out	24V DC	193-EIO-63-24D
	4 in/3 out	110...120V AC, 50/60 Hz	193-EIO-43-120
	4 in/3 out	220...240V AC, 50/60 Hz	193-EIO-43-240
I/O and Protection Module. Thermistor (PTC) and External Ground Fault Current ⁽¹⁾	4 in/2 out	24V DC	193-EIOGP-42-24D
	2 in/2 out	110...120V AC, 50/60 Hz	193-EIOGP-22-120
	2 in/2 out	220...240V AC, 50/60 Hz	193-EIOGP-22-240

(1) Requires Core Balanced Ground Fault Sensor Cat. No. 193-CBCT_.

Communication Modules

Description	Cat. No.
EtherNet/IP	193-ECM-ETR

Expansion Modules

Description	No. of Inputs/Outputs	Rated Control Voltage [V]	Cat. No.
Digital Expansion Module, 24V DC	4 in/2 out	24V DC	193-EXP-DIO-42-24D
Digital Expansion Module, 120V AC	4 in/2 out	110...120V AC, 50/60 Hz	193-EXP-DIO-42-120
Digital Expansion Module, 240V AC	4 in/2 out	220...240V AC, 50/60 Hz	193-EXP-DIO-42-240
Analog Expansion Module: mA, V, RTD, and Resistance	3 universal in/1 out	—	193-EXP-AIO-31 ⁽¹⁾
Expansion Power Supply	—	24V DC	193-EXP-PS-DC
		110...240V AC, 50/60 Hz	193-EXP-PS-AC
Starter Control Station with 3-Meter Cable	—	—	193-EOS-SCS
Starter Diagnostic Station with 3-Meter Cable	—	—	193-EOS-SDS ⁽¹⁾

(1) Module requires control module firmware v3.000 or higher.