

825-P Modular Protection System to E300 Electronic Overload Relay

Why Upgrade or Migrate

While the 825-P Modular Protection System has been a valuable part of our portfolio for the past twelve years, this product will no longer be available for sale after January 2017.* Now is the time to migrate to the E300™ Electronic Overload Relay.

As the latest electronic overload relay offering, the E300 Electronic Overload Relay offer many modular features designed to help improve your motor control and protection needs.

E300 Electronic Overload Relay

- Modular design for application customization with sensing, control, and communication modules
- Diagnostic information to monitor motor performance
 - Voltage, Current and Energy
 - Trip / Warning Histories
 - % Thermal Capacity Utilization
- Logix integration with add-on profiles, add-on instructions, and faceplates
- Supports Automatic Device Configuration
- DeviceLogix™ Technology Enabled
- Dual port EtherNet/IP



825-P Modular Protection System



E300 Electronic Overload Relay

Identify, Mitigate and Help Eliminate the Risk of Automation Obsolescence

Rockwell Automation understands that your overload relays are a critical asset in your automation system, and we support that by providing you with the latest technology to maximize your investment. New technologies can improve and extend the operation of existing equipment and provide an immediate boost to productivity. By migrating from your legacy 825-P Modular Protection System to a new E300 Electronic Overload Relay, you can help to decrease downtime, increase speed to market and optimize operations well into the future.

We will help you to meet this demand to innovate by proactively planning and managing your transition every step of the way to help you get the highest possible return on your automation investment.

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.¹
- DISCONTINUED: New product no longer manufactured or procured.² 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.

* Discontinued date may be subject to change.



825-P Modular Protection System Compared to an E300 Electronic Overload Relay

	Feature	Device No.	825-P	E300
Protection	Current Range (A)		0.5...5000	0.5...65000
	Thermal Overload	49/51	✓	✓
	Auto or Manual Reset	86	✓	✓
	Stall (Locked Rotor)	48	✓	✓
	Mechanical Jam	48	✓	✓
	Short Circuit	50P	✓	
	Undercurrent	37	✓	✓
	Phase Loss	46	✓	✓
	Zero Sequence Ground Fault	50G	*	*
	Residual Ground Fault	50N	✓	
	Phase Reversal	47	✓	✓
	Current Imbalance	46	✓	✓
	RTD Temp. Monitoring	49	12 *	12 *
	PTC Thermistor Monitoring	49	✓	*
	Starts / Hour	66	✓	✓
	Time Between Starts		✓	✓
	Speed Switch Input	14	✓	✓
	Undervoltage	27	*	*
	Overvoltage	59	*	*
	Power Factor	55	*	*
	Underfrequency	81L	*	*
	Overfrequency	81I	*	*
	Underpower	37	*	*
Reactive Power		*	*	
Latched Trip	86	✓	✓	
Reverse power	32	*	*	
I/O	Output Relays		3 + 4 *	2 or 3 + 8 *
	Digital Inputs		2 + 3 *	2, 4, or 6 + 16 *
	Analog Outputs		1 *	4 *
	Analog Input			12 *
Additional Features	Modular - Field Configurable Design		✓	✓
	Electrically Isolated Current Input		✓	✓
	Fiber Optic Remote RTD Connection		✓	
	LED Diagnostics		2	6
	Alphanumeric Display		2-line 32 char.	*
	Logic Engine (DeviceLogix)		*	✓
	Emergency Restart		✓	✓
	Restart Block (anti-backspin timer)		✓	
	Multi-speed Motor Protection		✓	✓
	Reduced Voltage Control		✓	
	Load Control		✓	
	Motor Operational Historical Data		✓	✓
Communications		DeviceNet	EtherNet/IP	

* Available option.

Migration Options

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

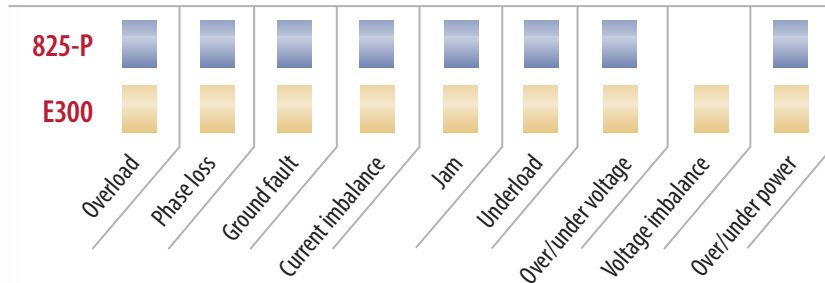
- Wide current range
- Advanced performance and diagnostics
- Embedded communications
- Modularity
- Multiple expansion options

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:			Current Range:	
	<ul style="list-style-type: none"> • Voltage/Current/Ground Fault • Current/Ground Fault • Current 			<ul style="list-style-type: none"> • 0.5...30 A • 6...60 A • 10...100 A • 20...200 A 	

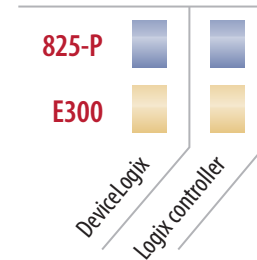
* Must order all three modules to create a complete overload relay.

825-P to E300 Feature Comparison

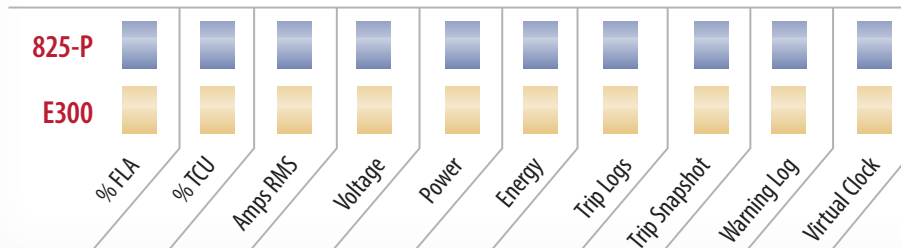
Protection Features



Integration Features



Diagnostics Features



825-P Catalog Number	Replacement E300 Catalog Numbers
825-PD	193-EIO-43-120, 193-EOS-SDS, and 193-ECM-ETR (193-ECM-DNT can be substituted - Available 2017)
825-PZ	193-EIO-63-24D, 193-EOS-SDS, and 193-ECM-ETR (193-ECM-DNT can be substituted - Available 2017)
825-MCM2	193-ESM-I-30A-T
825-MCM2 and 825-PVS	193-ESM-VIG-30A-CT
825-MCM5	193-ESM-I-30A-T
825-MCM5, 825-PVS, and External CTs	193-ESM-VIG-30A-CT
825-MCM20	193-ESM-I-30A-T
825-MCM20 and 825-PVS	193-ESM-VIG-30A-T
825-MCM20, 825-PVS, and External CTs	193-ESM-VIG-30A-CT
825-MCM180	193-ESM-I-200A-P
825-MCM180 and 825-MVM	193-ESM-I-200A-T
825-MCM180 and 825-MVM2	193-ESM-I-200A-T
825-MCM180 and 825-MVS2	193-ESM-I-200A-D180
825-MCM180 and 825-PVS	193-ESM-VIG-200A-T
825-MCM180, 825-PVS, and 825-MVM	193-ESM-VIG-200A-T
825-MCM180, 825-PVS, and 825-MVM2	193-ESM-VIG-200A-T
825-MCM180, 825-PVS, and 825-MVS2	193-ESM-VIG-200A-D180
825-MCM420	193-ESM-I-30A-T with 500:5 CTs
825-MCM420 and 825-PVS	193-ESM-VIG-30A-CT with 500:5 CTs
825-MCM630	193-ESM-I-30A-T with 700:5 CTs
825-MCM630N	193-ESM-I-30A-T with 700:5 CTs
825-MCM630 and 825-PVS	193-ESM-VIG-30A-CT with 700:5 CTs
825-MCM630N and 825-PVS	193-ESM-VIG-30A-CT with 700:5 CTs
825-PDN	193-ECM-DNT (Available 2017)
825-PIOD	193-EXP-DIO-42-120
825-PIOR	193-EXP-DIO-42-24D
825-PR12D	193-EXP-AIO-31 (up to 4 may be needed) and a 193-EXP-PS-__
825-MCM420	193-ESM-I-30A-T with 500:5 CTs
825-MCM420 and 825-MLV	193-ESM-VIG-30A-CT with 500:5 CTs
825-MCM630	193-ESM-I-30A-T with 700:5 CTs
825-MCM630N	193-ESM-I-30A-T with 700:5 CTs
825-MCM630 and 825-MLV	193-ESM-VIG-30A-CT with 700:5 CTs
825-MCM630N and 825-MLV	193-ESM-VIG-30A-CT with 700:5 CTs
825-MDN	193-ECM-DNT (Available 2017)

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