

Bulletin 193-EC5



E3 Plus Electronic Overload Relay
Featuring Voltage Protection & Energy Monitoring

Advantages

- Current protection
 - Thermal overload
 - Phase loss
 - Jam warning
 - Stall
 - Under load
 - Current unbalance
 - Ground fault current
 - Ground fault current filtering for high resistance ground systems
- Voltage protection
 - Voltage
 - Voltage unbalance
 - Phase failure
 - Phase rotation
 - Frequency
- Power protection
 - Real power (kW)
 - Reactive power (kVAR)
 - Apparent power (kVA)
 - Power factor (PF)
- Includes integrated I/O
- DeviceNet™ communications included as standard
- DeviceLogix™ enabled

The EC5 provides you with enhanced motor protection and energy monitoring in a complete compact package.



Overview

The Allen-Bradley® Bulletin 193-EC5 from Rockwell Automation features voltage protection and energy monitoring. Part of the E3 Plus family, this new overload relay combines current and voltage protection with enhanced power monitoring and diagnostic capabilities, to help you improve energy efficiency and safeguard critical electric motor loads.

The addition of voltage protection helps you protect your motors against voltage issues such as under voltage, voltage unbalance, phase loss, frequency, and phase rotation before the contact coil is energized. Also, while your motor is powering a load, the EC5 is monitoring and protecting for excessive real, reactive and apparent powers, and power factor.

Including the EC5 in your energy management system helps speed troubleshooting, minimize downtime, and reduce energy costs by providing voltage, current, power, energy, and power quality information at the motor level. When used in conjunction with RSEnergyMetrix®, the EC5 can help identify motors contributing to the utility bill to decrease energy costs. The EC5 can also be used to assist in activity based cost accounting and to verify energy reduction initiatives.

LISTEN.
THINK.
SOLVE.™

Product Selection

Mounts to Contactor	Adjustment Range (A)	Cat. No.
100-C09...100-C23	0.4...2.0	193-EC5PB
	1...5	193-EC5AB
	3...15	193-EC5BB
	5...25	193-EC5CB
100-C30...100-C43	5...25	193-EC5CD
	9...45	193-EC5DD
100-C60...100-C85	9...45	193-EC5DE
	18...90	193-EC5EE
100-D95...100-D180	28...140	193-EC5FF
	42...210	193-EC5GF
100-D210...100-D420	42...210	193-EC5GG
	60...302	193-EC5HG
	84...420	193-EC5JG
100-D630...100-D860	125...630	193-EC5KH
	172...860	193-EC5LH
Mounts to NEMA Starter	Adjustment Range (A)	Cat. No.
0...2	0.4...2.0	592-EC5PC
	1...5	592-EC5AC
	3...15	592-EC5BC
	5...25	592-EC5CC
	9...45	592-EC5DC
3	18...90	592-EC5ED
4	28...140	592-EC5FE
5	60...302	592-EC5HF
6	125...630	592-EC5KG
For Use with External Phase Current Transformers		
Mounts to	Adjustment Range (A)	Cat. No.
193-ECPM2	9...5000	193-EC5ZZ

Accessories

Description	For Use With	Cat. No.	
DIN rail/panel adapter	193-EC_B	193-ECPM1	
	193-EC_D, 193-EC_ZZ	193-ECPM2	
	193-EC_E	193-ECPM3	
DeviceNet configuration terminal	193-EC (all), 592-EC (all)	193-DNCT	
1 M communication cable, bare leads	193-DNCT	193-CB1	
1 M communication cable, microconnector (male)		193-CM1	
Panel mount adapter, bezel kit		193-DNCT-BZ1	
AC input interface module (110/120 V AC, 50/60 Hz)	193-EC (all), 592-EC (all)	193-EIMD	
Core balanced ground fault sensor	20 mm (0.79 in.)	100-C09...100-C37 NEMA size 00...2	193-CBCT1
	40 mm (1.57 in.)	100-C09...100-C85 NEMA size 00...3	193-CBCT2
	65 mm (2.56 in.)	100-C09...100-C85, 100-D95...D180 NEMA size 00...4	193-CBCT3
	85 mm (3.35 in.)	100-C09...100-C85, 100-D95...D420 NEMA size 00...5	193-CBCT4

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www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

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

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, 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