

### Protective Features

- **Voltage monitoring relay**  
Guards against the damaging effects of phase loss, under and overvoltage, phase imbalance, phase reversal, and voltage quality of incoming power line
- **Current monitoring relay**  
Provides under and overcurrent detection
- **Thermistor monitoring relay**  
Protects equipment from overtemperature conditions
- **Power (kW) monitoring relay**  
Monitors for under and over active power as well as power direction
- **Power factor (PF) monitoring relay**  
Monitors for under and over power factor detection

### Advantages

- Programmable latching or inhibit at set level
- Adjustable time delay settings
- Three-phase devices are powered by the measuring circuit
- LED indication for relay, alarm and power supply
- Global application with CE and UL approvals

*Your economical choice for protecting equipment investments and minimizing production downtime*



### Overview

The MachineAlert family of dedicated function motor protection relays offers state-of-the-art supplementary protective functions that are easily added and applied to your motor control circuits. This full range of products allows selective addition of motor protective enhancing functions to meet your specific application requirements for supplemental voltage, current, thermistor, power, and power factor based protection. Additionally, MachineAlert relays are your economical choice for protecting equipment investments and minimizing production downtime.

# Product Specifications

	Current Monitoring Relay*	Voltage Monitoring Relay		Power Factor Monitoring Relay	Active Power Monitoring Relay	Thermistor Monitoring Relay
	Single Phase	Single Phase	Three Phase	Three Phase	Three Phase	
Catalog Number	809S-C1-10A-48	813S-V1-500V-48	813S-V3-110V	814S-PF3-480V-10A	814S-W3-480V-10A	817S-PTC-48
	809S-C1-10A-230	813S-V1-500V-230	813S-V3-230V	814S-PF3-690V-10A	814S-W3-480V-10A	817S-PTC-115
			813S-V3-400V 813S-V3-480V 813S-V3-690V			817S-PTC-230
Input	1...10A AC/DC	2...500V AC/DC	380...415V AC	1...10A AC, 380...480V AC	1...10A AC, 380...480V AC	PTC Input
			100...115V AC 208...240V AC 440...480V AC	1...10A AC, 600...690V AC	1...10A AC, 600...690V AC	
			600...690V AC			
Output	1 SPDT Relay	1 SPDT Relay	2 SPDT Relays	1 SPDT Relay	1 SPDT Relay	1 SPDT Relay
	AC 15 : 2.5 A@250V AC	AC 15 : 2.5 A@250V AC	AC15 : 2.5A@250V AC	AC 15 : 2.5 A@250V AC	AC 15 : 2.5 A@250V AC	AC 15 : 2.5 A@250V AC
	DC 13 : 2.5 A@24V DC	DC 13 : 2.5 A@24V DC	DC13 : 2.5V@24V DC	DC 13 : 2.5 A@24V DC	DC 13 : 2.5 A@24V DC	DC 13 : 2.5 A@24V DC
Control Power	24/48V AC/DC	24/48V AC/DC				24/48V AC/DC
	115/230V AC	115/230V AC				115V AC
						230V AC
TRMS Under- and Overcurrent Protection	√					
TRMS Under- and Overvoltage Protection		√	√			
Phase Loss Protection			√			
Phase Imbalance			√			
Phase Reversal			√			
TRMS Minimum and Maximum COS (θ) Protection				√		
TRMS Under- and Over Active Power (kW) Protection					√	
Motor Temperature Protection						√
Adjustable Time Delay Settings	√	√	√	√	√	
Programmable Latching or Inhibit	√	√		√	√	
Automatic Reset	√	√	√	√	√	√
Led Status Indicator	√	√	√	√	√	√
Dimensions (W x H x D)	22.5 x 80 x 99.5 mm	22.5 x 80 x 99.5 mm	45 x 80 x 99.5 mm	45 x 80 x 99.5 mm	45 x 80 x 99.5 mm	22.5 x 80 x 99.5 mm

\*The following Current Transformers are available for use only with the 809S-C1 current monitoring relays.

Trip Current Range Continuous AC Amperes (5 A Secondary Winding)	Maximum Current [A]		Cat. No.
	Continuous	Inrush	
4.2...50	75	350	809S-CT1
17...200	300	1400	809S-CT2
42...500	750	3500	809S-CT3
100...1200	1800	8400	809S-CT4

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## 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