

Supplemental Motor Protection Devices Specifications

Bulletin Numbers 809S, 813S, 814S, 817S, 1409, 1410

| Topic | Page |
|--|--------------------|
| Bulletin 809S/813S/814S/817S | 2 |
| Product Line Overview | 2 |
| Cat. No. Explanation | 3 |
| Specifications | 4 |
| Standards Compliance and Certifications | 7 |
| Function and Wiring Diagrams | 8 |
| Approximate Dimensions | 14 |
| Bulletin 1409 Arcing Ground Fault Detection System | 15 |
| Specifications | 15 |
| Standards Compliance and Certifications | 15 |
| Typical Wiring Diagrams | 16 |
| Approximate Dimensions | 17 |
| Bulletin 1410 Motor Winding Heater | 18 |
| Specifications | 18 |
| Standards Compliance and Certifications | 18 |
| Approximate Dimensions | 18 |

Additional Resources





These documents contain additional information concerning related products from Rockwell Automation.

| Resource | Description |
|---|---|
| Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1 | Provides general guidelines for installing a Rockwell Automation industrial system. |
| Product Certifications website, http://www.ab.com | Provides declarations of conformity, certificates, and other certification details. |

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.



Product Line Overview

| | Bulletin 809S Current Monitoring Relay | Bulletin 813S Voltage Relay | | Bulletin 814S Power Factor Relay | Bulletin 814S Power (kW) Relay | Bulletin 817S Thermistor Relay |
|---|---|---|--------------------------------|---|---|-----------------------------------|
| |  |  | |  |  | |
| Type | Single-Phase | Single-Phase | Three-Phase | Three-Phase | Three-Phase | — |
| Operating range | 1...10 A AC/DC | 2...500V AC/DC | 110...115V AC 208...240V AC | 1...10 A AC | 1...10 A AC | 24/48V AC/DC |
| | 24/48V AC/DC | 24/48V AC/DC | 380...415V AC 440...480V AC | 380...480V AC | 380...480V AC | 115V AC |
| | 115/230V AC | 115/230V AC | 600...690V AC | 600...690V AC | 600...690V AC | 230V AC |
| Under- and overcurrent protection | √ | — | — | — | — | — |
| Under- and overvoltage protection | — | √ | √ | — | — | — |
| Phase loss protection | — | — | √ | — | — | — |
| Phase imbalance | — | — | √ | — | — | — |
| Phase reversal | — | — | √ | — | — | — |
| Minimum and maximum cos (φ) protection | — | — | — | √ | — | — |
| Under- and over active power (kW) protection | — | — | — | — | √ | — |
| Overtemperature protection | — | — | — | — | — | √ |
| Adjustable time delay settings | √ | √ | √ | √ | √ | — |
| Programmable latching or inhibit at set level | √ | √ | — | √ | √ | — |
| Changeover Contacts (SPDT) | 1 | 1 | 2 | 1 | 1 | 1 |
| 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 |

Cat. No. Explanation

Examples given in this section are for reference purposes. This basic explanation should not be used for product selection; not all combinations will produce a valid catalog number.

809S – C1 – 10A – 48
a *b* *c* *d*

| Bulletin Number | |
|------------------------|-----------------------------|
| Code | Description |
| 809S | Current Monitoring Relay |
| 813S | Voltage Monitoring Relay |
| 814S | Power Monitoring Relay |
| 817S | Thermistor Monitoring Relay |

| External Power Code | |
|----------------------------|-----------------------------|
| Code | Description |
| Bulletin 809S | |
| 48 | 24/48V AC/DC |
| 230 | 115/230V AC |
| Bulletin 813S | |
| 48 | 24/48V AC/DC (Type V1 only) |
| 230 | 115/230V AC (Type V1 only) |
| Bulletin 814S | |
| — | — |
| Bulletin 817S | |
| 48 | 24/48V AC/DC |
| 115 | 115V AC |
| 230 | 230V AC |

| Type | |
|----------------------|---|
| Code | Description |
| Bulletin 809S | |
| C1 | Single-Phase Current Monitoring Relay |
| Bulletin 813S | |
| V1 | Single-Phase Voltage Monitoring Relay |
| V3 | Three-Phase Voltage Monitoring Relay |
| Bulletin 814S | |
| W3 | Three-Phase Power (kW) Monitoring Relay |
| PF3 | Three-Phase Power Factor Monitoring Relay |
| Bulletin 817S | |
| PTC | Thermistor Monitoring Relay |

| Measurement Rating | |
|---------------------------|-----------------------------|
| Code | Description |
| Bulletin 809S | |
| 10A | 1...10 A AC/DC |
| Bulletin 813S | |
| 500V | 2...500V AC/DC (Type V1) |
| 110V | 110...115V AC (Type V3) |
| 230V | 208...240V AC (Type V3) |
| 400V | 380...415V AC (Type V3) |
| 480V | 440...480V AC (Type V3) |
| 690V | 600...690V AC (Type V3) |
| Bulletin 814S | |
| 480V-10A | 380...480V AC & 1...10 A AC |
| 690V-10A | 600...690V AC & 1...10 A AC |
| Bulletin 817S | |
| — | — |