

Disconnect Switch and Circuit Breaker Mechanism Specifications

Bulletin Number 1494

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Summary of Changes

This publication contains new and updated information as indicated in the following table.

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| Updated 1494U specifications | 3 |

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.rockwellautomation.com/global/certification/overview.page | Provides declarations of conformity, certificates, and other certification details. |

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

Bulletin 1494U Disconnect Switches

| Disconnect Switch Electrical Ratings | | | | | |
|--|--|--|--|--------------------------------|----|
| Switch Size | | 30 A | 60 A | 100 A | |
| Rated Insulation Voltage (UL) IEC - Ui | | (600) 1000V | | | |
| Ratings UL/CSA/NEMA | Hp | 230V/60 Hz | 7.5 | 15 | 30 |
| | | 460V/60 Hz | 15 | 30 | 60 |
| | | 575V/60 Hz | 20 | 50 | 75 |
| | | 600V DC | 15 | 30 | 50 |
| Ratings IEC Applications | Maximum kW (AC23) | 220V/50 Hz | 5.5 | 11 | 22 |
| | | 440V/50 Hz | 11 | 22 | 45 |
| | | 550V/50 Hz | 15 | 37 | 55 |
| Auxiliary Contact Electrical Ratings | | | | | |
| Standard Contact 1 N.O. or 1 N.C. | NEMA/EEMAC | A600, Q600 | | | |
| | IEC | AC 15, DC 13 to IEC/EN60947-5-1 and UL 508, 17V, 5 mA minimum | | | |
| Low Level Contact 1 N.O. or 1 N.C. | NEMA/EEMAC | C300, R150 | | | |
| | IEC | AC 15, DC 13 to IEC/EN60947-5-1 and UL 508, 5V, 1 mA minimum | | | |
| Electrical Interlock Ratings | | | | | |
| Standard Contact 2 N.O. | NEMA/EEMAC | 10 A: 250V AC, 0.3 A: 250V DC | | | |
| Mechanical | | | | | |
| Degree of Protection | Operating handles | Non-metallic Type 1, 3R, 4, 4X, 12 Painted Type 1, 3R, 4, 12 Stainless steel Type 4, 4X | | | |
| Mechanical Life (Typical) | | 10 000 operations (30...100 A) | | | |
| Switching Frequency (operations/hr) | | 30, 60, and 100 A sizes — 300 maximum | | | |
| Environmental | | | | | |
| Ambient Temperature | Open | -20...+60 °C (-4...+140 °F) | | | |
| | Enclosed | -20...+40 °C (-4...+104 °F) | | | |
| | Storage | -40...+65 °C (-40...+149 °F) | | | |
| Altitude (per IEC 947-1) | | 2000 m | | | |
| Relative Humidity (per IEC 947-1) | | 90% at 20 °C (68 °F) and 50% at 40 °C (104 °F) | | | |
| Design Specification/Test Requirements | | | | | |
| Dielectric Strength | | 2200V for 1 minute | | | |
| Electrical Life | | 6000 operations at rated current | | | |
| Short Circuit Withstand Capability | | 10 000 A, 600V AC/DC: unfused or with Class H fuses 10 000 A, 600V DC: with Class J or Class R fuses 200 000 A, 600V AC: with Class J or Class R fuses | | | |
| Construction | | | | | |
| Switch Body Material | | Glass-filled thermoplastic | | | |
| All wire rated 75 °C (167 °F) or higher must be sized per the local Electric Code for 75 °C (167 °F) wire. | | | | | |
| Conductor Size and Lug Connectors | Single port, aluminum lug | 30...60 A | (1) #14...2 AWG, copper - aluminum (2) #14...10 AWG, copper (2) #12...10 AWG, aluminum | | |
| | Single port, aluminum lug | 100 A | (2) #12...4 AWG, copper-aluminum (1) #14...1/0 AWG, copper (1) #12...1/0 AWG, aluminum | | |
| | Multi-port, aluminum lug | 30...100 A | (1) #14...4 AWG, copper (1) #12...4 AWG, aluminum (2) #10 AWG, copper-aluminum | | |
| | Single port, copper lug | 30...60 A | (1) #14...4 AWG, copper (2) #14...8 AWG, copper (4) #16 AWG, copper | | |
| | Line Terminal Adapter Single port, copper lug | 30...100 A | (1) #14...8 AWG, copper | | |
| | Line Terminal Adapter Single port, copper lug | 100 A | (1) #8...1/0 AWG, copper | | |
| Recommended Torque | 30 A | Conductor into Lug | | Lug to Terminal | |
| | 60 A | 45 lb-in | | 40...60 lb-in | |
| | 100 A | 45 lb-in 50 lb-in | | 40...60 lb-in 40...60 lb-in | |
| Switches, Mechanisms, and Accessory Kits | | Zinc-plated steel, RoHS Compliant finish | | | |