

Rotary Disconnect Switch Specifications

Bulletin Number 194R

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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.



Bulletin 194R Overview

| |  |  |
|---|--|--|
| | Bulletin 194R-C, J, H, B, D, F, L, N, NU | Bulletin 194R-NE |
| Product Type | Fused and non-fused rotary disconnect switches | Non-fused IEC rotary disconnect switches |
| Current Range | 20...1200 A | 100...1250 A |
| Main Applications | <ul style="list-style-type: none"> UL 98 ratings "suitable as service entrance disconnecting means" UL 508, CSA ratings "suitable as at-motor disconnect" | <ul style="list-style-type: none"> Disconnecting means |
| Functionality | <ul style="list-style-type: none"> 3- or 4-pole fusible or non-fusible disconnect for standard OFF-ON or emergency stop in a main panel disconnect application 4th pole available as modular accessory Test mode switch position | <ul style="list-style-type: none"> 3- or 4-pole non-fusible disconnect for standard OFF-ON or emergency stop in a main panel disconnect application 4th pole available as modular accessory Test mode switch position |
| Mounting Styles | Base/DIN Rail mounting | Base/DIN Rail mounting |
| Handles | <ul style="list-style-type: none"> Available in rotary styles, UL Type 1/3R/4/4X/12, IP66, standard, or test mode versions Handle colors in black and red/yellow and padlockable versions 30 A/60 A legend markers (optional) — uses Cat. No. 1492-MS6X12 markers | <ul style="list-style-type: none"> Available in rotary styles, UL Type 1/3R/4/4X/12, IP66, standard, or test mode versions Handle colors in black and red/yellow and padlockable versions |
| Open Switch or Enclosed | <ul style="list-style-type: none"> Open switch Enclosed: UL/CSA rated enclosure | <ul style="list-style-type: none"> Open switch |
| UL/CSA Electrical Ratings: | | |
| Rated Voltage U_e | 690V AC | 690V AC |
| Rated Current I_e | 20...1200 A | 100...1250 A |
| Rated Power P_e [FLA] | Varies w/ 1- or 3-phase switch, voltage | Varies w/ 1- or 3-phase switch, voltage |
| Short-Circuit Ratings | 200 kA | 200 kA |
| Mechanical Life [ops] | 10 000 | 10 000 |
| IEC Rated Current I_e | | |
| AC-1 | 20...1200 A @ 690V | 100...1250 A @ 690V |
| AC-21A | Varies w/ 1- or 3-phase switch, voltage | Varies w/ 1- or 3-phase switch, voltage |
| AC-22A | Varies w/ 1- or 3-phase switch, voltage | Varies w/ 1- or 3-phase switch, voltage |
| Ambient Operational Temp. | -20...+60 °C (-4...+140 °F) | -20...+60 °C (-4...+140 °F) |
| Ambient Enclosed Temp. | -20...+60 °C (-4...+140 °F) | -20...+60 °C (-4...+140 °F) |
| Ambient Storage Temp. | -40...+65 °C (-40...+149 °F) | -40...+65 °C (-40...+149 °F) |
| Protection class per IEC 529 | <ul style="list-style-type: none"> Switch bodies: IP2 Fuse carriers: IP30 | <ul style="list-style-type: none"> Switch bodies: IP2 |
| Optional Accessories | <ul style="list-style-type: none"> Operator handles Multi-length shafts Auxiliary contacts Terminal covers NFPA 79 internal handle with shaft | <ul style="list-style-type: none"> IP66 handles Multi-length shafts Auxiliary contacts Terminal covers NFPA 79 internal handle |
| Standards/Certifications | <ul style="list-style-type: none"> UL 98, UL 508 CSA C22.2, No. 14 IEC 60947-3 Low Voltage Switchgear and Controlgear part 3 CE | <ul style="list-style-type: none"> CSA C22.2, No. 14 IEC 60947-3 Low Voltage Switchgear and Controlgear part 3 CE |
| Product Selection | Page 4 | Page 4 |

Specifications

Fused Disconnect Switches for UL Class Fuses and CSA HRCI-J

| Electrical Ratings | | | | | | |
|--|----------------------|------------|----------------|------------|----------------|------------|
| Cat. No. | 194R-C30-1753 | | 194R-J30-1753 | | 194R-J60-1753 | |
| CSA Fuse Type/UL Fuse Type | Class CC/HRCI-MISC ‡ | | Class J/HRCI-J | | Class J/HRCI-J | |
| Maximum Fuse Cartridge Size | [A] | 30 | 30 | 30 | 60 | 60 |
| Maximum Voltage | AC [V] | 600 | 600 | 600 | 600 | 600 |
| | DC [V] | 250 | 250 | 250 | 250 | 250 |
| Ampere Rating | [A] | 30 | 30 | 30 | 60 | 60 |
| Maximum Short Circuit Prospective Fault Current | [kA] | 200 | 200 | 200 | 200 | 200 |
| Fuse Operating Characteristics | | Time Delay | Non-Time Delay | Time Delay | Non-Time Delay | Time Delay |
| Maximum Hp, 3-Phase AC | | | | | | |
| 200V, 60 Hz | [Hp] | 5 | 3 | 7.5 | 3 | 15 |
| 240V, 60 Hz | [Hp] | 5 | 3 | 7.5 | 3 | 15 |
| 480V, 60 Hz | [Hp] | 10 | 5 | 15 | 5 | 30 |
| 600V, 60 Hz | [Hp] | 10 | 7.5 | 20 | 7.5 | 50 |
| Maximum Hp, 1-Phase AC | | | | | | |
| 120V, 60 Hz | [Hp] | 0.75 | 0.5 | 2 | 0.5 | 3 |
| 240V, 60 Hz | [Hp] | 2 | 1.5 | 3 | 1.5 | 10 |
| Maximum Hp, DC | | | | | | |
| 125V DC | [Hp] | 2 | 3 | 3 | 2 | 5 |
| 250V DC | [Hp] | 3 | 5 | 5 | 5 | 10 |

‡ Based on Rockwell Automation tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3 and UL 98.

| Electrical Ratings | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| Cat. No. | 194R-J100-1753 | 194R-J200-1753 | 194R-J400-1753 | 194R-J600-1753 | 194R-J800-1753 |
| CSA Fuse Type/UL Fuse Type | Class J/HRCI-J | | | | |
| Maximum Fuse Cartridge Size | [A] | 100 | 200 | 400 | 600 |
| Maximum Voltage | AC [V] | 600 | 800 | 600 | 600 |
| | DC [V] | 250§ | 250§ | 250§ | 250§ |
| Ampere Rating | [A] | 100 | 200 | 400 | 600 |
| Maximum Short Circuit Prospective Fault Current | [kA] | 200 | 200 | 200 | 200 |

§ 3 poles in series

| Mechanical Data | | |
|--|---------------------------------|---------------|
| Cat. No. | 194R-C30-1753, 194R-J30-1753 | 194R-J60-1753 |
| Degree of Protection (per IEC 60947-3) | | |
| Switch Only | IP20 | IP20 |
| Switch with Terminal Shield & Fuse Carriers | IP20 | IP20 |
| Mechanical Endurance § | Operations | 10 000 |
| Operating Torque (Maximum) | N•m | 3.5 |
| | lb•in | 35 |
| Terminal Capacity | mm ² | 2.5...10 |
| Power Terminals | AWG | #14...#8 |
| Auxiliary Contact Terminals | mm ² | 2.5...4 |
| | AWG | #14...#12 |
| Maximum Number of Auxiliary Circuits | | 6 |
| Approximate Weight | kg | 0.92 |
| | lbs | 2.03 |
| Minimum Enclosure Size | Height | 248 (9-3/4) |
| Approximate dimensions in millimeters (inches) | Width | 171 (6-3/4) |
| | Depth | 148 (5-13/16) |
| Switch Dimension Reference (See dimension drawings.) | | A1 |
| | | B1 |

§ Based on Rockwell Automation tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3 and UL 98.