

# 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 <a href="#">1770-4.1</a>	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>	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

		
	<b>Bulletin 194R-C, J, H, B, D, F, L, N, NU</b>	<b>Bulletin 194R-NE</b>
<b>Product Type</b>	Fused and non-fused rotary disconnect switches	Non-fused IEC rotary disconnect switches
<b>Current Range</b>	20...1200 A	100...1250 A
<b>Main Applications</b>	<ul style="list-style-type: none"> <li>UL 98 ratings "suitable as service entrance disconnecting means"</li> <li>UL 508, CSA ratings "suitable as at-motor disconnect"</li> </ul>	<ul style="list-style-type: none"> <li>Disconnecting means</li> </ul>
<b>Functionality</b>	<ul style="list-style-type: none"> <li>3- or 4-pole fusible or non-fusible disconnect for standard OFF-ON or emergency stop in a main panel disconnect application</li> <li>4th pole available as modular accessory</li> <li>Test mode switch position</li> </ul>	<ul style="list-style-type: none"> <li>3- or 4-pole non-fusible disconnect for standard OFF-ON or emergency stop in a main panel disconnect application</li> <li>4th pole available as modular accessory</li> <li>Test mode switch position</li> </ul>
<b>Mounting Styles</b>	Base/DIN Rail mounting	Base/DIN Rail mounting
<b>Handles</b>	<ul style="list-style-type: none"> <li>Available in rotary styles, UL Type 1/3R/4/4X/12, IP66, standard, or test mode versions</li> <li>Handle colors in black and red/yellow and padlockable versions</li> <li>30 A/60 A legend markers (optional) — uses Cat. No. 1492-MS6X12 markers</li> </ul>	<ul style="list-style-type: none"> <li>Available in rotary styles, UL Type 1/3R/4/4X/12, IP66, standard, or test mode versions</li> <li>Handle colors in black and red/yellow and padlockable versions</li> </ul>
<b>Open Switch or Enclosed</b>	<ul style="list-style-type: none"> <li>Open switch</li> <li>Enclosed: UL/CSA rated enclosure</li> </ul>	<ul style="list-style-type: none"> <li>Open switch</li> </ul>
<b>UL/CSA Electrical Ratings:</b>		
<b>Rated Voltage <math>U_e</math></b>	690V AC	690V AC
<b>Rated Current <math>I_e</math></b>	20...1200 A	100...1250 A
<b>Rated Power <math>P_e</math> [FLA]</b>	Varies w/ 1- or 3-phase switch, voltage	Varies w/ 1- or 3-phase switch, voltage
<b>Short-Circuit Ratings</b>	200 kA	200 kA
<b>Mechanical Life [ops]</b>	10 000	10 000
<b>IEC Rated Current <math>I_e</math></b>		
<b>AC-1</b>	20...1200 A @ 690V	100...1250 A @ 690V
<b>AC-21A</b>	Varies w/ 1- or 3-phase switch, voltage	Varies w/ 1- or 3-phase switch, voltage
<b>AC-22A</b>	Varies w/ 1- or 3-phase switch, voltage	Varies w/ 1- or 3-phase switch, voltage
<b>Ambient Operational Temp.</b>	-20...+60 °C (-4...+140 °F)	-20...+60 °C (-4...+140 °F)
<b>Ambient Enclosed Temp.</b>	-20...+60 °C (-4...+140 °F)	-20...+60 °C (-4...+140 °F)
<b>Ambient Storage Temp.</b>	-40...+65 °C (-40...+149 °F)	-40...+65 °C (-40...+149 °F)
<b>Protection class per IEC 529</b>	<ul style="list-style-type: none"> <li>Switch bodies: IP2</li> <li>Fuse carriers: IP30</li> </ul>	<ul style="list-style-type: none"> <li>Switch bodies: IP2</li> </ul>
<b>Optional Accessories</b>	<ul style="list-style-type: none"> <li>Operator handles</li> <li>Multi-length shafts</li> <li>Auxiliary contacts</li> <li>Terminal covers</li> <li>NFPA 79 internal handle with shaft</li> </ul>	<ul style="list-style-type: none"> <li>IP66 handles</li> <li>Multi-length shafts</li> <li>Auxiliary contacts</li> <li>Terminal covers</li> <li>NFPA 79 internal handle</li> </ul>
<b>Standards/Certifications</b>	<ul style="list-style-type: none"> <li>UL 98, UL 508</li> <li>CSA C22.2, No. 14</li> <li>IEC 60947-3 Low Voltage Switchgear and Controlgear part 3</li> <li>CE</li> </ul>	<ul style="list-style-type: none"> <li>CSA C22.2, No. 14</li> <li>IEC 60947-3 Low Voltage Switchgear and Controlgear part 3</li> <li>CE</li> </ul>
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## 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		60
Maximum Voltage	AC [V] DC [V]	600 250		600 250		600 250
Ampere Rating	[A]	30		30		60
Maximum Short Circuit Prospective Fault Current	[kA]	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
CSA Fuse Type/UL Fuse Type		Class J/HRCI-J	Class J/HRCI-J	Class J/HRCI-J	Class J/HRCI-J
Maximum Fuse Cartridge Size	[A]	100	200	400	600
Maximum Voltage	AC [V] DC [V]	600 250§	800 250§	600 250§	600 250§
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 lb•in	3.5 35
Terminal Capacity	mm <sup>2</sup>	2.5...10
Power Terminals	AWG	#14...#8
Auxiliary Contact Terminals	mm <sup>2</sup>	2.5...4
	AWG	#14...#12
Maximum Number of Auxiliary Circuits		6
Approximate Weight	kg lbs	0.92 2.03
Minimum Enclosure Size		248 (9-3/4)
Approximate dimensions in millimeters (inches)	Height Width Depth	171 (6-3/4) 148 (5-13/16)
Switch Dimension Reference (See dimension drawings.)		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.