

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 98 ratings "suitable as service entrance disconnecting means" - UL 508, CSA ratings "suitable as at-motor disconnect"	Disconnecting means
Functionality	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	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	- 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	- 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	- Open switch - Enclosed: UL/CSA rated enclosure	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	- Switch bodies: IP2 - Fuse carriers: IP30	Switch bodies: IP2
Optional Accessories	- Operator handles - Multi-length shafts - Auxiliary contacts - Terminal covers - NFPA 79 internal handle with shaft	- IP66 handles - Multi-length shafts - Auxiliary contacts - Terminal covers - NFPA 79 internal handle
Standards/Certifications	- UL 98, UL 508 - CSA C22.2, No. 14 - IEC 60947-3 Low Voltage Switchgear and Controlgear part 3 - CE	- 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		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 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 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.)	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.