

Non-Fusible 30–100A Compact



Contents

Description	Page
Non-Fusible 30–100A Compact	
Product Selection	V5-T8-14
Technical Data and Specifications	V5-T8-17
Dimensions	V5-T8-18
Non-Fusible 100–1200A	V5-T8-20
Fusible 30–800A	V5-T8-28
DC Rated Disconnects	V5-T8-47

Non-Fusible 30–100A Compact

Product Description

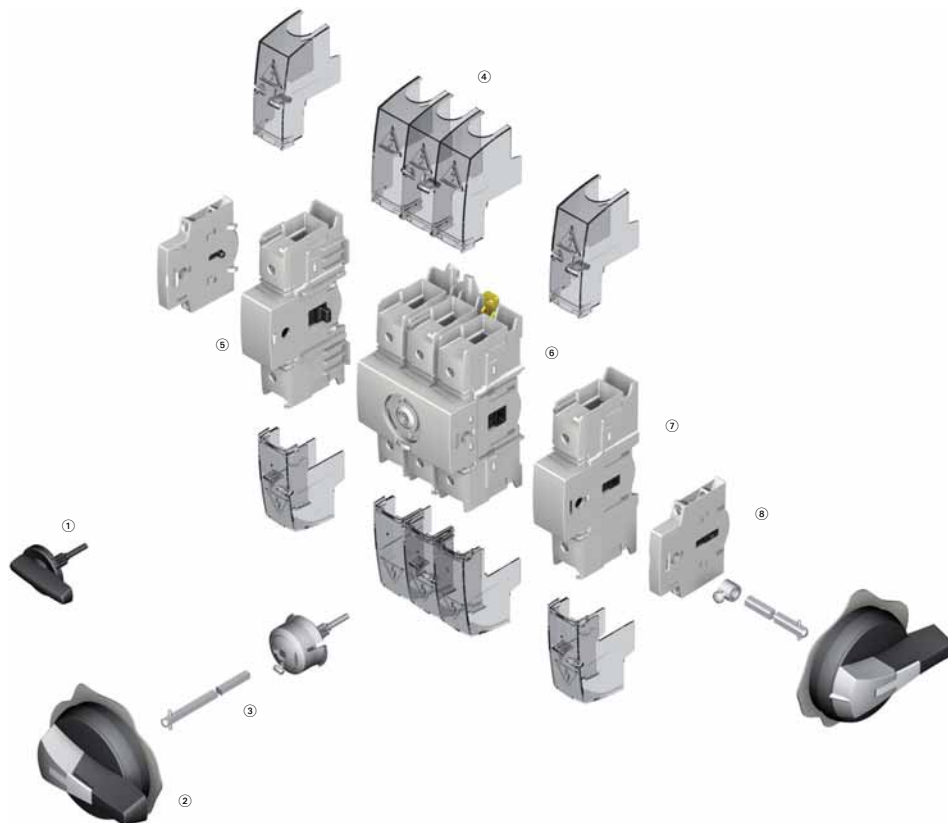
The R9 Series (UL 98 listed) non-fusible 30–100A compact range ensures making or breaking on load and safety isolation for low voltage electrical circuits, particularly for machine control circuits up to 600V.

Features, Benefits and Functions

- Rating three-pole from 30A to 100A
- Direct or external operation handle (padlockable in ON position)
- Double breaking per phase

Standards and Certifications

- UL 98, File E222859
- CSAT 22.2 No. 4, File 217736
- IEC 60947-3
- EN 60947-3



Product Identification

- ① Direct handle
- ② Door interlocked external handle
- ③ Shaft extension
- ④ Terminal shrouds
- ⑤ Unswitched neutral pole
- ⑥ Switch body
- ⑦ Switched fourth-pole module
- ⑧ Modular type auxiliary contacts

Note: For further details, please see the installation instructions supplied with each device.

8.3

Rotary Disconnects

R9 Series (UL 98)

Product Selection

Direct Operation



External Operation



R9 Series 30–100A



Ampere Rating (Frame)	Number of Poles	Switch Body Only	Direct Handle	Front and Right External Handle SH00 (Choose one)	Front and Right External Handle SH0 (Choose one)	Shaft for SH0 and SH00 Handles— In (mm) (Choose one)	Switched Fourth-Pole Module	Unswitched Neutral Module	Auxiliary Contacts (Choose one)	Terminal Shrouds (Choose one)
30 (C-Frame)	3	R9C3030U	DHR9	SH00 Black 3R, 12 SHB00N12	SH0 Black 3R, 12 SHB0N12	2.20 (55.5) SF55SH5X5	S4PR930	Neutral UNMR9C	1NO + 1NC AC1N0NC	1P TS1R9
60 (C-Frame)	3	R9C3060U		SHB00N12	SHB0N12	3.50 (90.0) SF90SH5X5	S4PR960		2NO AC2N0	3P TS3R9CV
100 (C-Frame)	3	R9C3100U		SH00 Red 3R, 12 SHR00N12	SH0 Red 3R, 12 SHR0N12	5.91 (150.0) SF150SH5X5	S4PR9100			
				SH00 Black 4, 4X SHB00N4X	SH0 Black 4, 4X SHB0N4X	7.87 (200.0) SF200SH5X5				
				SH00 Red 4 4X SHR00N4X	SH0 Red 4 4X SHR0N4X	12.60 (320.0) SF320SH5X5				

Handles

Direct Handle



Direct Handle

Ampere Rating	Handle Color	Catalog Number
30–100	Black	DHR9

Door Interlocked External Handle ^①

Size 00 Handle



Ampere Rating	Handle Color	Handle Size	NEMA Type Rating	Catalog Number
Front and Right External Handle				
30–100	Black	SH00	3R, 12	SHB00N12
30–100	Black	SH00	4, 4X	SHB00N4X
30–100	Red	SH00	3R, 12	SHR00N12
30–100	Red	SH00	4, 4X	SHR00N4X
Size 0 Handle				
30–100	Black	SH0	3R, 12	SHB0N12
30–100	Black	SH0	4, 4X	SHB0N4X
30–100	Red	SH0	3R, 12	SHR0N12
30–100	Red	SH0	4, 4X	SHR0N4X

Shafts

Shaft 5 x 5



Shaft Extensions for External Handle

Description	Ampere Rating	Use with Handle Type	Shaft Length In (mm)	Catalog Number
Standard lengths: 55 mm, 90 mm, 150 mm, 200 mm, 320 mm	30–100	SH00/SH0	2.20 (55.5)	SF55SH5X5
	30–100	SH00/SH0	3.50 (90.0)	SF90SH5X5
Shafts are for external front and right side handles	30–100	SH00/SH0	5.91 (150.0)	SF150SH5X5
	30–100	SH00/SH0	7.87 (200.0)	SF200SH5X5
	30–100	SH00/SH0	12.60 (320.0)	SF320SH5X5

Guide Cone



Description	Ampere Rating	Use with Handle Type	Catalog Number
The guide cone facilitates an easier connection between the shaft and a Size 00 or Size 0 external selector handle. It allows the shaft up to 10 mm of vertical play when making the connection	16–80	SH00 and SH0	SFGAB

Note

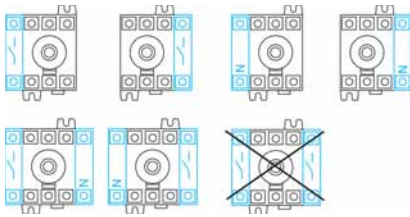
^① Allows door to be opened when switch is in the ON position.

8.3

Rotary Disconnects

R9 Series (UL 98)

Additional Pole Configurations



8

Switched Fourth-Pole Module



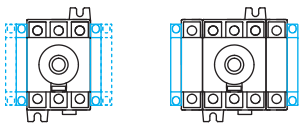
Description	Ampere Rating	Number of Poles	Type	Catalog Number
Transforms a three-pole, R9 Series load break switch into a four-pole	30	1	Switched	S4PR930
	60	1	Switched	S4PR960
	100	1	Switched	S4PR9100

Unswitched Neutral Module



Description	Ampere Rating	Number of Poles	Type	Catalog Number
Transforms a three-pole switch into a three-pole + solid neutral	30–100	1	Unswitched	UNMR9C

Auxiliary Contact Configurations



Auxiliary Contacts



Description	Ampere Rating	Type	Catalog Number
Early-break/same-make and signalization of positions 0 and I by NO + NC or 2NO auxiliary contacts. They can be mounted on the left or on the right side of the device. Maximum four auxiliary contacts (two modules)	30–100	1NO + 1NC	AC1N0NC
	30–100	2NO	AC2NO

Terminal Shrouds



Description	Ampere Rating	Number of Poles	Position	Catalog Number
Line and load protection against direct contact with the terminals or connection parts: single- or three-pole Advantage: Perforations allowing thermographic inspection	30–100	1	Line and load	TS1R9
	30–100	3	Line and load	TS3R9CV

Technical Data and Specifications

UL and CSA Characteristics

UL 98/CSA 22.2 No. 4

Technical Characteristics	30A	60A	100A
Short-circuit rating at 480 Vac (kA) ①	100 kA	100 kA	100 kA
Short-circuit rating at 600 Vac (kA) ①	100 kA	100 kA	25 kA
Fuse type	J	J	J
Maximum fuse rating (A)	30	60	100
Maximum Horsepower Rating/Maximum Motor FLA Three-Phase			
220–240 Vac	10/28	20/54	20/54
440–480 Vac	20/27	40/52	50/65
600 Vac	25/27	50/52	50/52
Maximum Horsepower Rating/Maximum Motor FLA Single-Phase			
120 Vac	2/24	3/34	5/56
240 Vac	5/28	10/50	10/50
Connection			
Solid, 1 wire	#12–10	#12–10	#12–10
Stranded, 1 wire	#12–2/0	#12–2/0	#12–2/0
Auxiliary Contacts			
Electrical characteristic	A300	A300	A300

IEC 60647-3 Characteristics

Technical Characteristics	32A	63A	100A
Thermal Current I_{th} at 40°C (A)			
Thermal current I_{th} (40°C)	30	60	100
Rated insulation voltage U_i (V)	800	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8	8
Rated Operation Currents I_e (A)			
Load Duty Category	Rated Voltage	A ②	A ②
400 Vac	AC-22 A	32	63
400 Vac	AC-23 A	32	63
690 Vac	AC-22 A	32	63
690 Vac	AC-23 A	32	63
Operational Power in AC-23 (kW)			
At 400 Vac without prebreak AC in AC-23 (kW) ③④	15	30	45
At 500 Vac without prebreak AC in AC-23 (kW) ③④	15	30	45
At 690 Vac without prebreak AC in AC-23 (kW) ③④	18.5	30	45
Overload Capacity (U_e 415 Vac)			
Rated short-time making capacity I_{cm} (kA peak) ⑤	12	12	12
Connection			
Minimum Cu cable cross section (mm ²)	2.5	2.5	10
Maximum Cu cable section (mm ²)	70	70	70

Notes

- ① Short-circuit rating achieved when used with respective fuse type and maximum fuse rating.
- ② Category with index A = frequent operation.
- ③ A/B: Category with index A = frequent operation; category with index B = infrequent operation.
- ④ The power value is given for information only; the current values vary from one manufacturer to another.
- ⑤ For a rated operating voltage, $U_e = 400$ Vac.