

UL 98 Non-Fused Rotary Disconnect Switches—30 to 1200A

Description

Bussmann UL 98 non-fused rotary disconnect switches are versatile switches that “break” and “make” power circuits ON and OFF load.

Features

- Make and break power under load
- Up to 200kA SCCR
- DIN-Rail or panel mount (30-100A)
- Disconnect switches are front, right side and direct handle operable (30-100A)
- Finger-safe (30-100A)
- Fully visualized breaking (100-1200A)

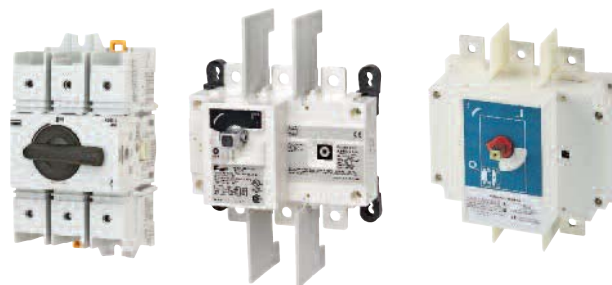
Agency Information

- UL98, Guide WHTY, File E155130
- CSA 22.2 No. 4, File 257020
- Conforms with IEC 60947-3

Online Resources

Visit www.cooperbussmann.com/Disconnects for:

- CAD Drawings
- Instruction Sheets
- UL Information



QuikShip Everyday Service ships the most common part numbers within 24 hours. Contact your Bussmann representative for details.

Related Cooper Bussmann Products

Fuse Blocks	Data Sheet #
Modular Knifeblade Fuse Blocks 100-600A	3192
Fuses Holders	
CH Series Class CC, Midget & 10x38 0-30A	3185
Finger-Safe Optima Series 0-30A	1102
Optima™ Protection Modules 0-30A	1109
CH Series Class J 0-60A	2144

IEC Electrical Specifications



RD30-3



RD200-3



RD600-3

Part Number	RD30-3	RD60-3	RD100-3	RD100-3-SCCR	RD200-3	RD400-3	RD600-3	RD800-3	RD1000-3	RD1200-3
3-Pole	RD30-3	RD60-3	RD100-3	RD100-3-SCCR	RD200-3	RD400-3	RD600-3	RD800-3	RD1000-3	RD1200-3
4-Pole	—	—	—	—	RD200-4	RD400-4	RD600-4	RD800-4	RD1000-4	RD1200-4
Thermal Current I_{th} @ 40°C (A)	30	60	100	—	—	—	—	—	—	—
Rated insulation voltage U_i (V)	800	800	800	—	—	—	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	—	—	—	12	12	12	12
Rated Operation Currents I_e (A)										
Load Duty Category	A ⁽¹⁾	A ⁽¹⁾	A ⁽¹⁾	—	—	—	A ⁽¹⁾	A ⁽¹⁾	A ⁽¹⁾	A ⁽¹⁾
Rated Voltage	—	—	—	—	—	—	—	—	—	—
400Vac AC-22 A	32	63	100	—	—	—	630	800	1000	1200
400Vac AC-23 A	32	63	100	—	—	—	630	800	1000	1000
690Vac AC-22 A	32	63	80	—	—	—	500	630	630	630
690Vac AC-23 A	32	63	63	—	—	—	200	400	400	400
Operational Power (Vac) in AC-23 (kW)										
400V w/o prebreak AC ⁽¹⁾⁽²⁾	15	30	45	—	—	—	355	450	560	560
500V w/o prebreak AC ⁽¹⁾⁽²⁾	15	30	45	—	—	—	450	560	560	560
690V w/o prebreak AC ⁽¹⁾⁽²⁾	18.5	30	45	—	—	—	185	400	400	400
Overload Capacity (U_e 415Vac)										
Rated short-time making capacity I_{cm} (kA peak) ⁽³⁾	12	12	12	—	—	—	48	75	48	75
Fuse Protected Short-Circuit Withstand (kA rms prospective)										
Short-Circuit Current (kA) ⁽³⁾	50	50	25	—	—	—	100	100	100	100
Associated Fuse Rating (A) ⁽³⁾	32	63	100	—	—	—	630	800	1000	1250
Connection										
Minimum Cu cable cross section (mm ²)	2.5	2.5	10	—	—	—	2x150	2x185	2x240	—
Minimum Cu busbar section (mm ²)	—	—	—	—	—	—	2x30x5	2x40x5	2x50x5	2x60x5
Maximum Cu cable section (mm ²)	70	70	70	—	—	—	—	—	—	—

(1) A/B: Category with index A = frequent operation; category with index B = infrequent operation.

(2) The power value is given for information only; the current values vary from one manufacturer to another.

(3) For a rated operating voltage, $U_e = 400$ Vac.

UL 98 Non-Fused Rotary Disconnect Switches—30 to 1200A

Specifications



RD30-3



RD200-3



RD600-3

Part Number	RD30-3	RD60-3	RD100-3	RD100-3-SCCR	RD200-3	RD400-3	RD600-3	RD800-3	RD1000-3	RD1200-3
3-Pole	—	—	—	—	—	—	—	—	—	—
4-Pole	—	—	—	—	RD200-4	RD400-4	RD600-4	RD800-4	RD1000-4	RD1200-4
UL Standard	UL 98	UL 98	UL 98	UL 98	UL 98	UL 98	UL 98	UL 98	UL 98	UL 98
Max Ampacity	30A	60A	100A	100A	200A	400A	600A	800A	1000A	1200A
Switch Type	Compact	Compact	Compact	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Handle Operation	Front/Side	Front/Side	Front/Side	Front	Front	Front	Front	Front	Front	Front
UL Electrical Ratings										
Max Voltage (AC)	600Vac	600Vac	600Vac	600Vac	600Vac	600Vac	600Vac	600Vac	600Vac	600Vac
Max Voltage (DC)	—	—	—	250Vdc	250Vdc	—	250Vdc	—	—	—
Maximum AC Horsepower Ratings										
1-Phase, 120Vac	2	3	5	—	—	—	—	—	—	—
1-Phase, 240Vac	5	10	10	10	10	—	—	—	—	—
3-Phase, 240Vac	10	20	20	30	75	125	200	200	200	200
3-Phase, 480Vac	20	40	50	75	150	250	400	500	500	500
3-Phase, 600Vac	25	50	50	100	200	350	350	500	500	500
DC Horsepower Ratings										
125Vdc	—	—	—	—	—	—	20	—	—	—
250Vdc	—	—	—	—	—	—	50	—	—	—
Electrical Characteristics										
SCCR with Fuse	100kA	100kA	25kA/100kA*	200kA	200kA	200kA	200kA	100kA	100kA	100kA
Fuse Class	J	J	J	J	J	J	J	L	L	L
Max. Fuse Rating	30A	60A	100A	100A	200A	400A	600A	800A	1000A	1200A
Terminal Lugs/Kits	Integral	Integral	Integral	•	•	•	•	•	•	•
Lug Mounting Torque - Lb-In (N•m)	-	-	-	160 (18)	160 (18)	LUG2-... 310 (35) LUG3-... 398 (45)	310 (35)	310 (35)	310 (35)	310 (35)
Wire Type	75°C Cu	75°C Cu	75°C Cu	75°C Cu/Al	75°C Cu/Al	75°C Cu/Al	75°C Cu/Al	75°C Cu/Al	75°C Cu/Al	75°C Cu/Al
Wire Range & Torque - Lb-In (N•m)										
Solid	#12-10 35.4 (4)	#12-10 35.4 (4)	#12-10 35.4 (4)	—	—	—	—	—	—	—
Stranded	#10-1 35.4 (4) 1/0 39.8 (4.5) 2/0 44.3 (5)	#10-1 35.4 (4) 1/0 39.8 (4.5) 2/0 44.3 (5)	#10-1 35.4 (4) 1/0 39.8 (4.5) 2/0 44.3 (5)	#6-300MCM 275 (31)	#6-300MCM 275 (31)	LUG2-... #4-600MCM 550 (62) Dual 1/0-250MCM 550 (62) LUG3-... (2) #6-2 200 (22.6) (2) #1-350MCM 375 (42.4)	(2) #2-600MCM 375 (42.4)	(4) #2-600MCM 375 (42.4)	(4) #2-600MCM 375 (42.4)	(4) #2-600MCM 375 (42.4)
Mechanical Characteristics										
Endurances/Cycles	10,000	10,000	10,000	10,000	8000	6000	6000	3500	3500	3500
Physical Characteristics										
Dimensions	See drawings on product pages									
Weight - Lbs (KG)										
3-Pole	1.3 (0.6)	1.3 (0.6)	1.3 (0.6)	4.2 (1.91)	4.2 (1.91)	10.0 (4.6)	18.1 (8.2)	19.6 (8.9)	19.6 (8.9)	19.6 (8.9)
4-Pole	—	—	—	—	5.0 (2.3)	12.3 (5.6)	23.9 (10.9)	25.3 (11.5)	25.3 (11.5)	25.3 (11.5)
Environmental										
Operating Temperature	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
Flammability Rating	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0	UL 94-V0
Accessories										
Lug Kit Part #										
3-Pole	Integral	Integral	Integral	•	•	•	•	•	•	•
4-Pole	—	—	—	—	—	—	—	—	—	—
Handles										
NEMA 1, 3R, 12	•	•	•	•	•	•	—	—	—	—
NEMA 1, 3R, 4, 4X, 12	•	•	•	•	•	•	•	•	•	•
Direct	•	•	•	•	•	•	•	•	•	•
Front Pistol	—	—	—	•	•	•	•	•	•	•
Front or Side Selector	•	•	•	—	—	—	—	—	—	—
Shaft c/s - mm	5x5	5x5	5x5	10x10	10x10	10x10	12x12	12x12	12x12	12x12
Shaft Guide	•	•	•	•	•	•	•	•	•	•
Shrouds	•	•	•	•	•	•	•	•	•	•
Additional Pole Accessory	•	•	•	—	—	—	—	—	—	—
Auxiliary Contacts										
NO + NC	•	•	•	•	•	•	•	•	•	•
(2) NO	•	•	•	—	—	—	—	—	—	—

Disconnect Switches

• Available, see product page for details and part numbers.
 — Not available.
 * 25kA @ 600Vac, 100kA @ 480Vac.

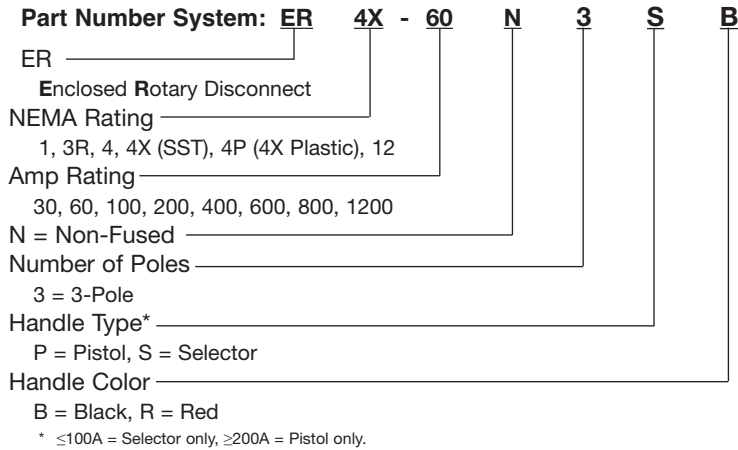
UL 98 Non-Fused Rotary Disconnect Switches—600, 800, 1000 and 1200A

For a Complete Assembly, Please Select:

Select for Standard Applications		Switch								
		Switch Amp Rating	No. of Poles	SCCR	Max Horsepower Rating				Part Number	
					3-Phase		DC*			
					220/240Vac	440/480Vac	600 Vac	125 Vdc	250 Vdc	
		600A	3	200kA	240	400	350	20	50	RD600-3
		600A	4	200kA	240	400	350	20	50	RD600-4
		800A	3	100kA	200	500	500	-	-	RD800-3
		800A	4	100kA	200	500	500	-	-	RD800-4
		1000A	3	100kA	200	500	500	-	-	RD1000-3
		1000A	4	100kA	200	500	500	-	-	RD1000-4
1200A	3	100kA	200	500	500	-	-	RD1200-3		
1200A	4	100kA	200	500	500	-	-	RD1200-4		
* DC Ratings use two poles in series.										
Terminal Lug Kit										
Switch Amp Rating	No. of Poles	Lugs Per Kit	Lugs Required per Pole	Wire Range		Wire Type		Part Number		
600	3	3	1	(2) #2-600MCM		75°C Cu/Al		LUG5-3		
600	4	4	1	(2) #2-600MCM		75°C Cu/Al		LUG5-4		
800-1200	3	6	2	(4) #2-600MCM		75°C Cu/Al		LUG6-6		
800-1200	4	8	2	(4) #2-600MCM		75°C Cu/Al		LUG6-8		
	Direct Mount Handle - mounts directly to switch, no shaft required							Part Number		
	For Switch Part Number	Color		Test Function	Padlockable					
	All Switches	Black		N	Y		DIR-04			
	External Front Operated Pistol Handles - shaft required							Part Number		
	NEMA Type	Color		Test Function	Padlockable	Defeatable				
	1, 3R, 4, 4X, 12	Black		N	Y	Y	H4X-07B ⁽¹⁾			
	1, 3R, 4, 4X, 12	Red/Yellow		N	Y	Y	H4X-07R ⁽¹⁾			
	1, 3R, 4, 4X, 12	Black		N	Y	Y	H4X-08B ⁽²⁾			
	1, 3R, 4, 4X, 12	Red/Yellow		N	Y	Y	H4X-08R ⁽²⁾			
	Metallic Hasp (Heavy Duty) External Front Operated Pistol Handles - shaft required							Part Number		
	NEMA Type	Color		Test Function	Padlockable	Defeatable				
	1, 3R, 4, 4X, 12	Black		N	Y	Y	H4X-07BHD ⁽³⁾			
	1, 3R, 4, 4X, 12	Red/Yellow		N	Y	Y	H4X-07RHD ⁽³⁾			
	1, 3R, 4, 4X, 12	Black		N	Y	Y	H4X-08BHD ⁽⁴⁾			
	1, 3R, 4, 4X, 12	Red/Yellow		N	Y	Y	H4X-08RHD ⁽⁴⁾			
	Shafts for Pistol Handles							Part Number		
	Length in (mm)	Mounting Depth (X) in (mm)								
7.9 (200)	8.70~13.50 (221~343)				SH6-200					
12.6 (320)	8.70~18.23 (221~463)				SH6-320					
15.7 (400)	8.70~21.38 (221~543)				SH6-400					
Shaft Guide							Part Number			
Required for 15.7" (400mm) long shafts, optional for other lengths							SH-GUIDE2			
	Auxiliary Contacts									
	Contact Type	Number of Contacts	Continuous Amp Rating	Voltage Rating	Max Number of Aux Contacts per Switch	Part Number				
	NO + NC	1 of each	10.1A	125-250Vac	2	BAC03*				
	NO + NC	1 of each	10.1A	125-250Vac	2	BAC04*				
	NO + NC	1 of each	1A	125Vac	2	BAC11*				
	NO + NC	1 of each	1A	125Vac	2	BAC12*				
* For one auxiliary contact, install either BAC03 or BAC11. For two auxiliary contacts, install BAC03 + BAC04, or BAC11 + BAC12.										

UL 98 Enclosed Non-Fused Disconnects—30 to 1200A

3-Pole UL 98 600Vac



Part Numbers - All part numbers provided with integral or installed lugs and a black selector handle. Order red/yellow handle by changing the suffix "B" to "R."

UL General Purpose Amp Rating	NEMA Enclosure Type & Part Number					
	1	3R	4	4X Plastic ⁽¹⁾	4X Stainless	12
30	ER1-30N3SB	ER3R-30N3SB	ER4-30N3SB	ER4P-30N3SB	ER4X-30N3SB	ER12-30N3SB
60	ER1-60N3SB	ER3R-60N3SB	ER4-60N3SB	ER4P-60N3SB	ER4X-60N3SB	ER12-60N3SB
100	ER1-100N3SB	ER3R-100N3SB	ER4-100N3SB	ER4P-100N3SB	ER4X-100N3SB	ER12-100N3SB
200	ER1-200N3PB	ER3R-200N3PB	ER4-200N3PB	ER4P-200N3PB	ER4X-200N3PB	ER12-200N3PB
400	ER1-400N3PB	ER3R-400N3PB	ER4-400N3PB	ER4P-400N3PB	ER4X-400N3PB	ER12-400N3PB
600	ER1-600N3PB	ER3R-600N3PB	ER4-600N3PB	ER4P-600N3PB	ER4X-600N3PB	ER12-600N3PB
800	ER1-800N3PB	ER3R-800N3PB	ER4-800N3PB	ER4P-800N3PB	ER4X-800N3PB	ER12-800N3PB
1200	ER1-1200N3PB	ER3R-1200N3PB	ER4-1200N3PB	N/A	ER4X-1200N3PB	ER12-1200N3PB

(1) Enclosures ≤100A are polycarbonate, flammability rating UL 94-5VA-V0, ≥200A are fiberglass, flammability rating UL 94-5V.

Switch Ratings - for wire types, ranges and tightening torques, see table on page 405

Switch Amp Rating	Disconnect Switch	No. of Poles	Voltage		SCCR @ Vac	Max Hp Rating @ 600Vac		
			Vac	Vdc				
30	RD30-3	3	600	250	100kA	25		
60	RD60-3						25kA/100kA*	50
100	RD100-3							
200	RD200-3				200kA	200		
400	RD400-3							
600	RD600-3				100kA	350		
800	RD800-3							
1200	RD1200-3	N/A	500					

* 25kA @ 600Vac, 100kA @ 480Vac.