

Variable-Depth Flange-Mounted Disconnect Switches

Product Overview/Cat. No. Explanation



**Bul. 1494V
Disconnect Switch — 30...400 A**
(Handle & connecting rod
not shown)



**Bul. 1494V
Disconnect Switch — 600 A**
(Handle & connecting rod
not shown)

Bulletin 1494V — Variable-Depth Flange-Mounted Disconnect Switches

Industrial rated disconnect switch for use in flange constructed enclosures up to 24 in. deep.

- 3 pole, 600V AC rating
- 30...600 A ratings
- Can accommodate Class H, J, and R fuses
- Available in fusible and non-fusible versions
- Complete kits with accessories
- Accessories field installed
- NFPA 79 compliant —
Disconnect switch linked to the handle at all times
- Visible blade construction for safety
- Can be used with enclosure Types 1, 3R, 4, 4X, and 12
- Lockable handle in OFF and ON positions

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Standards Compliance

UL 98
 CSA C22.2 No. 4

Certifications

cULus Listed
 (File No. E47426, Guide No.
 WHTY, WHTY7)

CE Certified

Catalog Number Explanation

The information below is for reference purposes. Not all combinations will produce a valid Cat. No. Refer to the tables on the following pages for product selection.

1494V – DR 233 – A – B – FF

a

b

c

d

a

Disconnect Switch	
Code	Description
1494V	Variable-Depth Flange mounted

b

Fusing	
30...600 A Switch with Right-Hand Mechanism§	
Code	Description
DN	Non-fusible
DH	Class H fuse clips
DJ	Class J fuse clips
DR	Class R fuse clips
30...400 A Switch with Left-Hand Mechanism	
Code	Description
DNX	Non-fusible
DHX	Class H fuse clips
DJX	Class J fuse clips
DRX	Class R fuse clips

c

Switch and Fuse Rating	
Non-Fusible	
Code	Description
30	30 A switch
60	60 A switch
100	100 A switch
200	200 A switch
400	400 A switch
600	600 A switch
Fusible	
233	250V; 30 A switch, 30 A clips
633	600V; 30 A switch, 30 A clips
666	600V; 60 A switch, 60 A clips
611	600V; 100 A switch, 100 A clips
622	600V; 200 A switch, 200 A clips
644	600V; 400 A switch, 400 A clips
606	600V; 600 A switch, 600 A clips

d

Accessories (Field Installed)	
Code	Description
A	Long connecting rod
B	Stainless steel handle
C	Non-metallic handle
D	Standard size line & load lugs‡
D1	Oversized line & load lugs*
E	Protective fuse cover
F	(1) N.O. auxiliary contact*
FF	(2) N.O. auxiliary contacts*
G	(1) N.C. auxiliary contact*
GG	(2) N.C. auxiliary contacts*
H	(1) N.O. and N.C. electrical interlock
HH	(2) N.O. and N.C. electrical interlock

‡ Only available for 60...600 A switches (lugs included with 30 A switch as standard)

* Maximum of (2) auxiliary contacts

* Only available for 200 & 400 A switch

§ 600 A switch convertible to left-hand operation in the field



Variable-Depth Flange-Mounted Disconnect Switches

Product Selection — Fusible and Non-Fusible Kits

Fusible and Non-Fusible Disconnect Switch Kits

- Non-fusible disconnect switch kit includes: switch, connecting rod, and metal handle.
- Fusible disconnect switch kit includes: switch, connecting rod, metal handle, trailer fuse block, and fuse clips.
- Optional kit accessories listed on the following pages can be added to the disconnect switch kits to create (1) cat. no.
Example: **Cat. No. 1494V-DR633-A-B-F**.

Complete Disconnect Switch Kits for Type 1, 3R, 4, and 12 Metal Enclosures

Cont. Current Rating [A] 600V AC 250V DC	UL and CSA Applications Maximum HP					AC 1-Phase		DC*		IEC Applications Maximum kW (AC23)			Fuse Clip Rating [A]		Fuse Class	Switch with Right-Hand Mechanism Cat. No.	Switch with Left-Hand Mechanism Cat. No.
	3-Phase, 60 Hz					115V	230V	125V	250V	3-Phase, 50 Hz			250V	600V			
	115V	200... 208V	230V	460V	575V					220... 240V	380... 440V	500... 600V					
30	3	7.5	7.5	15	20	2	3	3	5	5.5	11	15	—	—	—	1494V-DN30	1494V-DNX30
													30	—	H	1494V-DH233	1494V-DHX233
													30	—	R	1494V-DR233	1494V-DRX233
													—	30	H/J	1494V-DH633	1494V-DHX633
													—	30	R	1494V-DR633	1494V-DRX633
60	7.5	15	15	30	50	3	10	5	10	11	22	37	—	—	—	1494V-DN60	1494V-DNX60
													—	60	H/J	1494V-DH666	1494V-DHX666
													—	60	R	1494V-DR666	1494V-DRX666
100	—	25	30	60	75	—	—	—	20	22	45	55	—	—	—	1494V-DN100	1494V-DNX100
													100	100	H/J	1494V-DH611	1494V-DHX611
													100	100	R	1494V-DR611	1494V-DRX611
200	—	50...60	60	125	150	—	—	—	40	48	90	110	—	—	—	1494V-DN200	1494V-DNX200
													200	200	H/J	1494V-DH622	1494V-DHX622
													200	200	R	1494V-DR622	1494V-DRX622
400	—	75	125	250	350	—	—	—	50	90	185	257	—	—	—	1494V-DN400	1494V-DNX400
													400	400	H/J	1494V-DH644	1494V-DHX644
													400	400	R	1494V-DR644	1494V-DRX644
600	—	150	200	400	500	—	—	—	50	150	295	375	—	—	—	1494V-DN600	1494V-DNX600
													600	600	J	* ‡ 1494V-DJ606	* ‡ 1494V-DJ606

* Ratings based on utilizing two poles in series to break one line of the DC supply voltage and the remaining pole breaking the second DC supply line.

* Class J fuses bolt directly to the switch and trailer fuse block.

‡ Switch can be converted in the field for left-hand operation.

Kit Accessories

Bulletin 1494V Kit Accessories — Field Installed

Description	Suffix Code	Switch Size					
		30 A	60 A	100 A	200 A	400 A	600 A
Longer connecting rod (9-1/2...23 in.)	A	A	A	A	A	A	A
Disconnect handle — Stainless steel	▶ B	A	A	A	A	A	A
Disconnect handle — Non-metallic	▶ C	A	A	A	A	—	—
Standard size wire connecting lugs — Line and load side	D	Included	A	A	A	A	A
Oversize wire connecting lugs — Line and load side	D1	—	—	—	A	A	—
Protective fuse cover with door	E	A	A	A	A	A	A
Auxiliary contact	1 N.O.	F	A	A	A	A	A
	2 N.O.	FF	A	A	A	A	A
	1 N.C.	G	A	A	A	A	A
	2 N.C.	GG	A	A	A	A	A
Electrical interlock (Early break)	1 N.O. & 1 N.C.	H	A	A	A	A	A
	2 N.O. & 2 N.C.	HH	A	A	A	A	A

▶ Metal disconnect handle provided as standard. For stainless steel handle, select suffix code **B**. For non-metallic handle, select suffix code **C**.

NEMA Disconnect Switches

Specifications

Bulletin 1494C, 1494F, 1494G, 1494R, 1494V Disconnect Switches

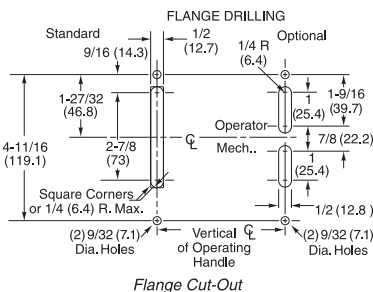
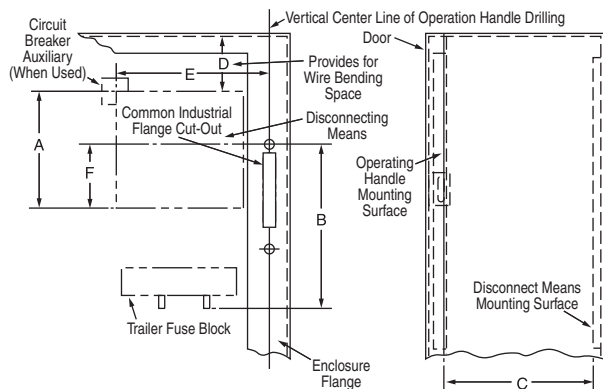
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Disconnect Switch Electrical Ratings								
Switch Size			30 A	60 A	100 A	200 A	400 A	600 A
Rated insulation voltage U_i (UL) IEC			(600) 660V					
Ratings UL/CSA/NEMA	Hp	230V/60 Hz	7.5	15	30	60	125	200
		460V/60 Hz	15	30	60	125	250	400
	Continuous Current	575V/60 Hz	20	50	75	150	350	500
		250V DC	5	10	20	40	50	50
Ratings IEC Applications	Maximum kW (AC23)	600V AC	30	60	100	200	400	600
		250V DC						
		220V/50 Hz	5.5	11	22	48	90	150
		440V/50 Hz	11	22	45	90	185	295
		550V/50 Hz	15	37	55	110	257	375
Auxiliary Contact Electrical Ratings								
NEMA/EEMAC			B600, P300					
IEC Ratings			U_i 660V	I_{th} 10 A				
			ACII U_x	12...120V			I_c	6 A
				220...240V				3 A
			380...400V				1.5 A	
			500...600V				1.2 A	
Low level switching			5 mA @ 12V DC					
Mechanical								
Degree of protection	Operating handles	Non-metallic Type 1, 3R, 4, 4X, 12, Painted Type 1, 3R, 4, 12 Stainless steel Type 4, 4X						
Mechanical life (Typical)	20 000 operations (30...200 A) 10 000 operations (400...600 A)							
Switching frequency (operations/hr)	30, 60, 100, and 200 A sizes — 300 max. 400 and 600 A sizes — 240 max.							
Environmental								
Temperature	Operating	-35...+40 °C (-31...+104 °F)						
	Storage	-40...+65 °C (-40...+149 °F)						
Altitude (per IEC 947-5)	2000 m per IEC 337-1							
Relative Humidity (per IEC 947-3)	90% at 20 °C (68 °F) and 50% at 40 °C (104 °F)							
Design Specification/Test Requirements								
Dielectric strength	2200V for 1 minute							
Electrical life	6000 operations at rated current							
Short Circuit Withstand Capability	10 000 A: unfused 10 000 A: with Class H fuses 200 000 A: with Class J or Class R fuses							
Construction								
Switch body material	Phenolic							
Contact material	Copper, tin-plated							
Terminals	30 A	#10 - 32 screw and self-lifting pressure plate						
	60 A	1/4 in. - 28 screw-lug, copper						
	100 A	5/16 in. - 24 screw-lug, copper						
	200 A	3/8 in. - 24 screw-lug, copper						
	400 A	3/8 in. - 24 screw-lug, copper						
	600 A	1/2 in. - 13 screw-lug, copper						
All wire rated 75 °C (167 °F) or higher must be sized per the local Electric Code for 75 °C (167 °F) wire.								
Conductor Size (mm ²)	30 A	#14...8 AWG (1.5...10 mm ²)						
	60 A	#14...4 AWG (2.5...16 mm ²)						
	100 A	#8...1/0 AWG (10...50 mm ²)						
	200 A	#6...4/0 AWG (16...95 mm ²)						
	400 A	2 of #1/0 AWG...250 MCM (2 per lug) 2 of 185 mm ² ...250 MCM or (1) #4 AWG...500 MCM						
	600 A	2 of #1/0 AWG...350 MCM (2 per lug) 2 of 185 mm ² ...350 MCM or (1) #4 AWG...500 MCM						
Recommended Torque	30 A	Conductor into Lug			Lug to Terminal			
	60 A	20 lb•in			20 lb•in			
	100 A	45 lb•in			50 lb•in			
	200 A	150 lb•in			90 lb•in			
	400 A	275 lb•in			175 lb•in			
	600 A	325 lb•in			175 lb•in			
Switches, Mechanisms, and Accessory Kits			Zinc-plated steel, RoHS Compliant finish					

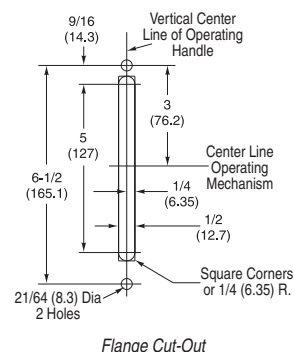


Approximate dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Bulletin 1494V



Bulletin 1494V — 30...200 A



Bulletin 1494V — 400...600 A

Disconnect Switches*

NEMA Size [A]	A	B*		C		D	E	F	Switch Mounting Hole Diameter
		Max.	Min.	Max.	Max.				
30	6-19/64 (160)	7-31/32 (202)	8-1/2 (216)	21-5/8 (549)	2-3/4 (69.9)	7-9/16 (192)	3-7/8 (98.5)	7/32 in.	
60	6-19/64 (160)	8-15/32 (215)	8-1/2 (216)	21-5/8 (549)	2-9/16 (65.1)	7-9/16 (192)	3-7/8 (98.5)	7/32 in.	
100	6-19/64 (160)	9-1/8 (231.8)	8-1/2 (216)	21-5/8 (549)	3-37/64 (90.9)	7-9/16 (192)	3-7/8 (98.5)	7/32 in.	
200	8-5/64 (205.2)	15-9/64 (384.5)	9-1/2 (241.3)	21-5/8 (549)	6-35/64 (166.3)	8-25/32 (223)	4-21/32 (118)	19/64 in.	
400	11 (279.4)	18-7/32 (462.7)	10-1/2 (266.7)	21-5/8 (549)	8 (203.2)	10 (254)	5-1/2 (139.7)	11/32 in.	
600	15-23/32 (399.2)	17-19/32 (446.8)‡	10-1/2 (266.7)	21-5/8 (549)	12 (304.8)	11-27/32 (300.8)	8-51/64 (223.3)	11/32 in.	

* Approximate dimensions are for reference only.

* This approximate dimension will vary by fuse class and size.

‡ Approximate dimension with Class J fuses.

Circuit Breakers§

Frame	A	C		D	E	F
		Min.	Max.			
125A 140U-H, 140M-H, EF, HMCPE 150A 140U-I, 140M-I EHD, FD, FDB, FDC, HFD, HMCP	6 (152.4)	6-3/4 (171.5)	23 (584.2)	6 (152.4)	5-7/16 (138.1)	5 (127)
250A 140U-J, 140M-J 250A JD, JDB, JDC, HJD, HMCP	11-1/4 (285.8)	7-7/8 (200.0)	22-9/16 (573.1)	10 (254)	5-23/32 (145.2)	9-23/32 (246.8)
400 A 140U-K, 140M-K KD, KDB, KDC, HKD, HMCP 600 A 140U-L	11-3/8 (228.9)	7-7/8 (200.0)	22-9/16 (573.1)	12 (304.8)	7-1/8 (181.0)	9-21/32 (245.3)

§ Approximate dimensions are for reference only.