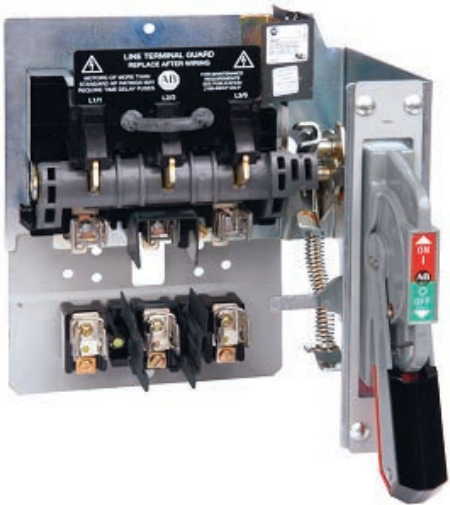


Product Details and Certifications

Cross Reference RA Part Number: PN-% , +,)

➔Product: 14- (: -8' \$!BD

Description: 1494F - Cable-Operated Disconnect Switch, 30A



Representative Photo Only (actual product may vary based on configuration selections)

SYSTEM DATA

Voltage	600V
Disconnect Sw Type	Fixed-Depth Disconnect Switch
Bulletin Number	1494F - Disconnect Sw
Number of Poles	3 Poles
Fuse Versions	Non - Fuse Clips
Fuse Accomodations	Class H, J, and R
Rated Current(A)	30 A
Enclosure types	1, 3R, and 12



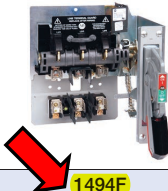
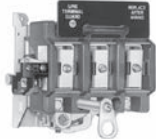
MANUFACTURING

Assembly	Factory Assembled
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NEMA Disconnect Switches and Circuit Breaker Mechanisms



Product Overview

Disconnect Switches




				
Bulletin	1494V	1494C	1494F	1494R
Description	Variable depth rod operated	Variable depth cable operated	Fixed depth	Variable depth rod operated
Panel Mounting Location	Flange mounted	Flange mounted	Flange mounted	Door mounted
Switch Ratings	30...600 A	30...600 A	30...200 A	30...200 A
Fuse Versions	Fusible & non-fusible	Fusible & non-fusible	Fusible & non-fusible	Fusible & non-fusible
Fuse Accommodations	Class H, J, and R	Class H, J, and R	Class H, J, and R	Class H, J, K, and R
For Use with Enclosure Types	1/3R/4/4X/12	1/3R/4/4X/12	1, 3R, and 12	1 and 12
Safety Feature – Visible Blade Construction	✓	✓	✓	✓
200 kA A.I.C. With Proper Fusing	✓	✓	✓	✓
NFPA 79 Compliant — Handle Always Linked to the Switch	✓	✓	✓	—
Product Selection	Page 1-207	Page 1-210	Page 1-212	Web†

1

Circuit Breaker Mechanisms

		
Bulletin	1494V	1494D
Description	Variable Depth Rod Operated	Fixed Depth Rod Operated
Panel Mounting Location	Flange mounted	Flange mounted
Circuit Breaker Frame Size	up to 400 A	150...1200 A
For Use with Circuit Breaker Brands	<ul style="list-style-type: none"> Allen-Bradley (140-U, 140-M) Cutler-Hammer 	<ul style="list-style-type: none"> Allen-Bradley (140-U, 140-M) Cutler-Hammer
For Use with Enclosure Types	1/3R/4/4X/12	1 and 12
Handle always linked to the circuit breaker	✓	✓
Product Selection	Page 1-213	Web†

Safety Disconnect Switches

			
Bulletin	1494G	1494H	1494HL
Description	Industrial Duty	Heavy Duty	General Duty
Panel Mounting Location	Flange-mounted handle	Side-mounted handle	Side-mounted handle
Switch Ratings	30...600 A @ 600V AC	30...200 A @ 600V AC	30...200 A @ 240V AC
Fuse Versions	Fusible & non-fusible	Fusible & non-fusible	Fusible & non-fusible
Fuse Accommodations	Class H, J, and R	Class H, J, and R	Class H, J, and R
For Use with Enclosure Types	3R/4/12 and 4/4X	1, 3R, and 12	1 and 3R
Safety Feature – Visible Blade Construction	✓	✓	✓
200 kA A.I.C. With Proper Fusing	✓	✓	✓
NFPA 79 Compliant — Handle Always Linked to the Switch	✓	✓	✓
Product Selection	Page 1-216	Page 1-221	Page 1-221

† Information for this product line is available on the Industrial Controls Catalog website: www.ab.com/catalogs.


Allen-Bradley

www.ab.com/catalogs Preferred availability cat. nos. are **bold**.

Publication A117-CA001A-EN-P

Cable-Operated Disconnect Switches

Product Selection — Disconnect Switch Components

Disconnect Switches

Cont. Current Rating* [A] 600V AC 250V DC	NEMA, UL, CSA Maximum Rating Hp				AC 1-Phase		DC*	IEC Utilization Category AC-23 Maximum Rating kW			Switch for Right-Hand Mechanism	Switch for Left-Hand Mechanism
	3-Phase, 60 Hz							3-Phase, 50 Hz				
	200...208V	230V	460V	575V	115	230		250	220...240V	380...440V	500...600V	Cat. No. Switch Only
30	7.5	7.5	15	20	2	3	5	5.5	11	15	1494F-D30	DX30
60	15	15	30	50	3	10	10	11	22	37	1494F-D60	1494F-DX60
100	25	30	60	75	—	—	20	22	45	55	1494F-D100	1494F-DX100
200	50...60	60	125	150	—	—	40	48	90	110	1494F-D200	1494F-DX200
400	75	125	250	350	—	—	50	90	185	257	1494F-D400	1494F-DX400
600	150	200	400	500	—	—	50	150	295	375	1494V-DS600	1494V-DS600

* Also rated operational current for utilization categories AC-20 and AC-21 (IEC 408).

* 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.

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

Cable Mechanisms

Disconnect Switch Size [A]	Cable Length [ft]	Right-Hand Cable Mechanisms	Left-Hand Cable Mechanisms
		Cat. No.	Cat. No.
30, 60, 100	3	1494C-CM1	1494C-CMX1
	4	1494C-CM2	1494C-CMX2
	5	1494C-CM3	1494C-CMX3
	10	1494C-CM4	1494C-CMX4
200	4	1494C-CM5	1494C-CMX5
	5	1494C-CM6	1494C-CMX6
	6	1494C-CM7	1494C-CMX7
	10	1494C-CM8	1494C-CMX8
400	4	1494C-CM9	1494C-CMX9
	5	1494C-CM10	1494C-CMX10
	6	1494C-CM11	1494C-CMX11
	10	1494C-CM12	1494C-CMX12
600	4	1494C-CM13	1494C-CMX13
	5	1494C-CM14	1494C-CMX14
	6	1494C-CM15	1494C-CMX15
	10	1494C-CM16	1494C-CMX16

Operating Handles

Handle Type	Description	Mounting	Disconnect Switch Size [A]	Cat. No.
Type 1, 3R, 4, 4X, 12	Nonmetallic	Right or Left Flange	30, 60, 100, 200	1494F-P1
Type 1, 3R, 4, 12	Painted Metal	Right or Left Flange	30, 60, 100, 200 400, 600	1494F-M1 1494F-M2
Type 4, 4X	Stainless Steel	Right or Left Flange	30, 60, 100, 200 400, 600	1494F-S1 1494F-S2

Trailer Fuse Block Kits

For Class H, J, or R fuses, select the proper fuse clip kit from the table below.

Disconnect Switch Size [A]	Cat. No.
30	1494V-FS30
60	1494V-FS60
100	1494V-FS100
200	❖ 1494V-FS200
400	1494V-FS400
600 — 600 A Class J fuse	1494V-FS600
600 — 400 A Class H, J, and R fuse	1494V-FSV400
600 — 600 A Class H fuse	⬆ 1491-N621
600 — 600 A Class R fuse	⬆ 1491-R621

❖ When installing 400 A Class J fuses, use adapter kit that bolts to the switch (**Cat. No. 1401-N171**). Fuse clips are not required.

⬆ Separately mounted fuse blocks (3 required).

Fuse Clip Kits

Includes six clips and mounting hardware.

Fuse Class	Fuse Clip Rating [A]		For Use With	Cat. No.
	250V	600V		
H	30	—	1494C, 1494F, 1494G, 1494M, 1494V Disconnect Switches	1401-N41
	60	30		1401-N42
	—	60		1401-N43
	100	100		1401-N44
	200	200		1401-N45
	400	400		1401-N46
J	600	600	1494C, 1494F, 1494G, 1494M, 1494V Disconnect Switches	➤
	30	30		1401-N42
	60	60		1401-N43
	100	100		1401-N44
	200	200		1401-N45
	400	400		1401-N46
R	600	600	1494C, 1494F, 1494G, 1494M, 1494V Disconnect Switches	⬆
	30	—		1401-N50
	60	30		1401-N51
	—	60		1401-N52
	100	100		1401-N53
	200	200		1401-N54
	400	400	1494C, 1494F, 1494G, 1494M, 1494V Disconnect Switches	1401-N55
	600	600		➤

⬆ Fuse clips not required: fuse bolts directly to terminal.

➤ Included with Bulletin 1491 separately mounted fuse blocks.

1



Bulletin 1494F — Fixed-Depth Flange-Mounted Disconnect Switches

Industrial rated disconnects. Pre-assembled switch, mechanism, and handle on a mounting bracket for use in flange constructed enclosures.

- 3-pole, 600V AC rating
- 30, 60, 100, and 200 A ratings
- Same switch used for fusible and non-fusible applications
- Few catalog numbers to choose from, that accomodate a wide range of fuse clip types (Class H, J, and R)
- Accessories field installed
- NFPA 79 Compliant — Disconnect switch linked to the handle at all times
- Visible blade construction for safety
- Right-hand flange operation
- Standard painted metal handle for Type 1, 3R, and 12, environments
- Lockable handle

Table of Contents

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Standards Compliance

UL 98

CSA C22.2, No. 4

Certifications

UL Listed (File No. E47426, Guide No. WHTY)

CSA Certified (File No. LR1234)

CE Certified

1494F- D 30

 a b c

a

Disconnect Switch	
Code	Description
1494F	Fixed-Depth Disconnect Switch

b

Fusing	
30...600 A Switch with Right-Hand Mechanism	
Code	Description
D	Non- 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

NEMA Disconnect Switches

Specifications

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

Disconnect Switch Electrical Ratings								
Switch Size			30 A	60 A	100 A	200 A	400 A	600 A
Rated insulation voltage Ui (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
		575V/60 Hz	20	50	75	150	350	500
		250V DC	5	10	20	40	50	50
	Continuous Current	600V AC 250V DC	30	60	100	200	400	600
Ratings IEC Applications	Maximum kW (AC23)	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			Ui 660V		Ith 10 A			
			ACII Ux		12...120V 220...240V 380...400V 500...600V		Ic	6 A 3 A 1.5 A 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 (mm²)	30 A		#14...8 AWG (1.5...10 mm²)					
	60 A		#14...4 AWG (2.5...16 mm²)					
	100 A		#8...1/0 AWG (10...50 mm²)					
	200 A		#6...4/0 AWG (16...95 mm²)					
	400 A		2 of #1/0 AWG...250 MCM (2 per lug) 2 of 185 mm²...250 MCM or (1) #4 AWG...500 MCM					
	600 A		2 of #1/0 AWG...350 MCM (2 per lug) 2 of 185 mm²...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					