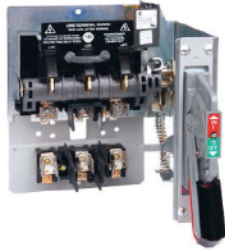


Bulletin 1494F Fixed-Depth Flange-Mounted Disconnect Switches

Overview



Cat. No. 1494F-N30
Disconnect Switch with Cat. No.
1494F-F30 Fuse Block Adapter
Plate and Operating Mechanism

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.

Such as the NVent Bulletin A22.

- 3-pole, 600V AC rating
- 30, 60, 100 ratings
- Same switch used for fusible and non-fusible applications
- Few catalog numbers to choose from, that accommodate 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

Product Selection

Choose a disconnect switch catalog number plus any additional accessories from the fuse clip kit and fuse block adapter plate kit tables.

Disconnect Switches for Type 1, 3R, and 12 Enclosures

Continuous Current Rating [A] 600V AC 250V DC	UL and CSA Applications Maximum Hp				AC 1-Phase		DC ⁽¹⁾	IEC Applications Maximum kW (AC23)			Fusible or Non-Fusible Switch
	3-Phase, 60 Hz							3-Phase, 50 Hz			
	200...208V	230V	460V	575V	115V	230V	250V	220... 240V	380... 440V	500... 600V	Cat. No.
30	7.5	7.5	15	20	2	3	5	5.5	11	15	1494F-N30
60	15	15	30	50	3	10	10	11	22	30	1494F-N60
100	25	30	60	75	...	15	20	22	45	55	1494F-N100

(1) 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.

Select both a fuse clip kit and a fuse block adapter plate.

Fuse Clip Kit and Fuse Block Adapter Plate Kit

Switch Rating [A]	Fuse Clip Rating [A]	 					 Fuse Block Adapter Plate Kit	
		Fuse Clip Kit						
		Class R		Class J	Class H			Cat. No.
		250V	600V	250/600V	250V	600V		
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.		
30	30	1401-N50	1401-N51	1401-N42	1401-N41	1401-N42	1494F-F30	
60	30	1401-N50	1401-N51	1401-N42	1401-N41	1401-N42	1494F-F60	
	60	1401-N51	1401-N52	1401-N43	1401-N42	1401-N43		
100	60	1401-N51	1401-N52	1401-N43	1401-N42	1401-N43	1494F-F100	
	100	1401-N53	1401-N53	1401-N44	1401-N44	1401-N44		

Terminal Lug Connectors

Product	Disconnect Switch Size [A]	Conductor Type	Number of Conductors	Wire Size [AWG]	Cat. No.
	30...60	Cu wire	1	14...4	1494U-LC36
			2	14...8	
			4	16	
	30...60	Cu wire	1	14...2	1494U-LA36
		Al wire	1	12...2	
		Cu wire	2 ⁽¹⁾	14...10	
		Al wire	2 ⁽¹⁾	12...10	
	100	Al wire	1	8...1/0	1494U-LC100
	100	Cu wire	1	14...1/0	1494U-LA100
		Al wire	1	12...10	
		Cu wire	2 ⁽¹⁾	12...4	
		Al wire	2 ⁽¹⁾	12...4	

(1) Wire pairs must be consistent in type, stand, and wire size.

Specifications

Disconnect Switch Electrical Ratings

Switch Size			30 A	60 A	100 A
Rated insulation voltage Ui (UL) IEC			(600) 660V		
Ratings UL/CSA/NEMA	Hp	230V/60 Hz	7.5	15	30
		460V/60 Hz	15	30	60
		575V/60 Hz	20	50	75
		250V DC	5	10	20
Ratings IEC Applications	Continuous Current	600V AC	30	60	100
		250V DC			
		220V/50 Hz	5.5	11	22
		440V/50 Hz	11	22	45
	Maximum kW (AC23)	550V/50 Hz	15	37	55

Auxiliary Contact Electrical Ratings^{(1) (2)}

Standard Contact 1N.O. or 1 N.C.	NEMA/EEMAC	A600, Q600
	IEC	AC 15, DC 13 to IEC/EN60947-5-1 and UL 508, 17V, 5 mA minimum
Low-level Contact 1 N.O. or 1 N.C.	NEMA/EEMAC	C300, R150
	IEC	AC 15, DC 13 to IEC/EN60947-5-1 and UL 508, 5V, 1 mA minimum

Electrical Interlock Ratings

Standard Contact 2 N.O.	NEMA/EEMAC	10 A: 250V AC, 0.3 A: 250V DC
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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)
Switching frequency (operations/hr)		30, 60, 100, and 200 A sizes – 300 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	Glass filled thermoplastic
Contact material	Copper, tin-plated
Mounting Bus thread size	30 A...100 A #10 - 24 UNC

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 60 A 100 A	Refer to Terminal Lug Connectors on page 24	
Recommended Torque	30 A	Conductor into Lug	Lug to Terminal
	60 A	20 lb•in	20 lb•in
	60 A	45 lb•in	50 lb•in
	100 A	150 lb•in	90 lb•in
Switches, Mechanisms, and Accessory Kits		Zinc-plated steel, RoHS Compliant finish	

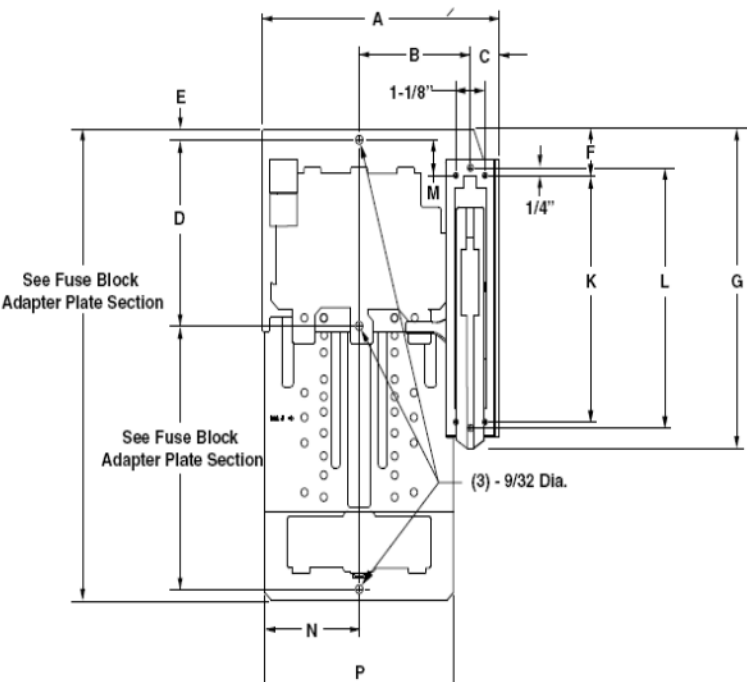
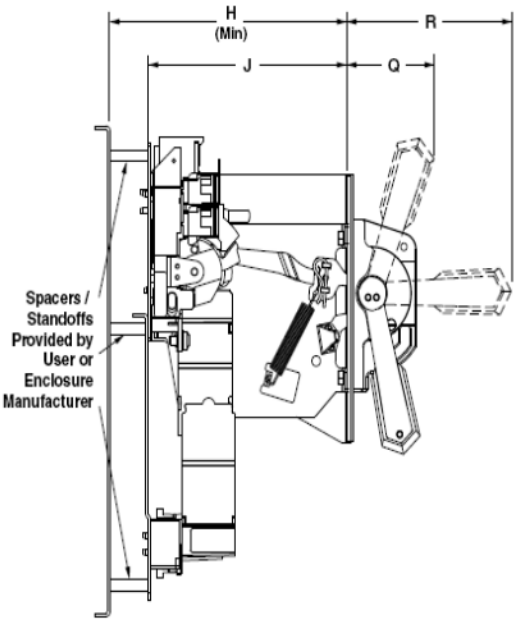
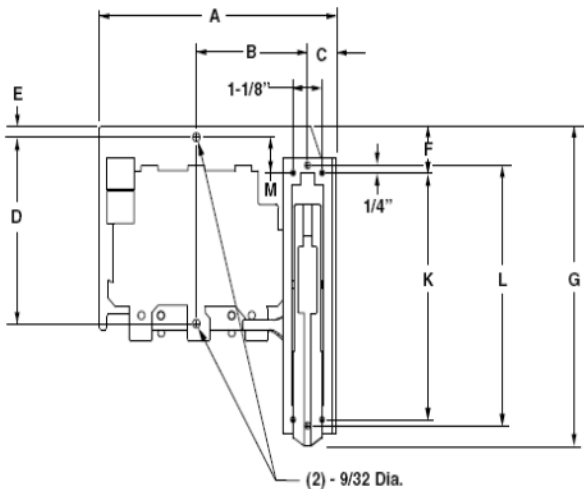
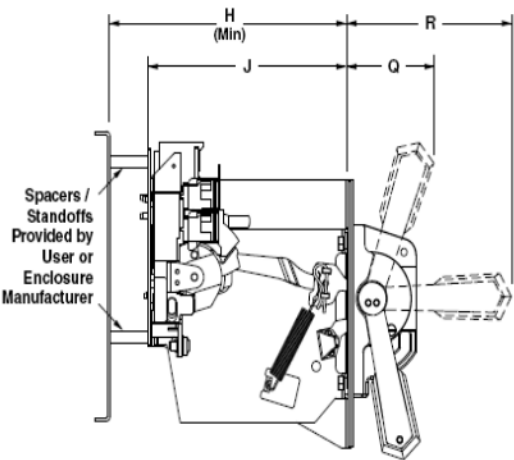
(1) The rating for 1 N.O., 200 A is B600.

(2) For contact ratings refer to [General Data on page 68](#).

Approximate Dimensions

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

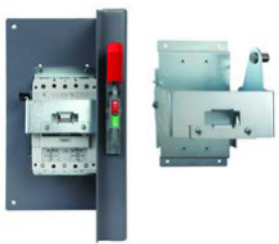
Non-Fusible Disconnect Switch



Switch Size [A]	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
30	9-3/16 (233.4)	4-5/16 (109.5)	1-1/8 (28.6)	6 (152.4)	3/8 (9.5)	1-9/16 (39.7)	10-1/2 (266.7)	8-1/2 (215.9)	6-7/8 (174.6)	8 (203.2)	8-1/2 (215.9)	15/16 (23.8)	3-21/32 (92.9)	7-5/16 (185.7)	3 (76.2)	5-7/16 (138.1)
60	9-3/16 (233.4)	4-5/16 (109.5)	1-1/8 (28.6)	6 (152.4)	3/8 (9.5)	1-9/16 (39.7)	10-1/2 (266.7)	8-1/2 (215.9)	6-7/8 (174.6)	8 (203.2)	8-1/2 (215.9)	15/16 (23.8)	3-21/32 (92.9)	7-5/16 (185.7)	3 (76.2)	5-7/16 (138.1)
100	9-3/16 (233.4)	4-5/16 (109.5)	1-1/8 (28.6)	6 (152.4)	3/8 (9.5)	1-9/16 (39.7)	10-1/2 (266.7)	9-3/4 (247.7)	8-1/8 (206.4)	8 (203.2)	8-1/2 (215.9)	15/16 (23.8)	3-21/32 (92.9)	7-5/16 (185.7)	3 (76.2)	5-7/16 (138.1)

Bulletin 1494F Fixed-Depth Flange-Mounted Circuit Breakers

Table 1 - Variable Depth Flange-mounted Circuit Breaker Operating Mechanism

	Description	Compatible 3-Pole Circuit Breaker ⁽¹⁾		Cat. No.
		Frame Size [A]	Frame Size	
	- Allows actuation and status indication of breaker states: On, Off, Trip, and Reset - Standards Compliance: UL 489, CSA C22.2 No. 5, CSA C22.2 No. 94.2 - Breaker must be installed directly behind flange handle cutout - Operator is installed to surround breaker - Complete mechanism consists of - Operating mechanism (Table 1) and handle (Table 3) - Connecting Rod (Table 2) - Insulation Kit (if required) (Table 5) - Auxiliary contacts (if required) (Table 4)	125, 225, 250	G, H, I, J	1494V-M70
		400	K	1494V-M71
		800, 1200	M, N	1494V-M72

(1) Circuit breakers are customer supplied.



The mechanism that is listed in [Table 1](#) must be combined with a connecting rod, operating handle, and a circuit breaker (supplied by customer) to obtain a functional device. G-, H-, I-, and J-Frame devices require an insulation kit ([Table 5](#)).

Table 2 - Connecting Rods for Circuit Breaker Operating Mechanism

	Circuit Breaker Frame Size [A]	Enclosure Working Depth [in. (mm)]		Cat. No.
		Minimum	Maximum	
	125, 150, 225, 250	6-3/4 (172)	21-5/8 (549)	1494V-RA4
	400	8-1/2 (216)	21-5/8 (549)	1494V-RA4
	800, 1200	9-1/2 (241)	23 (584)	1494V-RB4

Table 3 - Operating Handle for Circuit Breaker Operating Mechanism

	Handle Type	Description	Circuit Breaker Frame Size [A]	Operating Handle Cat. No.
	Type 1, 3R, 4, 4X, 12	Nonmetallic	125, 150, 250, 400	1494U-HP1
	Type 1, 3R, 4, 12	Painted Metal	125, 150, 250, 400	1494U-HM1
	Type 4, 4X	Stainless ⁽¹⁾	125, 150, 250, 400	1494U-HS1
	Type 1, 3R, 4, 12	Painted Metal	800, 1200	1494F-M2
	Type 4, 4X	Stainless ⁽¹⁾	800, 1200	1494F-S2

(1) Stainless handles have a chrome-plated steel handle base.

Table 4 - Auxiliary Contacts for Circuit Breaker Operating Mechanism

	Description	For Use With	Contact Type	Cat. No.
	Auxiliary Contact Kit for Circuit Breakers includes contacts and adapter	125...1200 A Allen-Bradley Bul. 140G Circuit Breakers	1 N.O.	1495-N85
			1 N.C.	1495-N86

Table 5 - Insulation Kit for Circuit Breaker Operating Mechanism

	Description	For Use With	Cat No.
	Insulation Kit	140G-G, 140MG-G 140G-H, 140MG-H 140G-I, 140MG-I 140G-J, 140MG-J	1495-N87