

# Disconnect Switches

## Type VBII (30-600A) with Flange Mounted Operating Handle

## Features and Ordering Information

### Features

- 30-600A, 600VAC and DC ratings
- 240 & 600V AC switches are UL Recognized under file number E121152, Vol. 3 and CSA certified under file number 154852
- 600V DC Photovoltaic switches are UL Recognized under file number E335018, Vol. 3 and are rated to switch 3 separate 600V DC circuits
- Visible blade quick make and break switching action
- Panel and Flange mounted assemblies facilitate installation
- Panel mounted switches are variable depth
- Short circuit rating of 10,000 AIC with class H fuse, and of 200,000 AIC with class R or J fuses. PV switches are rated 10,000 AIC at 600V DC with 600V DC rated class K, J or R fuses.
- Flange mounted handles rated as Type 1, 3R & 12 or 4X are padlockable in the off position with up to (3) padlocks with 5/16 hasps
- Meets UL98 requirements and suitable for both main and branch circuit applications
- A complete line of aux contacts are available
- Load break and horsepower rated
- Defeatable cover interlock standard with all handles
- Meets NFPA79 requirements
- Seismic qualified — complies with the 2010 California Building Code (CBC) — and with the International Building Code (IBC) — Compliance Level SDS = 1.85 g



VBFS361, VBLK1 & VBH1



VBFS363F



VBNFS365, VBLK4 & VBH2

### Ordering Information

1. Determine the ratings required (amps, volts, HP, Fusible, NF), the mounting needed (Panel or Flange), and select the appropriate switch.
2. For panel mounted switches with a rigid operating shaft (30-600A), order panel mounted switch, flange mounted operating handle & rigid linkage kit based on depth required.
3. For panel mounted switches with a Max-Flex operator, order panel mounted switch, Max-Flex Handle & Adapter Kit and drive cable.
4. Select accessories if required.

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Selection

## Switches—for Standard 600V Max AC or DC Applications

Switch Ampere Rating	Max. AC Voltage Rating	Catalog Number	Horsepower Rating, Switches and 3-Phase <sup>④</sup>						600 Volts DC (max) <sup>④</sup>
			240 Volts AC		480 Volts AC		600 Volts AC		
			Standard	Max.	Standard	Max.	Standard	Max.	
<b>Fusible Panel Mounted Variable Depth Switches - 3-Pole<sup>⑤</sup></b>									
30	240	VBFS321	3	7 1/2	—	—	—	—	— <sup>①</sup>
60	240	VBFS322	7 1/2	15	—	—	—	—	— <sup>②</sup>
30	600	VBFS361	—	—	5	15	7 1/2	20	15 <sup>③</sup>
60	600	VBFS362	—	—	15	30	15	50	30 <sup>③</sup>
100	600	VBFS363	—	—	25	60	30	75	50 <sup>③</sup>
200	600	VBFS364	—	—	50	125	60	150	50
400	600	VBFS365	—	—	100	250	125	350	— <sup>⑨</sup>
600	600	VBFS366	—	—	150	400	200	500	— <sup>⑨</sup>
<b>Non-fusible Panel Mounted Variable Depth Switches - 3-Pole<sup>⑤</sup></b>									
30	600	VBNS361	—	10	—	20	—	30	15 <sup>③</sup>
60	600	VBNS362	—	20	—	50	—	60	30 <sup>③</sup>
100	600	VBNS363	—	40	—	75	—	100	50 <sup>③</sup>
200	600	VBNS364	—	60	—	125	—	150	50
400	600	VBNS365	—	125	—	250	—	300	— <sup>⑨</sup>
600	600	VBNS366	—	200	—	400	—	500	— <sup>⑨</sup>
<b>Fusible Flange Mounted Switches - 3-Pole<sup>⑥⑦</sup></b>									
30	240	VBFS321F	3	7 1/2	—	—	—	—	— <sup>①</sup>
60	240	VBFS322F	7 1/2	15	—	—	—	—	— <sup>②</sup>
30	600	VBFS361F	—	—	5	15	7 1/2	20	15 <sup>③</sup>
60	600	VBFS362F	—	—	15	30	15	50	30 <sup>③</sup>
100	600	VBFS363F	—	—	50	60	30	75	50 <sup>③</sup>
200	600	VBFS364F	—	—	100	125	60	150	50
<b>Non-fusible Flange Mounted Switches - 3-Pole<sup>⑥⑦</sup></b>									
30	600	VBNS361F	—	10	—	20	—	30	15 <sup>③</sup>
60	600	VBNS362F	—	20	—	50	—	60	30 <sup>③</sup>
100	600	VBNS363F	—	40	—	75	—	100	50 <sup>③</sup>
200	600	VBNS364F	—	60	—	125	—	150	50

Note: Fusible switches include fuse provisions for Class H Fuses. The load base can be moved to pre-drilled holes for Class J Fuses on all 600V switches. If Class R Fuses are required, add a Class R Fuse Clip Kit.

## Switches—for Photovoltaic Applications, 600VDC Max.<sup>⑦</sup>

(for use in negative ground systems only)

Switch Ampere Rating	Catalog Number	Rated Isc per NEC Article 690
<b>Fusible Panel Mounted Variable Depth Switches—3 Pole<sup>⑧⑨</sup></b>		
30	VBFS361PV	19.2A
60	VBFS362PV	38.4A
100	VBFS363PV	64.0A
<b>Non-Fusible Panel Mounted Variable Depth Switches—3 Pole<sup>⑧</sup></b>		
30	VBNS361PV	24.0A
60	VBNS362PV	48.0A
100	VBNS363PV	80.0A
<b>Fusible Flange Mounted Variable Depth Switches—3 Pole (Includes Type 1, 3R and 12 Rated Operating Handle)<sup>⑧⑨</sup></b>		
30	VBFS361FPV	19.2A
60	VBFS362FPV	38.4A
100	VBFS363FPV	64.0A
<b>Non-Fusible Flange Mounted Variable Depth Switches—3 Pole (Includes Type 1, 3R and 12 Rated Operating Handle)<sup>⑧</sup></b>		
30	VBNS361FPV	24.0A
60	VBNS362FPV	48.0A
100	VBNS363FPV	80.0A

- ① Rated 5 HP at 250V DC.
- ② Rated 10 HP at 250V DC.
- ③ 600V DC & 600V DC horsepower rating shown requires (2) poles to be connected in series.
- ④ Std. - applies when non-time delay fuses are used.  
Max. - applies when time delay fuses are used.
- ⑤ Includes line base, load base, operating mechanism and line and load lugs.  
Order operating handle and linkage kits from tables on pages 5-7 or 5-8.
- ⑥ Includes line base, load base, operating mechanism line and load lugs plastic operating handle and required linkage.
- ⑦ All photovoltaic switches are rated to be used with 3 separate 600V DC circuits.
- ⑧ Fusible switches accept Class K or R fuses as standard and Class J fuses by relocating the load base.
- ⑨ Rated 250V DC max and 50HP at 250V DC.
- ⑩ Please add letter "M" to the end of catalog number for metal handle.

## Cable Kit

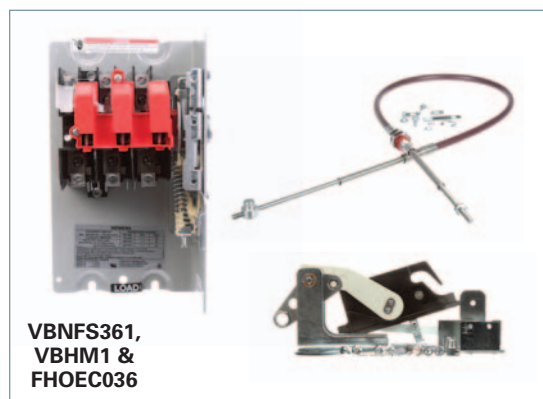
For use with 30-200A panel mounted switches and Max-Flex handle and adapter kit.

Catalog Number	Description
FHOEC036	36" long drive cable
FHOEC048	48" long drive cable

## Max-Flex™ Handle and Adapter Kit

(Type 1, 12, 3R & 4X) Use with 30-200A panel mounted switches and cable kit.

Catalog Number	Operating Handle Description
<b>Plastic Handles</b>	
VBHM1	30-200A Type 1, 3R, 12 and 4X
<b>Metal Handles</b>	
VBHM2	30-200A Type 1, 3R and 12
VBHM2X	30-200A Type 4X



# Disconnect Switches

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Lug Wire Ranges & Dimensions

## Lugs

30 & 60A switches are suitable for use with 60° or 75°C wire. 100–600A switches are suitable for use with 75°C rated wire. All switches are supplied with factory installed line and load lugs.

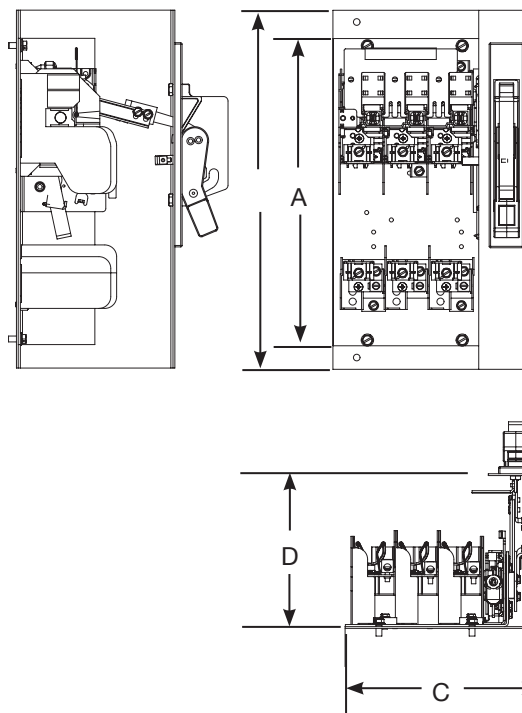
## Wire Ranges (Line, Load and Standard Neutral)

Switch Ampere Rating	UL Approved Wire Range	Lug Wire Range
30	#14-6 AWG (Cu/Al)	#14-2 AWG (Cu/Al)
60	#14-2 AWG (Cu/Al)	#14-2 AWG (Cu/Al)
100	#14-1/0 AWG (Cu/Al)	#14-1/0 AWG (Cu/Al)
200	#6 AWG-300 Kcmil (Cu/Al)	#6 AWG-300 Kcmil (Cu/Al)
400	1/0 AWG-750 Kcmil (Cu/Al) or (2) 1/0 AWG-250 Kcmil (Cu/Al)	(1) 1/0 AWG-750 Kcmil (Cu/Al) or (2) 1/0 AWG-250 Kcmil (Cu/Al)
600	(2) 1/0 AWG-750 Kcmil (Cu/Al) or (4) 1/0 -250 Kcmil (Cu/Al)	(2) 1/0 AWG-750 Kcmil (Cu/Al) or (4) 1/0 AWG-250 Kcmil (Cu/Al)

## Approximate Dimensions

Mounting bracket shown with handle installed is supplied with Flange Mounted Switches only. All Panel Mounted Switches have a "L" shaped mounting pan with a line base, load base (if fusible) and mechanism installed.

Catalog Number	Dimensions				
	A	B	C <sup>Ⓞ</sup>	D (min)	D (max)
<b>Fusible, Panel Mounted</b>					
VBFS321	11.88	N/A	7.47	6.94	19
VBFS322	13.12	N/A	8.50	6.94	19
VBFS361, PV	11.88	N/A	7.47	6.94	19
VBFS362, PV	13.12	N/A	8.50	6.94	19
VBFS363, PV	13.12	N/A	8.50	6.94	19
VBFS364	17	N/A	12.33	7.12	19
VBFS365	26.25	N/A	16.50	8.63	19
VBFS366	26.25	N/A	16.50	8.63	19
<b>Non-fusible, Panel Mounted</b>					
VBNFS361, PV	9.79	N/A	7.47	6.94	19
VBNFS362, PV	9.79	N/A	8.50	6.94	19
VBNFS363, PV	9.79	N/A	8.50	6.94	19
VBNFS364	10.77	N/A	12.33	7.12	19
VBNFS365	13	N/A	16.50	8.63	19
VBNFS366	13	N/A	16.50	8.63	19
<b>Fusible, Flange Mounted</b>					
VBFS321F	11.88	14.08	7.47	7.27	N/A
VBFS322F	13.12	15.83	8.85	7.27	N/A
VBFS361F, PV	11.88	14.08	7.47	7.27	N/A
VBFS362F, PV	13.12	15.83	8.85	7.27	N/A
VBFS363F, PV	13.12	15.83	8.85	7.27	N/A
VBFS364F	17	18.20	12.68	7.57	N/A
<b>Non-fusible, Flange Mounted</b>					
VBNFS361F, PV	9.79	11.78	7.47	7.27	N/A
VBNFS362F, PV	9.79	11.78	8.85	7.27	N/A
VBNFS363F, PV	9.79	11.78	8.85	7.27	N/A
VBNFS364F	10.77	11.97	12.68	7.57	N/A



<sup>Ⓞ</sup> Dimension C for panel mounted switches indicates the minimum width from the left hand edge of the switch mounting pan to the right hand inside surface of the enclosure.