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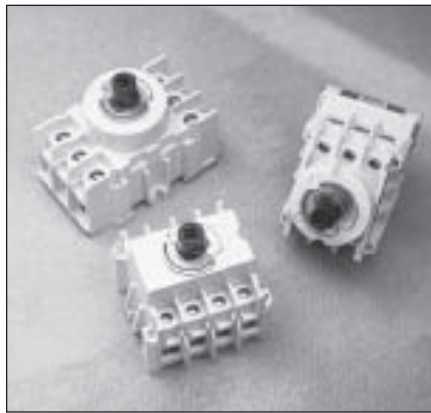
# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

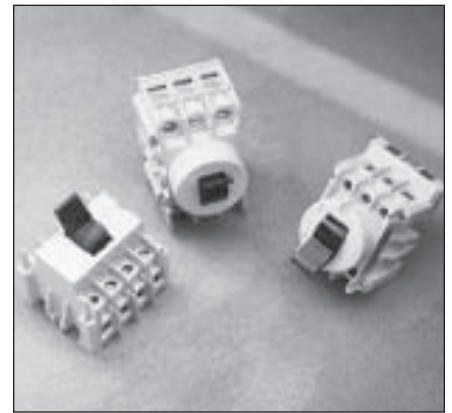
Selection

### Features

- 16–250 Ampere, to 100 hp, 480V & 600V
- Rotary and Toggle actuation models
- LBR Type switches are padlockable in the OFF position and are UL & CUL listed under File No. E191706 as manual motor controllers per UL Standard UL508
- 3LD2 Type switches are padlockable in the OFF position and are UL listed under File No. E47705 per UL508 and are CSA certified under File No. 203576
- Base, DIN-rail and door mounting
- Multiple conductor, distribution terminal type rating LBR & LBT Type (40A -100A only)
- IEC 947-1 rated, CE marked
- Listed and marked “suitable as motor disconnect” per NEC Section 430-109



Type LBR Rotary Switches



Type LBT Toggle Switches



3LD2254-0TK51

### Application

Siemens Load Break Switches are listed as manual motor controllers and are suitable as motor disconnects. They are load break rated and act as enclosure disconnects when short circuit protection is provided upstream of the switch. If upstream over current protection is not provided, use a Siemens fusible Type VBII, CFS or MCS Disconnect Switch.

### Ordering Information

**Door Mounted Switches (Rotary Type Only)** — Order either complete “3LD2” assemblies or individual “LBR” components as follows:

**Complete Assemblies** include switch, handle, and shaft. Certain 25 and 32A assemblies are also available with factory installed neutral blocks and/or aux. contacts. These accessories can also be ordered as field installed kits.

**Individual Components** are ordered as follows:

**25A** — LBR Switch + LBRH3 or 4 handle.

**40–100A** — LBR switch + LBRH3 or 4 handle + LBRD1.

Notes: (LBR Type switches only)

1. Aux contacts are available as field installed kits on 25A units only.
2. Lugs on 25A units face to the rear and lugs on 40–100A units face toward the front.

### Base/DIN Rail Mounted Switches (Rotary or Toggle Type) — Order individual components as follows:

**Toggle** — Order the LBT switch required and a toggle switch cover plate if needed.

**Rotary, Base Mounted with Door Mounted Handle** — Order “LBR” switch + door mounted handle + shaft + any accessories.

**Rotary, Base Mounted with Direct Mounted Handle** — Order “LBR” switch + direct mounted handle.

### Short Circuit Withstand Ratings

Switch Rating & Type	Max. Line Side Fuse Rating
----------------------	----------------------------

#### 5kA with Line Side Class H, K, or RK5 Fuses

25 & 32A 3LD2	80A Max. at 600V AC Max.
63A 3LD2	175A Max. at 600V AC Max.

#### 10kA with Line Side Class H, K, or RK5 Fuses<sup>②</sup>

25A LBR	30A Max. at 480V AC Max.
40A, 4P LBR & LBT	60A Max. at 480V AC Max.
40 & 60A, 3P LBR & LBT	100A Max. at 480V AC Max.
80 & 100A LBR & LBT	150A Max. at 480V AC Max.

#### 18kA with Line Side Class J, T, or CC Fuses

40–100A, 3P LBR & LBT	100A Max. at 480V AC Max.
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Note: 3LD2 switches are also rated 5kA at 600V AC Max. when protected by a 3RV motor starter with a FLA rating equal to or less than the switch ampere rating.

### Door Mounted Complete Assemblies (Operator, Shaft, & Switch) 600V AC Max.<sup>②</sup>

Shaft Mounted Catalog Number <sup>③</sup>	4 Hole Mounted Catalog Number <sup>③</sup>	Number of Poles	Ampere Rating	AC Horsepower Ratings				
				120V 1Ø	240V 1Ø 3Ø	480V 3Ø	600V 3Ø	
—	3LD2003-1TP53 <sup>①</sup>	3	16	½	1½ 3	7½	10	
3LD2154-0TK 3LD2154-1TP 3LD2154-1TL 3LD2154-2EP	3LD2103-0TK 3LD2103-1TP 3LD2103-1TL 3LD2103-2EP	3 3 <sup>①</sup> 3 + N 3 + N <sup>①</sup>	25	2	3 7½	10	15	
3LD2254-0TK 3LD2254-1TL	3LD2203-0TK 3LD2203-1TL	3 3 + N	32	2	3 10	20	20	
3LD2555-0TK	3LD2504-0TK	3	63	—	10 15	40	50	
—	3LD2704-0TK	3	100	—	— 30	60	75	
—	3LD2804-0TK	3	125	—	— 40	75	100	

① Includes auxiliary contacts (1 NO and 1 NC).

② Handles are IP65 rated and are also UL listed for Type 1, 4X and 12 applications.

③ Add 51 for a black handle or 53 for a red & yellow handle to the end of the catalog number.

④ 100-250A 3LD2 switches are rated 10kA when protected by 200A Max. Class RK5 fuses.

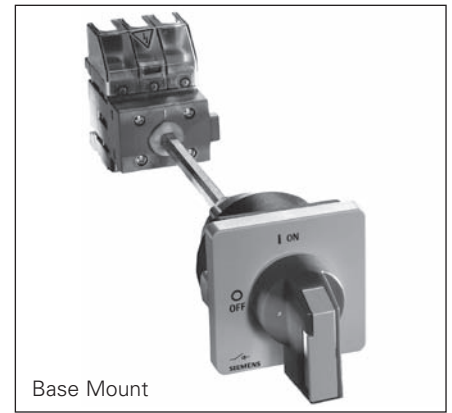
# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

Selection

### 3LD Type Base Mounted Complete Assemblies (Operator, Shaft, & Switch) 600V AC Max.②

Handle mounting <sup>②</sup>			Number of Poles	Ampere Rating	AC Horsepower Ratings				
Shaft (center hole)	4 Hole (no defeat)	4 Hole (with defeat)			120V	240V		480V	600V
Catalog Number	Catalog Number	Catalog Number			1Ø	1Ø	3Ø	3Ø	3Ø
—	3LD2013-0TK5_	3LD2017-0TK1 3LD2017-1TL1	3 3 + N	16	½	1½	3	7½	10
3LD2144-0TK5 3LD2144-1TL5	3LD2113-0TK5 3LD2113-1TL5	—	3 3 + N	25	2	3	7½	10	15
3LD2244-0TK5 3LD2244-1TL53	3LD2213-0TK5 3LD2213-1TL53	3LD2217-0TK1 3LD2217-1TL1	3 3 + N	32	2	3	10	20	20
3LD2545-0TK5	—	3LD2514-0TK5 3LD2517-1TL1	3 3 + N	63	3	10	15	40	50
—	3LD2714-0TK5	—	3	100	—	—	30	60	75
—	3LD2814-0TK5	—	3	125	—	—	40	75	100
—	3LD2318-0TK1	—	3	160	—	—	40	75	75
—	3LD2418-0TK1	—	3	250	—	—	50	100	75



Base Mount

3LD2217-0TK13

### Accessories for Front Mounted 3LD2 Switches

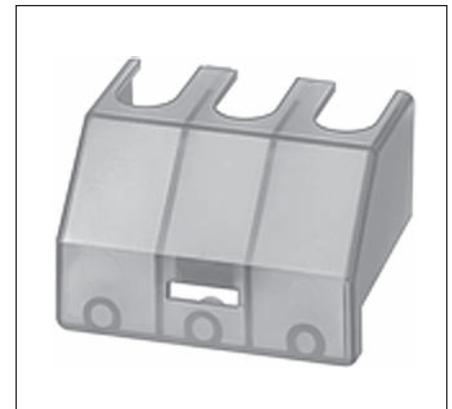
Catalog Number	Description	Switches Used With
3LD9200-5B <sup>③</sup> 3LD9200-5BF <sup>③</sup>	1 NO, 1 NC Aux. Contact 1 NO, 1 NC Aux. with Gold Plated Contacts	25-125A 25-125A
3LD9220-2B 3LD9250-2BA 3LD9280-2B	Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal	25 & 32A 63A 100 & 125A
3LD9220-0B 3LD9250-0BA 3LD9280-0B	4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF)	25 & 32A 63A 100 & 125A
3LD9224-1B <sup>①</sup> 3LD9284-1B <sup>①</sup> 3LD9224-3B <sup>①</sup> 3LD9284-3B <sup>①</sup>	Black Handle (4 hole mtg.) Black Handle (4 hole mtg.) Red/Yellow Handle (4 hole mtg.) Red/Yellow Handle (4 hole mtg.)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9224-1D <sup>①</sup> 3LD9284-1D <sup>①</sup> 3LD9224-3D <sup>①</sup> 3LD9284-3D <sup>①</sup>	Black Handle (shaft mtg.) <sup>④</sup> Black Handle (shaft mtg.) <sup>④</sup> Red/Yellow Handle (shaft mtg.) <sup>④</sup> Red/Yellow Handle (shaft mtg.) <sup>④</sup>	25 & 32A 63-125A 25 & 32A 63-125A
3LD9221-2A <sup>①</sup> 3LD9221-0A <sup>①</sup> 3LD9251-0A <sup>①</sup>	Terminal Cover 1P (Pack of 4) Terminal Cover 3P (Pack of 4) Terminal Cover 3P (Pack of 4)	25 & 32A 25 & 32A 63A



3LD9220-2C

### Accessories for Base Mounted 3LD2 Switches

3LD9200-5C <sup>③</sup> 3LD9200-5CF <sup>③</sup>	1 NO, 1 NC Aux. Contact 1 NO, 1 NC Aux. with Gold Plated Contacts	25-250A 25-250A
3LD9220-2C 3LD9250-2CA 3LD9280-2C 3LD9240-2C	Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal	25 & 32A 63A 100 & 125A 160 & 250A
3LD9220-0C 3LD9250-0CA 3LD9280-0C 3LD9240-0C	4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF)	25 & 32A 63A 100 & 125A 160 & 250A
3LD9224-1B <sup>①</sup> 3LD9284-1B <sup>①</sup> 3LD9224-3B <sup>①</sup> 3LD9284-3B <sup>①</sup>	Black Handle (4 hole mtg. no defeat) Black Handle (4 hole mtg. no defeat) Red/Yellow Handle (4 hole mtg. no defeat) Red/Yellow Handle (4 hole mtg. no defeat)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9224-1D <sup>①</sup> 3LD9284-1D <sup>①</sup> 3LD9224-3D <sup>①</sup> 3LD9284-3D <sup>①</sup>	Black Handle (shaft mtg.) Black Handle (shaft mtg.) Red/Yellow Handle (shaft mtg.) Red/Yellow Handle (shaft mtg.)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9221-2A <sup>①</sup> 3LD9221-0A <sup>①</sup> 3LD9251-0A <sup>①</sup>	Terminal Cover 1P (Pack of 4) Terminal Cover 3P (Pack of 4) Terminal Cover 3P (Pack of 4)	25 & 32A 25 & 32A 63A



3LD9251-0A

**Note:** 3LD2 shaft lengths allow the following maximum enclosure depths from the switch mounting surface to the outside of the cover:

16-32A, 15.25"  
63-125A, 15.75"  
160 & 250A, 23.70"

① Handles and line side terminal covers are supplied as standard with 3LD2 switches.

② Add suffix 1 for a black or 3 for a red & yellow handle to the catalog number (except 3LD2244-1TL53 & 3LD2213-1TL53). Handles are IP65 rated and are also listed by UL for Type 1, 4X and 12 applications.

③ Aux. contacts break about 30 Ms before and make about 3 Ms after main switch contacts.

Ratings	10A	at 120V AC
	6A	at 240V AC
	1.4A	at 480V AC

④ Can be used as replacement handles on enclosed 3LD2 switches.

⑤ Base mounted switches with direct mount handles are also available (3LD2330-0TK1\_② rated 160A and 3LD2430-0TK1\_② rated 250).

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

*Selection*

Individual Components and Assemblies

Recommended for Basemount. For Door mounting only, use LBRD1.®

### Rotary and Toggle Switches

Catalog Number	Switch Type	No. of Poles	Ampere Rating	Max AC Volt	AC Horsepower Ratings					
					115V			480V		600V
					1Ø	2Ø	3Ø	3Ø	3Ø	
LBR3040 <sup>②</sup>	Rotary	3	40	600	2	3	7½	20	25	
LBR3060 <sup>②</sup>	Rotary	3	60	480	2	5	10	25	—	
LBR3080 <sup>②</sup>	Rotary	3	80	600	3	10	20	40	50	
LBR3100 <sup>②</sup>	Rotary	3	100	480	5	15	25	50	—	
LBR4040	Rotary	4	40	480	2	3	7½	20	—	
LBT3040	Toggle	3	40	600	2	3	7½	20	25	
LBT3060	Toggle	3	60	480	2	5	10	25	—	
LBT3080	Toggle	3	80	600	3	10	20	40	50	
LBT3100	Toggle	3	100	480	5	15	25	50	—	
LBT4040	Toggle	4	40	480	2	3	7½	20	—	



Standard Duty Rotary Switch Door Handles



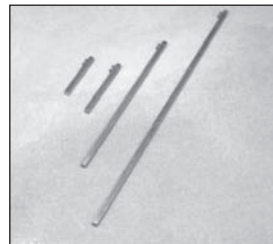
Heavy Duty Rotary Switch Door Handle

### LBR Type Handles

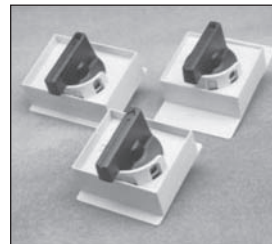
Catalog Number	Used on Rotary Switches	NEMA Type	Mounting	Marking	Color	Cover Interlock Supplied	Padlockable
<b>Standard Duty</b>							
LBRH2 <sup>②</sup>	All	1	Door	ON/OFF	Black	No	No
LBRH3 <sup>②</sup>	All	1, 3R, 12, 4X	Door	O/I, ON/OFF	Black	Yes <sup>①</sup>	Yes
LBRH4 <sup>②</sup>	All	1, 3R, 12, 4X	Door	O/I, ON/OFF	Red/Yel	Yes <sup>①</sup>	Yes
LBRH9 <sup>②</sup>	All (Pistol Grip Type)	1, 3R, 12, 4X	Door	O/I, ON/OFF	Black	Yes	Yes
LBRH10 <sup>②</sup>	All (Pistol Grip Type)	1, 3R, 12, 4X	Door	O/I, ON/OFF	Red/Yel	Yes	Yes
LBRH5	25 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH6	3-Pole, 40-60 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH7	3-Pole, 80-100 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH8	4-Pole, 40-60 Amps	1	Direct Mount	O/I	Black	—	Yes
<b>Heavy Duty</b>							
CFSH10B12	All	1, 3R, 12	Door	O/I, ON/OFF	Black	Yes	Yes
CFSH10R12	All	1, 3R, 12	Door	O/I, ON/OFF	Red/Yel	Yes	Yes

### LBR Type Rotary Shafts

Catalog No	Length In. (mm)
<b>For Standard Duty Handles</b>	
LBR5040	1.57 (40)
LBR5050	1.97 (50)
LBR5055	2.17 (55)
LBR5080	3.15 (80)
LBR5120	4.72 (120)
LBR5180	7.09 (180)
LBR5305	12.00 (305)
<b>For Heavy Duty Handles</b>	
CFSS5200H	7.9 (200)
CFSS5400H	15.7 (400)



Rotary Shafts



Rotary Switch Direct Mount Handles



Toggle Switch Cover Plates

### Auxiliary Switch Kits

Used on Rotary Switch	Catalog Number	Contact Arrangement
LBR3040, LBR3060	LBRA1 <sup>③④</sup>	1 NO/1 NC with common point
LBR3080, LBR3100	LBRA2 <sup>③④</sup>	1 NO/1 NC with common point

### LBR Type Rotary Switch Door Mounting Kit (For use with LBRH3 & LBRH4 only)

Used on Rotary Switch	Catalog Number
40-100 Amps	LBRD1 <sup>®</sup>

### LBR Type Toggle Switch Cover Plate

Used on Toggle Switches	Catalog Number
LBT3040, LBT3060 LBT3080, LBT3100 LBT4040	LBTCP1 LBTCP2 LBTCP3

### LBR/LBT Neutral Kit<sup>⑤</sup>

Used with Catalog Number	Catalog Number
All	HF63CX

① No cover interlock defeat mechanism provided. To eliminate cover interlock, order additional catalog number LBRDC1.

② LBRH2 is IP54 rated. All others are IP65.

③ Ratings

15.1A resistive at 250V AC max.  
.5A at 125V DC  
.25A at 250V DC  
.5 HP at 250V AC max.

④ Auxiliary switch contacts break about 30 Ms before and make about 3 Ms after main switch contacts.

⑤ Lug wire ranges:  
HF63CX—(1) #14-2 AWG 60/75°C Cu only

⑥ Only door mountable and for use with LBRH3 & 4 handles only.

⑦ For door mounting of 40–100A LBR switches use door mounting kit LBRD1 & LBRH3 or 4 handle.

⑧ LBRD1 does not require shaft.

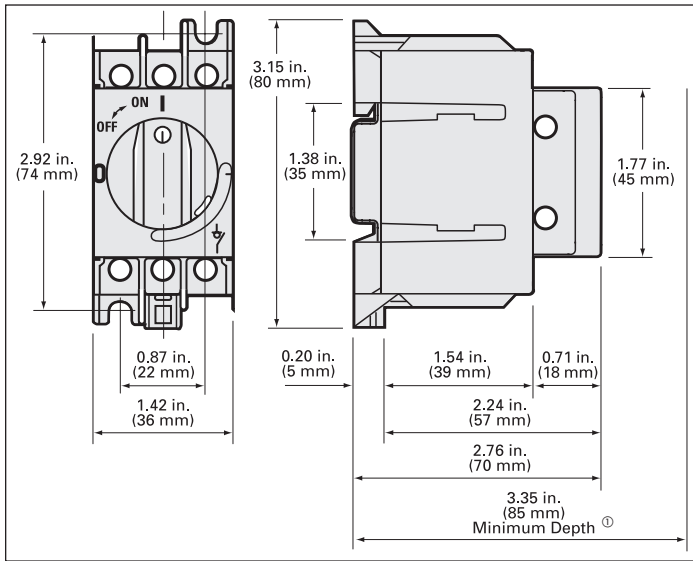
# Disconnect Switches

• Revised •  
10/01/13

## Compact Non-Fusible — Rotary and Toggle

### Dimensions

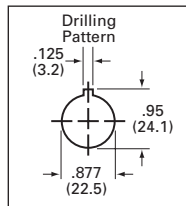
#### Dimension Drawings and Wire Ranges



**LBR 3025**

#### Wire Ranges 60/75°C Cu only

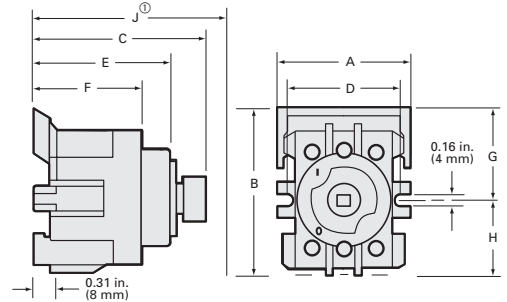
25 Amps LBR	(1) #14 - #10 AWG Solid (1) #14 - #8 AWG Stranded
40 & 60 Amps LBR & LBT	(1) #14 - #10 AWG Solid (1) #14 - #4 AWG Stranded UP to (4) #12 AWG Solid Up to (3) #12 AWG Stranded Up to (6) #14 AWG Stranded Up to (4) #14 AWG Stranded with (1) #10 AWG Stranded
80 & 100 Amps LBR & LBT	(1) #14 - #10 AWG Solid (1) #14 - #1 AWG Stranded (2) #6 AWG Stranded Up to (3) #8 AWG Stranded Up to (6) #10 AWG Stranded Up to (6) #12 AWG Solid
16A, 3LD20 25A, 3LD21 32A, 3LD22 63A, 3LD25 100, 125A, 3LD2 160, 250A, 3LD2	(1) #18-10 AWG (1) #14-8 AWG (1) #14-8 AWG (1) #14-6 AWG (1) #12-1 AWG (1) #1-400 MCM



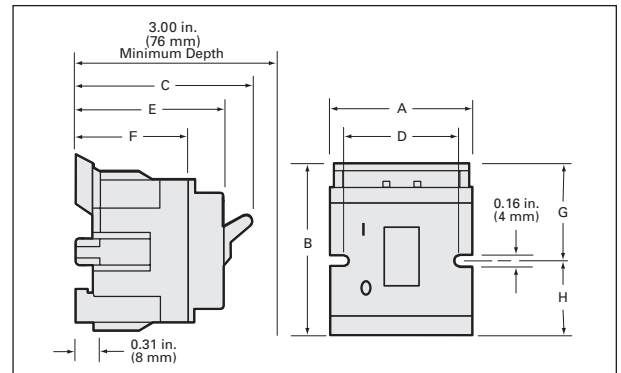
**Shaft Mounted 3LD2 Handle Cutout (4-hole pattern)**

#### Dimension J Minimum Depth<sup>①</sup>

Switch	Dimension J
LBR 40-100A	3.35 (85)
3LD2 25 & 32A Front Shaft Mounted	3.07 (78)
3LD2 63 Front Shaft Mounted	3.35 (85)
3LD2 16-32A Front 4-hole Mounted	2.13 (54)
3LD2 63A Front 4-hole Mounted	2.48 (63)
3LD2 100 & 125A Front 4-hole Mounted	2.56 (65)
3LD2 25 & 32A Base w/shaft Mtg. Handle	6.46 (164)
3LD2 63A Base w/shaft Mtg. Handle	6.77 (172)
3LD2 16-32A Base w/4-hole Mtg. Handle	5.59 (142)
3LD2 63A Base w/4-hole Mtg. Handle	5.99 (152)
3LD2 100-250A Base w/4-hole Mtg. Handle	6.07 (154)



**LBR 40-100 Amps & 3LD2 16-250A**



**LBT Toggle — 40-100 Amps**

Switch Type	Switch Catalog Number	Dimensions Inches (mm)							
		A	B	C	D	E	F	G	H
Rotary	LBR3040	2.00 (51)	2.72 (69)	2.72 (69)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary	LBR3060	2.00 (51)	2.72 (69)	2.72 (69)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary	LBR3080	2.09 (53)	3.32 (84)	2.92 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Rotary	LBR3100	2.09 (53)	3.32 (84)	2.92 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Rotary	LBR4040	2.42 (61)	2.72 (69)	2.72 (69)	2.28 (58)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary Front Mtg.	3LD20 <sup>②</sup>	1.89 (48)	1.97 (50)	1.97 (50)	—	—	—	—	—
Rotary Front Mtg.	3LD21 & 2 <sup>②</sup>	1.81 (46)	2.17 (55)	1.97 (50)	—	—	—	—	—
Rotary Front Mtg.	3LD25 <sup>②</sup>	2.36 (60)	2.52 (64)	2.32 (59)	—	—	—	—	—
Rotary Front Mtg.	3LD27 & 8 <sup>②</sup>	2.40 (61)	3.27 (83)	2.40 (61)	—	—	—	—	—
Rotary Base Mtg.	3LD20 <sup>②</sup>	1.89 (48)	1.97 (50)	2.29 (58)	—	—	—	—	—
Rotary Base Mtg.	3LD21 & 2 <sup>②</sup>	1.81 (46)	2.17 (55)	2.29 (58)	—	—	—	—	—
Rotary Base Mtg.	3LD25 <sup>②</sup>	2.36 (60)	2.52 (64)	2.68 (68)	—	—	—	—	—
Rotary Base Mtg.	3LD27 & 8 <sup>②</sup>	2.80 (71)	3.27 (83)	2.76 (70)	—	—	—	—	—
Rotary Base Mtg.	3LD23 & 4	4.41 (112)	5.83 (148)	4.10 (104)	—	—	—	—	—
Toggle	LBT3040	2.00 (51)	2.72 (69)	2.75 (70)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Toggle	LBT3060	2.00 (51)	2.72 (69)	2.75 (70)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Toggle	LBT3080	2.09 (53)	3.32 (84)	2.90 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Toggle	LBT3100	2.09 (53)	3.32 (84)	2.90 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Toggle	LBT4040	2.42 (61)	2.72 (69)	2.75 (70)	2.28 (58)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)

① Depth from outside of cover to back of switch.

② Handle front plate dimensions:  
3LD 16-32A—2.64 inches square  
3LD 63-125—3.55 inches square

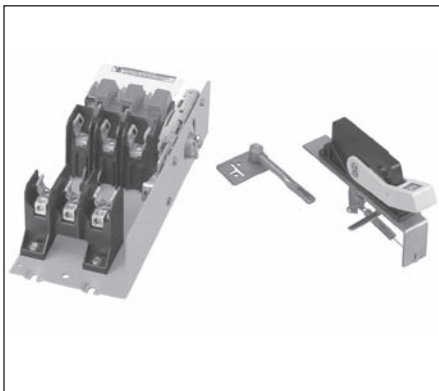
# Disconnect Switches

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

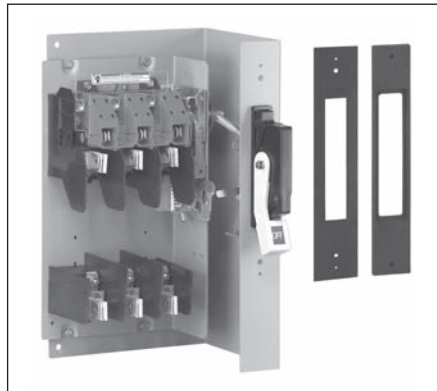
## Features and Ordering Information

### Features

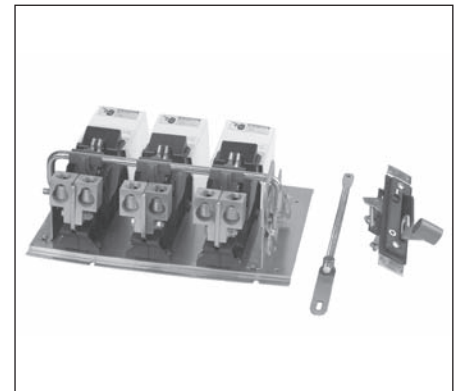
- 30-600A, 600VAC and DC ratings
- 240 & 600V AC switches are UL Recognized under file number E121152, Vol. 3 and CSA certified under file number 154852
- 600V DC Photovoltaic switches are UL Recognized under file number E335018, Vol. 3 and are rated to switch 3 separate 600V DC circuits
- Visible blade 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.

# Disconnect Switches

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

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>⑤</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>⑤</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>⑤</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>⑤</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>⑤</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>⑤</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 18/21 or 18/22.
- 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.

### Cable Kit

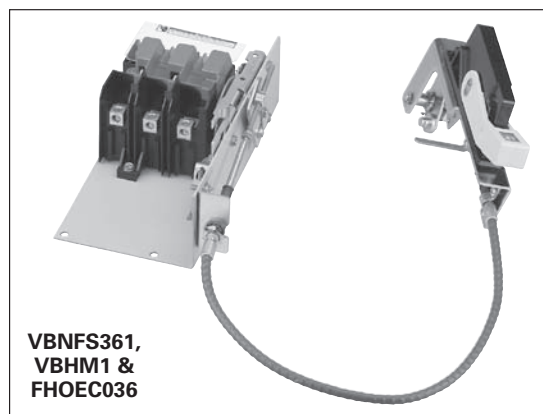
For use with 30-200A panel mounted switches and Max-Flex handle and adapter kit.

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>	
VBH112	30-200A Type 1, 3R and 12
VBH14	30-200A Type 4X



# Disconnect Switches

• Revised •  
12/15/13

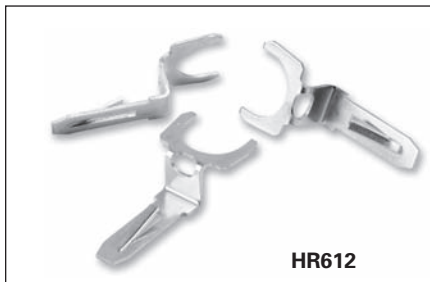
## Type VBII (30-600A) with Flange Mounted Operating Handle

### Selection & Accessories

#### Flange Mounted Operating Handles

For use with Panel Mounted Switches. Plastic handle is included with Flange Mounted Switches as standard.

Catalog Number	Operating Handle Description
<b>Plastic Handles</b>	
VBH1	30-200A Type 1, 3R & 12
VBH14X	30-200A Type 4X
<b>Metal Handles</b>	
VBH112	30-200A Type 1, 3R & 12
VBH14	30-200A Type 4X
VBH2	400A Type 1 & 12
VBH2R	400 & 600A Type 1, 3R & 12
VBH24X	400 & 600A Type 4X



#### Class R Fuse Clip Kits

These kits prevent the installation of Class H and K fuses (one kit required per switch).

#### Class R Fuse Clip Kits

Catalog Number	Description
HR21	30A, 240V Kit (HD only)
HR612	30A, 600V Kit/60A, 240V Kit
HR62	60A, 600V Kit
HR63	100A Kit
HR64	200A Kit
HR656	400A/600A Kit

#### Internal Door Latch Kits

For use with enclosures with door mounted latching bar. Required when a flange mounted switch is mounted in a Hoffmann or Rittal enclosure provided with an AB cutout.

Catalog Number	Description
DKR2	2 point (for use with enclosures less than 40" high)
DKR3	3 point (for use with enclosures 40" or larger in height)

#### Rigid Linkage Kits

For use with Panel Mounted Switches. Not required for Flange Mounted Switches.

Catalog Number	Switch Ampere Rating	Enclosure Depth <sup>①</sup>	
		Min	Max.
VBLK1	30-200	6.94 <sup>②</sup>	6.94 <sup>②</sup>
VBLK2	30-200	6.94 <sup>②</sup>	19.0
VBLK3	400 & 600	9.00	8.75
VBLK4	400 & 600	9.00	19.0



#### Class T Fuse Adapter Kits

100-600A fusible switches are field convertible to accept Class T fuses. 400-600A switches are field convertible to accept Class T fuses by moving the load base to a pre-drilled T fuse position.

#### Class T Fuse Adapter Kits<sup>③</sup>

Catalog Number	Description
HT23	100A, 240V Kit
HT63	100A, 600V Kit
HT24	200A, 240V Kit
HT64▲	200A, 600V Kit

#### Class J Fuse Provisions

All 30-600A, 600V fusible switches are field convertible to accept Class J fuses by moving the load base to a pre-drilled J fuse position.

#### Window Kits (Type 1, 12, 3R and 4x)

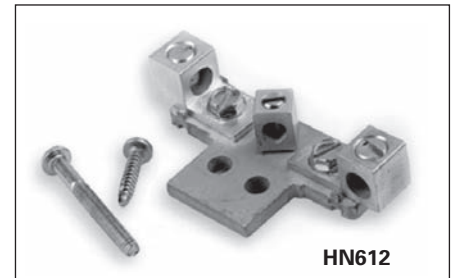
Allows viewing of visible blades and of indicating fuses through 200A.

Catalog Number	Description
VBWK1	30A Window Kit
VBWK2	60 & 100A Window Kit
VBWK3	200-600A Window Kit

#### NEW Quick Connects

They provide two point control power take-off capability and are normally used on two poles on the line side when it is required to have control power available when the switch is in the OFF position. They provide a mounting provision for standard 1/4" quick connect terminal. Installed in the line or load side. 30A VBII switches have lugs UL listed to accept (2) wires per pole as standard so a 30A kit is not required.

Catalog Number	Description
HCQ62	60A 2 wire quick connect kit
HCQ63	100A 2 wire quick connect kit
HCQ64	200A 2 wire quick connect kit



#### Neutral Kits<sup>④</sup>

Standard Neutral Kits can be field installed in 30-100A switches.

#### Neutral Kits

Switch Ampere Rating	Kit Catalog Number
30A 600V, 60A 240V	HN612
60A, 600V & 100A	HN623

#### 200% Neutral Kits<sup>④</sup>

UL listed 200% Neutrals are available on 60 & 100A switches. They are typically used with non-linear transformers or where increased neutral ampacity/lug capacity is required.

#### 200% Neutral Kits

Switch Ampere Rating	Kit Catalog Number	Wire Range Line & Load Lugs (Cu/Al)
60 & 100A	HN263	(2) #14-1/0 AWG

▲ Built to order. Allow 6-8 weeks for delivery.  
① Dimensions (min. & max.) from enclosure mounting pan to outside surface of enclosure handle mounting flange.

② 7.12 for 200A switches.  
③ One kit per pole required.

④ UL approved (not CSA certified).



# Disconnect Switches

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

*Accessories*



### Auxiliary Contacts

The auxiliary contacts are available in 1 normally open and 1 normally closed or 2 normally open and 2 normally closed configurations. Siemens offers a PLC Auxiliary Switch (30-200A) that has very low resistance for low voltage and current typical in PLC circuits. All auxiliary contacts make after and break before main switch contacts.

Switch Ampere Rating	Aux. Switch Catalog Number	Kit Ampere Rating			Kit Horsepower Rating		
		125V AC Max.	250V AC Max.	28V DC Max.	125V AC Max.	250V AC Max.	28V DC Max.

#### With 1 NO & 1 NC Isolated Contacts

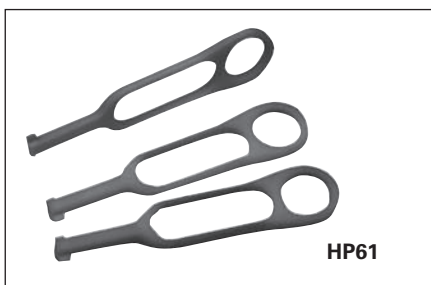
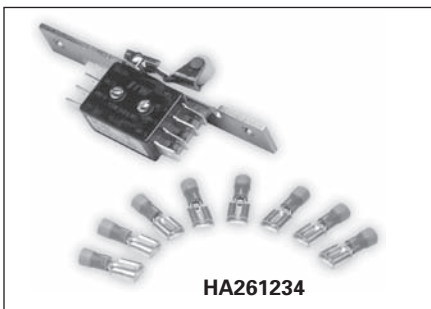
30-200	HA161234	10	10	—	1/2	3/4	—
400-600	HA165678	10	10	—	1/2	3/4	—

#### With 2 NO & 2 NC Isolated Contacts

30-200	HA261234	10	10	7	1/2	3/4	—
400-600	HA265678	10	10	7	1/2	3/4	—

#### Low Current PLC Type with 1 NO & 1 NC Gold Plated Contacts

30-200	HA361234	10	10	—	1/2	3/4	—
400-600	HA365678	10	10	—	1/2	3/4	—



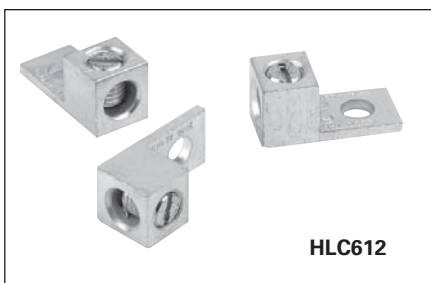
### Fuse Puller Kits

Fuse Puller Kits are field installable in 30-100A Type VBII Heavy Duty Switches (one kit required per 3-pole switch).

Switch Ampere Rating	Fuse Puller Kit Catalog Number
30	HP61
60	HP62▲
100	HP63▲

### Copper Lug Kits

All switches are UL approved to accept field installed copper lug kits.



Switch Ampere Rating	Copper Lug Catalog Number	Description
30-60	HLC612	(9) Lugs/Kit #14-4 AWG Cu
100	HLC63▲	(9) Lugs/Kit #14-1/0 AWG Cu
200	HLC64▲	(9) Lugs/Kit #6 AWG-300 Kcmil Cu
400-600A	HLC65678	(1) Lugs/Kit #1/0 AWG-600 Kcmil Cu

### Equipment Ground Kits

Equipment Ground Lug Kits are available for all switches.



Switch Ampere Rating	Catalog Number	Number of Terminals	Wire Range Per Terminal (Cu/Al)
30-200	HG61234	2	#14-4 AWG
400 & 600	HG656	4	#6 AWG-250 Kcmil

### NEW Internal Shield Kits (for fusible switches)

Kits provide a "skirt" that encloses the VBII switch and also a clear plastic inner door to prevent accidental contact with live parts. Test probe holes are provided and fuses can be replaced without removal of kit.

Switch Ampere Rating	Shield Kit Catalog Number
30A	HSK61
60-100A	HSK623
200A	HSK64

▲ Built to order. Allow 6-8 weeks for delivery.

# Disconnect Switches

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

## 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.

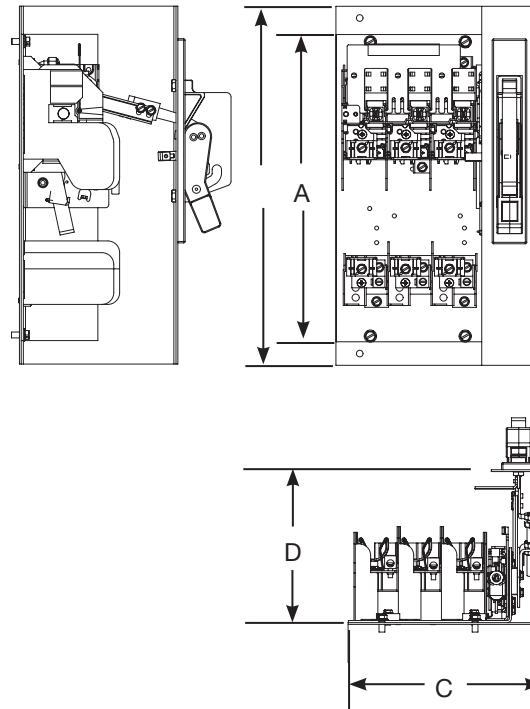
### Wire Ranges (Line, Load and Standard Neutral)

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>					
VBNS361, PV	9.79	N/A	7.47	6.94	19
VBNS362, PV	9.79	N/A	8.50	6.94	19
VBNS363, PV	9.79	N/A	8.50	6.94	19
VBNS364	10.77	N/A	12.33	7.12	19
VBNS365	13	N/A	16.50	8.63	19
VBNS366	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>					
VBNS361F, PV	9.79	11.78	7.47	7.27	N/A
VBNS362F, PV	9.79	11.78	8.85	7.27	N/A
VBNS363F, PV	9.79	11.78	8.85	7.27	N/A
VBNS364F	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.