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Scan to connect online to the most up-to-date version of this Section of SPEEDFAX.



# Disconnect Switches

Compact Non-Fusible — Rotary

Selection



3LD2254-0TK51

## Features

- 16–250 Ampere, to 100 hp, 480V and 600V
- Rotary actuation models
- 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
- IEC 947-1 rated, CE marked
- Listed and marked “suitable as motor disconnect” per NEC Section 430-109

## 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 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.

## Short Circuit Withstand Ratings

| Switch Rating and 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. |

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

<sup>①</sup> Includes auxiliary contacts (1 NO and 1 NC).

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

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

# Disconnect Switches

Compact Non-Fusible — Rotary

Selection

## 3LD Type Base Mounted Complete Assemblies

(Operator, Shaft, & Switch) 600V AC Max.②

| Handle mounting②    |                    |                      | 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         | 3               | 16            | ½                     | 1½   | 3    | 7½   | 10  |
| —                   | —                  | 3LD2017-1TL1         | 3 + N           |               |                       |      |      |      |     |
| 3LD2144-0TK5        | 3LD2113-0TK5       | —                    | 3               | 25            | 2                     | 3    | 7½   | 10   | 15  |
| 3LD2144-1TL5        | 3LD2113-1TL5       | —                    | 3 + N           |               |                       |      |      |      |     |
| 3LD2244-0TK5        | 3LD2213-0TK5       | 3LD2217-0TK1         | 3               | 32            | 2                     | 3    | 10   | 20   | 20  |
| 3LD2244-1TL53       | 3LD2213-1TL53      | 3LD2217-1TL1         | 3 + N           |               |                       |      |      |      |     |
| 3LD2545-0TK5        | 3LD2514-0TK5       | 3LD2517-0TK1         | 3               | 63            | 3                     | 10   | 15   | 40   | 50  |
| —                   | —                  | 3LD2517-1TL1         | 3 + N           |               |                       |      |      |      |     |
| —                   | 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

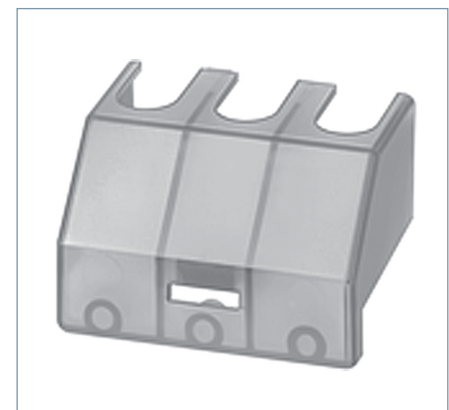
| Catalog Number   | Description  | Switches Used With                         |
|--|--|--|
| 3LD9200-5B③<br>3LD9200-5BF③                              | 1 NO, 1 NC Aux. Contact<br>1 NO, 1 NC Aux. with Gold Plated Contacts   | 25-125A<br>25-125A                         |
| 3LD9220-2B<br>3LD9250-2BA<br>3LD9280-2B                  | Neutral/Ground Terminal<br>Neutral/Ground Terminal<br>Neutral/Ground Terminal  | 25 & 32A<br>63A<br>100 & 125A              |
| 3LD9220-0B<br>3LD9250-0BA<br>3LD9280-0B                  | 4th Pole (leading ON, lagging OFF)<br>4th Pole (leading ON, lagging OFF)<br>4th Pole (leading ON, lagging OFF)                 | 25 & 32A<br>63A<br>100 & 125A              |
| 3LD9224-1B①<br>3LD9284-1B①<br>3LD9224-3B①<br>3LD9284-3B① | Black Handle (4 hole mtg.)<br>Black Handle (4 hole mtg.)<br>Red/Yellow Handle (4 hole mtg.)<br>Red/Yellow Handle (4 hole mtg.) | 25 & 32A<br>63-125A<br>25 & 32A<br>63-125A |
| 3LD9224-1D①<br>3LD9284-1D①<br>3LD9224-3D①<br>3LD9284-3D① | Black Handle (shaft mtg.)④<br>Black Handle (shaft mtg.)④<br>Red/Yellow Handle (shaft mtg.)④<br>Red/Yellow Handle (shaft mtg.)④ | 25 & 32A<br>63-125A<br>25 & 32A<br>63-125A |
| 3LD9221-2A①<br>3LD9221-0A①<br>3LD9251-0A①                | Terminal Cover 1P (Pack of 4)<br>Terminal Cover 3P (Pack of 4)<br>Terminal Cover 3P (Pack of 4)                                | 25 & 32A<br>25 & 32A<br>63A                |



3LD9220-2C

## Accessories for Base Mounted 3LD2 Switches

|  |  |   |
|--|--|---|
| 3LD9200-5C③<br>3LD9200-5CF③                              | 1 NO, 1 NC Aux. Contact<br>1 NO, 1 NC Aux. with Gold Plated Contacts   | 25-250A<br>25-250A                          |
| 3LD9220-2C<br>3LD9250-2CA<br>3LD9280-2C<br>3LD9240-2C    | Neutral/Ground Terminal<br>Neutral/Ground Terminal<br>Neutral/Ground Terminal<br>Neutral/Ground Terminal   | 25 & 32A<br>63A<br>100 & 125A<br>160 & 250A |
| 3LD9220-0C<br>3LD9250-0CA<br>3LD9280-0C<br>3LD9240-0C    | 4th Pole (leading ON, lagging OFF)<br>4th Pole (leading ON, lagging OFF)<br>4th Pole (leading ON, lagging OFF)<br>4th Pole (leading ON, lagging OFF)                   | 25 & 32A<br>63A<br>100 & 125A<br>160 & 250A |
| 3LD9224-1B①<br>3LD9284-1B①<br>3LD9224-3B①<br>3LD9284-3B① | Black Handle (4 hole mtg. no defeat)<br>Black Handle (4 hole mtg. no defeat)<br>Red/Yellow Handle (4 hole mtg. no defeat)<br>Red/Yellow Handle (4 hole mtg. no defeat) | 25 & 32A<br>63-125A<br>25 & 32A<br>63-125A  |
| 3LD9224-1D①<br>3LD9284-1D①<br>3LD9224-3D①<br>3LD9284-3D① | Black Handle (shaft mtg.)<br>Black Handle (shaft mtg.)<br>Red/Yellow Handle (shaft mtg.)<br>Red/Yellow Handle (shaft mtg.)   | 25 & 32A<br>63-125A<br>25 & 32A<br>63-125A  |
| 3LD9221-2A①<br>3LD9221-0A①<br>3LD9251-0A①                | Terminal Cover 1P (Pack of 4)<br>Terminal Cover 3P (Pack of 4)<br>Terminal Cover 3P (Pack of 4)  | 25 & 32A<br>25 & 32A<br>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

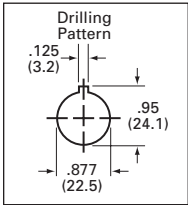
Compact Non-Fusible — Rotary

Dimensions

## Dimension Drawings and Wire Ranges

### Wire Ranges 60/75°C Cu only

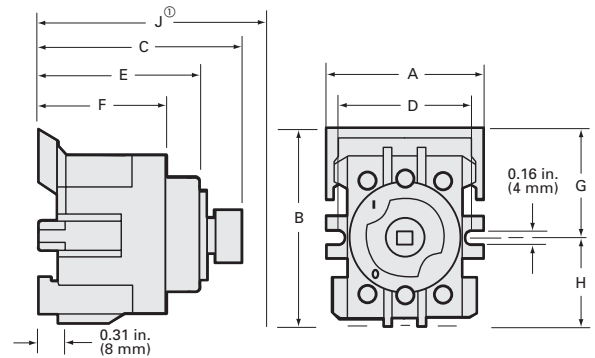
|                 |                |
|-----------------|----------------|
| 16A, 3LD20      | (1) #18-10 AWG |
| 25A, 3LD21      | (1) #14-8 AWG  |
| 32A, 3LD22      | (1) #14-8 AWG  |
| 63A, 3LD25      | (1) #14-6 AWG  |
| 100, 125A, 3LD2 | (1) #12-1 AWG  |
| 160, 250A, 3LD2 | (1) #1-400 MCM |



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

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

| Switch                                  | Dimension J |
|---|-------------|
| 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)  |



| Switch Type       | Switch Catalog Number             | Dimensions Inches (mm) |            |            |   |   |   |   |   |
|-------------------|-----------------------------------|------------------------|------------|------------|---|---|---|---|---|
|                   |                                   | A                      | B          | C          | D | E | F | G | H |
| Rotary Front Mtg. | <b>3LD20</b> <sup>②</sup>         | 1.89 (48)              | 1.97 (50)  | 1.97 (50)  | — | — | — | — | — |
| Rotary Front Mtg. | <b>3LD21 &amp; 2</b> <sup>②</sup> | 1.81 (46)              | 2.17 (55)  | 1.97 (50)  | — | — | — | — | — |
| Rotary Front Mtg. | <b>3LD25</b> <sup>②</sup>         | 2.36 (60)              | 2.52 (64)  | 2.32 (59)  | — | — | — | — | — |
| Rotary Front Mtg. | <b>3LD27 &amp; 8</b> <sup>②</sup> | 2.40 (61)              | 3.27 (83)  | 2.40 (61)  | — | — | — | — | — |
| Rotary Base Mtg.  | <b>3LD20</b> <sup>②</sup>         | 1.89 (48)              | 1.97 (50)  | 2.29 (58)  | — | — | — | — | — |
| Rotary Base Mtg.  | <b>3LD21 &amp; 2</b> <sup>②</sup> | 1.81 (46)              | 2.17 (55)  | 2.29 (58)  | — | — | — | — | — |
| Rotary Base Mtg.  | <b>3LD25</b> <sup>②</sup>         | 2.36 (60)              | 2.52 (64)  | 2.68 (68)  | — | — | — | — | — |
| Rotary Base Mtg.  | <b>3LD27 &amp; 8</b> <sup>②</sup> | 2.80 (71)              | 3.27 (83)  | 2.76 (70)  | — | — | — | — | — |
| Rotary Base Mtg.  | <b>3LD23 &amp; 4</b>              | 4.41 (112)             | 5.83 (148) | 4.10 (104) | — | — | — | — | — |

<sup>①</sup>Depth from outside of cover to back of switch.

<sup>②</sup>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

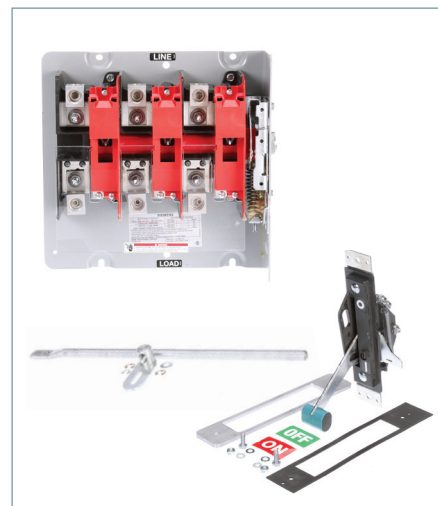
- 30-600A, 600VAC and DC ratings
- 240 & 600V AC switches are UL Recognized under file number E121152, Vol. 3 and CSA certified under file number 154852
- 600V DC Photovoltaic switches are UL Recognized under file number E335018, Vol. 3 and are rated to switch 3 separate 600V DC circuits
- Visible blade 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>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>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>⑥⑦</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>⑥</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 5-6 or 5-7.
- 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

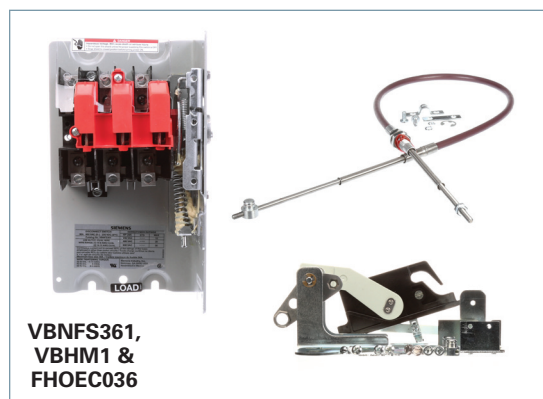
For use with 30-200A panel mounted switches and Max-Flex handle and adapter kit.

| 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

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           |



HR612

## 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              |



HT63

## 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 |



HN612

## 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

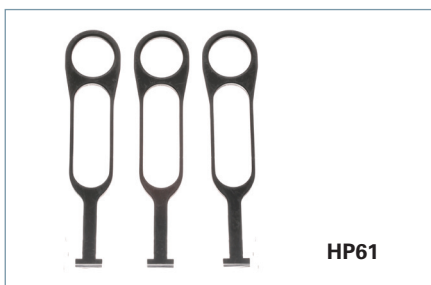
|         |          |    |    |   |     |     |   |
|---------|----------|----|----|---|-----|-----|---|
| 30-200  | HA361234 | 10 | 10 | — | 1/2 | 3/4 | — |
| 400-600 | HA365678 | 10 | 10 | — | 1/2 | 3/4 | — |



## 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)

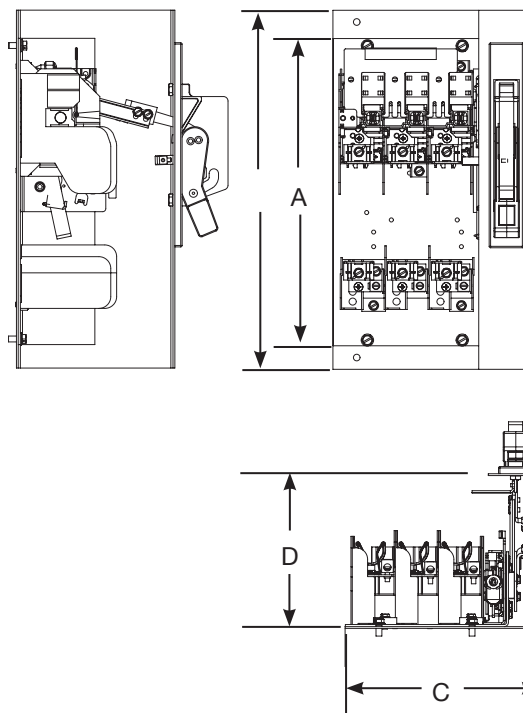
| Switch Ampere Rating | UL Approved Wire Range   | Lug Wire Range  |
|----------------------|--|---|
| 30                   | #14-6 AWG (Cu/Al)  | #14-2 AWG (Cu/Al)   |
| 60                   | #14-2 AWG (Cu/Al)  | #14-2 AWG (Cu/Al)   |
| 100                  | #14-1/0 AWG (Cu/Al)  | #14-1/0 AWG (Cu/Al)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



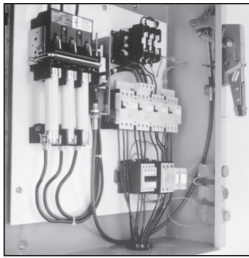
# Disconnect Switches

Type MCS (30-200A) — Switches, Fuse and No Fuse Kits

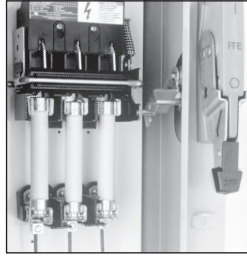
Selection

## Features

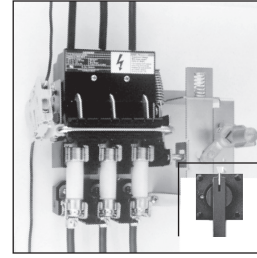
- 30, 60, 100 and 200 Ampere Switches
- UL Recognized (file # E121152 vol. 1 & 2) and CSA Certified
- Simple Mounting — with an integral switch and over center mechanism
- Horsepower & load break rated
- Compact Size
- Visible Blade Contacts
- Rugged Construction — with a short circuit current rating of 10,000 amps with Class H or 200,000 amps at 600V maximum AC, when fused with Class R or Class J fuses
- Available with three operator handle options, allowing flexible placement of switch
- Field Installable Auxiliary Contacts
- Flexible Fuse Class Configurations
- Flange mounted handles meet NFPA79 requirements



Type MCS Disconnect Switch with Max-Flex™ handle operator



Type MCS Disconnect Switch with fixed-depth, flange-mounted handle



Type MCS Disconnect Switch with rotary handle

## Ordering Information

- Select the basic switch size you need (30, 60, 100 or 200 ampere).
- Check the switch selected against the maximum horsepower rating required for our application. "L" or "R" suffix on switch catalog numbers denotes left or right-handed mechanism drive.
- Choose either fuse or no fuse kit from chart below.
- Check "Minimum Dimensions" on page 5-11 for installation space requirements.
- Select from the list of handle operators, the type which best suits your application. Handle operators can be selected from the next page.

## Basic Switches

| Switch Ampere Rating | Maximum Voltage Rating | Catalog Number Right Hand | Catalog Number Left Hand | Maximum Horsepower Rating, 3 Phase <sup>④</sup> |                 |               |                 |               |                 | 250 Volts DC (max) <sup>④</sup> |
|----------------------|------------------------|---------------------------|--------------------------|---|-----------------|---------------|-----------------|---------------|-----------------|---------------------------------|
|                      |                        |                           |                          | 240 Volts AC                                    |                 | 480 Volts AC  |                 | 600 Volts AC  |                 |                                 |
|                      |                        |                           |                          | Standard Fuse                                   | Time Delay Fuse | Standard Fuse | Time Delay Fuse | Standard Fuse | Time Delay Fuse |                                 |
| 30                   | 600                    | MCS603R                   | MCS603L                  | 3   | 7½              | 5             | 15              | 7½            | 20              | 5                               |
| 60                   | 600                    | MCS606R                   | MCS606L                  | 7½  | 15              | 15            | 30              | 15            | 50              | 10                              |
| 100                  | 600                    | MCS610R                   | MCS610L▲                 | 15  | 30              | 25            | 60              | 30            | 75              | 20                              |
| 200                  | 600                    | MCS620R                   | MCS620L▲                 | 25  | 60              | 50            | 125             | 60            | 150             | 40                              |

## Fuse And No Fuse Kits (Includes load base plus line and load fuse clips)<sup>①</sup>

| Basic Switch Ampere Rating | Switch Catalog Number | Kit Description | No Fuse Kits   |                      | For Class H                 | For Class J                 | For Class R                 | Lug Wire Size         |
|----------------------------|-----------------------|-----------------|----------------|----------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------|
|                            |                       |                 | Standard       | Cu Only <sup>②</sup> |                             |                             |                             |                       |
|                            |                       |                 | Catalog Number | Catalog Number       | Catalog Number <sup>①</sup> | Catalog Number <sup>①</sup> | Catalog Number <sup>①</sup> |                       |
| 30                         | MCS603R or MCS603L    | No Fuse         | TMK606         | —                    | —                           | —                           | —                           | #14 to #4 AWG Cu/Al   |
|                            |                       | 30A, 250V       | —              | —                    | FCK203▲                     | —                           | FCRK203                     |                       |
|                            |                       | 30A, 600V       | —              | —                    | FCK206                      | FCJK603                     | FCRK206                     |                       |
|                            |                       | 60A, 250V       | —              | —                    | FCK206                      | —                           | FCRK206                     |                       |
| 60                         | MCS606R or MCS606L    | 60A, 600V       | —              | —                    | FCK606                      | FCJK606                     | FCRK606                     | #14 to #4 AWG Cu/Al   |
|                            |                       | No Fuse         | TMK606         | —                    | —                           | —                           | —                           |                       |
|                            |                       | 60A, 250V       | —              | —                    | FCK206                      | —                           | FCRK206                     |                       |
|                            |                       | 60A, 600V       | —              | —                    | FCK606                      | FCJK606                     | FCRK606                     |                       |
| 100                        | MCS610R or MCS610L    | 100A, 250V      | —              | —                    | OFCK661▲                    | OFCK661▲                    | ③                           | #14 to #2/0 AWG Cu/Al |
|                            |                       | 100A, 600V      | —              | —                    | OFCK661▲                    | OFCK661▲                    | ③                           |                       |
|                            |                       | No Fuse         | TMK610         | TMK610C              | —                           | —                           | —                           |                       |
|                            |                       | 100A, 250V      | —              | —                    | FCK610                      | FCK610                      | ③                           |                       |
| 200                        | MCS620R or MCS620L    | 100A, 600V      | —              | —                    | FCK610                      | FCK610                      | ③                           | #6 to 300 kcmil Cu/Al |
|                            |                       | 200A, 250V      | —              | —                    | OFCK620                     | OFCK620                     | ③                           |                       |
|                            |                       | 200A, 600V      | —              | —                    | OFCK620                     | OFCK620                     | ③                           |                       |
|                            |                       | No Fuse         | TMK620         | TMK620C▲             | —                           | —                           | —                           |                       |
| 200                        | MCS620R or MCS620L    | 200A, 250V      | —              | —                    | FCK620                      | FCK620                      | ③                           | #6 to 300 kcmil Cu/Al |
|                            |                       | 200A, 600V      | —              | —                    | FCK620                      | FCK620                      | ③                           |                       |

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

① For "copper only" connectors, order as follows:

**Fusible**—order standard switch, standard fuse kit and copper only no fuse kit.

**Non-Fusible**—order standard switch and copper only no fuse kit.

② Includes both line and load lugs.

③ For Class R fuses order Class H kit from this table and the Class R conversion kit from the next page.

④ HP ratings for time delay fuses and for 250V DC also apply to Non-fusible switches.

# Disconnect Switches

Type MCS (30-200A)

Accessories

## Auxiliary Switch Kits

| Switch Catalog Number | Contact Arrangement      |                          |
|-----------------------|--------------------------|--------------------------|
|                       | 1 NO/1 NC Catalog Number | 2 NO/2 NC Catalog Number |
| MCS603R               | MCSAKR136                | MCSAKR236                |
| MCS603L               | MCSAKL136                | MCSAKL236▲               |
| MCS606R               | MCSAKR136                | MCSAKR236                |
| MCS606L               | MCSAKL136                | MCSAKL236▲               |
| MCS610R               | MCSAK116                 | MCSAK216                 |
| MCS610L               | MCSAK116                 | MCSAK216                 |
| MCS620R               | MCSAK126                 | MCSAK226                 |
| MCS620L               | MCSAK126                 | MCSAK226                 |

## Class R Fuse Conversion Kits

| Fuse Clip Rating | Catalog Number |
|------------------|----------------|
| 100A, 600V       | SSRK33         |
| 200A, 600V       | SSRK34         |

## Fuse Ejector Kits

| Switch Catalog Number | Fuse Ejector Kit Catalog Number |
|-----------------------|---------------------------------|
| MCS610                | FE100▲                          |
| MCS620                | FE200▲                          |

## Handle Operators

### Fixed Depth, Flange Mounted, Types 1, 3, 3R, 12<sup>①④</sup>

| Switch Catalog Number | Complete Handle Mechanism | Handle Only    | Switch Operator Only |
|-----------------------|---------------------------|----------------|----------------------|
|                       | Catalog Number            | Catalog Number | Catalog Number       |
| MCS603R               | FDFS06R                   | FDH10          | FDS06R               |
| MCS603L               | FDFS06L                   | FDH10          | FDS06L               |
| MCS606R               | FDFS06R                   | FDH10          | FDS06R               |
| MCS606L               | FDFS06L                   | FDH10          | FDS06L               |
| MCS610R               | FDFS06R                   | FDH10          | FDS06R               |
| MCS610L               | FDFS06L                   | FDH10          | FDS06L               |
| MCS620R               | FDFS20R                   | FDH20          | FDS20R               |
| MCS620L               | FDFS20L                   | FDH20          | FDS20L               |

### Variable Depth, Flange Mounted Max-Flex™, Types 1, 3, 3R, 12<sup>②</sup>

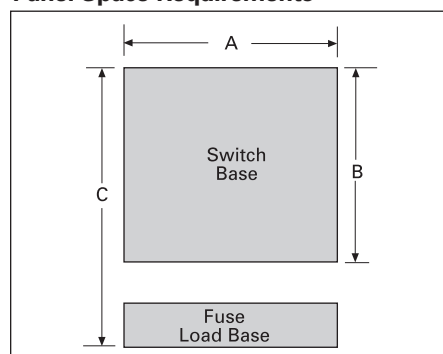
| Switch Catalog Number | Complete Handle Mechanism | Handle Only    | Switch Operator Only | Cable Only <sup>③</sup> |
|-----------------------|---------------------------|----------------|----------------------|-------------------------|
|                       | Catalog Number            | Catalog Number | Catalog Number       | Catalog Number          |
| MCS603R               | FHOS06036R                | FHOHS          | FHOS06R              | FHOEC036                |
| MCS603L               | FHOS06036L                | FHOHS          | FHOS06L              | FHOEC036                |
| MCS606R               | FHOS06036R                | FHOHS          | FHOS06R              | FHOEC036                |
| MCS606L               | FHOS06036L                | FHOHS          | FHOS06L              | FHOEC036                |
| MCS610R               | FHOS06036R                | FHOHS          | FHOS06R              | FHOEC036                |
| MCS610L               | FHOS06036L                | FHOHS          | FHOS06L              | FHOEC036                |
| MCS620R               | FHOS20036R                | FHOHS          | FHOS20R              | FHOJC036                |
| MCS620L               | FHOS20036L                | FHOHS          | FHOS20L              | FHOJC036                |

### Variable Depth Rotary, Through-The-Door-Mounted, Types 1, 12<sup>④⑤</sup>

| Variable Depth |           |       |        | Shaft Only Variable Depth |
|----------------|-----------|-------|--------|---------------------------|
| MCS603R        | CRHOS06VD | CRHOH | RHOS06 | RHOSVD                    |
| MCS606R        | CRHOS06VD | CRHOH | RHOS06 | RHOSVD                    |
| MCS610R        | CRHOS06VD | CRHOH | RHOS06 | RHOSVD                    |
| MCS620R        | CRHOS20VD | RHOH  | RHOS20 | RHOSVD                    |

## MCS Disconnect Switch Panel Space Requirements

### Panel Space Requirements



### Minimum Dimensions (inches\*)

| Switch Catalog Number | Size      | "A"  | "B"  | "C"   | Fuse Class |
|-----------------------|-----------|------|------|-------|------------|
| MCS603                | 30A/240V  | 6.13 | 5.52 | 8.11  | H, K, R    |
|                       | 30A/600V  | 6.13 | 5.52 | 10.11 | H, K, R    |
|                       | 30A/600V  | 6.13 | 5.52 | 8.48  | J          |
| MCS606                | 60A/240V  | 6.13 | 5.52 | 7.86  | H, K, R    |
|                       | 60A/600V  | 6.13 | 5.52 | 10.38 | H, K, R    |
|                       | 60A/600V  | 6.13 | 5.52 | 8.35  | J          |
| MCS610                | 100A/240V | 7.38 | 7.59 | 11.85 | H, K, R    |
|                       | 100A/600V | 7.38 | 7.59 | 13.85 | H, K, R    |
|                       | 100A/600V | 7.38 | 7.59 | 10.6  | J          |
| MCS620                | 200A/240V | 9.17 | 9.00 | 14.7  | H, K, R    |
|                       | 200A/600V | 9.17 | 9.00 | 17.2  | H, K, R    |
|                       | 200A/600V | 9.17 | 9.00 | 13.32 | J          |

"A" – Dimension is measured from each cross bail pin.

"B" – Dimension is measured from line side barrier to load side barrier.

"C" – Dimension is measured from line side terminal of switch to load side terminal of fuse load base.

- ▲ Built to order. Allow 6-8 weeks for delivery.
- ① For Type 4 and 4X applications, order handle only Catalog Number 100A - FDH104      200A - FDH204
- ② For Type 4 and 4X applications, order handle only Catalog Number FHOHS4

- ③ Standard cable length is 36 inches. Alternate lengths are available as follows:

| Length | Amps   | Cat. No. |
|--------|--------|----------|
| 48"    | 30-100 | FHOEC048 |
| 60"    | 30-100 | FHOEC060 |
| 48"    | 200    | FHOJC048 |
| 60"    | 200    | FHOJC060 |

- ④ For Type 4 and 4X applications, order handle only Catalog Number RHOH4
- ⑤ For Type 3 and 3R applications, order handle only Catalog Number RHOH
- ⑥ Min. enclosure depth from mounting pan to handle mounting surfaces: 30-100A 6.44 inches  
200A 10.93 inches
- \*For millimeters multiply inches by 25.4.

# Disconnect Switches

## Type CFS Switches, Shafts and Handles

## General Information

### Type CFS Compact Fusible Switches

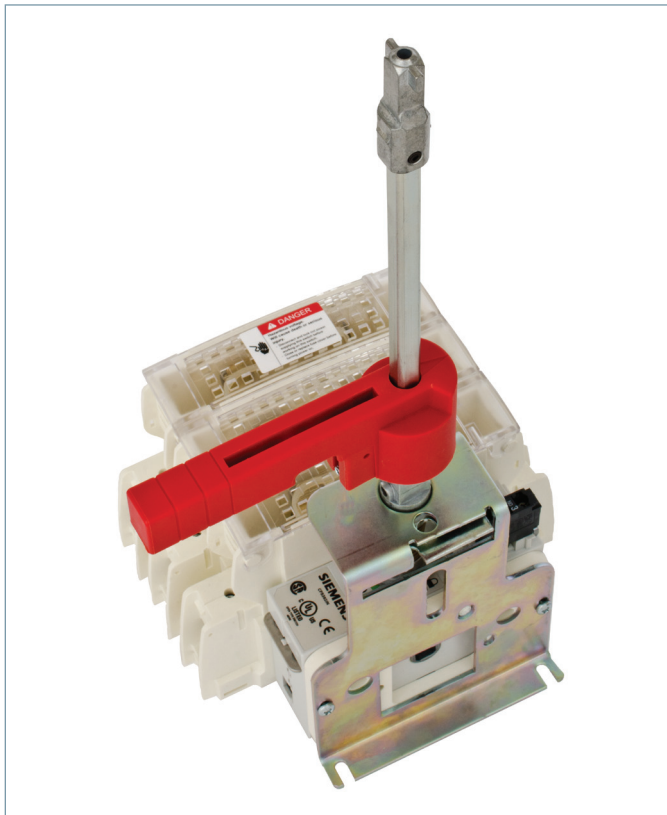
#### Description

Siemens Type CFS compact fusible switches meet UL 98 requirements and can be used in either service entrance or branch circuit applications. 30-800A, 3 pole switches are offered and are all rated 600V AC maximum. 30A switches are available with provisions for either Class CC or J fuses. 60A and larger switches provided with Class J fuse provisions can be used in non-fusible applications with field installable no-fuse kits.

All are open style, designed to be panel mounted and are UL listed under file number #E121152 or #E68312 and CSA certified under file number #222227. A variety of door mounted rotary operators are available with Type 1, 3R, 12 or 4/4X ratings.

#### NFPA79 Kits

CFSNFPA1 AND CFSNFPA2N kits provide an internal handle and padlocking means to comply with article 5.3.4.2 of the NFPA-2002 standard.



#### Catalog Numbering System

##### CFS Switches

Compact Fusible Switch

**CFS 3 6 1 J 5 N**

- Number of poles 3 = 3
- Max. Voltage Rating 6 = 600V
- Ampere rating
  - 1 = 30A
  - 2 = 60A
  - 3 = 100A
  - 4 = 200A
  - 5 = 400A
  - 6 = 600A
  - 7 = 800A
- Fuse provisions type
  - C = Class CC
  - J = Class J with right hand mechanism
  - JL = Class J with left hand mechanism
  - L = Class L with right hand mechanism
- Max. AIC rating
  - 5 = 100kA
  - Omit = 200kA J fused
- Version
  - N = New size reduced version
  - N1 = New 100kA 60A switch

##### Operating Handles

CFS type handle

**CFSH 10 R 12 N**

- Shaft cross section
  - 5 = 5 mm
  - 10 = 10 mm
  - 12 = 12 mm
- Handle color and length
  - B = Black & blue, short
  - R = Red & yellow, short
  - BL = Black & blue, long
  - RL = Red & yellow, long
- NEMA type
  - 12 = 1, 3R and 12
  - 4 = 1, 3R, 12 and 4/4X
- Version
  - N = New version

##### CFS Operating Shafts

CFS type shaft

**CFSS 10 200 H N**

- Shaft cross section
  - 5 = 5 mm
  - 10 = 10 mm
  - 12 = 12 mm
- Shaft length
  - 200 = 200 mm
  - 400 = 400 mm
- Switch compatibility
  - Omit = 30A, 100kA
  - H = 100 or 200 kA
- Version
  - N = New version

# Disconnect Switches

## Type CFS Compact Fusible Switches

## Features and Ordering Information

### Features

- 30 - 800A ratings
- UL Listed under file #E121152 & CSA Certified under file #222227
- Door mounted rotary handles with defeatable cover interlock
- Meets UL requirements for both main and branch circuit applications
- Compact size
- 100kA with Class CC fuses or up to 200kA with Class J fuses
- Load break and horsepower rated
- Quick make and break operation
- All handles are padlockable with up to (3) padlocks with 5/16" hasps in the OFF position
- Catalog numbers CFS361C5 & CFS361J5 can be DIN-rail mounted and can be either front or side operated with standard rotary handles..
- All CFS part numbers ending in N can be either front or side operated with standard rotary handles.
- Handles are available in Type 1, 3R, 4/4X & 12 ratings
- NFPA 79 field installed kits are available
- 30-400A, 200kA switches are provided with quick connect terminal provisions for voltage sensing or for 10A max. control circuits



### Ordering information

1. Select the panel mounted switch required based on Ampere, HP and AIC requirements. Switches with a right hand mechanism are standard, 30-100A switches with a left hand mechanism are available.
2. Select handle based on environmental rating required.
3. Select operating shaft (200 or 400mm in length). For enclosure depths of 9.0" or less from panel mounting surface to inside of door use 200mm long shafts. For deeper enclosures use 400mm long shafts. 30A 100kA switches can be used in 10" deep enclosures (panel to inside of door) with 200mm shaft and CFSH5N handles.
4. Line & load lugs are provided as standard on 30-100A switches. Terminal kits are available for 200-800A switches if needed.
5. Auxiliary contact are available if needed as follows. 30A switch CFS361J5 will accept up to (2) aux contacts without an aux contact holder. If more than (2) aux contacts are required order aux contacts PLUS aux contact holder kit CFSAUXH1. All other switches will accept up to (4) aux contacts.
6. 30-100A switches are designed to prevent inadvertent contact with live parts and shields are not required. 200 & 400A switches are not supplied with terminal shields. They are available as field installed kits for both line and load terminals. 400-800A switches are supplied as standard with line shields and terminal shroud kits are available for the load side.

Note: Be sure to check shaft and handle compatibility with the switch selected by using information provided in the selection tables.



# Disconnect Switches

## Type CFS Compact Fusible Switches

## Shaft and Handle Selection

Fusible switches, 3-pole 600V AC Max. 30-100A & 600-800A switches are also rated 250V DC Max when poles are field connected in series<sup>①</sup>

| Switch Ampere Rating | Catalog Number | Fuse Provisions Provided | Max Horsepower Ratings |               |               |            | AC Short Circuit Rating |
|----------------------|----------------|--------------------------|------------------------|---------------|---------------|------------|-------------------------|
|                      |                |                          | 240V<br>3Ø AC          | 480V<br>3Ø AC | 600V<br>3Ø AC | 250V<br>DC |                         |

### Standard – With Right Hand Mounted Mechanism

| Switch Ampere Rating | Catalog Number        | Fuse Provisions Provided | 240V<br>3Ø AC | 480V<br>3Ø AC | 600V<br>3Ø AC | 250V<br>DC      | AC Short Circuit Rating |
|----------------------|-----------------------|--------------------------|---------------|---------------|---------------|-----------------|-------------------------|
| 30 <sup>①</sup>      | CFS361C5              | Class CC                 | 7.5           | 15            | 20            | 5 <sup>③</sup>  | 100kA                   |
| 30 <sup>①</sup>      | CFS361J5              | Class J                  | 7.5           | 15            | 20            | 5 <sup>③</sup>  | 100kA                   |
| 30 <sup>①</sup>      | CFS361JN              | Class J                  | 7.5           | 15            | 20            | 5 <sup>③</sup>  | 200kA                   |
| 60 <sup>①</sup>      | CFS362JN1             | Class J                  | 15            | 30            | 50            | 10 <sup>③</sup> | 100kA                   |
| 60 <sup>①</sup>      | CFS362JN              | Class J                  | 15            | 30            | 50            | 10 <sup>③</sup> | 200kA                   |
| 100 <sup>①</sup>     | CFS363JN              |                          | 30            | 60            | 75            | 20 <sup>③</sup> |                         |
| 200 <sup>②</sup>     | CFS364JN <sup>④</sup> |                          | 60            | 125           | 150           | —               |                         |
| 400 <sup>②</sup>     | CFS365JN <sup>④</sup> |                          | 125           | 250           | 350           | —               |                         |
| 600 <sup>②</sup>     | CFS366J <sup>③⑤</sup> |                          | 200           | 400           | 500           | —               |                         |
| 800 <sup>②</sup>     | CFS367L <sup>③⑤</sup> | Class L                  | 200           | 400           | 500           | —               | 200kA                   |

### Optional – With Left Hand Mounted Mechanism<sup>④</sup>

| Switch Ampere Rating | Catalog Number | Fuse Provisions Provided | 240V<br>3Ø AC | 480V<br>3Ø AC | 600V<br>3Ø AC | 250V<br>DC      | AC Short Circuit Rating |
|----------------------|----------------|--------------------------|---------------|---------------|---------------|-----------------|-------------------------|
| 30 <sup>②</sup>      | CFS361JLN      | Class J                  | 7.5           | 15            | 20            | 5 <sup>③</sup>  | 200kA                   |
| 60 <sup>②</sup>      | CFS362JLN      |                          | 15            | 30            | 50            | 10 <sup>③</sup> |                         |
| 100 <sup>②</sup>     | CFS363JLN      |                          | 30            | 60            | 75            | 20 <sup>③</sup> |                         |

### Operating Shafts for 30-400A Switches<sup>⑤</sup>

| Catalog number | Shaft length in. (mm) | Switch & handle compatibility  |
|----------------|-----------------------|--|
| CFSS5200N      | 7.9 (200)             | 5mm x 5mm for use with CFS361C5 & CFS361J5 switches & with "CFSH5" handles only                      |
| CFSS5400N      | 15.7 (400)            |  |
| CFSS5200HN     | 7.9 (200)             | 5mm x 5mm for use with all "CFSH10" handles & with CFS361C5 & CFS361J5 switches only                 |
| CFSS5400HN     | 15.7 (400)            |  |
| CFSS10200HN    | 7.9 (200)             | 10mm x 10mm for use with all "CFSH10" handles & with all 30-400A switches except CFS361C5 & CFS361J5 |
| CFSS10400HN    | 15.7 (400)            |  |

### Compact rotary operating handles — door mounted (for use with CFS361C5 & CFS361J5 switches only)<sup>⑥</sup>

| Catalog number | Color        | UL Type          | Operating shaft compatibility |
|----------------|--------------|------------------|-------------------------------|
| CFSH5B12N      | Blue & Black | 1, 3R & 12       | CFSS5200N or CFSS5400N        |
| CFSH5R12N      | Yellow & Red |                  |                               |
| CFSH5B4N       | Blue & Black | 1, 3R, 12 & 4/4X |                               |
| CFSH5R4N       | Yellow & Red |                  |                               |

### Rotary Operating Handles - Door Mounted

(for use with CFSS5200HN, CFSS5400HN, CFSS10200HN & CFSS10400HN)

| Catalog number | Color | Description |
|----------------|-------|-------------|
|----------------|-------|-------------|

#### Type 1, 3R & 12<sup>⑦</sup>

|             |              |   |
|-------------|--------------|---|
| CFSH10B12N  | Blue & Black | Heavy duty pistol grip (2.75" long for use with 30A switches & CFS362JN1) |
| CFSH10R12N  | Yellow & Red |   |
| CFSH10BL12N | Blue & Black | Heavy duty pistol grip (4.92" long for 30-400A switches)                  |
| CFSH10RL12N | Yellow & Red |   |

#### Type 1, 3R, 4/4X & 12<sup>⑦</sup>

|            |              |   |
|------------|--------------|---|
| CFSH10B4N  | Blue & Black | Heavy duty pistol grip (2.75" long for use with 30A switches & CFS362JN1) |
| CFSH10R4N  | Yellow & Red |   |
| CFSH10BL4N | Blue & Black | Heavy duty pistol grip (4.92" long for 30-400A switches)                  |
| CFSH10RL4N | Yellow & Red |   |



<sup>①</sup> Line and load lugs included.

<sup>②</sup> Line and load lugs are not included.

Order from table on next page if required.

<sup>③</sup> DC HP rating shown requires (3) poles to be connected in series.

<sup>④</sup> CFS364JN & CFS365JN can be rotated 180° for left hand operation as standard.

<sup>⑤</sup> Catalog numbers CFS361C5 & CFS361J5 accept 5mm x 5mm operating shafts. All other 30-400A switches accept 10mm x 10mm operating shafts.

<sup>⑥</sup> Compact pistol grip design (2.75" long) with defeatable cover interlock. Cover can be opened when handle is padlocked in the OFF position.

<sup>⑦</sup> Defeatable cover interlock provided. Cover cannot be opened when handle is padlocked in the OFF position.

<sup>⑧</sup> 4 pole 600 & 800A switches, CFS466J & CFS467L are also available.

<sup>⑨</sup> CFS366J and CFS367L are rated 250 & 600V DC when (2) poles are connected in series.

# Disconnect Switches

## Type CFS Compact Fusible Switches

## Selection and Accessories

### 600 & 800A Rotary Operating Handles - Door Mounted (8.27" long)<sup>②</sup>

| Catalog number | Color        | UL Type          |
|----------------|--------------|------------------|
| CFSH12BL12     | Blue & Black | 1, 3R & 12       |
| CFSH12RL12     | Yellow & Red | 1, 3R & 12       |
| CFSH12BL4      | Blue & Black | 1, 3R, 12 & 4/4X |
| CFSH12RL4      | Yellow & Red | 1, 3R, 12 & 4/4X |

### 600 & 800A Operating Shafts (Cross Section 12mm x 12mm)

| Catalog number | Shaft length in. (mm) | Enclosure depth (switch mounting surface to door OD) |
|----------------|-----------------------|--|
| CFSS12200H     | 12.59 (320)           | 10.43 – 16.68 in.                                    |
| CFSS12400H     | 15.75 (400)           | 10.43 – 19.84 in.                                    |



CFSL200 &amp; 400

### Type CFS Fusible Switch Accessories

| Catalog number | Description |
|----------------|-------------|
|----------------|-------------|

#### Terminals<sup>①</sup>

|           |   |
|-----------|---|
| CFSL200   | 200A lug kit (6 lugs per kit) #6-3/0  |
| CFSL400N  | 400A lug kit (6 lugs per kit) #2-600kcmil (for CFS365JN only)               |
| CNFSL400D | 400A lug kit (6 lugs per kit, 2 wires per lug) #6-350kcmil                  |
| CFSL400   | 600-800A lug kit (6 lugs per kit, 2 wires per lug) #2-600kcmil <sup>②</sup> |

#### Shorting bars (no fuse kits)

|          |  |
|----------|--|
| CFSSB60  | 60A shorting bar kit (3 links per kit)       |
| CFSSB100 | 100A shorting bar kit (3 links per kit)      |
| CFSSB200 | 200A shorting bar kit (3 links per kit)      |
| CFSSB400 | 400A shorting bar kit (3 links per kit)      |
| CFSSB680 | 600 & 800A shorting bar kit (1 link per kit) |

#### Auxiliary contacts (NEMA ratings AC A600 DC N600)

|                       |  |
|-----------------------|--|
| CFSAUXH1 <sup>②</sup> | Aux contact holder (CFS361C5 & CFS361J5)                 |
| CFSAUX1NO             | Aux contact 1 NO (30-800A Sws)                           |
| CFSAUX1NC             | Aux contact 1 NC (30-800A Sws)                           |
| CFS11AUX              | 1NO, 1NC aux contact kit (side mount for 200kA switches) |
| CFS22AUX              | 2NO, 2NC aux contact kit (side mount for 200kA switches) |

#### Terminal shrouds (line or load)

|                        |   |
|------------------------|---|
| CFSTS200N <sup>③</sup> | 200A shroud kit (line or load 3-pole kit)                   |
| CFSTS400N <sup>③</sup> | 400A shroud kit (line or load 3-pole kit for CFS365JN only) |
| CFSTS680 <sup>④</sup>  | 600/800A 3-pole shroud kit                                  |
| CFSTS6804 <sup>④</sup> | 600/800A 4-pole shroud kit                                  |

#### 30A compact switch kits

|          |   |
|----------|---|
| CFSPK    | Shaft padlocking kit for 30A compact switch when door is open |
| CFSH5CDM | Direct mount handle kit for CFS361C5                          |
| CFSH5JDM | Direct mount handle kit for CFS361J5                          |

#### NFPA 79 kits (if auxiliary contacts are needed, see table above)

Kits provide an operating shaft suitable for use with all heavy duty handles (not for use with CFSH5 handles).

Kits also provide an internal operating handle and an internal OFF padlocking provision.

|                        |   |
|------------------------|---|
| CFSNFPA1 <sup>④</sup>  | For use with CFS361C5 & CFS361J5  |
| CFSNFPA2N <sup>⑤</sup> | For use with CFS361JN, CFS361CN, CFS362JN1, CFS362JN, CFS363JN & CFS364JN |
| CFSNFPA3N <sup>⑤</sup> | For use with CFS365JN only  |



CFSAUX1NC



CFSSB100 – CFSSB400

① Supplied as standard on 30-100A switches  
 ② CFS361C5 will accept (4) aux contacts without an aux contact holder. CFS361J5 will accept (2) aux contacts without an aux contact holder.  
 ③ Supplied as standard on all but 30A, 100kA compact switches.

④ 12.6 in. (320 mm) long operating shaft included  
 ⑤ 12.7 in. (323 mm) long operating shaft included  
 ⑥ Line side terminal shrouds supplied with switch  
 ⑦ Defeatable cover interlock included.  
 Cover cannot be opened when the handle is padlocked in the OFF position.

⑧ Neither line or load terminal shrouds are supplied as standard with new style 200 & 400A switches.  
 ⑨ 2 kits needed for 800A, total 12 lugs to cover line and load sides

# Disconnect Switches

Type CFS Compact Fusible Switches

Technical Characteristics

## UL & CSA Technical Characteristics And Panel Space Requirements

| Catalog Number | Amps | Fuse Class | Ac Short Circuit Rating | Electrical Endurance | Mechanical Endurance | Panel Space Requirements - in. (mm) |             |                    |
|----------------|------|------------|-------------------------|----------------------|----------------------|-------------------------------------|-------------|--------------------|
|                |      |            |                         |                      |                      | Height                              | Width       | Depth <sup>①</sup> |
| CFS361C5       | 30   | CC         | 100kA                   | 6000                 | 10000                | 4.56 (116)                          | 3.78 (96)   | 6.00 (152)         |
| CFS361J5       | 30   | J          | 100kA                   | 6000                 | 10000                | 4.56 (116)                          | 4.15 (105)  | 6.00 (152)         |
| CFS361JN       | 30   | J          | 200kA                   | 6000                 | 10000                | 5.35 (136)                          | 5.89 (150)  | 6.00 (152)         |
| CFS361JLN      | 30   | J          | 200kA                   | 6000                 | 10000                | 5.35 (136)                          | 5.89 (150)  | 6.00 (152)         |
| CFS362JN1      | 60   | J          | 100kA                   | 6000                 | 10000                | 5.35 (136)                          | 5.89 (150)  | 6.00 (152)         |
| CFS362JN       | 60   | J          | 200kA                   | 6000                 | 10000                | 7.32 (186)                          | 5.89 (150)  | 6.00 (152)         |
| CFS362JLN      | 60   | J          | 200kA                   | 6000                 | 10000                | 7.32 (186)                          | 5.89 (150)  | 6.00 (152)         |
| CFS363JN       | 100  | J          | 200kA                   | 6000                 | 10000                | 7.32 (186)                          | 5.89 (150)  | 6.00 (152)         |
| CFS363JLN      | 100  | J          | 200kA                   | 6000                 | 10000                | 7.32 (186)                          | 5.89 (150)  | 6.00 (152)         |
| CFS364JN       | 200  | J          | 200kA                   | 6000                 | 8000                 | 11.46 (291)                         | 7.72 (196)  | 6.00 (152)         |
| CFS365JN       | 400  | J          | 200kA                   | 1000                 | 6000                 | 15.35 (390)                         | 10.19 (259) | 8.00 (203)         |
| CFS366J        | 600  | J          | 200kA                   | 1000                 | 5000                 | 11.81 (300)                         | 14.33 (364) | 11.00 (280)        |
| CFS466J        | 600  | J          | 200kA                   | 1000                 | 5000                 | 11.81 (300)                         | 18.03 (458) | 11.00 (280)        |
| CFS367L        | 800  | L          | 200kA                   | 500                  | 3500                 | 11.81 (300)                         | 14.33 (364) | 11.00 (280)        |
| CFS467L        | 800  | L          | 200kA                   | 500                  | 3500                 | 11.81 (300)                         | 18.03 (458) | 11.00 (280)        |

## Wire Ranges Line & Load Lugs

| Switch    | Amperage Rating | UL Approved Wire Size (75° C) |
|-----------|-----------------|-------------------------------|
| CFS361J5  | 30              | (1)#14-10                     |
| CFS361C5  | 30              | (1)#14-10                     |
| CFS361JN  | 30              | (1)#14-6                      |
| CFS362JN1 | 60              | (1)#14-6                      |
| CFS362JN  | 60              | (1)#12-1                      |
| CFS363JN  | 100             | (1)#12-1                      |
| CFS364JN  | 200             | (1)#3/0                       |
| CFS365JN  | 400             | (1)600MCM                     |
| CFS366J   | 600             | (2)350 MCM                    |
| CFS367L   | 800             | (2)600 MCM                    |

## Auxiliary Contact Capability When An NFPA79 Kit Is Used

| Switch    | NFPA79 Kit | Aux Contacts That Can Be Installed               |
|-----------|------------|--|
| CFS361C5  | CFSNFPA1   | (2) Total, CFS AUX1NO or CFS AUX1NC              |
| CFS361J5  |            | (1) CFS AUX1NO or (1) CFS AUX1NC                 |
| CFS361JN  | CFSNFPA2N  | (2) Total, CFS AUX1NO or CFS AUX1NC <sup>②</sup> |
| CFS362JN1 |            |  |
| CFS362JN  |            |  |
| CFS363JN  |            |  |
| CFS364JN  | CFSNFPA3N  | (2) Total, CFS AUX1NO or CFS AUX1NC <sup>②</sup> |
| CFS365JN  |            |  |

① Minimum dimensions from mounting surface to inside of cover. Dimensions shown can be decreased if aux contacts are not required.

② For additional auxiliary contacts use side mounted CFS11AUX or CFS22AUX.

# Disconnect Switches

Type CNFS Switches, Shafts And Handles

General Information

## Type CNFS Compact Non-Fusible Switches

### Description

Siemens Type CNFS compact non-fusible switches meet UL 98 requirements and can be used in either service entrance or branch circuit applications. They are available in 30-800A, 3-pole switches and are all rated 600VAC maximum.

All are open style, designed to be panel mounted and are UL listed under file number #E121152 or #E68312 and CSA certified under file number #222227. A variety of door mounted rotary operators are available with Type 1, 3R, 12 or 4/4X ratings.

These non-fusible switches are UL listed under file #E201138 and CSA certified under file #112964. They also conform to IEC standard 60947-3.

### Catalog Numbering System

#### CNFS Switches

Compact Non-Fusible Switch

- |      |   |   |   |   |
|------|---|---|---|---|
| CNFS | 3 | 6 | 1 | N |
|------|---|---|---|---|
- Number of poles 3 = 3
  - Max. Voltage Rating 6 = 600V
  - Ampere rating
    - 1 = 30A
    - 2 = 60A
    - 3 = 100A
    - 4 = 200A
    - 5 = 400A
    - 6 = 600A
    - 7 = 800A
  - Design type
    - N = Compact design



# Disconnect Switches

Type CNFS Compact Non-Fusible Switches

Features And Ordering Information

## Features

- 30 - 800A ratings
- UL Listed under file #E201138 & CSA Certified under file #112964 or #703166
- Options to have door mounted pistol handles with defeat-able cover interlock or direct mounted handles.
- Meets UL 98 requirements
- Compact size
- All short circuit protection ratings require the use of Class J fuses in the circuit.
- Load break and horsepower rated
- Quick make and break operation
- All external handles and direct handles for 600-800A switches are padlockable with up to (3) padlocks with 5/16" hasps in the OFF position. Direct handles for 30-100A switches are padlockable with (1) padlock with 3/16" hasps in the OFF position.
- All switches are able to be panel mounted. Catalog numbers CNFS361N, CNFS362N, & CNFS363N can also be DIN-rail mounted and can either be front or side operated with standard pistol handles.
- Handles are available in Type 1, 3R, 4/4X & 12 ratings



## Ordering information

1. Select the panel mounted switch required based on Ampere, HP and AIC requirements. Switches with a right hand mechanism are standard.
  2. Select handle based on environmental rating required.
  3. For door mounted handles, select operating shaft based on enclosure depth. For enclosure depths of 9.00" or less from panel mounting surface to inside of door use up to 200 mm long shafts. From 9.00" to 13.00" use up to 320 mm long shafts. For deeper enclosures use up to 400 mm long shafts. For direct mount handles, no shaft is needed.
  4. Line & load lugs are provided as standard on 30-100A switches. Terminal kits are available for 200-800A switches if needed.
  5. Auxiliary contacts are available if needed. Each switch will accept up to (2) aux contact modules, containing (2) contacts in each.
  6. 30-100A Series N switches are designed to prevent inadvertent contact with live parts and shields are not required but are offered as terminal shrouds. 100-400A switches are not supplied with terminal shields. They are available as separate field installed kits for both line and load terminals by amperage rating. Line side terminal screens are provided for 600-800A switches.
- Note: Be sure to check shaft and handle compatibility with the switch selected by using information provided in the selection tables.



# Disconnect Switches

## Type CNFS Compact Non-Fusible Switches

## Shaft and Handle Selection

### Type CNFS compact non-fusible switches

| Switch Ampere Rating | Catalog Number        | Max Horsepower Ratings |            |            | Short Circuit Rating |          |
|----------------------|-----------------------|------------------------|------------|------------|----------------------|----------|
|                      |                       | 240V 3Ø AC             | 480V 3Ø AC | 600V 3Ø AC | @ 480VAC             | @ 600VAC |
| 30                   | CNFS361N <sup>①</sup> | 10                     | 20         | 25         | 100                  | 100      |
| 60                   | CNFS362N <sup>①</sup> | 20                     | 40         | 50         | 100                  | 100      |
| 100                  | CNFS363N <sup>①</sup> | 20                     | 50         | 50         | 100                  | 25       |
| 200                  | CNFS364N <sup>②</sup> | 75                     | 150        | 200        | 200                  | 200      |
| 400                  | CNFS365N <sup>②</sup> | 125                    | 250        | 350        | 200                  | 200      |
| 600                  | CNFS366N <sup>②</sup> | 200                    | 400        | 350        | 200                  | 200      |
| 800                  | CNFS367N <sup>②</sup> | 200                    | 500        | 500        | 100                  | 100      |



### Direct mount rotary handles for compact non-fusible switches

| Catalog Number | Color | Use with compact non-fusible switches |
|----------------|-------|---------------------------------------|
| CNFSHD1        | Blue  | CNFS361N, CNFS362N, CNFS363N          |
| CNFSHD2        | Black | CNFS364N, CNFS365N                    |
| CNFSHD3        | Black | CNFS366N, CNFS367N                    |



### Operating shafts for compact non-fusible switches

| Catalog Number | Shaft length in. (mm) | Switch and handle compatibility  |
|----------------|-----------------------|--|
| CNFS52001      | 7.9 (200)             | 5mm x 5mm for use with CNFS361N, CNFS362N and CNFS363N switches and with "CNFSH5" handles only |
| CNFS53201      | 12.6 (320)            |  |
| CNFS54001      | 15.7 (400)            |  |
| CFSS10200HN    | 7.9 (200)             | 10mm x 10mm for use with "CFSH10" handles and with CNFS364N and CNFS365N switches only         |
| CNFS103202     | 12.6 (320)            |  |
| CFSS10400HN    | 15.7 (400)            |  |
| CNFS152003     | 7.9 (200)             | 15mm x 15mm for use with "CFSH12" handles and with CNFS366N and CNFS367N switches only         |
| CNFS153203     | 12.6 (320)            |  |
| CNFS154003     | 15.7 (400)            |  |



### Compact rotary operating handles for non-fusible switches – door mounted

| Catalog Number | Color      | UL Type        | Operating shaft compatibility        | Use with non-fusible compact switches |
|----------------|------------|----------------|--------------------------------------|---------------------------------------|
| CNFSH5BP121    | Black      | NEMA 1, 3R, 12 | CNFS52001, CNFS53201, CNFS54001      | CNFS361N, CNFS362N, CNFS363N          |
| CNFSH5RP121    | Red/Yellow | NEMA 1, 3R, 12 |                                      |                                       |
| CNFSH5BP41     | Black      | NEMA 4/4X      |                                      |                                       |
| CNFSH5RP41     | Red/Yellow | NEMA 4/4X      |                                      |                                       |
| CFSH10BL12N    | Black      | NEMA 1, 3R, 12 | CFSS10200HN, CNFS103202, CFSS10400HN | CNFS364N, CNFS365N                    |
| CFSH10RL12N    | Red/Yellow | NEMA 1, 3R, 12 |                                      |                                       |
| CFSH10BL4N     | Black      | NEMA 4/4X      |                                      |                                       |
| CFSH10RL4N     | Red/Yellow | NEMA 4/4X      |                                      |                                       |
| CFSH12BL12     | Black      | NEMA 1, 3R, 12 | CNFS152003, CNFS153203, CNFS154003   | CNFS366N, CNFS367N                    |
| CFSH12RL12     | Red/Yellow | NEMA 1, 3R, 12 |                                      |                                       |
| CFSH12BL4      | Black      | NEMA 4/4X      |                                      |                                       |
| CFSH12RL4      | Red/Yellow | NEMA 4/4X      |                                      |                                       |

① Line and load lugs are included.

② Line and load lugs are not included. Order from table on following pages if needed.

③ All switches can be rotated 180° for left hand operation as standard.

④ Compact pistol grip design (2.75" long) with defeatable cover interlock. Cover can be opened when handle is padlocked in the OFF position.

⑤ Defeatable cover interlock provided. Cover cannot be opened when handle is in the OFF position.

⑥ Flange mounting is not available for non-fusible switches.

# Disconnect Switches

## Type CNFS Compact Non-Fusible Switches

## Additional Accessories

### Auxiliary contacts for use with non-fusible switches

| Catalog Number | Number of Contacts  | Use with Non-fusible Contact Switches     |
|----------------|---|---|
| CNFS1AUX1      | 1 Normally Open + 1 Normally Closed                           | CNFS361N, CNFS362N, CNFS363N              |
| CNFS2AUX1      | 2 Normally Closed   |   |
| CNFS1AUX2      | 1st Auxiliary Contact:<br>1 Normally Open + 1 Normally Closed | CNFS364N, CNFS365N, CNFS366N,<br>CNFS367N |
| CNFS2AUX2      | 2nd Auxiliary Contact:<br>1 Normally Open + 1 Normally Closed |   |



### Terminal shrouds for use with non-fusible switches

| Catalog Number | Shroud Location | Use with Non-fusible Contact Switches |
|----------------|-----------------|---------------------------------------|
| CNFSSTS100     | Top and Bottom  | CNFS361N, CNFS362N, CNFS363N          |
| CNFTSC200T     | Top             | CNFS364N                              |
| CNFTSC200B     | Bottom          |                                       |
| CNFTSC400T     | Top             | CNFS365N                              |
| CNFTSC400B     | Bottom          |                                       |
| CNFTSC600B     | Bottom          | CNFS366N                              |
| CNFTSC800B     | Bottom          | CNFS367N                              |



### Terminal lug kits for use with non-fusible switches

| Catalog Number | Wire Sizes                 | Use with Non-fusible Contact Switches |
|----------------|----------------------------|---------------------------------------|
| Included       | #10-2/0                    | CNFS361N, CNFS362N, CNFS363N          |
| CFSL200        | #6-300MCM                  | CNFS364N                              |
| CFSL400N       | #2-600MCM                  | CNFS365N                              |
| CNFSL400D      | #6-350MCM, 2 wires per lug | CNFS366N                              |
| CFSL400        | #6-350MCM, 2 wires per lug | CNFS366N, CNFS367N <sup>Ⓞ</sup>       |



<sup>Ⓞ</sup> 2 kits needed for 800A, total 12 lugs to cover line and load sides.

# Disconnect Switches

## Type VB Panelboard Units

Selection

### Fusible Units For SB1, SB2 Switchboards and F1, F2 Panelboards

**Catalog Numbering System**

**V 7 E 3 2 3 3 A**

**Vacu-Break Unit** → V

**Width** → 7

2 = 12"    7 = 17"    M = 17" (Main)

**Height** → E

A = 2½"    B = 5"    E = 7½"    F = 10"    H = 15"    S = 18.75"

**Number of Poles** → 3

2    3

**Voltage Rating** → 2

2 = 240V    6 = 600V

**Amperes** → 3

0 = Single Unit  
Double    1 = 30A    2 = 60A    3 = 100A    4 = 200A

**Ampere Rating** → 3

1 = 30A    2 = 60A    3 = 100A    4 = 200A    5 = 400A    6 = 600A

**Series Type** → A

A = 400A, 600A    Omit = 30A–200A, 800A–1200A

Example: V7E3233 = **Vacu-Break Unit, 17" Wide, 7½" High, 3-Pole, 240 Volts, Double Branch Unit with 100 Amp Rating each side. Suffix letters MS indicate Main Switch.**

### Vacu-Break® Fusible Units

#### 2-Pole<sup>①</sup>, 12" Wide

240V AC, 250V DC

| Ampere Rating | Unit Height (inches) | Unit Depth (inches) | Horsepower Rating |         |             | Unit Lug Wire Range (Cu/Al) and Cables Per Pole | Weight (pounds) | Catalog Number |
|---------------|----------------------|---------------------|-------------------|---------|-------------|---|-----------------|----------------|
|               |                      |                     | 240 Volt AC       |         | 250 Volt DC |   |                 |                |
|               |                      |                     | Standard          | Maximum |             |   |                 |                |
| 30–30         | 2½ <sup>②</sup>      | 4½                  | 1½                | 3       | 5           | (1)–#14 to #8 (Cu Only)                         | 5               | V2A2211LR■     |
| 30–30         | 5                    | 4½                  | 1½                | 3       | 5           | (1)–#14 to #4                                   | 9               | V2B2211LR■     |
| 30–60         | 5                    | 4½                  | 1½–3              | 3–10    | 5–10        | (1)–#14 to #2                                   | 9               | V2B2212LR■     |
| 60–60         | 5                    | 4½                  | 3                 | 10      | 10          | (1)–#14 to #2                                   | 9               | V2B2222LR■     |
| 100           | 7½                   | 6¾                  | 7½                | 15      | 20          | (1)–#14 to #1/0                                 | 14              | V2E2203LR■     |
| 200           | 7½                   | 6¾                  | 15                | —       | 40          | (1)–#6 to 350 kcmil                             | 19              | V2E2204LR■     |

#### 3-Pole

240V AC, 250V DC

| Ampere Rating | Unit Height (inches) | Unit Depth (inches) | Horsepower Rating |         | Unit Lug Wire Range (Cu/Al) and Cables Per Pole | Weight (pounds) | Catalog Number |
|---------------|----------------------|---------------------|-------------------|---------|---|-----------------|----------------|
|               |                      |                     | 240 Volt AC       |         |   |                 |                |
|               |                      |                     | Standard          | Maximum |   |                 |                |

#### Branch Circuits, 12" Wide Units

|       |                 |    |      |       |                         |    |                         |
|-------|-----------------|----|------|-------|-------------------------|----|-------------------------|
| 30–30 | 2½ <sup>②</sup> | 4½ | 3    | 7½    | (1)–#14 to #8 (Cu Only) | 5  | V2A3211■                |
| 30–30 | 5               | 4½ | 3    | 7½    | (1)–#14 to #4           | 9  | V2B3211■                |
| 30–30 | 5               | 4½ | 3    | 7½    | (1)–#14 to #4           | 9  | V2B3211R <sup>③</sup> ■ |
| 30–60 | 5               | 4½ | 3–7½ | 7½–15 | (1)–#14 to #2           | 9  | V2B3212■                |
| 30–60 | 5               | 4½ | 3–7½ | 7½–15 | (1)–#14 to #2           | 9  | V2B3212R <sup>③</sup> ■ |
| 60–60 | 5               | 4½ | 7½   | 15    | (1)–#14 to #2           | 9  | V2B3222                 |
| 60–60 | 5               | 4½ | 7½   | 15    | (1)–#14 to #2           | 9  | V2B3222R <sup>③</sup> ■ |
| 100   | 7½              | 6¾ | 15   | 30    | (1)–#14 to #1/0         | 14 | V2E3203                 |
| 200   | 10              | 6¾ | 25   | 60    | (1)–#6 to 350 kcmil     | 21 | V2F3204                 |

#### Main Switch<sup>④</sup>, 12" Wide Units, Back Connected

|     |    |    |    |    |   |    |            |
|-----|----|----|----|----|---|----|------------|
| 200 | 10 | 6¾ | 25 | 50 | ⑤ | 21 | V2F3204MS■ |
|-----|----|----|----|----|---|----|------------|

For inches / millimeters conversion, multiply inches by 25.4.

■ Built to order. Allow 4–6 weeks for delivery.

① These units are available in LR (left, right) connection configurations only.

② This unit is not a Vacu-Break unit, but rather operates on a sliding contact, double break principle. Rated 10,000 AIC max. with either Class H or K fuses. Will not accept Class R fuse clip kits.

③ Units set up for R-fuse application only.

④ For 2-pole main switch (200A), use 3-pole main switch Vacu-Break unit.

⑤ Load-side furnished with spade type bolted terminal pads.

# Disconnect Switches

Type VB Panel Units

Selection

Vacu-Break® Fusible Units for SB1, SB2 Switchboards and F1, F2 Panelboards

| Ampere Rating | Unit Height (inches) | Unit Depth (inches) | Horsepower Rating |         |             | Lug Wire Range (Cu/Al) and Cables Per Pole | Unit Weight (pounds) | Catalog Number |
|---------------|----------------------|---------------------|-------------------|---------|-------------|--|----------------------|----------------|
|               |                      |                     | 240 Volt AC       |         | 250 Volt DC |  |                      |                |
|               |                      |                     | Standard          | Maximum |             |  |                      |                |

**2-Pole<sup>①</sup>, Branch Circuits, 17" Wide Units****240V AC, 250V DC**

|                     |                 |      |      |       |       |  |    |               |
|---------------------|-----------------|------|------|-------|-------|--|----|---------------|
| 30-30               | 2½ <sup>②</sup> | 6¾   | 1½   | 3     | 5     | (1)-#14 to #8 (Cu Only)                        | 5  | V7A2211_①③■   |
| 30-30               | 5               | 6¾   | 1½   | 3     | 5     | (1)-#14 to #4                                  | 9  | V7B2211LR○    |
| 30-30               | 5               | 6¾   | 1½   | 3     | 5     | (1)-#14 to #4                                  | 9  | V7B2211_①_R⑤  |
| 30-60 <sup>③</sup>  | 5               | 6¾   | 1½-3 | 3-10  | 5-10  | (1)-#14 to #2                                  | 9  | V7B2212LR④■   |
| 30-60 <sup>③</sup>  | 5               | 6¾   | 1½-3 | 3-10  | 5-10  | (1)-#14 to #4                                  | 9  | V7B2212LRR⑤■  |
| 60-60               | 5               | 6¾   | 3    | 10    | 10    | (1)-#14 to #2                                  | 9  | V7B2222_①③    |
| 60-60               | 5               | 6¾   | 3    | 10    | 10    | (1)-#14 to #2                                  | 9  | V7B2222_①_R⑤⑥ |
| 60-100 <sup>③</sup> | 7½              | 6¾   | 3-7½ | 10-15 | 10-20 | (1)-#14 to #1/0                                | 18 | V7E2223LR④■   |
| 100-100             | 7½              | 6¾   | 7½   | 15    | 20    | (1)-#14 to #1/0                                | 20 | V7E2233_①○    |
| 200                 | 7½              | 6¾   | 15   | —     | 40    | (1)-#6 to 350 kcmil                            | 21 | V7E2204_①□    |
| 400                 | 10              | 10.5 | —    | —     | 50    | (1)-#1/0 to 750 kcmil or (2)-#1/0 to 300 kcmil | 35 | V7F3205A⑦●    |
| 400                 | 15              | 10.5 | —    | —     | 50    | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H2205A⑧●    |
| 600                 | 15              | 10.5 | —    | —     | —     | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H2206A⑧■●   |

**3-Pole, Branch Circuits, 17" Wide Units****240V AC**

|         |                 |      |       |       |     |  |    |            |
|---------|-----------------|------|-------|-------|-----|--|----|------------|
| 30-30   | 2½ <sup>②</sup> | 6¾   | 3     | 7½    | —   | (1)-#14 to #8 (Cu Only)                        | 5  | V7A3211    |
| 30-30   | 5               | 6¾   | 3     | 7½    | —   | (1)-#14 to #4                                  | 9  | V7B3211    |
| 30-30   | 5               | 6¾   | 3     | 7½    | —   | (1)-#14 to #4                                  | 9  | V7B3211R⑤  |
| 30-60   | 5               | 6¾   | 3-7½  | 7½-15 | —   | (1)-#14 to #2                                  | 9  | V7B3212    |
| 30-60   | 5               | 6¾   | 3-7½  | 7½-15 | —   | (1)-#14 to #2                                  | 9  | V7B3212R⑤  |
| 60-60   | 5               | 6¾   | 7½    | 15    | —   | (1)-#14 to #2                                  | 9  | V7B3222    |
| 60-60   | 5               | 6¾   | 7½    | 15    | —   | (1)-#14 to #2                                  | 9  | V7B3222R⑤  |
| 60      | 7½              | 6¾   | 7½    | 15    | —   | (1)-#14 to #1/0                                | 13 | V7E3202    |
| 60-100  | 7½              | 6¾   | 7½-15 | 15-30 | —   | (1)-#14 to #1/0                                | 18 | V7E3223    |
| 100-100 | 7½              | 6¾   | 15    | 30    | —   | (1)-#14 to #1/0                                | 20 | V7E3233    |
| 100-100 | 7½              | 6¾   | 15    | 30    | —   | (1)-#14 to #1/0                                | 20 | V7E3233R⑤  |
| 100     | 7½              | 6¾   | 15    | 30    | —   | (1)-#14 to #1/0                                | 14 | V7E3203    |
| 200-200 | 10              | 6¾   | 25    | 60    | —   | (1)-#6 to 300 kcmil                            | 40 | V7F3644⑨   |
| 200-200 | 10              | 6¾   | 25    | 60    | —   | (1)-#6 to 300 kcmil                            | 40 | V7F3244R⑨  |
| 200     | 10              | 6¾   | 25    | 60    | —   | (1)-#6 to 350 kcmil                            | 21 | V7F3204    |
| 400     | 10              | 10.5 | 100   | 250   | 125 | (1)-#1/0 to 750 kcmil or (2)-#1/0 to 300 kcmil | 35 | V7F3205A⑦● |
| 400     | 15              | 10.5 | 100   | 250   | 125 | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H3205A●  |
| 600     | 15              | 10.5 | 150   | 400   | 200 | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H3206A●  |

**3-Pole, Main Switch, 17" Wide Units (Vertical Mount, Top Feed, Front Connected)****240V AC**

|     |       |     |    |     |   |   |   |         |
|-----|-------|-----|----|-----|---|---|---|---------|
| 400 | 18.75 | 10% | 50 | 125 | — | — | — | VMS325T |
| 600 | 18.75 | 10% | 75 | 200 | — | — | — | VMS326T |

**3-Pole, Main Switch, 17" Wide Units (Vertical Mount, Bottom Feed, Front Connected)****240V AC**

|     |       |     |    |     |   |   |   |         |
|-----|-------|-----|----|-----|---|---|---|---------|
| 400 | 18.75 | 10% | 50 | 125 | — | — | — | VMS325B |
| 600 | 18.75 | 10% | 75 | 200 | — | — | — | VMS326B |

For inches / millimeters conversion, multiply inches by 25.4.

- Built to order. Allow 4-6 weeks for delivery.
- MR suffix. Built to order. Allow 4-6 weeks for delivery.
- MR, LM suffix. Built to order. Allow 4-6 weeks for delivery.
- A suffix. New 'Series A' design

① Order 2-pole branch circuit units by adding appropriate connection designation LM, LR or MR (indicating Left, Middle and Right, facing the panel).

② This unit is not a Vacu-Break unit, but rather operates on a sliding contact, double break principle. Rated 10,000 AIC max. with either Class H or K fuses. Will not accept Class R fuse clip kits.

③ MR not available.

④ Available as Type LR connection designation only.

⑤ Switches set up for R-fuse applications only.

⑥ Rated 600 Volts but factory configured to accept 250V Class H, K or R fuses. Field convertible for Class J fuses for 600V applications. Field convertible for 300V Class T fuse with TFAK42 kit.

⑦ Compact 10" version of 400A.

⑧ V7B2222MR not available

⑨ 3-pole compact 10" version suitable for 2-pole application.

# Disconnect Switches

Type VB Panel Units

Selection

## Vacu-Break® Fusible Units For SB1, SB2 Switchboards and F1, F2 Panelboards

| Ampere Rating | Unit Height (inches) | Unit Depth (inches) | Horsepower Rating |         |             |         | Lug Wire Range (Cu/Al) and Cables Per Pole | Unit Weight (pounds) | Catalog Number |
|---------------|----------------------|---------------------|-------------------|---------|-------------|---------|--|----------------------|----------------|
|               |                      |                     | 480 Volt AC       |         | 600 Volt AC |         |  |                      |                |
|               |                      |                     | Standard          | Maximum | Standard    | Maximum |  |                      |                |

### 2-Pole, Branch Circuits, 17" Wide Units<sup>①</sup>

600V AC, 250V DC

|       |    |    |     |       |     |       |                 |    |                          |
|-------|----|----|-----|-------|-----|-------|-----------------|----|--------------------------|
| 30-30 | 7½ | 6¾ | 3   | 7½    | 3   | 10    | (1)-#14 to #4   | 14 | V7E2611LR <sup>②</sup> ■ |
| 30-60 | 7½ | 6¾ | 3-5 | 7½-20 | 3-5 | 20-25 | (1)-#14 to #4   | 14 | V7E2612LR <sup>②</sup> ■ |
| 100   | 7½ | 6¾ | 10  | 20    | 15  | 40    | (1)-#14 to #1/0 | 14 | V7E2603LR <sup>②</sup> ■ |

### 3-Pole, Branch Circuits, 17" Wide Units

600V AC, 250V DC

|         |    |     |       |       |       |       |  |    |                         |
|---------|----|-----|-------|-------|-------|-------|--|----|-------------------------|
| 30-30   | 7½ | 6¾  | 5     | 15    | 7½    | 20    | (1)-#14 to #4                                  | 14 | V7E3611                 |
| 30-30   | 7½ | 6¾  | 5     | 15    | 7½    | 20    | (1)-#14 to #4                                  | 14 | V7E3611R <sup>②</sup>   |
| 30      | 7½ | 6¾  | 5     | 15    | 7½    | 20    | (1)-#14 to #4                                  | 14 | V7E3601                 |
| 30-60   | 7½ | 6¾  | 5-15  | 15-30 | 7½-15 | 20-50 | (1)-#14 to #2                                  | 14 | V7E3612                 |
| 60-60   | 7½ | 6¾  | 15    | 30    | 15    | 50    | (1)-#14 to #2                                  | 14 | V7E3622                 |
| 60-60   | 7½ | 6¾  | 15    | 30    | 15    | 50    | (1)-#14 to #2                                  | 14 | V7E3622R <sup>②</sup>   |
| 60      | 7½ | 6¾  | 15    | 30    | 15    | 30    | (1)-#14 to #2                                  | 14 | V7E3602                 |
| 60-100  | 7½ | 6¾  | 15-25 | 30-60 | 15-30 | 50-75 | (1)-#14 to #1/0                                | 18 | V7E3623                 |
| 100-100 | 7½ | 6¾  | 25    | 60    | 30    | 75    | (1)-#14 to #1/0                                | 20 | V7E3633                 |
| 100-100 | 7½ | 6¾  | 25    | 60    | 30    | 75    | (1)-#14 to #1/0                                | 20 | V7E3633R <sup>②</sup>   |
| 100     | 7½ | 6¾  | 25    | 60    | 30    | 75    | (1)-#14 to #1/0                                | 14 | V7E3603                 |
| 200-200 | 10 | 6¾  | 50    | 125   | 60    | 150   | (1)-#6 to 300 kcmil                            | 40 | V7F3644J <sup>②</sup>   |
| 200     | 10 | 6¾  | 50    | 125   | 60    | 150   | (1)-#6 to 350 kcmil                            | 21 | V7F3604                 |
| 200     | 10 | 6¾  | 50    | 125   | 60    | 150   | (1)-#6 to 350 kcmil                            | 21 | V7F3604R <sup>②</sup>   |
| 400     | 10 | 10½ | 100   | 250   | 125   | 350   | (1)-#1/0 to 750 kcmil or (2)-#1/0 to 300 kcmil | 35 | V7F3605A <sup>③</sup> ● |
| 400     | 15 | 10½ | 100   | 250   | 125   | 350   | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H3605A●               |
| 600     | 15 | 10½ | 150   | 400   | 200   | 500   | (2)-#1/0 to 750 kcmil or (4)-#1/0 to #4/0      | 44 | V7H3606A●               |

### 3-Pole, Main Switch, 17" Wide Units (Vertical Mount, Top Feed, Front Connected)

600V AC, 250V DC

|     |       |     |     |     |     |     |   |   |         |
|-----|-------|-----|-----|-----|-----|-----|---|---|---------|
| 400 | 18.75 | 10⅝ | 100 | 250 | 125 | 350 | ③ | — | VMS365T |
| 600 | 18.75 | 10⅝ | 150 | 400 | 200 | 500 | ③ | — | VMS366T |

### 3-Pole, Main Switch, 17" Wide Units (Vertical Mount, Bottom Feed, Front Connected)

600V AC, 250V DC

|     |       |                                  |     |     |     |     |   |   |         |
|-----|-------|----------------------------------|-----|-----|-----|-----|---|---|---------|
| 400 | 18.75 | 17 <sup>11</sup> / <sub>16</sub> | 100 | 250 | 125 | 350 | ③ | — | VMS365B |
| 600 | 18.75 | 17 <sup>11</sup> / <sub>16</sub> | 150 | 400 | 200 | 500 | ③ | — | VMS366B |

### 3-Pole, Switchboard Units, 21" Wide Units, Front Connected<sup>⑤</sup>

600V AC, 250V DC

|      |    |     |     |     |     |     |   |     |                              |
|------|----|-----|-----|-----|-----|-----|---|-----|------------------------------|
| 800  | 25 | 12¾ | 200 | 500 | 250 | 500 | — | 160 | VF357TL or BL <sup>④</sup> ○ |
| 1200 | 25 | 12¾ | —   | —   | —   | —   | — | 160 | VF358TL or BL <sup>④</sup> ○ |

### 3-Pole, Switchboard Units, 21" Wide, Back Connected

600V AC, 250V DC

|      |    |     |     |     |     |     |   |     |                              |
|------|----|-----|-----|-----|-----|-----|---|-----|------------------------------|
| 800  | 25 | 12¾ | 200 | 500 | 250 | 500 | — | 160 | VB357TL or BL <sup>④</sup> ■ |
| 1200 | 25 | 12¾ | —   | —   | —   | —   | — | 160 | VB358TL or BL <sup>④</sup> ■ |

- Built to order. Allow 2-3 weeks for delivery.
- ◆ MR suffix only is available and built to order. Allow 2-3 weeks for delivery.
- BL suffix. Built to order. Allow 2-3 weeks for delivery.
- A suffix. New 'Series A' design

- ③ Catalog number for 2-pole branch circuit units indicate connection designation LM, LR or MR (indicating Left, Middle and Right, facing the panel).
- ② Unit configured to accept class J fuses only. Also accepts 300V Class T fuses when used with TFAK42 adapter kit.
- ④ Load-side furnished with spade type bolted terminal pads.
- ⑤ Suffix "T" or "TL" indicates Top Feed.
- ⑥ Suffix "B" or "BL" indicates Bottom Feed.

- ③ Back connected units are also available. Substitute the letter "B" (back connected) for the letter "F" (front connected) in the prefix of the catalog number. All other features are identical.
- ④ Available as Type MR designation only.
- ⑤ Switches set up for R-fuse applications only.
- ⑥ Available as Type LR designation only.
- ⑦ 3-pole compact 10" version suitable for 2-pole application.



# Disconnect Switches

Type VB Panelboard Units, Accessories

Selection

## Extension Kits

To extend Vacu-Break unit's depth, order the extension kit which meets the specifications of the unit to be extended. Specify by catalog number from the table to the right.

| Unit Type | Unit Height (inches) | Normal Unit Depth (inches)     | Extended Unit Depth (inches) | Catalog Number |
|-----------|----------------------|--------------------------------|------------------------------|----------------|
| V2A       | 2½                   | 4 <sup>9</sup> / <sub>16</sub> | 6¾                           | W43000■        |
| V2B       | 5                    | 4 <sup>9</sup> / <sub>16</sub> | 6¾                           | W43002         |
| V7A       | 2½                   | 6¾                             | 10½                          | W48762         |
| V7B       | 5                    | 6¾                             | 10½                          | W48763         |
| V7E       | 7½                   | 6¾                             | 10½                          | W48764         |
| V7F       | 10                   | 6¾                             | 10½                          | W48765®        |

## Fuse Adapter Kits

Class R and Class J Fuse Kits are single unit part numbers. Order (2) kits for dual units. Class T Fuse Kits are single pole part numbers. Order (3) kits for a 3-pole unit. To order the kit which meets the specifications of the unit to be changed, specify by catalog number from the tables below.

### 240 Volt Fuse Adapter Kits

| Switch Amperage | Class R Kits   | Class J Kits        | Class T Kits   |
|-----------------|----------------|---------------------|----------------|
|                 | Catalog Number | Catalog Number      | Catalog Number |
| 30 <sup>Ⓞ</sup> | Factory Inst.  | —                   | —              |
| 60              | W56628         | —                   | —              |
| 100             | W55365         | W49827              | TFAK32         |
| 200             | W55366         | W49819              | TFAK42         |
| 400             | HR65A          | — <sup>Ⓞ⑦</sup>     | HT25A          |
| 600             | HR66A          | HJ66A <sup>Ⓞ®</sup> | HT26A          |

### 600 Volt Fuse Adapter Kits

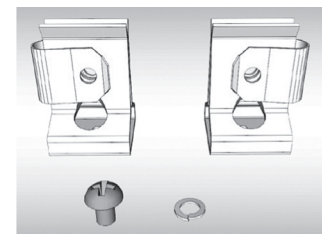
| Switch Amperage | Class R Kits        | Class J Kits        | Class T Kits               |
|-----------------|---------------------|---------------------|----------------------------|
|                 | Catalog Number      | Catalog Number      | Catalog Number             |
| 30              | W56623              | W49832              | —                          |
| 60              | W56629              | W49830              | —                          |
| 100             | W55365              | W49828              | TFAK35                     |
| 200             | W55366 <sup>Ⓞ</sup> | W49818 <sup>①</sup> | TFAK45                     |
| 400             | HR65A <sup>Ⓞ</sup>  | HJ65A <sup>Ⓞ⑦</sup> | HT65A, HT265A <sup>®</sup> |
| 600             | HR66A               | HJ66A               | HT66A                      |
| 800             | —                   | —                   | TFAK75                     |

## Vacu-Break Connecting Strap Kits For Panelboards and Switchboards

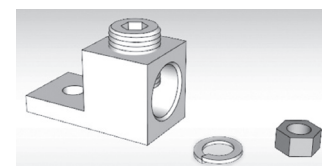
| Ampere Rating | 240V Unit Height (inches) | 600V Unit Height (inches) | P4/S4/F1, FPP (10" Deep) Strap Kit | P5/S5/F2 (12.75" Deep) Strap Kit | SB1, SB2, SB3, VB-5, VB-6, Strap Kit |
|---------------|---------------------------|---------------------------|------------------------------------|----------------------------------|--------------------------------------|
| 30-30         | 2.5                       | —                         | F602                               | F602D                            | —                                    |
| 30-30         | 5                         | 7.5                       | F657                               | F657D                            | VB657                                |
| 30-60         | 5                         | 7.5                       | F657                               | F657D                            | VB657                                |
| 60-60         | 5                         | 7.5                       | F657                               | F657D                            | VB657                                |
| 60-100        | 7.5                       | 7.5                       | F657                               | F657D                            | VB657                                |
| 100-100       | 7.5                       | 7.5                       | F657                               | F657D                            | VB657                                |
| 100           | 7.5                       | 7.5                       | F657                               | F657D                            | VB657                                |
| 200           | 7.5, 10                   | 7.5, 10                   | F671                               | F671D                            | VB671                                |
| 200-200       | 10                        | 10                        | F672                               | F672D                            | VB610                                |

## Ordering Information

| Catalog Number        | Description  |
|-----------------------|--|
| <b>Fuse Clip Kits</b> |  |
| VBFLC3 <sup>④</sup>   | 100A for V2E & V7E units (6) fuse clips per kit              |
| VBFLC4 <sup>⑤</sup>   | 200A for V2E, V2F, V7E & V7F units (6) fuse clips per kit    |
| <b>Lug Kits</b>       |  |
| VBRL4                 | 200A for V2F, V7E & V7F units (3) lugs per kit               |
| V7HBB65A <sup>⑩</sup> | Replacement lug base for 400A standard height (15") Series A |
| V7FBB65A <sup>⑩</sup> | Replacement lug base for 400A compact height (10") Series A  |
| V7HBB66A <sup>⑩</sup> | Replacement lug base for 600A Series A                       |
| <b>Handle Kits</b>    |  |
| VBRHK1232             | 100A for twin V2E & V7E units (2) handles per kit            |
| VBRHK41               | 200A for single V2E, V2F, V7E & V7F units (1) handle per kit |
| VBRHK42               | 200A for twin V7F units (2) handles per kit                  |



VBFLC4



VBRL4



VBRHK41

For inches / millimeters conversion, multiply inches by 25.4.

■ Built to order. Allow 2-3 weeks for delivery.

● A suffix. New 'Series A' design

① For 200 A single units only. Dual units are suitable for Class J only, when used above 240V.

② 5" unit height switches only.

③ For single units only.

④ Fuse clips provided can be used on both the line and load sides.

⑤ Three line and three load fuse clips are provided.

⑥ Kit not required for branch circuit switch, relocate lug base to achieve fuse fit

⑦ J fuse option not available for 240V main switch

⑧ Lug base relocation plus kit required for branch circuit switches

⑨ Kit required for main switch only

⑩ HT265A required for V7F3605A

⑪ One lug base required per switch

⑫ Not for use on V7F3605A

⑬ Not for use on V7F3605A or V7F3205A

# Disconnect Switches

## Type HCP Switchboard Units, Accessories

Selection

### Features

- UL Listed under file number E6849 Vol 1, Sect. 8
- 400-1200A ratings
- Visible contacts
- Field installable shunt trip and auxiliary switch accessory kits
- Installs in existing Siemens switchboards and power panelboards
- Suitable for use on systems with up to 200,000A available fault current, RMS symmetrical when equipped with Class J or Class L fuses
- Group mounts with other 30A through 600A switches, and 100 through 1200 amp frame breakers
- Allows 800A and 1200A switches in standard 38" wide distribution sections in either main or branch configurations
- 16 1/4" mounting height is the smallest 1200A design in the industry, allowing up to 4 units in one vertical section
- Field reversible horizontal mounting design for left or right hand cabling
- Handle can be padlocked in the OFF position with up to three padlocks with 5/16" hasps. A cover padlocking provision is also supplied



### 3-Pole, Horizontal Mount<sup>①</sup>

| Catalog Number | Maximum Ampere Rating | Maximum AC Voltage Rating <sup>②</sup> | Fuse Class | Dimensions (inches*) |       |      | Horsepower Rating |     |      |     |      |     |         |
|----------------|-----------------------|--|------------|----------------------|-------|------|-------------------|-----|------|-----|------|-----|---------|
|                |                       |  |            |                      |       |      | 240V              |     | 480V |     | 600V |     | 250V DC |
|                |                       |  |            | H                    | W     | D    | Std               | Max | Std  | Max | Std  | Max |         |
| HCP367HJ400    | 400                   | 600                                    | J          | 16.25                | 17.22 | 7.38 | 50                | 125 | 100  | 250 | 125  | 350 | 40      |
| HCP367HJ600    | 600                   | 600                                    | J          | 16.25                | 17.22 | 7.38 | 75                | 200 | 150  | 400 | 200  | 400 | 40      |
| HCP327HT       | 800                   | 240                                    | T          | 16.25                | 17.22 | 7.38 | 100               | 250 | —    | —   | —    | —   | 50      |
| HCP367H        | 800                   | 600                                    | L          | 16.25                | 17.22 | 7.38 | 100               | 250 | 200  | 500 | 250  | 500 | 50      |
| HCP328HT       | 1200                  | 240                                    | T          | 16.25                | 17.22 | 7.38 | 100               | 250 | —    | —   | —    | —   | 50      |
| HCP368H        | 1200                  | 600                                    | L          | 16.25                | 17.22 | 7.38 | 100               | 250 | 200  | 500 | 250  | 500 | 50      |

### 3-Pole, Vertical Mount

|              |      |     |   |       |       |      |     |     |     |     |     |     |    |
|--------------|------|-----|---|-------|-------|------|-----|-----|-----|-----|-----|-----|----|
| HCP367VJ400  | 400  | 600 | J | 17.00 | 16.25 | 7.38 | 50  | 125 | 100 | 250 | 125 | 350 | 40 |
| HCP367VJ600▲ | 600  | 600 | J | 17.00 | 16.25 | 7.38 | 75  | 200 | 150 | 400 | 200 | 400 | 40 |
| HCP327VT     | 800  | 240 | T | 17.00 | 16.25 | 7.38 | 100 | 250 | —   | —   | —   | —   | 50 |
| HCP367V      | 800  | 600 | L | 17.00 | 16.25 | 7.38 | 100 | 250 | 200 | 500 | 250 | 500 | 50 |
| HCP328VT     | 1200 | 240 | T | 17.00 | 16.25 | 7.38 | 100 | 250 | —   | —   | —   | —   | 50 |
| HCP368V      | 1200 | 600 | L | 17.00 | 16.25 | 7.38 | 100 | 250 | 200 | 500 | 250 | 500 | 50 |

## Accessories

### Terminal Connectors (one lug per kit)

| Ampere Rating | Catalog Number | Connector Wire Range            |
|---------------|----------------|---------------------------------|
| 400-600A      | TA2K500        | (2) #1 AWG-500 kcmil (Cu or Al) |
| 400-600A      | TC2K500        | (2) #1 AWG-500 kcmil (Cu only)  |
| 400-800A      | TA3K500        | (3) #1 AWG-500 kcmil (Cu or Al) |
| 400-800A      | TC3K350        | (3) #1 AWG-350 kcmil (Cu only)  |
| 400-1200A     | TA4H500        | (4) #2 AWG-500 kcmil (Cu or Al) |
| 400-1200A     | TA3H750        | (3) 500-750 kcmil (Cu or Al)    |

### Auxiliary Switch Kits

| Contact Ampere Rating | Maximum Voltage |     | Switch Mounting | Contacts | Catalog Number |
|-----------------------|-----------------|-----|-----------------|----------|----------------|
|                       | AC              | DC  |                 |          |                |
| 15A                   | 480             | 125 | Left Pole       | 1NO/1NC  | A01HCP4▲       |
| 15A                   | 480             | 125 | Right Pole      | 1NO/1NC  | A01HCP4        |

### Shunt Trip Kit

| Control Voltage |    | Catalog Number |
|-----------------|----|----------------|
| AC              | DC |                |
| 120             | —  | HCPST120       |
| 240             | —  | HCPST240▲      |
| 277             | —  | HCPST277       |
| 480             | —  | HCPST480▲      |

\*For inches / millimeters conversion, multiply inches by 25.4.

### Switchboard Connection Strap Kit<sup>①</sup>

| Switch Ampere Rating | Catalog Number |
|----------------------|----------------|
| 400-1200A            | F6162D         |

▲ Built to order. Allow 6-8 weeks for delivery.  
 ① For horizontal mounting only in either 38" wide min switchboards or S5/F2 power panelboards.

### T Fuse Adapter Kits (one per pole)

| Catalog Number | Description    |
|----------------|----------------|
| TFAK72         | 800A, 300V AC  |
| TFAK75         | 800A, 600V AC  |
| TFAK82         | 1200A, 300V AC |

### HCP Replacement Handle Kit (For use on all HCP switches)

| SW Ampere Rating | Catalog Number |
|------------------|----------------|
| 400-1200A        | HCPHK          |

### Compression Lug Adapter Kit

The use of this kit provides for the mounting of up to four lugs per phase. Each kit accepts lugs with (2) 3/8" diameter mounting holes on 1" centers. One kit per pole line or load is required. Lugs are not provided.

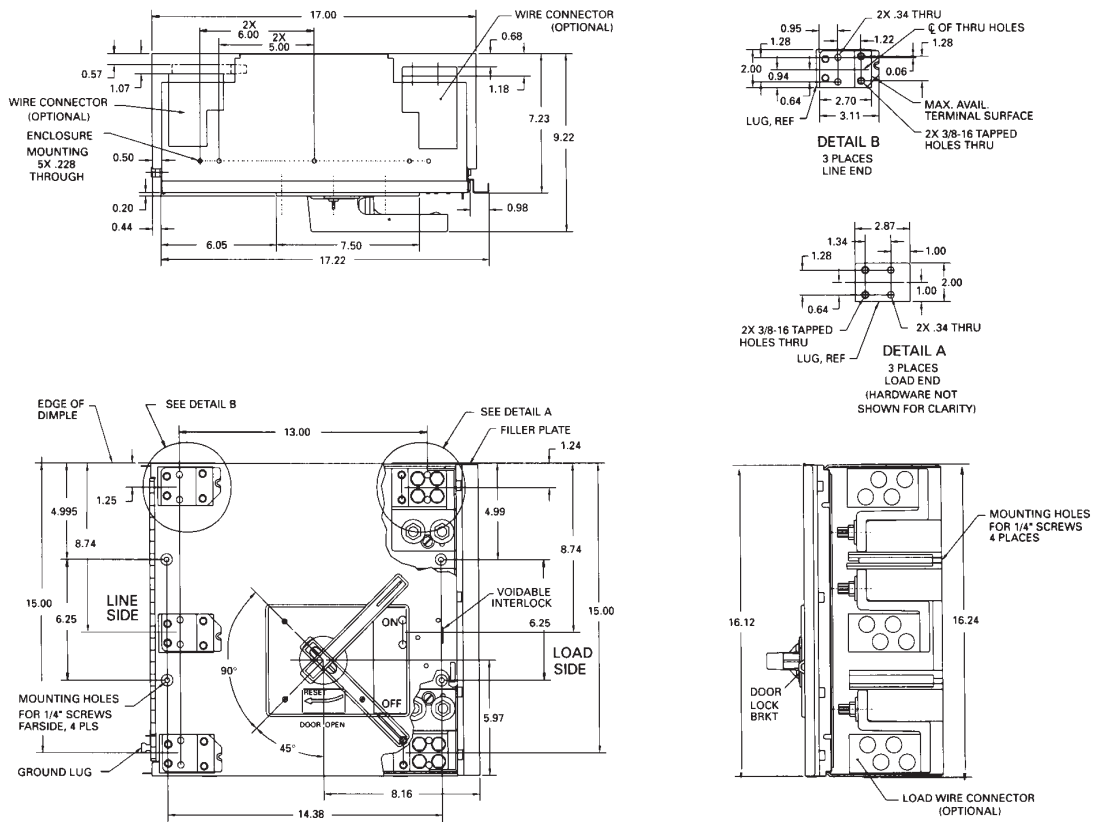
② Both 240 and 600V AC switches are also rated 250V DC max.

# Disconnect Switches

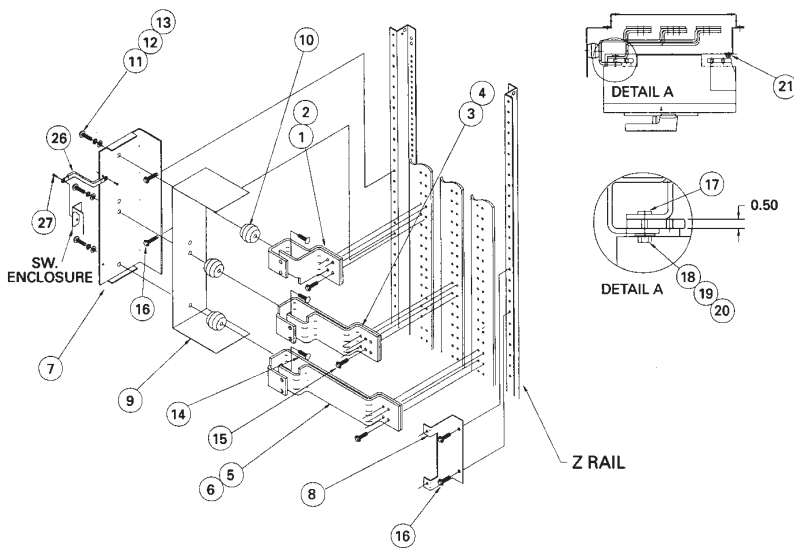
Type HCP Switchboard Units

Dimensions

## Horizontal Mount Drawing



## Group Mounting Assembly (Horizontal Mount Only)



Note: Right exit shown, rotate 180° for left exit  
 Note: Items 26 & 27 are used to ground the switch enclosure (Route bonding wire along flange)

| Item | Parts Supplied in Connection Strap Kit Cat. No. F6162D | Qty. |
|------|--|------|
| 1-2  | A/C Ø Strap (Short)                                    | 1ea. |
| 3-4  | B Ø Strap  | 1ea. |
| 5-6  | A/C Ø Strap (Long)                                     | 1ea. |
| 7-8  | Switch Mounting Bracket                                | 1ea. |
| 9    | Insulation   | 1    |
| 10   | 1-3/8" Insulator                                       | 3    |
| 11   | 3/8-16 X 3/4" HHMS                                     | 3    |
| 12   | 3/8" Lock Washer                                       | 3    |
| 13   | 3/8" Flat Washer                                       | 3    |
| 14   | 3/8-16 X 3/4" RHSNB                                    | 3    |
| 15   | Strap Bus Hardware Kit                                 | 2    |
| 16   | 1/4-28 X 3/8" SHWHSW                                   | 4    |
| 17   | 5/16-18 Insert   | 6    |
| 18   | 5/16-18 X 1" SRHMS                                     | 6    |
| 19   | 5/16 Flat Washer                                       | 6    |
| 20   | 5/16 Lock Washer                                       | 6    |
| 21   | 1/4-20 X 1" SRHMS                                      | 2    |
| 26   | Ground Bracket   | 1    |
| 27   | 10-32 X 1/4" SHWHSW                                    | 2    |

# Disconnect Switches

## Type TFP Fusible Pullouts

Selection/Dimensions

### Features

#### Type TFP Fusible Pullouts

- 100 and 200 Ampere Disconnects
- 240 Volt and 600 Volt Designs
- Class T Fuses
- Factory Installed Wire Connectors
- U.L. Listed for applications up to 200,000 Amps symmetrical at 600 Volts
- Physically interchangeable with Siemens Type QJ2, QJH2 and QJ2-H
- UL 1429, File No. E118778



T-Fuse Pullout  
TFP223

### T-Fuse Pullouts

#### 2-Pole, 2-Fuse

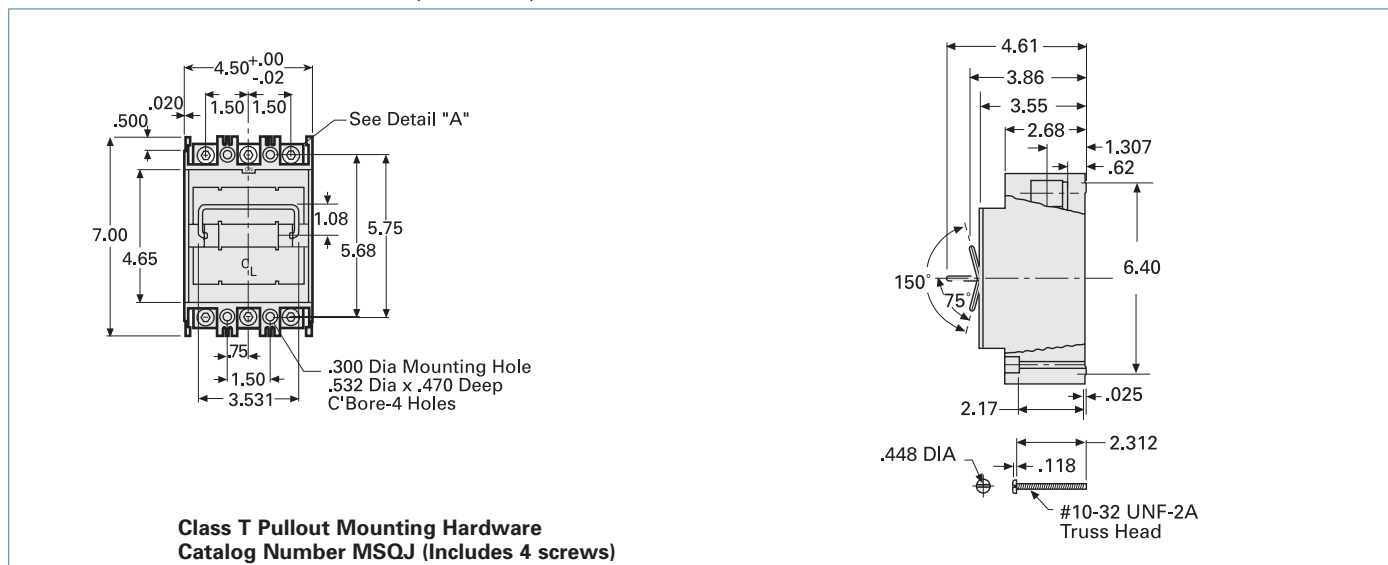
| Maximum Voltage  | Ampere Rating | Catalog Number | Connector Wire Range 60/75°C <sup>①</sup> |
|------------------|---------------|----------------|---|
| 240 <sup>②</sup> | 100           | TFP223         | (1 pc.) #6-300 kcmil Cu                   |
|                  | 200           | TFP224         | (1 pc.) #4-300 kcmil Al                   |

#### 3-Pole, 3-Fuse

|                  |     |        |                         |
|------------------|-----|--------|-------------------------|
| 240 <sup>②</sup> | 100 | TFP323 | (1 pc.) #6-300 kcmil Cu |
|                  | 200 | TFP324 |                         |
| 600              | 100 | TFP363 | (1 pc.) #4-300 kcmil Al |
|                  | 200 | TFP364 |                         |

**Fuses** — Not included. Consult local sales office for replacement parts.

### Fusible Pullouts Dimensions (inches\*)



\* For inches / millimeters conversion, multiply inches by 25.4.

<sup>①</sup> Replacement terminal lug Catalog Number TA1Q300.  
<sup>②</sup> 240 volt pullouts require 300 volt Class T fuses.

# Disconnect Switches

Notes

5

DISCONNECT  
SWITCHES