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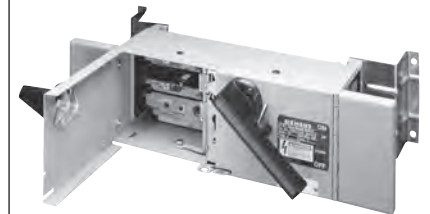
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Base Mount



VBFS361



Panelboard Unit

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

Selection

### Features

- 16–250 Ampere, to 100 hp, 480V & 600V
- Rotary and Toggle 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.

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.

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

Shaft Mounted	4 Hole Mounted	Number of Poles	Ampere Rating	AC Horsepower Ratings				
				120V	240V	480V	600V	
Catalogue Number <sup>③</sup>	Catalogue Number <sup>③</sup>			1Ø	1Ø	3Ø	3Ø	3Ø
—	3LD2003-1TP53 <sup>①</sup>	3	16	1/2	1 1/2	3	7 1/2	10
3LD2154-0TK 3LD2154-1TP 3LD2154-1TL 3LD2154-2EP	3LD2103-0TK 3LD2103-1TP 3LD2103-1TL 3LD2103-2EP	3 3 <sup>①</sup> 3 + N 3 + N <sup>①</sup>	25	2	3	7 1/2	10	15
3LD2254-0TK 3LD2254-1TL	3LD2203-0TK 3LD2203-1TL	3 3 + N	32	2	3	10	20	20
3LD2555-0TK	3LD2504-0TK 3LD2704-0TK 3LD2804-0TK	3 3 3	63 100 125	— — —	10 — —	15 30 40	40 60 75	50 75 100

### 3LD Type Base Mounted Complete Assemblies (Operator, Shaft, & Switch) 600V AC Max.<sup>⑤</sup>

Handle Mounting			Number of Poles	Ampere Rating	AC Horsepower Ratings				
Shaft (center hole)	4 Hole (no defeat)	4 Hole (with defeat)			120V	240V	480V	600V	
Catalogue Number	Catalogue Number	Catalogue Number			1Ø	1Ø	3Ø	3Ø	3Ø
—	3LD2013-0TK5	3LD2017-0TK1 3LD2017-1TL1	3 3 + N	16	1/2	1 1/2	3	7 1/2	10
3LD2144-0TK5 3LD2144-1TL5	3LD2113-0TK5 3LD2113-1TL5	—	3 3 + N	25	2	3	7 1/2	10	15
3LD2244-0TK5 3LD2244-1TL53	3LD2213-0TK5 3LD2213-1TL53	3LD2217-0TK1 3LD2217-1TL1	3 3 + N	32	2	3	10	20	20
3LD2545-0TK5	3LD2514-0TK5	3LD2517-0TK1 3LD2517-1TL1	3 3 + N	63	3	10	15	40	50
—	3LD2714-0TK5	—	3	100	—	—	30	60	75
—	3LD2814-0TK5	—	3	125	—	—	40	75	100
—	3LD2318-0TK1	—	3	160	—	—	40	75	75
—	3LD2418-0TK1	—	3	250	—	—	50	100	75



### Short Circuit Withstand Ratings

Switch Rating & Type	Max. Line Side Fuse Rating
5kA with Line Side Class H, K, or RK5 Fuses	
25 & 32A 3LD2	80A Max. at 600V AC Max.
63A 3LD2	175A Max. at 600V AC Max.

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.



3LD2217-0TK13

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

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

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

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

⑤ 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 CSA certified for Type 1, 4X and 12 applications.

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

Selection

### Accessories for Front Mounted 3LD2 Switches

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

### Accessories for Base Mounted 3LD2 Switches

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



3LD9220-2C



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"

4  
DISCONNECT  
SWITCHES

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 CSA certified 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

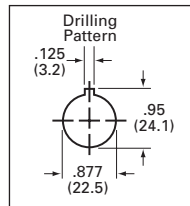
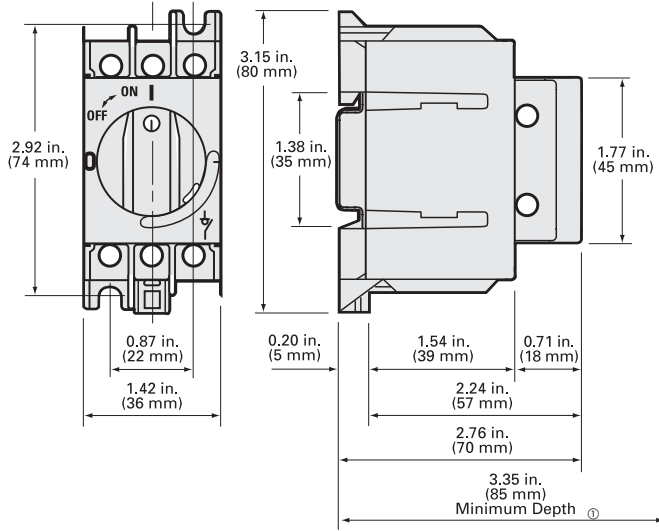
④ Can be used as replacement handles on enclosed 3LD2 switches.

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

### Dimension Drawings and Wire Ranges

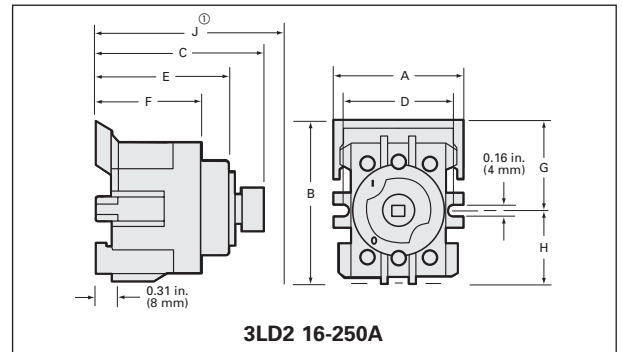
Selection



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

<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

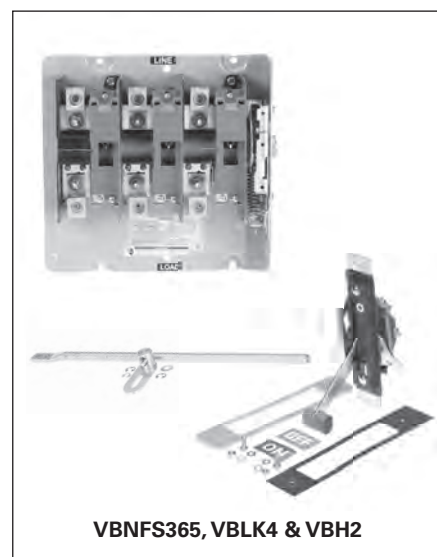
### Features

- 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
- 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.
- 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

### Features and Ordering Information

- 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



### 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 Amperage Rating	Max. AC Voltage Rating	Catalogue Number	Horsepower Rating, Switches and 3-Phased④						600 Volts DC (max)④
			240 Volts AC		480 Volts AC		600 Volts AC		
			Std.	Max.	Std.	Max.	Std.	Max.	

## Fusible Panel Mounted Variable Depth Switches - 3-Pole<sup>⑤</sup>

30	240	VBFS321	3	7 <sup>1/2</sup>	—	—	—	—	— <sup>①</sup>
60	240	VBFS322	7 <sup>1/2</sup>	15	—	—	—	—	— <sup>②</sup>
30	600	VBFS361	—	—	5	15	7 <sup>1/2</sup>	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>⑥</sup>
600	600	VBFS366	—	—	150	400	200	500	— <sup>⑥</sup>

## Non-fusible Panel Mounted Variable Depth Switches - 3-Pole<sup>⑤</sup>

30	600	VBNFS361	—	10	—	20	—	30	15 <sup>③</sup>
60	600	VBNFS362	—	20	—	50	—	60	30 <sup>③</sup>
100	600	VBNFS363	—	40	—	75	—	100	50 <sup>③</sup>
200	600	VBNFS364	—	60	—	125	—	150	50
400	600	VBNFS365	—	125	—	250	—	300	— <sup>⑥</sup>
600	600	VBNFS366	—	200	—	400	—	500	— <sup>⑥</sup>

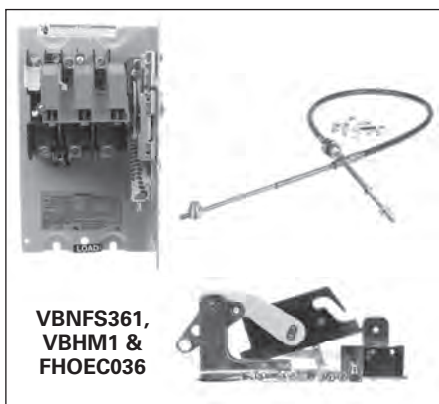
## Fusible Flange Mounted Switches - 3-Pole<sup>⑥⑦</sup>

30	240	VBFS321F	3	7 <sup>1/2</sup>	—	—	—	—	— <sup>①</sup>
60	240	VBFS322F	7 <sup>1/2</sup>	15	—	—	—	—	— <sup>②</sup>
30	600	VBFS361F	—	—	5	15	7 <sup>1/2</sup>	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

## Non-fusible Flange Mounted Switches – 3-Pole<sup>⑥⑦</sup>

30	600	VBNFS361F	—	10	—	20	—	30	15c
60	600	VBNFS362F	—	20	—	50	—	60	30c
100	600	VBNFS363F	—	40	—	75	—	100	50c
200	600	VBNFS364F	—	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.



### Max-Flex™ Handle and Adapter Kit

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

Catalogue Number	Operating Handle Description
------------------	------------------------------

### Plastic Handles

VBHM1	30-200A Type 1, 3R, 12 and 4X
-------	-------------------------------

### Metal Handles

VBHM2	30-200A Type 1, 3R and 12
VBHM2X	30-200A Type 4X

### Cable Kit

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

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

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.

⑤ Max. - applies when time delay fuses are used.

⑥ Includes line base, load base, operating mechanism and line and load lugs. Order operating handle and linkage kits from tables on pages 4-7 or 4-8.

⑦ Please add letter "M" to the end of catalog number for metal handle.



# Disconnect Switches

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

### Flange Mounted Operating Handles

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

Catalogue Number	Operating Handle Description
------------------	------------------------------

#### Plastic Handles

VBH1	30-200A Type 1, 3R & 12
VBH14X	30-200A Type 4X

#### Metal Handles

VBH112	30-200A Type 1, 3R & 12
VBH14	30-200A Type 4X
VBH2	400A Type 1 & 12
VBH2R	400 & 600A Type 1, 3R & 12
VBH24X	400 & 600A Type 4X



### Class R Fuse Clip Kits

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

#### Class R Fuse Clip Kits

Catalogue 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.

Catalogue 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.

Catalogue Number	Switch Ampere Rating	Enclosure Depth <sup>①</sup>	
		Min	Max.
VBK1	30-200	6.94 <sup>②</sup>	6.94 <sup>?</sup>
VBK2	30-200	6.94 <sup>②</sup>	19.0
VBK3	400 & 600	9.00	8.75
VBK4	400 & 600	9.00	19.0



### Class T Fuse Adapter Kits

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

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

Catalogue 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.

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

## Selection & Accessories

### 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 ¼" quick connect terminal. Installed in the line or load side. 30A VBII switches have lugs to accept (2) wires per pole as standard so a 30A kit is not required.

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



### Neutral Kits

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

#### Neutral Kits

Switch Ampere Rating	Kit Catalogue Number
30A 600V, 60A 240V	HNC612
60A, 600V & 100A	HNC623

### 200% Neutral Kits

CSA 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 Catalogue Number	Wire Range Line & Load Lugs (Cu/Al)
60 & 100A	HNC263	(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.

# Disconnect Switches

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

Accessories



HA161234



HA261234



HP61



HLC612



HSK61

### 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 Catalogue Number	Kit Ampere Rating			Kit Horsepower Rating		
		125V AC	250V AC	28V DC	125V AC	250V AC	28V AC
		Max.	Max.	Max.	Max.	Max.	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 Catalogue Number
030	HP61
060	HP62▲
100	HP63▲

### Copper Lug Kits

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

Switch Ampere Rating	Copper Lug Cat. No.	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	Catalogue 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 Catalogue 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

Selection

### 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.

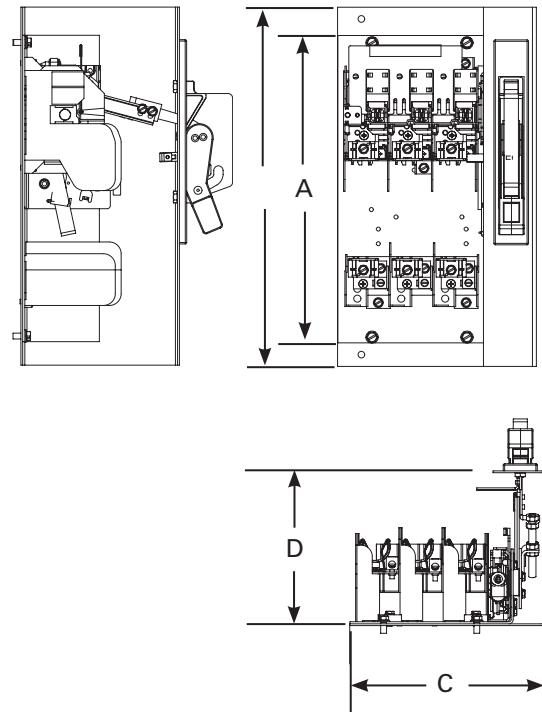
### Wire Ranges (Line, Load and Standard Neutral)

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

Catalogue Number	Dimensions				
	A	B	C <sup>①</sup>	D (min)	D (max)
Fusible, Panel Mounted					
VBFS321	11.88	N/A	7.47	6.94	19
VBFS322	13.12		8.5	6.94	19
VBFS361	11.88		7.47	6.94	19
VBFS362	13.12		8.5	6.94	19
VBFS363	13.12		8.5	6.94	19
VBFS364	17		12.33	7.12	19
VBFS365	26.25		16.5	8.63	19
VBFS366	26.25		16.5	8.63	19
Non-fusible, Panel Mounted					
VBNFS361	9.79	N/A	7.47	6.94	19
VBNFS362	9.79		8.5	6.94	19
VBNFS363	9.79		8.5	6.94	19
VBNFS364	10.77		12.33	7.12	19
VBNFS365	13		16.5	8.63	19
VBNFS366	13		16.5	8.63	19
Fusible, Flange Mounted					
VBFS321F	11.88	14.08	7.47	7.27	N/A
VBFS322F	13.12	15.83	8.85	7.27	
VBFS361F	11.88	14.08	7.47	7.27	
VBFS362F	13.12	15.83	8.85	7.27	
VBFS363F	13.12	15.83	8.85	7.27	
VBFS364F	17	18.20	12.68	7.57	
Non-fusible, Flange Mounted					
VBNFS361F	9.79	11.78	7.47	7.27	N/A
VBNFS362F	9.79	11.78	8.85	7.27	
VBNFS363F	9.79	11.78	8.85	7.27	
VBNFS364F	10.77	11.97	12.68	7.57	



① 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

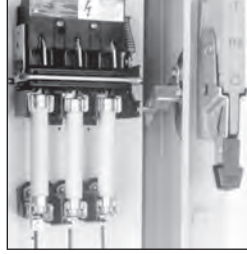
Selection

### Features

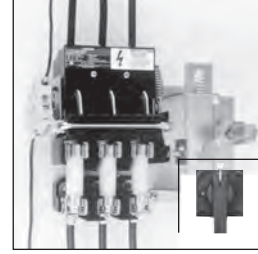
- 30, 60, 100 and 200 Ampere Switches
- UL Recognized (file # E121152 vol. 1 & 2) and CSA Certified under file #84625
- Simple Mounting — with an integral switch and over center mechanism
- Horsepower & load break rated
- Compact Size
- Visible Blade Contacts
- Rugged Construction — with a short circuit 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

1. Select the basic switch size you need (30, 60, 100 or 200 ampere).
2. 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.
3. Choose either fuse or no fuse kit from chart below.
4. Check "Minimum Dimensions" on page 5-12 for installation space requirements.
5. 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	Max. Voltage Rating	Catalogue Number Right Hand	Catalogue Number Left Hand	Max. Horespower Rating, 3 Phase <sup>④</sup>						250 Volts (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	7 <sup>1/2</sup>	5	15	7 <sup>1/2</sup>	20	15
60	600	MCS606R	MCS606L	7 <sup>1/2</sup>	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 Catalogue Number	Kit Description	No Fuse Kits		For Class H	For Class J	For Class R	Lug Wire Size
			Standard	Cu Only <sup>②</sup>	Catalogue Number <sup>①</sup>	Catalogue Number <sup>①</sup>	Catalogue Number <sup>①</sup>	
			Catalogue Number	Catalogue Number				
30	MCS603R or MCS603L	No Fuse	TMK606	—	—	—	—	#14 to #4 AWG Cu/Al
		30A, 250V	—	—	FCK203▲	—	FCRK203	
		30A, 600V	—	—	FCK206	—	FCRK206	
		60A, 250V	—	—	FCK206	—	FCRK206	
		60A, 600V	—	—	FCK606	FCJK606	FCRK606	
60	MCS606R or MCS606L	No Fuse	TMK606	—	—	—	—	#14 to #4 AWG Cu/Al
		60A, 250V	—	—	FCK206	—	FCRK206	
		60A, 600V	—	—	FCK606	FCJK606	FCRK606	
		100A, 250V	—	—	OFCK661▲	③		
		100A, 600V	—	—	OFCK661▲	③		
100	MCS610R or MCS610L	No Fuse	TMK610	TMK610C	—	—	—	#14 to #2/0 AWG Cu/Al
		100A, 250V	—	—	FCK610	③		
		100A, 600V	—	—	FCK610	③		
		200A, 250V	—	—	OFCK620	③		
		200A, 600V	—	—	OFCK620	OFCK620	③	
200	MCS620R or MCS620L	No Fuse	TMK620	TMK620C▲	—	—	—	#6 to 300 kcmil Cu/Al
		200A, 250V	—	—	FCK620	③		
		200A, 600V	—	—	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 Catalogue Number	Contact Arrangement	
	1 NO/1 NC Catalogue Number	2 NO/2 NC Catalogue 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	Catalogue Number
100A, 600V	SSRK33
200A, 600V	SSRK34

### Fuse Ejector Kits

Switch Catalogue Number	Fuse Ejector Kit Catalogue Number
MCS610	FE100▲
MCS620	FE200▲

## Handle Operators

### Fixed Depth, Flange Mounted, Types 1, 3, 3R, 12①④

Switch Catalogue Number	Complete Handle Mechanism	Handle Only	Switch Operator Only
	Catalogue Number	Catalogue Number	Catalogue 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, 12②

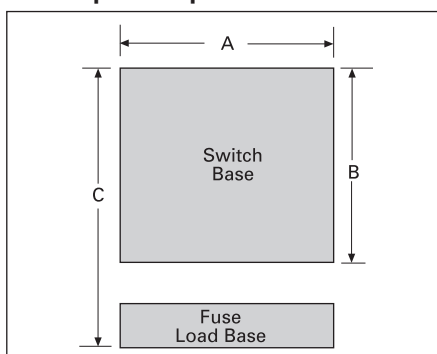
Switch Catalogue Number	Complete Handle Mechanism	Handle Only	Switch Operator Only	Cable Only③
	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
MCS603R	FHOS06036R	FHOHS	FHOS06R	FHOEC036
MCS603L	FHOS06036L	FHOHS	FHOS06L	FHOEC036
MCS606R	FHOS06036R	FHOHS	FHOS06R	FHOEC036
MCS606L	FHOS06036L	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, 12④⑤

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

## MCS Disconnect Switch Panel Space Requirements

### Panel Space Requirements



### Minimum Dimensions (inches\*)

Switch Catalogue Number	Size	"A"	"B"	"C"	Fuse Classes
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.  
 ①For Type 4 and 4X applications, order handle only  
 Catalogue Number  
 100A - FDH104      200A - FDH204  
 ②For Type 4 and 4X applications, order handle only  
 Catalogue Number FHOHS4

- ③Standard 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 |

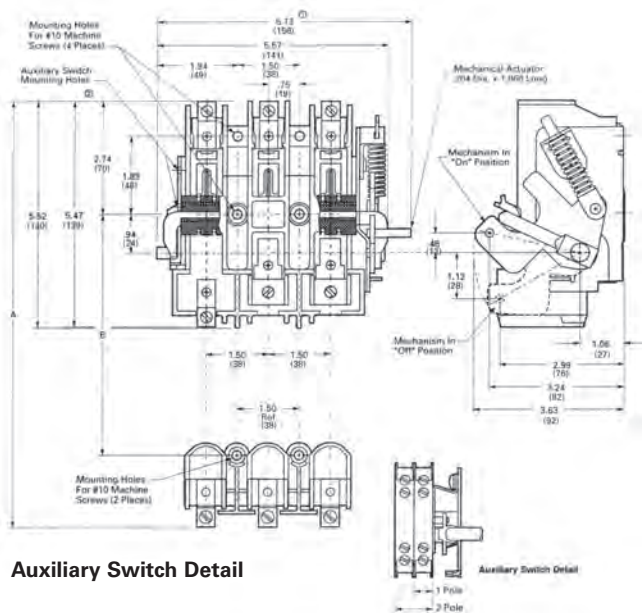
- ④For Type 4 and 4X applications, order handle only  
 Catalogue Number RHOH4  
 ⑤For Type 3 and 3R applications, order handle only  
 Catalogue Number RHOH  
 ⑥Min. enclosure depth from mounting pan to handle mounting surfaces: 30-100A 6.44 Inches  
 200A 10.93 Inches  
 \*For millimeters multiply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

# Disconnect Switches

## Motor Control Disconnect Switch

### Outline Drawing 30/60A Switch Mechanism

Selection



Dimensional Data for Fused Applications - Inches (mm)

Basic Switch Catalogue Number	Size	A	B	Fuse Class
MCS603	30A/240V	8.11 (206)	3.63 (92)	H, K, R
	30A/600V	10.11 (257)	5.63 (143)	H, K, R
	30A/600V	8.48 (215)	4.00 (102)	J
MCS606	60A/240V	7.86 (200)	3.38 (86)	H, K, R
	60A/600V	10.36 (263)	5.88 (149)	H, K, R
	60A/600V	8.36 (212)	3.88 (99)	J

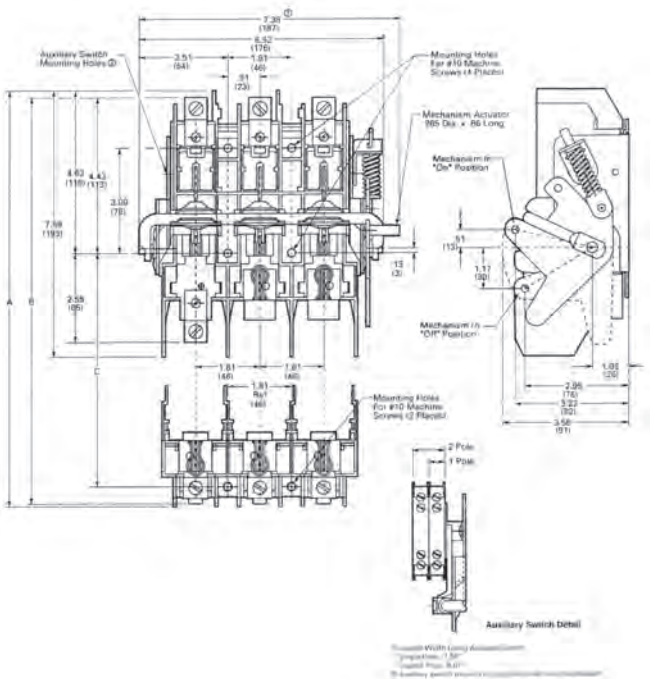
- ① Overall Width Using Auxiliary Switch  
Single Pole - 7.18" (182)  
Double Pole - 7.63" (194)
- ② Auxiliary switch mounts on opposite side from mechanism.

### Outline Drawing 100A Switch Mechanism

Dimensional Data for Fused Applications - Inches (mm)

Basic Switch Catalogue Number	Size	A	B	C	Fuse Class
MCS610	100A/240V	11.85 (301)	11.41 (290)	6.66 (169)	H, K, R
	100A/600V	13.85 (352)	13.41 (341)	8.66 (220)	H, K, R
	100A/600V	10.60 (296)	10.16 (258)	5.41 (137)	J

- ① Overall Width Using Auxiliary Switch  
Single Pole - 7.56" (192)  
Double Pole - 8.01" (203)
- ② Auxiliary switch mounts on opposite side from mechanism.



# Disconnect Switches

## Motor Control Disconnect Switch

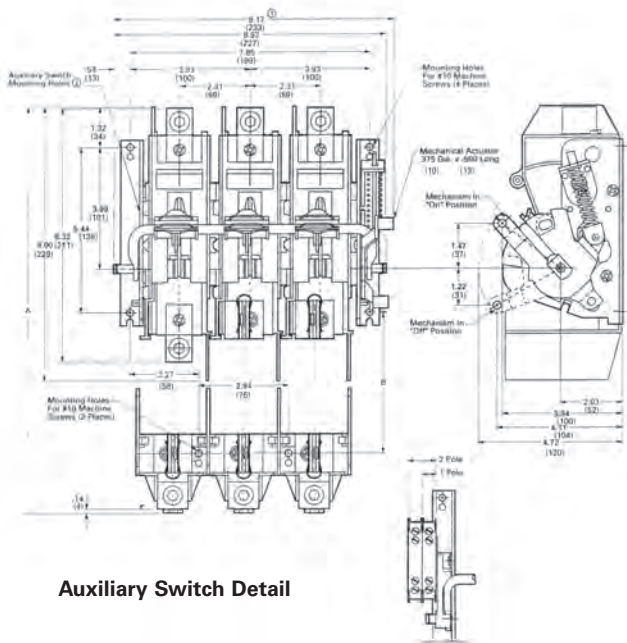
### Outline Drawing 200A Switch Mechanism

Selection

#### Dimensional Data for Fused Applications - Inches (mm)

Basic Switch Catalogue Number	Size	A	B	Fuse Class
MCS620	200A/240V	14.70 (373)	6.00 (152)	H, K, R
	200A/600V	17.20 (437)	8.50 (216)	H, K, R
	200A/600V	13.32 (338)	4.62 (117)	J

- ① Overall Width Using Auxiliary Switch  
Single Pole - 9.30" (236)  
Double Pole - 9.75" (248)
- ② Auxiliary switch mounts on opposite side from mechanism.

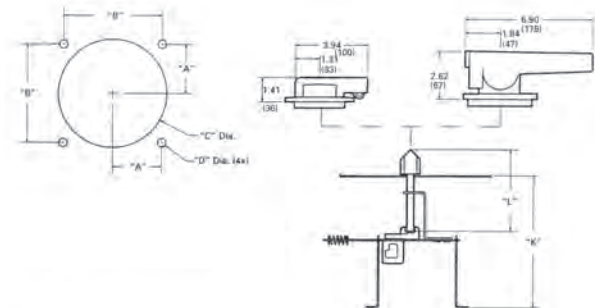


Auxiliary Switch Detail

## Rotary Handle Operator

#### Dimensions - Inches (mm)

Catalogue Number	A	B	C	D
CRHOH	1.18 (30)	2.36 (60)	3.00 (76)	0.175 (4)
RHOH	1.59 (40)	3.18 (81)	3.50 (89)	0.281 (7)

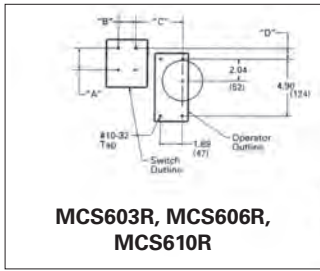


#### Dimensions - Inches (mm)

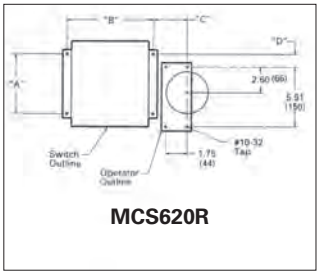
Catalogue Number:	CRHOS06	CRHOS20	RHOS06	RHOS20
Enclosure Min.	5.42 (138)	6.17 (157)	4.75 (121)	5.50 (140)
Depth (K) Max.	15.73 (400)	16.28 (414)	16.30 (419)	16.85 (428)
Shaft Length (L)	K-2.77 (70)	K-3.42 (87)	K-2.25 (57)	K-2.90 (74)

#### Dimensions - Inches (mm)

Catalogue Number	A	B	C	D
MCS603R, MCS606R	1.89 (48)	1.50 (38)	4.03 (102)	1.10 (28)
MCS610R	3.00 (76)	1.81 (46)	4.37 (111)	1.17 (30)
MCS620R	5.44 (138)	7.85 (199)	2.53 (64)	1.41 (36)



MCS603R, MCS606R, MCS610R



MCS620R



# Disconnect Switches

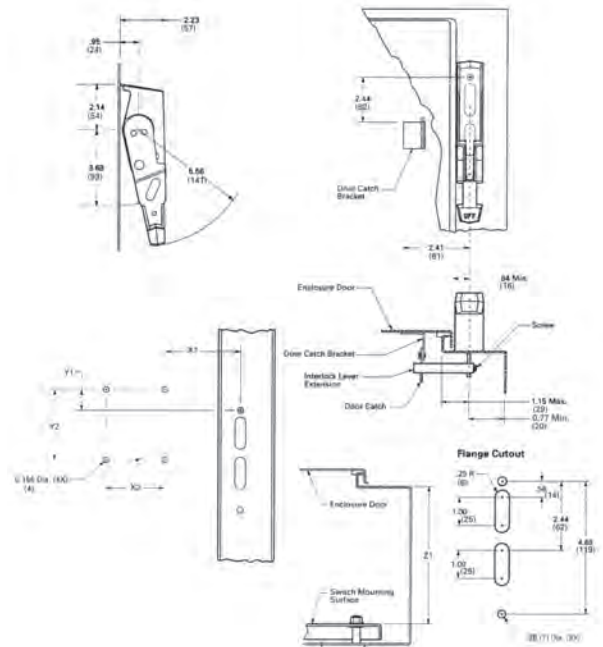
## Motor Control Disconnect Switch

### Fixed Depth Handle Operator

*Selection*

#### Dimensions - Inches (mm)

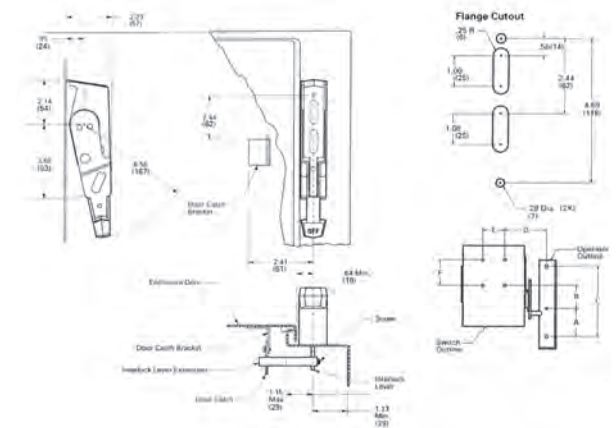
Catalogue Number	X1	X2	Y1	Y2	Z1
MCS603, MCS606	3.52 (89)	1.50 (38)	0.00 (0)	1.89 (48)	6.44 (164)
MCS610	3.91 (99)	1.81 (46)	0.13 (3)	3.00 (76)	6.44 (164)
MCS620	1.51 (38)	7.86 (200)	0.38 (10)	5.44 (138)	10.93 (278)



## Max Flex™ Variable Depth Handle Operator

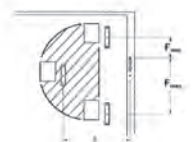
#### Dimensions - Inches (mm)

Catalogue Number	A	B	C	D	E	F
MCS603, MCS606	2.00 (51)	1.69 (43)	5.10 (130)	2.88 (73)	1.50 (38)	1.89 (48)
MCS610	2.00 (51)	0.82 (21)	5.10 (130)	3.21 (82)	1.81 (46)	3.00 (76)
MCS620	2.50 (64)	-1.00 (-25)	5.50 (140)	1.00 (25)	7.86 (200)	5.44 (138)



#### Maximum "E" Dimension<sup>①</sup>

Switch Catalogue Number	Cable Catalogue Number	Enclosure Depth inches (mm)						
		8	10	12	16	18	20	24
MCS603, MCS606	FHOEC036	16.0 (406)	13.0 (330)	13.5 (343)	8.0 (203)	—	—	—
MCS610	FHOEC048	26.0 (660)	26.0 (660)	26.0 (660)	23.0 (584)	21.0 (533)	18.0 (457)	17.0 (432)
MCS620	FHOJC036	15.0 (381)	12.0 (305)	12.5 (318)	7.0 (178)	—	—	—
	FHOJC048	25.0 (635)	25.0 (635)	25.0 (635)	22.0 (559)	20.0 (508)	17.0 (432)	16.0 (406)



Enclosure Depth in. (mm)	36" Cable		48" Cable	
	Fmin.	Fmax.	Fmin.	Fmax.
8 (203)	7.0 (178)	14.5 (368)	16.1 (409)	23.9(607)
10 (254)	5.5 (140)	13.1 (333)	16.0 (406)	23.6(599)
12 (305)	5.0 (127)	12.0 (305)	15.9 (404)	22.8(579)
16 (406)	4.0 (102)	9.4 (239)	14.7 (373)	22.0(559)
18 (457)	—	—	14.6 (371)	21.9 (556)
20 (508)	—	—	13.3 (338)	19.9 (505)
24 (610)	—	—	12.0 (305)	16.9 (429)

①Maximum "E" Dimension only if F max = 4.6" (117)



# 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/CSA 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
- Catalogue number **CFS361C5**, **CFS361J5** and **CNFS361** 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
- 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.



### 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.
- Note: Be sure to check shaft and handle compatibility with the switch selected by using information provided in the selection tables.
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.
  - A. 30A switch CFS361C5 and non-fusible 30A switch CNFS361 will accept up to (4) aux contacts
  - B. 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 CFSAXH1. All other switches will accept up to (4) aux contacts.
6. If non-fusible switch is required order a shorting bar for 60-600A switches or catalog number CNFS361 for 30A.
7. 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.

# Disconnect Switches

## Type CFS Compact Fusible Switches

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>⑤</sup>

## Switch and Handle Selection

Switch ampere rating	Catalogue Number	Fuse provisions provided	Max horsepower ratings				AC short circuit rating
			240V 3Ø AC	480V 3Ø AC	600V 3Ø AC	250V DC	
Standard – with right hand mounted mechanism							
30 <sup>①</sup>	CFS361C5	Class CC	7 <sup>1/2</sup>	15	20	5 <sup>③</sup>	100kA
30 <sup>①</sup>	CFS361J5	Class J	7 <sup>1/2</sup>	15	20	5 <sup>③</sup>	100kA
30 <sup>①</sup>	CFS361JN	Class J	7 <sup>1/2</sup>	15	20	5 <sup>③</sup>	200kA
30 <sup>①</sup>	CNFS361 <sup>⑥⑩</sup>	None	7 <sup>1/2</sup>	15	20	5 <sup>③</sup>	65kA
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>④⑩</sup>		200	400	500	–	
800 <sup>②</sup>	CFS367L <sup>④⑩</sup>	Class L	200	400	500	–	200kA
Optional – with left hand mounted mechanism <sup>④</sup>							
30 <sup>①</sup>	CFS361JLN	Class J	7.5	15	20	5 <sup>③</sup>	200kA
60 <sup>①</sup>	CFS362JLN		15	30	50	10 <sup>③</sup>	
100 <sup>①</sup>	CFS363JLN		30	60	75	20 <sup>③</sup>	



### Operating shafts for 30-400A switches<sup>⑤</sup>

Catalogue Number	Shaft length in. (mm)	Switch & handle compatibility
CFSS5200N CFSS5400N	7.9 (200) 15.7 (400)	5mm x 5mm for use with CFS361C5, CFS361J5 & CNFS361 switches & with "CFSH5" handles only
CFSS5200HN CFSS5400HN	7.9 (200) 15.7 (400)	5mm x 5mm for use with all "CFSH10" handles & with CFS361C5, CFS361J5 & CNFS361 switches only
CFSS10200HN CFSS10400HN	7.9 (200) 15.7 (400)	10mm x 10mm for use with all "CFSH10" handles & with all 30-400A switches except CFS361C5, CFS361J5 & CNFS361

### Compact rotary operating handles – door mounted (for use with CFS361C5, CFS361J5 & CNFS361 switches only)<sup>⑥</sup>

Catalogue Number	Colour	Type	Operating shaft compatibility
CFSH5B12N CFSH5R12N	Blue & Black Yellow & Red	1, 3R & 12	CFSS5200N or CFSS5400N
CFSH5B4N CFSH5R4N	Blue & Black Yellow & Red	1, 3R, 12 & 4/4X	

### Rotary operating handles - door mounted (for use with CFSS5200HN, CFSS5400HN, CFSS10200HN & CFSS10400HN)

Catalogue Number	Colour	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	



① Line and load lugs included.  
 ② Line and load lugs are not included.  
 Order from table on next page if required.

③ DC HP rating shown requires (3) poles to be connected in series.  
 ④ CFS364JN & CFS365JN can be rotated 180° for left hand operation as standard.

⑤ Catalog numbers CFS361C5, CFS361J5 & CNFS361 accept 5mm x 5mm operating shafts. All other 30-400A switches accept 10mm x 10mm operating shafts.  
 ⑥ Compact pistol grip design (2.75" long) with defeatable cover interlock. Cover can be opened when handle is padlocked in the OFF position.  
 ⑦ Defeatable cover interlock provided. Cover cannot be opened when handle is padlocked in the OFF position.  
 ⑧ Catalog number CNFS361 is a non-fusible switch.  
 ⑨ 4 pole 600 & 800A switches, CFS466J & CFS467L are also available.  
 ⑩ CFS366J and CFS367L are rated 250 & 600V DC when (2) poles are connected in series.  
 ⑪ CNFS361 is rated 65kA when protected by Class J or CC 30A max. fuses.

# Disconnect Switches

## Type CFS Compact Fusible Switches

600 & 800A rotary operating handles - door mounted (8.27" long)<sup>⑦</sup>

Catalogue number	Colour	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 12 x 12 mm)

Catalogue 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.

## Type CFS fusible switch accessories

Catalogue Number	Description
------------------	-------------

### Terminals<sup>①</sup>

CFSL200	200A lug kit (6 lugs per kit) (1)#6-3/0
CFSL400N	400A lug kit (6 lugs per kit) (1)#2-600kcmil (for CFS365JN only)
CFSL400	600-800A lug kit (6 lugs per kit) (2)#2-600kcmil

### 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)

CFSAXH1 <sup>②</sup>	Aux contact holder (CFS361J5, CFS361C5 & CNFS361)
CFSAX1NO	Aux contact 1 NO (30-800A Sws)
CFSAX1NC	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>③</sup>	600/800A 3-pole shroud kit
CFSTS6804 <sup>③</sup>	600/800A 4-pole shroud kit

### 30A compact switch kits

CFSPLK	Shaft padlocking kit for 30A compact switch when door is open <sup>③</sup>
CFSH5CDM	Direct mount handle kit for CFS361C5 & CNFS361
CFSH5JDM	Direct mount handle kit for CFS361J5

## NFPA 79 kits

(if auxiliary contacts are needed, see table on page 7)

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 & CNFS361
CFSNFPA2N <sup>⑤</sup>	For use with CFS361JN, CFS361CN, CFS362JN1, CFS362JN, CFS363JN & CFS364JN
CFSNFPA3N <sup>⑤</sup>	For use with CFS365JN only

## Selection and Accessories



① Supplied as standard on 30-100A switches

② CFS361C5 and CNFS361 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, 65kA & 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.

# Disconnect Switches

## Type CFS Compact Fusible Switches

## Dimensions and Technical Characteristics

UL & CSA technical characteristics and panel space requirements

Catalogue 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)
CNFS361	30	None	65kA <sup>②</sup>	6000	10000	4.56 (116)	3.78 (96)	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 (280)
CFS466J	600	J	200kA	1000	5000	11.81 (300)	18.03 (458)	11 (280)
CFS367L	800	L	200kA	500	3500	11.81 (300)	14.33 (364)	11 (280)
CFS467L	800	L	200kA	500	3500	11.81 (300)	18.03 (458)	11 (280)

## Wire ranges line & load lugs

Switch	Amperage Rating	Wire size (75° C)
CFS361J5	30	(1)#14-10
CFS361C5	30	(1)#14-10
CNFS361	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
CNFS361	CFSNFPA1	(2) Total, CFS AUX1NO or CFS AUX1NC
CFS361C5		(1) CFS AUX1NO or (1) CFS AUX1NC
CFS361J5	CFSNFPA2N	(2) Total, CFS AUX1NO or CFS AUX1NC <sup>③</sup>
CFS361JN		
CFS362JN1		
CFS362JN		
CFS363JN		
CFS364JN	CFSNFPA3N	(2) Total, CFS AUX1NO or CFS AUX1NC <sup>③</sup>
CFS365JN		

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

② CNFS361 is rated 65kA when protected by 30A max. Class J or CC fuses.

③ For additional auxiliary contacts use side mounted CFS11AUX or CFS22AUX.

# Disconnect Switches

Type CNFS Switches, Shafts And Handles  
Type CNFS Compact Non-Fusible Switches

General Information

## Description

Siemens Type CNFS compact non-fusible switches meet UL/CSA requirements for both main and 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

- 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

CNFS 3 6 1 N





# 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 defeatable 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

**Shaft**



**CFSS10200HN**

**Handle**



**CFSH10BL12N**

**Lugs/Accessories**



**CFSL200**

### 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>③</sup>	200	400	350	200	200
800	CNFS367N <sup>③</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
CNFSS52001	7.9 (200)	5mm x 5mm for use with CNFS361N, CNFS362N and CNFS363N switches and with "CNFSH5" handles only
CNFSS53201	12.6 (320)	
CNFSS54001	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	CSA/UL Type	Operating shaft compatibility	Use with non-fusible compact switches
CNFSH5BP121	Black	NEMA 1, 3R, 12	CNFSS52001, CNFSS53201, CNFSS54001	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, CNFSS103202, 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	CNFSS152003, CNFSS153203, CNFSS154003	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

### Shaft and Handle Selection

#### 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: 1 Normally Open + 1 Normally Closed	CNFS364N, CNFS365N, CNFS366N, CNFS367N
CNFS2AUX2	2nd Auxiliary Contact: 1 Normally Open + 1 Normally Closed	



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

Catalog Number	Shroud Location	Use with Non-fusible Contact Switches
CNFSTS100	Top and Bottom	CNFS361N, CNFS362N, CNFS363N
CNFSTSC200T	Top	CNFS364N
CNFSTSC200B	Bottom	
CNFSTSC400T	Top	CNFS365N
CNFSTSC400B	Bottom	
CNFSTSC600B	Bottom	CNFS366N
CNFSTSC800B	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>①</sup>



① 2 kits needed for 800A, total 12 lugs to cover line and load sides.

# Disconnect Switches

## Type HCP Switchboard Units

Selection

### Features

- CSA certified under file #24563 and UL Listed under file #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>

Catalogue Number	Max. Ampere Rating	Max. 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	Std	Max	Std	Max	Std	Max
HCP367HJ400	1400	600	J	16.25	17.22	7.38	150	125	100	250	125	350	40	40
HCP367HJ600	1600	600	J	16.25	17.22	7.38	175	200	150	400	200	400	40	40
HCP327HT	800	240	T	16.25	17.22	7.38	100	250	—	—	—	—	50	50
HCP367H	1800	600	L	16.25	17.22	7.38	100	250	200	500	250	500	50	50
HCP328HT	1200	240	T	16.25	17.22	7.38	100	250	—	—	—	—	50	50
HCP368H	1200	600	L	16.25	17.22	7.38	100	250	200	500	250	500	50	50

### 3-Pole, Vertical Mount

Catalogue Number	Max. Ampere Rating	Max. AC Voltage Rating <sup>②</sup>	Fuse Class	H	W	D	240V Std	240V Max	480V Std	480V Max	600V Std	600V Max	250V DC Std	250V DC Max
HCP367VJ400	1400	600	J	17	16.25	7.38	150	125	100	250	125	350	40	40
HCP367VJ600▲	1600	600	J	17	16.25	7.38	175	200	150	400	200	400	40	40
HCP327VT	800	240	T	17	16.25	7.38	100	250	—	—	—	—	50	50
HCP367V	1800	600	L	17	16.25	7.38	100	250	200	500	250	500	50	50
HCP328VT	1200	240	T	17	16.25	7.38	100	250	—	—	—	—	50	50
HCP368V	1200	600	L	17	16.25	7.38	100	250	200	500	250	500	50	50
HCP367HJ400	1400	600	J	16.25	17.22	7.38	150	125	100	250	125	350	40	40
HCP367HJ400	1400	600	J	16.25	17.22	7.38	150	125	100	250	125	350	40	40
HCP367HJ400	1400	600	J	16.25	17.22	7.38	150	125	100	250	125	350	40	40

### Accessories

#### Terminal Connectors (one lug per kit)

Ampere Rating	Catalogue 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)
800-1200A	TA4H500	(4) #2 AWG-500 kcmil (Cu or Al)
800-1200A	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		Catalogue Number
AC	DC	
120	—	HCPST120
240	—	HCPST240▲
277	—	HCPST277
480	—	HCPST480▲

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

Switch Ampere Rating	Catalog Number
400-1200A	F6162DSCAN

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

Catalogue 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	Catalogue 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.

Ampere Rating	Catalogue Number
400-1200A	HCPCLP

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

▲ 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.

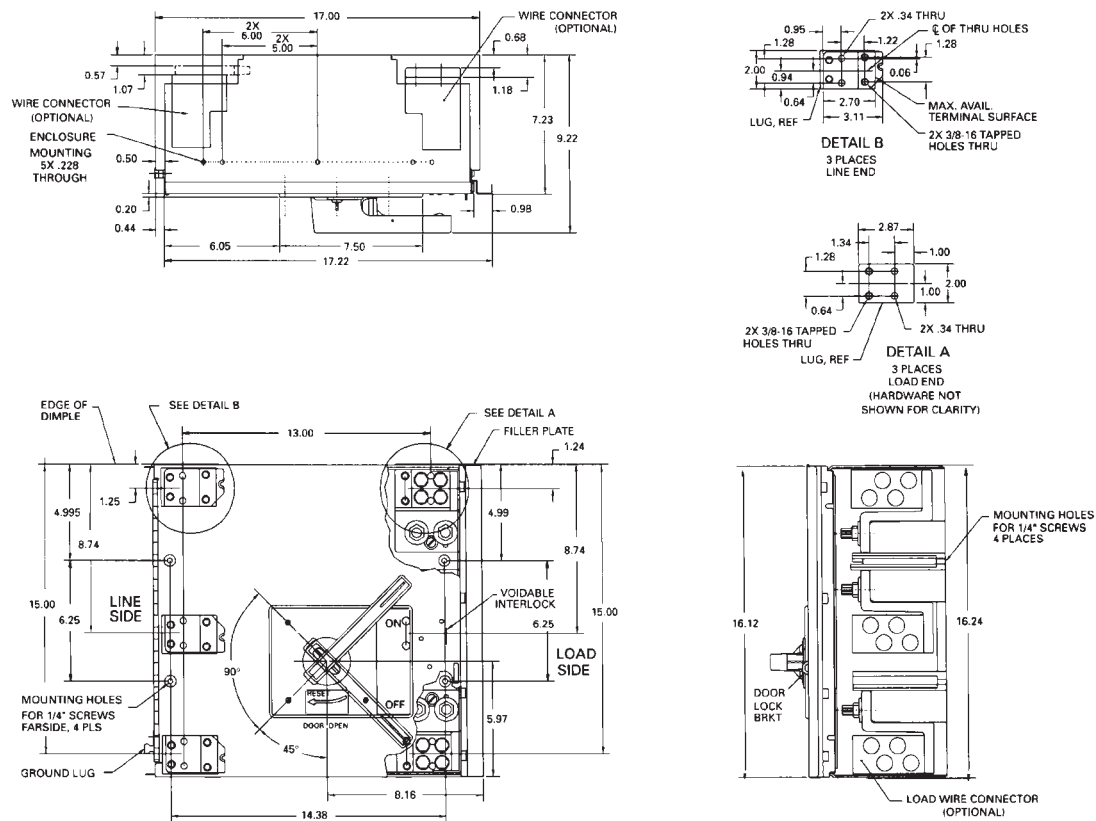
② Both 240 and 600V AC switches are also rated 250V DC max.

# Disconnect Switches

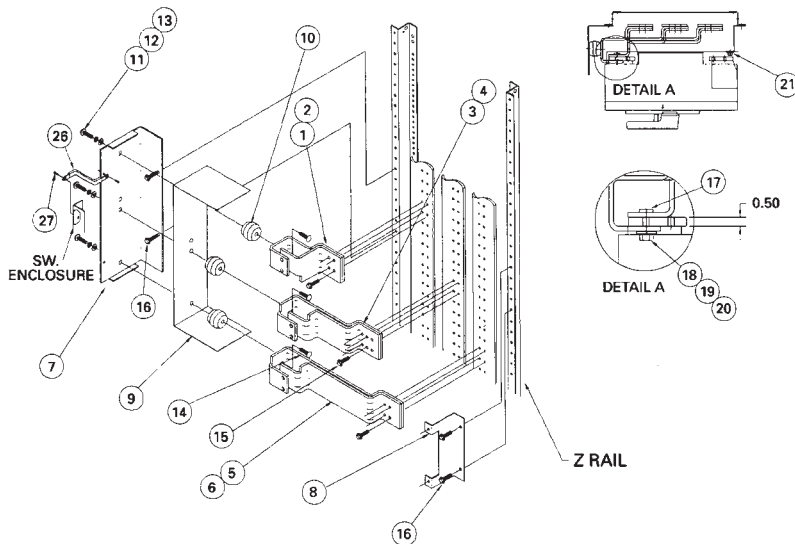
## Type HCP Switchboard Units

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)	1 ea.
3-4	B Ø Strap	1 ea.
5-6	A/C Ø Strap (Long)	1 ea.
7-8	Switch Mounting Bracket	1 ea.
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