# **Switching Devices**

## Safety Switches

## Safety Switch Selection Guide

#### Enclosure Type

							туре						
Туре	Voltage	Fuse Type		Fuse Class	Ampere Rating	Number of Poles <sup>®</sup>	Туре 1	Type 3R	<b>Type 12</b> ①	Type 4 Painted Steel	Type 4X Stainless Steel	Type 4X Non Metallic	NEMA 7/9 Hazardous Location
Air Conditioning	Max. 240Vac	Fusible	Cartridge	Н	30 and 60	2	_	Yes	_	_	_	_	_
Disconnect		Non-Fusible	_	_	60	2	_	Yes	_	_	_	_	_
	Max. 240Vac	Moulded Case Switch	_	_	60	2	_	Yes	_	_	_	_	_
	Max. 600Vac	Non-Fusible	_	_	30-80	3	_	Yes	_	_	_	_	_
General Duty	Single Throw	Fusible	Plug	_	30	1 and 2	Yes	Yes	_	_	_	_	_
•	Max. 240Vac		Cartridge	Н	30-600	2 and 3	Yes	Yes	_	_	_	_	_
		Non-Fusible	_	_	30-600	2 and 3	Yes	Yes	_	_	_	_	_
Heavy Duty	Single Throw	Fusible	Cartridge	Н	30-600	2, 3, and 4	Yes	Yes	Yes@@	Yes@	Yes@	_	_
	Max. 600Vac			L	800-1200		Up to 1200A	Up to 1200A	Up to 1200A	400-1200A	Up to 1200A	_	_
	250 Vdc &	Non-Fusible	_	_	30-1200	2, 3, and 4	Yes	Yes	Yes <sup>①②</sup>	Yes@	Yes@	_	_
	600 Vdc								Up to 1200A	400-1200A	Up to 1200A		
6-Pole	Single Throw	Fusible	Cartridge	Н	30-200	6	_	Yes	Yes@@	_	Yes@	_	_
Motor Circuit <sup>②</sup>	Max. 600Vac	Non-Fusible	_	_	30-200	6	_	Yes	Yes <sup>©</sup> 2	_	Yes@	_	_
Double Throw <sup>®</sup>	Max. 600VAV	Fusible	Cartridge	Н	30-200	2 and 3	Yes	Yes	Yes@@	Yes@	Yes@	_	_
	250Vdc				400-1200	3	Yes	Yes	400-600A	400-600A	400-600A		
				T (600V)		2, 3, 4, 6	Yes	Yes	Yes@@	Yes@	Yes@	_	_
		Non-Fusible <sup>®</sup>	_		30-1200	3	Yes	Yes	Up to 400A	400-600A	Up to 200A		
Enclosed Rotary Switches	Max. 600Vac	Non-Fusible	_	_	30-80	3			Yes <sup>①</sup>	_	Yes	Yes	_
Hazardous	Max. 600Vac	Fusible	Cartridge	J	30-100	3			_	_	_	_	Yes
Location Disconnect Switch	250Vdc	Non-Fusible	—	_	30-100	3			_	_	_	_	Yes
Enviroline All	Single Throw	Fusible	Cartridge	Н	30-400	2 and 3			_	_	Yes@	_	_
Stainless <sup>②</sup>	Max. 600Vac/ DC		_	_	30-400	3			_	_	Yes <sup>②</sup>	_	_
Viewing Window	Single Throw	Fusible	Cartridge	Н	30-1200	2, 3, 4, 6	_	_	Yes①	Yes	Yes	_	_
<b>3</b>	Max. 600Vac/ DC		_	_	30-1200	2, 3, 4, 6	_	_	Yes①	Yes	Yes	_	_
Receptacle	Single Throw	Fusible	Cartridge	Н	30-100	3	_	_	Yes@@	_	Yes@	_	_
(Pin & Sleeve) <sup>②</sup>	Max. 600Vac/ DC	Non-Fusible	_	_	60	3	_	_	Yes@@	_	Yes <sup>②</sup>	_	_
Quick Connect	Single Throw	Fusible	Cartridge	Н	100-600	2, 3, and 4	Yes	Yes	_	_	_	_	_
(Cam & Posi Lok)	Max. 600Vac		-3-	Ĺ	800	2, 3, and 4	Yes	Yes	_	_	_	_	_
	Double Throw		_	_	100-800	2, 3, and 4	Yes	Yes					
	Max. 600Vac	w Non-Fusible		_	100 200	2, 3, and 4	Yes	Yes	_	_	_	_	_
		w Fuse	Cartridge	H T	100-200 400-800	2, 3, and 4	Yes Yes	Yes Yes	_	_	_	_	_
						2, 3, and 4	162					_	
Solar	Single Throw Max. 600Vdc			R —	30-600 30-600	1 (3) 1 (3)	_	Yes Yes	Yes©@ Yes©@	Yes@ Yes@	_	_	_

#### Notes

① Type 12 enclosures (30-1200 amperes) can be field modified to meet Type 3R rainproof requirements when a factory provided drain screw is removed.

② Optional windows also available with type 12 or 4/4X enclosures.

<sup>3</sup> Double throw non-fusible 4 pole 30-800A, 6 pole 30-100A.

## Safety Switches

#### **Product Overview**

- Used to open or close a circuit
- Non-fusible safety switches provide a means to manually connect or disconnect the load from the source
- Fusible safety switches provide a means to manually open and close a circuit and provide overcurrent protection by means of installed fuses
- Fusible switches certified for use as service entrance equipment (unless noted)
- Also commonly referred to as a disconnect switch or disconnect

Ctondord

- Available from 30–1200A
- All Padlockable
- Horsepower rated
- 100% load break rated (unless noted)
- Non-Fusible switches are 100% continuous duty rated and fusible switches are 80% continuous duty rated per CSA C22.2 No.4

#### **Standards and Certifications**

- C22.2 No.4 File #69743
- C22.2 No.14 (Enclosed Rotary) File #162136
- Det Norske Veritas
- ISO 9001:2008
- CSA certified Class I, Div, 1 & 2, Groups B, C & D; Class II, Div 1 & 2, Groups E, G & F; Class III, Div 1 & 2, Zone 1, IIB + H2 for NEMA 7/9.
- Seismic qualified (UBC and CBC) for Heavy Duty 30-800A
- ISO 1400



#### Fuse Clips/Class

#### Adaptable to Accept the Following Fuse Class

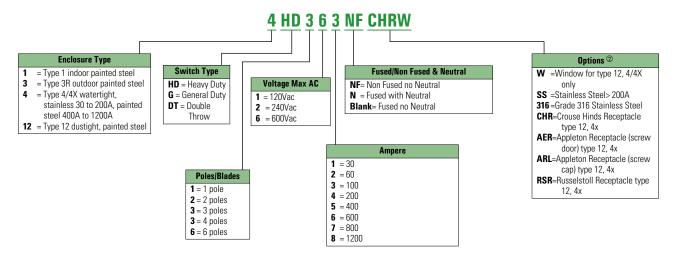
Safety Switch Type	Standard Fuse Class Clips Supplied with Switch	R	J	Т
AC Disconnect	Н	_	_	_
General Duty	Н	30A-600A	400-600A	400-600A
Heavy Duty	H 30-600A L 800-1200A	30A-600A	240V-100-600A 600V-30-600A	200A-800A 1200A
Heavy Duty 6 Pole	Н	30A-200A	60A-200A	200A
Double Throw	H 30-200A T 240V-600A-1200A T 600V-400A-800A L 600V-1200A	30A-400A	240V-200A Only 600V-200A-400A	240V-600A-1200A 600V-400A-1200A (Standard)
Enviroline All Stainless & Window	Same as Heavy Duty	Same as Heavy Duty		Same as Heavy Duty
Receptacle (Pin & Sleeve)	Н	30A-100A	60A-100A	_
Solar	R	30A - 600A	_	_

**Note:** Refer to specific switch technical data page for field adaptation notes.

#### Safety Switches

#### **Catalogue Number Selection**

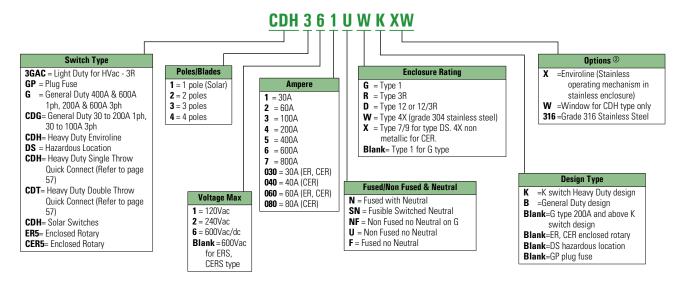
#### Safety Switch



#### Notes

- O Always verify the number of poles and wires required since catalogue numbers may appear in multiple tables.
- ② See Pages 12 through 14 for additional Flex Centre options.

This table is intended for use in breaking down existing catalogue numbers. It is not intended for building new catalogue numbers.



## **Switching Devices**

#### Motor Disconnects

#### **Enclosed Rotary Disconnect**





CER53030UW

CER53025UX



#### Contents

Selection Guide
Product Overview. Scatalogue Configurator. Applications and Accessories Standard Terminal Capacities Fuse Dimensions Short Circuit Ratings. Standard Terminal Capacities Standard Terminal Capa
Catalogue Configurator. 4 Options and Accessories 5 Technical Data and Specifications 7 Standard Terminal Capacities 7 Fuse Dimensions 8 Short Circuit Ratings 10
Options and Accessories
Technical Data and Specifications 5 Standard Terminal Capacities 5 Fuse Dimensions 6 Short Circuit Ratings 10
Standard Terminal Capacities         7           Fuse Dimensions         8           Short Circuit Ratings         10
Fuse Dimensions 8 Short Circuit Ratings 10
Short Circuit Ratings
Air Condition Disconnects
General Duty Switches
Heavy Duty Switches
Heavy Duty Six-Pole Switches
Heavy Duty Double Throw Switches
Enviroline Switches
Heavy Duty Window Switches
Heavy Duty Receptacle Switches
Heavy Duty Voltage Indicator Switches
Hazardous Location Switches
Heavy Duty Quick Connect Switches. 56
Solar Switches
Zone Blasting Switches
Elevator Control Switches
Grounding Switches
Enclosed Motor Disconnects 70
NEMA 1 Product Features, Standards, Selection
NEMA 12/3R, 4X Product Overview, Standards 7
Product Selection
Technical Data and Specifications
Pringle Bolted Pressure Switches
OEM Operating Mechanisms
CSA Enclosure Designations 91

## **NEMA 12/3R, 4X Enclosed Rotary Disconnects**

#### **Application**

Suitable as a motor disconnect. A compact and economical choice for switching and isolating motor loads. Provides users with the ability to lock directly to wired motor loads in the OFF position.

Environments such as outdoor, corrosive, dust, hose down, all possible with the wide variety of enclosures available.

#### **Product Overview**

- Available in 16–80A ratings
- 600 Vac, three- and fourpole non-fusible device
- Up to 65KA RMS short circuit withstand rating
- Padlockable in the OFF position (up to three padlocks)
- Load break rated
- Accepts auxiliary contacts; capability to signal PLC controllers
- Ground lug connection provided as standard
- Possibility of adding one power pole and one auxiliary contact
- NEMA® Type 12/3R painted steel, 4X stainless steel, 4X non metallic, polycarbonate and thermoset polyester (krydon®)
- Labeled "Suitable for motor disconnect"

#### **Standards and Certifications**

- CSA Certified, File 162136
- C22.2 No.14/UL 508
- Meets CEC rule 28-602(3)(b) suitable for motor disconnect



# **Switching Devices**

## Motor Disconnects

## **Product Selection**

#### **Enclosed Rotary Non-Fusible**

Ampere		m Horsepov hase AC	wer Ratings		Type 12 ① Enclosure Dust-Tight/ Rainproof	Type 4X Enclosure Corrosion-Resistant, Stainless Steel	Type 4X Enclosure Corrosion-Resistant, Non-Metallic Krydon®	Type 4X Enclosure Polycarbonate- Non-Metallic
Rating	208V	240V	480V	600V	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
Three-Po	le, 600 V	ac						
16	3	5	10	10	CER53016UD	CER53016UW	CER53016UX	_
25	7-1/2	7-1/2	15	20	CER53025UD	CER53025UW	CER53025UX	_
30	7-1/2	7-1/2	15	20	CER53030UD	CER53030UW	CER53030UX	ER53030UPGB @3
40	7-1/2	7-1/2	20	25	CER53040UD	CER53040UW	CER53040UX	_
60	15	15	30	30	CER53060UD	CER53060UW	CER53060UX	ER53060UPGB @3
80	15	20	40	40	CER53080UD	CER53080UW	CER53080UX	_

## Accessories for Enclosed Rotary Disconnects ®

Disconnect Ampere Rating	Switched Fourth Pole	Auxiliary Contacts (Choose one)	Terminal Shrouds	
16	S4PR516	1NO + 1NC	Single-pole	
25	S4PR525	AC1NONC	TS1R5A	
30	S4PR530	2NC	Three-pole	
40	S4PR540	AC2NC	TS3R5A	
60	_		Single-pole	
80	_		TS1R5B	
			Three-pole <b>TS3R5B</b>	

#### Notes

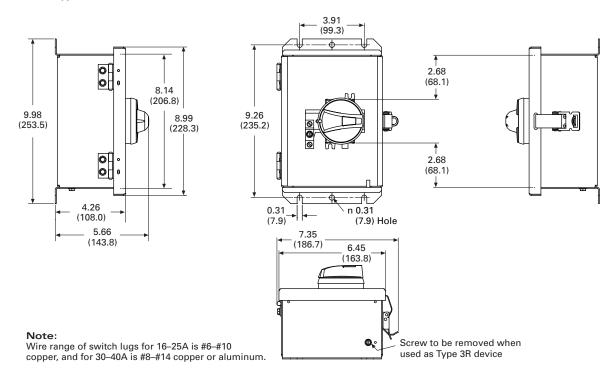
- O NEMA Type 12 enclosures (16-80A) can be field modified to meet Type 3R rainproof requirements when a factory-provided drain hole is opened.
- ② **GB** suffix = gray cover and black handle, **YR** suffix = yellow cover and red handle, **GR** suffix = gray cover and red handle.
- 3 cULus.
- $\ensuremath{\mathfrak{G}}$  Ordered and shipped as separate components—not integral to enclosed device.
- ® Enclosed disconnects can accept one power pole, neutral or up to two auxiliary contacts (one mounted on either side of switch)...

 $Contact \ Customer \ Support \ (1-800-268-3578) \ for \ factory-installed \ accessories, \ UL \ labelled \ product, \ or \ other \ special \ modifications.$ 

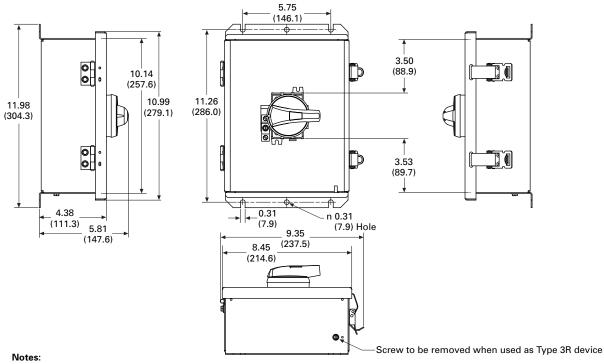
## **Motor Disconnects**

Approximate Dimensions in Inches (mm)

#### NEMA Type 12/3R (16-40A)



#### NEMA Type 12/3R (60-80A)



Wire range of switch lugs is #1–#14 copper. Wire range of ground lugs is #2–#14 copper or aluminum.