

Switching Devices

Safety Switches

Safety Switch Selection Guide

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

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.

③ Double throw non-fusible 4 pole 30-800A, 6 pole 30-100A.

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

- 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

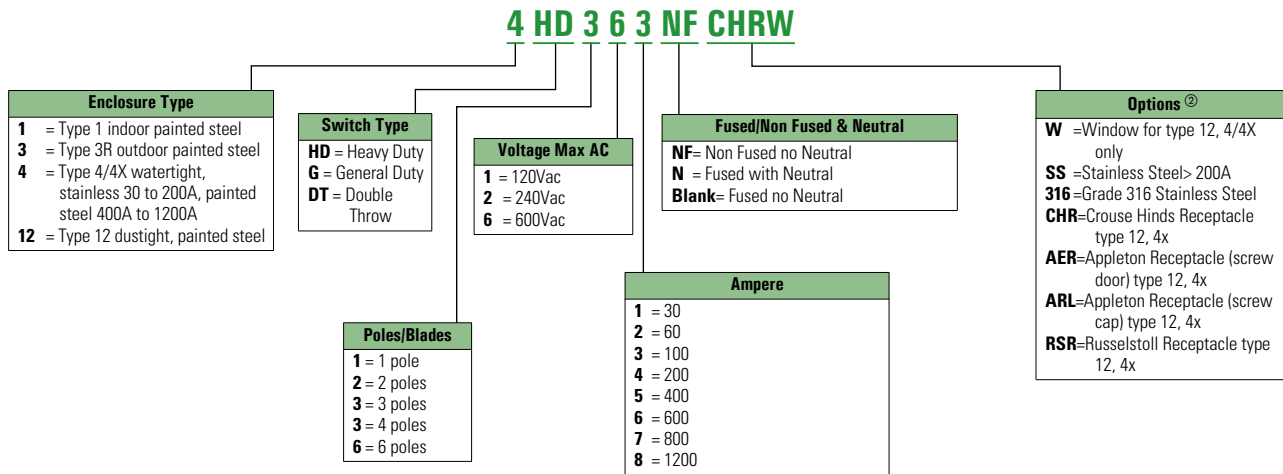
Adaptable to Accept the Following Fuse Class

Safety Switch Type	Standard Fuse Class Clips Supplied with Switch	R	J	T
AC Disconnect	H	—	—	—
General Duty	H	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	H	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)	H	30A-100A	60A-100A	—
Solar	R	30A - 600A	—	—

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

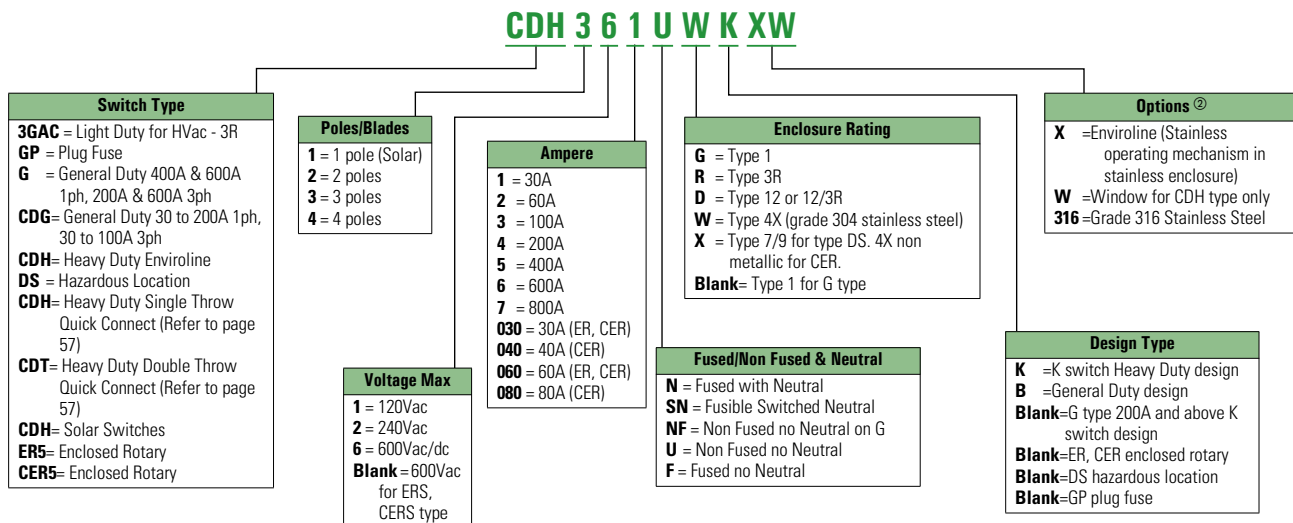
Catalogue Number Selection

Safety Switch

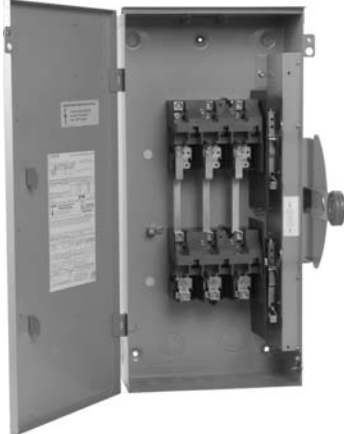


Notes

- ① 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.



Heavy Duty Non-fusible Double-Throw



Double-Throw Switches

Application Description

Used to manually transfer a load from one power source to an alternate source, or to connect a single source of power to either of two different loads.

Product Description

- 30–1200A
- Horsepower rated
- 600 Vac, 250 Vdc maximum
- 2, 3, 4, 6 pole designs available
- Enclosures type 1, 3R, 12, 4, painted steel and 4X stainless steel
- 800–1200A fusible utilize common set of fuses; two Source 1 load applications
- Fusible or non-fusible
- Fusible and non-fusible switches are 100% load break and 100% load make rated

- Suitable for use on systems capable of delivering 100,000 rms symmetrical fault current when used with class J, R, or T fuses.
- The handle operating mechanism actuates either the upper or lower switch. When the handle is in the centre position, both switches are OFF.
- The handle and door are interlocked to keep the door closed when a switch is ON and hold the handle OFF when the door is open
- The continuous load current of fusible switches is not to exceed 80% of the rating of fuses employed in other than motor circuits. Non-fusible switches are 100% continuous duty rated
- Double throw switches are not approved for service entrance in Canada, per CEC and C22.2 No.4.
- Wiring configuration from factory allows a single load to be supplied by a normal or alternate source. Can be field modified to allow two loads to be alternately supplied by a single power source
- Clear line shield (provided on **fusible** double-throw) protects against accidental contact with energized parts. Probe holes enable the user to test if the line side is energized without removing the shield
- For accessories, refer to **Pages 5 and 6**
- Window option available for type 12 and 4X enclosures
- For factory modifications refer to **Pages 12 through 14**

- Same heavy duty features per page 23 for double throw switches, unless noted.
- Triple padlocking capability. Two on door and up to three 3/8" shank locks in 'OFF' (centre) handle position. Special modification available for locking in 'ON' position, see page 12 note 4.

Standards and Certifications

- CSA Certified File No. 69473
- Meets C22.2 No. 4 standard for enclosed switches.
- ISO 9001:2008



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Switching Devices

Safety Switches

240 Vac Heavy-Duty, Fusible, Double-Throw

Ampere Rating Main and Standby	Fuse Class Provision	Maximum Horsepower Ratings with Time Delay Fuses						DC 250V	Type 1 Enclosure Indoor Catalogue Number	Type 3R Enclosure Rainproof Catalogue Number
		Single-Phase AC			Three-Phase AC					
		240V	480V	600V	240V	480V	600V			
Two-Pole – 240 Vac – 250 Vdc										
200	H	15	—	—	—	—	—	40	1DT224	3DT224
Three-Pole – 240 Vac – 250 Vdc										
30	H	3	—	—	7-1/2	—	—	5	1DT321	3DT321
60	H	10	—	—	15	—	—	10	1DT322	3DT322
100	H	15	—	—	30	—	—	20	1DT323	3DT323
200	H	15	—	—	60	—	—	40	1DT324	3DT324
400	H	—	—	—	125	—	—	50	1DT325	3DT325
600 ①	T	—	—	—	50	—	—	50	1DT326	3DT326
800	T	—	—	—	—	—	—	—	DT327FGK	DT327FRK
1200	T	—	—	—	—	—	—	—	DT328FGK	DT328FRK

240 Vac Heavy-Duty, Non-Fusible, Double-Throw

Ampere Rating Main and Standby	Maximum Horsepower Ratings						DC 250V	Type 1 Enclosure Indoor Catalogue Number	Type 3R Enclosure Rainproof Catalogue Number	
	Single-Phase AC			Three-Phase AC						
	240V	480V	600V	240V	480V	600V				
Two-Pole – 240 Vac – 250 Vdc										
30		3	—	—	—	—	—	5	1DT221NF	3DT221NF
60		10	—	—	—	—	—	10	1DT222NF	3DT222NF
100		20	—	—	—	—	—	20	1DT223NF	3DT223NF
200		15	—	—	—	—	—	40	1DT224NF	3DT224NF
400		—	—	—	—	—	—	50	1DT225NF	3DT225NF
600		—	—	—	—	—	—	—	1DT226NF	3DT226NF
800		—	—	—	—	—	—	—	②	②
1200		—	—	—	—	—	—	—	②	②
Three-Pole – 240 Vac – 250 Vdc										
30		3	—	—	10	—	—	5	1DT321NF	3DT321NF
60		10	—	—	20	—	—	10	1DT322NF	3DT322NF
100		20	—	—	40	—	—	20	1DT323NF	3DT323NF
200		15	—	—	60	—	—	40	1DT324NF	3DT324NF
400		—	—	—	125	—	—	50	1DT325NF	3DT325NF
600		—	—	—	125	—	—	50	1DT326NF	3DT326NF
800		—	—	—	125	—	—	50	1DT327NF	3DT327NF
800		—	—	—	125	—	—	50	1DT327NF-N	3DT327NF-N
1200		—	—	—	125	—	—	50	②	②

Notes

① Only available for use with fast-acting fuses. Standard hp rating is shown.

② Contact Customer Support (1-800-268-3578) for availability of this product.

Note

For 'J' Fusing on 240V @ 30A, 60A, 100A, 400A, 600A not available.

For 'J' Fusing on 240V @ 200A reposition loadside fuse block to accept J fusing.

Switching Devices

Safety Switches

Dimensions

Approximate Dimensions in Inches (mm)

Heavy-Duty, Non-Fusible, 240V and 600V, Two and Three-Pole, Double-Throw

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
Type 1, 3R					
30	11.94 (303.3)	24.63 (625.6)	9.88 (251.0)	5.38 (136.7)	34 (15)
60	11.94 (303.3)	24.63 (625.6)	9.88 (251.0)	5.38 (136.7)	34 (15)
100	11.94 (303.3)	24.63 (625.6)	9.88 (251.0)	5.38 (136.7)	34 (15)
200	19.56 (496.8)	37.38 (949.5)	11.25 (285.8)	6.10 (154.9)	80 (36)
400	23.13 (587.5)	53.81 (1366.8)	12.50 (317.5)	7.25 (184.2)	130 (59)
600	24.13 (612.9)	63.31 (1608.1)	14.13 (358.9)	8.88 (225.6)	160 (73)
800	24.13 (612.9)	63.31 (1608.1)	14.13 (358.9)	8.88 (225.6)	175 (79)
1200	42.62 (1082.5)	78.11 (1984.0)	25.62 (650.7)	20.47 (519.9)	471 (214)

Type 12, 4X Stainless Steel, 4 Painted Steel > 200A

30	12.00 (304.8)	25.88 (657.4)	10.25 (260.4)	5.50 (139.7)	60 (27)
60	12.00 (304.8)	25.88 (657.4)	10.25 (260.4)	5.50 (139.7)	60 (27)
100	12.00 (304.8)	25.88 (657.4)	10.25 (260.4)	5.50 (139.7)	60 (27)
200	19.50 (495.3)	41.00 (1041.4)	11.63 (295.4)	6.48 (164.6)	105 (48)
400	23.05 (587)	57.48 (1460)	12.5 (317)	7.25 (184.2)	135 (61)
600	24.07 (612)	67.02 (1702)	14.05 (357)	8.88 (225.6)	180 (82)
800	24.07 (612)	67.02 (1702)	14.05 (357)	8.88 (225.6)	200 (91)

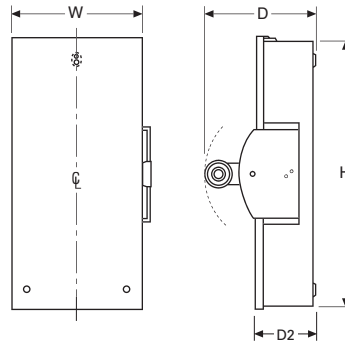
Heavy-Duty, Fusible, 240V and 600V, Three-Pole, Double-Throw

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
Type 1, 3R					
30	11.94 (303.3)	36.63 (930.4)	9.88 (251.0)	5.38 (136.7)	44 (20)
60	11.94 (303.3)	36.63 (930.4)	9.88 (251.0)	5.38 (136.7)	44 (20)
100	11.94 (303.3)	36.63 (930.4)	9.88 (251.0)	5.38 (136.7)	44 (20)
200	19.56 (496.8)	50.88 (1292.4)	11.25 (285.8)	6.10 (154.9)	95 (43)
400	25.38 (644.7)	74.75 (1898.7)	14.13 (358.9)	8.88 (225.6)	195 (89)
600	27.44 (697.0)	86.13 (2187.7)	14.13 (358.9)	8.88 (225.6)	230 (104)
800	28.12 (714.2)	58.86 (1495.0)	25.62 (650.7)	20.47 (519.9)	277 (126)
1200	42.62 (1082.5)	78.11 (1984.0)	25.62 (650.7)	20.47 (519.9)	501 (228)

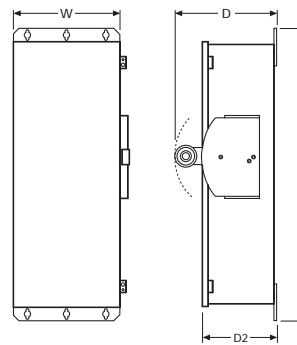
Type 12, 4X Stainless Steel, 4 Painted Steel > 200A

30	12.00 (304.8)	39.81 (1011.2)	10.25 (260.4)	5.50 (139.7)	45 (20)
60	12.00 (304.8)	39.81 (1011.2)	10.25 (260.4)	5.50 (139.7)	45 (20)
100	12.00 (304.8)	39.81 (1011.2)	10.25 (260.4)	5.50 (139.7)	45 (20)
200	19.56 (496.8)	55.63 (1413.0)	11.63 (295.4)	6.46 (164.1)	100 (45)
400	25.32 (643)	77 (1956)	14.05 (357)	8.92 (226)	—
600	25.32 (643)	77 (1956)	14.05 (357)	8.92 (226)	—

Type 1-3R Double-Throw 30–1200A



Type 12-4X Double-Throw 30–1200A



Heavy-Duty, Non-Fusible, 600V, Four and Six-Pole[Ⓢ], Double-Throw

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
Type 1, 3R					
30	17.75 (451)	24.63 (625)	9.88 (251.0)	5.28 (134)	45 (20.5)
60	17.75 (451)	24.63 (625)	9.88 (251.0)	5.28 (134)	45 (20.5)
100	17.75 (451)	24.63 (625)	9.88 (251.0)	5.28 (134)	45 (20.5)
200	19.50 (497)	37.25 (946)	11.25 (285.8)	6.10 (155)	95 (43)
400	27.50 (697)	63.31 (1608)	14.13 (358.9)	8.88 (226)	160 (72.6)
600	27.50 (697)	63.31 (1608)	14.13 (358.9)	8.88 (226)	185 (84)
800	27.50 (697)	63.31 (1608)	14.13 (358.9)	8.88 (226)	185 (84)

Notes

Six pole dimensions listed 30, 60, 100A only.