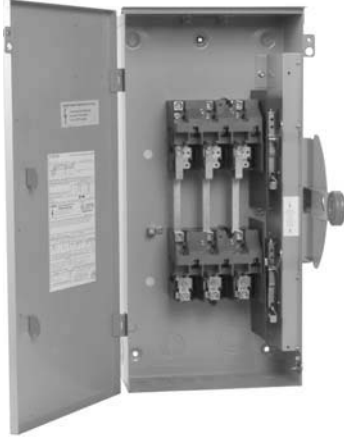


Heavy Duty Non-fusible Double-Throw



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	—	—	—	—	—	—	—	1DT327	3DT327
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.

1DT363



600 Vac Heavy-Duty, Fusible, Double-Throw

Ampere Rating Main and Standby	Fuse Class Provision	Maximum Horsepower Ratings with Time Delay Fuses					Type 1 Enclosure Indoor Catalogue Number	Type 3R Enclosure Rainproof Catalogue Number	Type 12 ^③ Enclosure Dust-Tight Catalogue Number	Type 4X Enclosure ^④ Corrosion-Resistant, Stainless Steel Catalogue Number
		Single-Phase AC		Three-Phase AC		DC				
		480V	600V	480V	600V	250V				
Three-Pole – 600 Vac – 250 Vdc										
30	H	7-1/2	10	15	20	—	1DT361	3DT361	①	①
60	H	20	25	30	50	—	1DT362	3DT362	①	①
100	H	30	40	60	75	—	1DT363	3DT363	①	①
200	H	50	50	125	150	40	1DT364	3DT364	①	①
400	T	—	—	250	350	50	1DT365	3DT365	①	①④
600	T	—	—	—	—	—	1DT366	3DT366	①	①④
800	T	—	—	—	—	—	DT367FGK	DT367FRK	①	①④
1200	T	—	—	—	—	—	DT368FGK	DT368FRK	—	①④

3DT363NF



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

Ampere Rating Main and Standby	Maximum Horsepower Ratings					Type 1 Enclosure Indoor Catalogue Number	Type 3R Enclosure Rainproof Catalogue Number	Type 12 ^③ Enclosure Dust-Tight Catalogue Number	Type 4X Enclosure ^④ Corrosion-Resistant, Stainless Steel Catalogue Number
	Single-Phase AC		Three-Phase AC		DC				
	480V	600V	480V	600V	250V				
Two-Pole – 600 Vac – 250 Vdc									
30	7-1/2	10	—	—	5	1DT261NF	3DT261NF	①	①
60	20	25	—	—	10	1DT262NF	3DT262NF	①	①
100	40	50	—	—	20	1DT263NF	3DT263NF	①	①
200	50	50	—	—	40	1DT264NF ^②	3DT264NF ^②	①	①
400	—	—	—	—	50	1DT265NF	3DT265NF	①	①④
600	—	—	—	—	50	1DT266NF	3DT266NF	①	①④
800	—	—	—	—	50	DT267UGK	DT267URK	①	①④
1200	—	—	—	—	50	DT268UGK	DT268URK	—	①④
Three-Pole – 600 Vac – 250 Vdc									
30	7-1/2	10	20	30	5	1DT361NF	3DT361NF	12DT361NF	4DT361NF
60	20	25	50	60	10	1DT362NF	3DT362NF	12DT362NF	4DT362NF
100	40	50	75	100	20	1DT363NF	3DT363NF	12DT363NF	4DT363NF
200	50	50	125	150	40	1DT364NF	3DT364NF	12DT364NF	4DT364NF
400	—	—	250	350	50	1DT365NF	3DT365NF	12DT365NF	①④
600	—	—	250	350	50	1DT366NF	3DT366NF	①③	①④
800	—	—	250	350	50	1DT367NF	3DT367NF	①③	①④
800	—	—	250	350	50	1DT367NF-N	3DT367NF-N	①③	①④
1200	—	—	250	350	50	DT368UGK	DT368URK	—	①④

Notes

- ① Contact Customer Support (1-800-268-3578) for availability of this product.
- ② Rated 600 Vdc, 50 hp in addition to ratings shown in table.
- ③ Type 12 enclosures (30–1200A) can be field modified to meet Type 3R rainproof requirements when a factory provided drain hole is opened.
- ④ 30-200A, stainless steel 4X standard, 400-800A Type 4 painted steel standard. For stainless @ 400-1200A add 'SS' to catalogue number suffix.

Note: For 'J' Fusing on 600V DT, 30, 60, 100, 600A not available..

For 200A reposition loadside fuse base to accept J fuse.

For 400A order DT400JK.

For applications with bonded generators, switched neutrals required, for 240V use 3 pole switch, for 600V use 4 pole switch, for factory installation of solid or switched neutrals refer to page 13.

For window option see factory modifications pages 12-14.

Switching Devices

Safety Switches

DT363URK



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

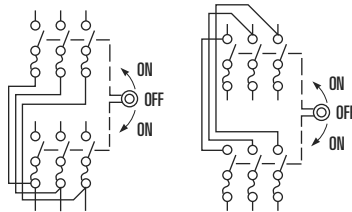
Ampere Rating Main and Standby	Maximum Horsepower Ratings					Type 1 Enclosure Indoor Catalogue Number	Type 3R Enclosure Rainproof Catalogue Number	Type 12 ^③ Enclosure Industrial, Dust-Tight Catalogue Number	Type 4X Enclosure Corrosion-Resistant, Stainless Steel Catalogue Number
	Single-Phase AC		Three-Phase AC		DC				
	480V	600V	480V	600V	250V				
Four-Pole—600 Vac—250 Vdc^①									
30	7-1/2	10	20	30	5	1DT461NF	3DT461NF	②	②
60	20	25	50	60	10	1DT462NF	3DT462NF	②	②
100	40	50	75	100	20	1DT463NF	3DT463NF	②	②
200	—	50	125	150	40	1DT464NF	3DT464NF	②	②
400	—	—	250	350	50	1DT465NF	②	②	④
600	—	—	250	350	50	1DT466NF	②	②	④
800	—	—	250	350	50	1DT467NF	②	②	④
Six-Pole—600 Vac—250 Vdc^①									
30	7-1/2	10	15	30	5	1DT661NF	3DT661NF	②	②
60	20	25	50	60	10	1DT662NF	3DT662NF	②	②
100	40	50	75	100	20	1DT663NF	3DT663NF	②	②

Notes

- ① Field installable neutral kit is not available. If a neutral is required, order the catalog number shown in the table add "N" suffix.
- ② Contact Customer Support (1-800-268-3578) for availability of this product.
- ③ Type 12 enclosures (30–1200A) can be field modified to meet Type 3R rainproof requirements when a factory provided drain hole is opened.
- ④ 30-200A stainless steel 4X standard, 400-800A Type 4 painted steel standard. For stainless @ 400-800A add 'SS' to catalogue number suffix.

Technical Data and Specifications for Double Throw Switches

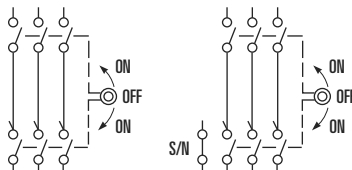
Typical Fusible, Double-Throw Schematic Diagram



Fusible Three-Pole Two Sources

Fusible Three-Pole Two Loads

Typical Non-Fusible, Double-Throw Schematic Diagram



Non-Fusible Three-Pole Two Sources or Two Loads

Non-Fusible Three-Pole Two Sources or Two Loads

Short-Circuit Ratings Using Class "R", "J" or "T" Fusing Where Applicable

Ampere Rating	Voltage Ratings			
	Type 1	Type 3R	Type 12	Type 4 and 4X
30	100k at 600	100k at 600	100k at 600	100k at 600
60	100k at 600	100k at 600	100k at 600	100k at 600
100	100k at 600	100k at 600	100k at 600	100k at 600
200	100k at 600	100k at 600	100k at 600	100k at 600
400	100k at 600	100k at 600	100k at 600	100k at 600
600	100k at 600	100k at 600	100k at 600	100k at 600
800	100k at 600	100k at 600	—	—
1200	100k at 600	100k at 600	—	—

Fuse Class Adaptation

Safety Switch Type	Standard Fuse Class Clips Supplied with Switch	Adaptable to Accept the Following Fuse Class		
		R	J	T
Double Throw	H 30-200A T 240V - 600A T 600V - 400A	30A-400A	240V 200A Only 600V 200A-400A Only	240V 600A (Standard) 600V 400A (Standard)

Note

For 'J' Fusing on 600V DT, 30, 60, 100, 600A, not available.

For 'J' Fusing on 200A reposition loadside fuse base.

For 'J' fuse on 400A order DT400JK

For 'R' fuse rejector adapter kits, and 'T' class adapter kits see accessories page 5

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

For 'J' Fusing on 200A reposition loadside fuse block to accept J fuse

Terminal Capacity for Heavy Duty Double Throw Safety Switch 600V Max

Ampere	Line/Load Terminal Capacity (per phase)	Ground terminal Capacity	Neutral Catalogue # ①	Neutral Terminal Capacity
30	#14 - #2	#14 - 4	DT100NK	1x #14 - #2 AND 3x #14 - #2
60	#14 - #2	#14 - 4	DT100NK	1x #14 - #2 AND 3x #14 - #2
100	#14 - 1/0	#14 - 4	DT100NK	1x #14 - #2 AND 3x #14 - #2
200	#6 - 250mcm	#14 - 4	DT200NK	3x #6 - 250mcm AND 1x #14 - #2
400 (non fusible)	(2) 1/0 - (2)300mcm OR (1) 1/0 - 750mcm	#6 - 250mcm	DT400NK	7x #6 - 250mcm
400 (fusible)	(2) 1/0 - (2)300mcm OR (1) 1/0 - 750mcm	#6 - 250mcm	DS800NK	2x (4)3/0 - (4)750mcm AND 3x #6 - 250mcm
600 (non fusible)	(2)250mcm - (2)500mcm	#6 - 250mcm	DT600NK	6x 250mcm - 500mcm AND 1x #6 - 250mcm
600 (fusible)	(1)#2 - 600mcm AND (1)1/0 - 750mcm	#6 - 250mcm	DS800NK	2x (4)3/0 - (4)750mcm AND 3 x #6 - 250mcm
800	(3)250mcm - (3)500mcm	#6 - 250mcm	DT800NK	3x (3) 250mcm - (3) 500mcm
1200	(4) 1/0 - (4)750mcm	#6 - 250mcm	DT1200NK	3x (4)1/0 - (4)750mcm

Notes

① Order neutral catalogue number when neutral required and not included with switch.

All terminals are rating al/cu unless otherwise noted.

Ground terminal is standard on all switches. For optional ground lug kits or copper lug kits see page 5 and 7.

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)

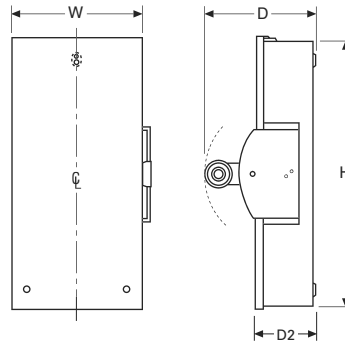
Heavy-Duty, Fusible, 240V and 600V, Three-Pole, Double-Throw

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)

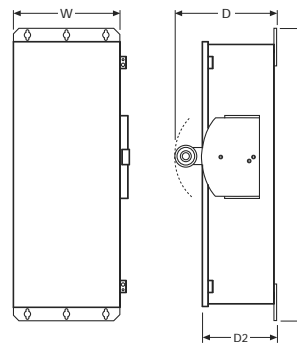
Type 12, 4X Stainless Steel, 4 Painted Steel > 200A

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^①, 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.