

Six-Pole Motor Circuit



Six-Pole Switches

Application Description

A compact safety switch that's ideal for use in heavy industry...when an "in sight" disconnecting means is required for two-speed motors, reversing motors, or two motors separately fed.

Product Description

- 600 Vac, 250 Vdc maximum - fusible
- 600VAC, 600VDC maximum - non fusible
- 30–200A
- Fusible or non-fusible
- Enclosure Type 12/3R Painted Steel and 4X Stainless Steel

Features, Benefits and Functions

- Suitcase-type latches keep the cover tightly closed and a neoprene gasket seals out moisture and dust from the switch assembly
- Visible double-break quick-make, quick-break rotary blade mechanism. Two points of contact provide a positive open and close, easier operation, and also help prevent contact burning for longer contact life
- Clear line shield protection
- Built-in fuse pullers
- Clearly visible handle
- Triple padlocking capability; cabinet door can be further padlocked at the top and bottom

Standards and Certifications

- CSA Certified File No. 69473
- Meets C22.2 No. 4 standard for enclosed switches.
- ISO 9001:2008
- Deionizing arc chutes; arc chutes confine and suppress the arcs produced by opening contacts under load
- For factory modifications, refer to **Pages 12 through 14**
- For accessories refer to **Pages 5 and 6**

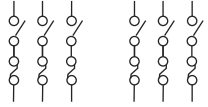


Contents

<i>Description</i>	<i>Page</i>
Selection Guide	2
Product Overview	3
Catalogue Configurator	4
Options and Accessories	5
Technical Data and Specifications	7
Standard Terminal Capacities	7
Fuse Dimensions	8
Short Circuit Ratings	10
Flex/Satellite Modifications	12
Air Condition Disconnects	15
General Duty Switches	18
Heavy Duty Switches	22
Heavy Duty Six-Pole Switches	32
Product Description, Features	32
Standards and Certifications	32
Product Selection	33
Technical Data and Dimensions	34
Heavy Duty Double Throw Switches	35
Enviroline Switches	41
Heavy Duty Window Switches	44
Heavy Duty Receptacle Switches	48
Heavy Duty Voltage Indicator Switches	52
Hazardous Location Switches	54
Heavy Duty Quick Connect Switches	56
Solar Switches	60
Zone Blasting Switches	65
Elevator Control Switches	66
Grounding Switches	68
Enclosed Motor Disconnects	70
Pringle Bolted Pressure Switches	78
OEM Operating Mechanisms	85
CSA Enclosure Designations	91

Product Selection

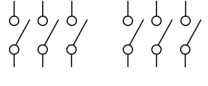
600 Vac Heavy-Duty, Fusible, Six-Pole, Single-Throw

System	Ampere Rating	Maximum Horsepower Ratings, Three-Phase AC (Higher Rating with Time Delay Fuses)			Three-Phase DC		Type 12/3R Enclosure ^① Dust-Tight Catalogue Number	Type 4X Enclosure Corrosion-Resistant, Stainless Steel Catalogue Number
		240V	480V	600V	250V	250V		
600 Vac with Fuse Clips—250 Vdc								
	30	3-7-1/2	5-15	7-1/2-20	5		12HD661 ^①	②
	60	7-1/2-15	15-30	15-50	10		12HD662 ^①	②
	100	15-30	25-60	30-75	20		12HD663 ^①	②
	200	25-60	50-125	60-150	40		12HD664 ^①	②

DH661UDK



600 Vac Heavy-Duty, Non-Fusible, Six-Pole, Single-Throw

System	Ampere Rating	Maximum Horsepower Ratings, Three-Phase AC			Three-Phase DC		Type 12/3R Enclosure ^① Dust-Tight Catalogue Number	Type 4X Enclosure Corrosion-Resistant, Stainless Steel Catalogue Number
		240V	480V	600V	250V	600V ^③		
600 Vac—250 Vdc								
	30	10	20	30	5	15 ^③	12HD661NF ^①	4HD661NF
	60	20	50	60	10	25 ^③	12HD662NF ^①	4HD662NF
	100	40	75	100	20	25 ^③	12HD663NF ^①	4HD663NF
	200	60	125	150	40	50 ^③	12HD664NF ^①	4HD664NF

Notes

① Type 12 enclosures (30-800A) can be field modified to meet Type 3R rainproof requirements when a factory provided drain hole is opened.

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

③ 600 Vdc rating requires that the switch be wired per the wiring diagram on the device publication.

When control pole accessory required or custom enclosure required, contact Customer Support (1-800-268-3578)

Add 'W' to catalogue number suffix for window version.

Note: For 'J' Fusing on 6-Pole 600V Heavy Duty Switches Field Modification Required.

30-60 amperes not available to convert.

60 amperes must order DS26JK adapter kit.

100-200 amperes reposition loadside fuse base to accept 'J' fuse.

Technical Data and Specifications for 6 Pole Heavy Duty

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

Ampere Rating	Voltage Ratings	
	Type 12	Type 4 and 4X
30	200k at 600	200k at 600
60	200k at 600	200k at 600
100	200k at 600	200k at 600
200	200k at 600	200k at 600

Note

Class "H" fuse clips supplied as standard for 30–200A. Rated at 10,000 rms symmetrical when using Class "H" fuses.

Fuse Class Adaptation

Safety Switch Type	Standard Fuse Class Clips Supplied with Switch	Adaptable to Accept the Following Fuse Class		
		R	J	T
Heavy Duty 6 Pole	H	30A-200A	60A-200A	200A

Note

For 'J' Fusing on 6-Pole 600V Heavy Duty Switch, Field Modification Required
 30 amperes not available to convert
 60 amperes must order DS26JK adapter kit
 100-200 amperes reposition loadside fuse base to accept 'J' fuse
 For 'R' fuse rejector adapter kits, and 'T' class adapter kits see accessories page xx

Dimensions

Approximate Dimensions in Inches (mm)

Note: Dimensions are for estimating purposes only.

Heavy-Duty 6 pole Type 12 Enclosure[Ⓞ]

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
Fusible					
30	12.88 (327)	19.08 (485)	10.22 (259)	5.5 (140)	30 (13.6)
60	12.88 (327)	19.08 (485)	10.22 (259)	5.5 (140)	30 (13.6)
100	16.13 (410)	24.95 (634)	10.22 (259)	5.5 (140)	40 (18.2)
200	24.16 (614)	35.38 (899)	11.63 (295)	6.44 (164)	65 (29.5)
Non Fusible					
30	12.88 (327)	19.8 (485)	10.22 (259)	5.5 (140)	28 (12.7)
60	12.88 (327)	19.8 (485)	10.22 (259)	5.5 (140)	28 (12.7)
100	16.13 (410)	24.95 (634)	10.22 (259)	5.5 (140)	37 (16.6)
200	24.16 (614)	35.38 (899)	11.63 (295)	6.44 (164)	62 (28.1)

Heavy-Duty 6 pole Non-Fusible Type 4X Enclosure

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
30	16.13 (410)	18.95 (481)	10.22 (259)	5.5 (140)	28 (12.7)
60	16.13 (410)	18.95 (481)	10.22 (259)	5.5 (140)	28 (12.7)
100	16.13 (410)	18.95 (481)	10.22 (259)	5.5 (140)	35 (15.9)
200	24.16 (614)	35.38 (899)	11.63 (295)	6.44 (164)	65 (29.5)

Notes

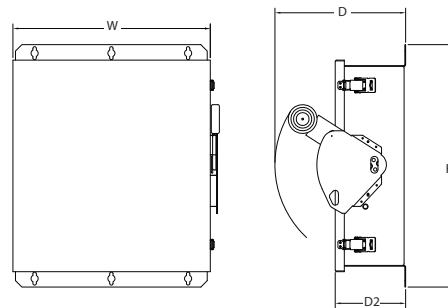
[Ⓞ] Type 12 enclosures can be field modified to meet 3R rainproof rating when factory provided drain hole opened.
 For 6 pole switch with window, 30, 60A same dimensions as 100A

UL/CSA Recognized Non-Fusible Safety Switch/Circuit Breaker Series-Connected Ratings

Eaton 30-200A non fusible safety switch withstand ratings when protected with circuit breakers

Non-Fusible Safety Switch Ampere Rating	Max System Voltage AC	Number of Poles Switched	Maximum fault level available at upstream circuit breaker (kA RMS symmetrical)	Circuit Breaker Frame(s)		
30A & 60A	600	2, 3, 4, 6	25,000	FDC, HFD, HFDE, EGH		
		2, 3, 4, 6	18,000	FD, EGE		
		2, 3, 4, 6	14,000	FDB		
		2, 3, 4, 6	10,000	Any manufacturer or Eaton breaker type		
100A	600	2, 3, 4, 6	25,000	FDC, HFD, HFDE, EGH		
		2, 3, 4, 6	18,000	FD, EGE		
		2, 3, 4, 6	14,000	FDB		
		2, 3, 4, 6	10,000	Any manufacturer or Eaton breaker type		
480	600	2, 3, 4, 6	35,000	EGH, EGS		
		2, 3, 4, 6	10,000	Any manufacturer or Eaton breaker type		
		200A	600	2, 3, 4, 6	25,000	FDC, HFD, HFDE, HJD, JGH
				2, 3, 4, 6	18,000	FD, JD, JGE
200A	600	2, 3, 4, 6	14,000	FDB		
		2, 3, 4, 6	10,000	Any manufacturer or Eaton breaker type		
		480	600	2, 3, 4, 6	65,000	HFD, HFDE, HJD, JGH
				2, 3, 4, 6	10,000	Any manufacturer or Eaton breaker type

Type 12, 4X - 6 pole 30–200A[Ⓞ]



Terminal Capacity for Heavy Duty Safety Switch 6 pole 600V Max

Ampere	Line/Load Terminal Capacity (per phase)	Ground terminal Capacity	Neutral Catalogue #	Neutral Terminal Capacity
30	#14 - #2	#14 - 4	DH030NK	4x #14 - #2
60	#14 - #2	#14 - 4	DH030NK	4x #14 - #2
100	#14 - 1/0	#14 - 4	DH100NK	2x #14-#2 AND 2x #14 - 1/0
200 (type 12 & 4X)	#6 - 300mcm	#14 - 4	DH200NK	2x #6 - 300mcm AND 2x #14 - #2

Note

* 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 6