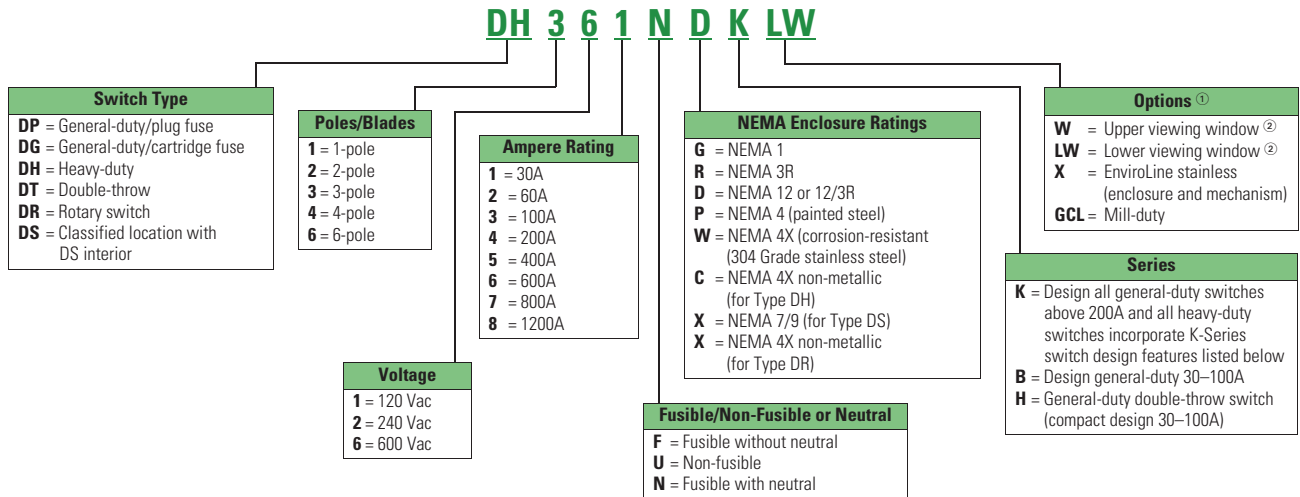


### Catalog Number Selection

#### Safety Switch



#### Notes

① See **Pages V2-T1-16** through **V2-T1-19** for additional Flex Center options.

② Effective August 2003, 30–100A window switches are replaced by a full view window that allows blade position verification and blown fuse indication. See **Page V2-T1-39** for catalog numbers.

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

A factory-installed ground lug is supplied on all NEMA 4, 4X and 12 safety switches, as well as all 400A and higher NEMA 1 and 3R safety switches. A factory-installed ground lug is also supplied on all heavy-duty NEMA 1 and 3R 30–200A switches that do NOT have a factory-installed neutral.

#### Cartridge Fuse General-Duty Safety Switch



### General Duty

#### Product Description

- 30–600A
- Suitable for service entrance applications unless otherwise noted
- Fusible and non-fusible switches are 100% load break and 100% load make rated
- 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% fully rated
- 200–600A features K-Series design
- Horsepower rated

- Fusible and non-fusible switches. Single-pole S/N through four-wire; 120/240, and 240 Vac
- With Class R fuses, switches may be used on systems capable of delivering 100,000A rms symmetrical

**Note:** Plug fuse switches are not service entrance rated.

- Bolt-on hub provision. Provided for general-duty switches in a NEMA 3R enclosure. See **Page V2-T1-15** for selection

#### Application Description

For residential and commercial applications. Suitable for light-duty motor circuits and service entrance.

### Contents

<i>Description</i>	<i>Page</i>
Product Overview . . . . .	<b>V2-T1-3</b>
General Duty . . . . .	<b>V2-T1-26</b>
Standards and Certifications . . . . .	<b>V2-T1-27</b>
Product Selection . . . . .	<b>V2-T1-28</b>
Dimensions . . . . .	<b>V2-T1-30</b>
Heavy-Duty . . . . .	<b>V2-T1-31</b>
Six-Pole Switches . . . . .	<b>V2-T1-43</b>
Double-Throw Switches . . . . .	<b>V2-T1-45</b>
EnviroLine—Stainless Steel Switch . . . . .	<b>V2-T1-53</b>
EnviroLine—Upper and Lower Window Switches . . . . .	<b>V2-T1-56</b>
EnviroLine—Receptacle Switches . . . . .	<b>V2-T1-59</b>
EnviroLine—Non-Metallic KRYDON Switch . . . . .	<b>V2-T1-61</b>
Shunt Trip Safety Switch . . . . .	<b>V2-T1-63</b>
NEMA 7/9—Hazardous Location Disconnect Switch . . . . .	<b>V2-T1-66</b>
Quick Connect Switches . . . . .	<b>V2-T1-68</b>
Solar Disconnect Switch . . . . .	<b>V2-T1-70</b>
316-Grade Stainless Steel Safety Switches . . . . .	<b>V2-T1-72</b>
Mill-Duty Rated, Heavy-Duty, Fusible, Non-Fusible, Single-Throw . . . . .	<b>V2-T1-76</b>
Heavy-Duty Fusible Safety Switches Accepting Cube Fuses . . . . .	<b>V2-T1-78</b>
Elevator Control Switch . . . . .	<b>V2-T1-81</b>
Auxiliary Power Heavy-Duty Safety Switch . . . . .	<b>V2-T1-83</b>
Left-Handed Safety Switch . . . . .	<b>V2-T1-86</b>
200% Neutral Safety Switches . . . . .	<b>V2-T1-87</b>
Pringle Bolted Pressure Switch . . . . .	<b>V2-T1-88</b>
Type DS, Fusible and Non-Fusible . . . . .	<b>V2-T1-91</b>
Type Visi-Flex DE-ION . . . . .	<b>V2-T1-94</b>
Flange Mounted—Variable Depth . . . . .	<b>V2-T1-98</b>
Flange Mounted—Fixed Depth . . . . .	<b>V2-T1-102</b>

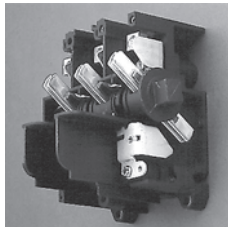
### Features, Benefits and Functions

#### General-Duty (Cartridge Fuse)

- Ample wire bending space provides for easier installation
- Visible double-break quick-make, quick-break rotary blade mechanism
- Side opening door on all enclosures
- Mechanically interlocked cover to prevent easy access when the switch is in the ON position
- With Class R fuses, switches may be used on systems capable of delivering 100,000A rms symmetrical
- Clearly visible and accessible neutral where applicable
- Visible ON/OFF indication
- Tangential knockouts on 30–60A designs
- Ample wiring space
- Double padlocking capability on 30–100A
- Triple padlocking capability on 200–600A
- Additional door locking capability
- Bilingual English/Spanish door label on 30–100A
- Tri-lingual nameplates

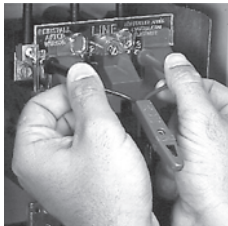
**All general-duty switches above 100A and all heavy-duty switches incorporate these K-Series switch design features.**

- Two points of contact provide a positive open and close, easier operation, and also help prevent contact burning for longer contact life



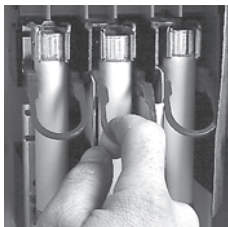
**Visible Double-Break Rotary Blade Mechanism**

- Protects against accidental contact with energized parts. Probe holes enable the user to test if the line side is energized without removing the shield. Not typically provided on general-duty switches, but available as a field kit or factory installed

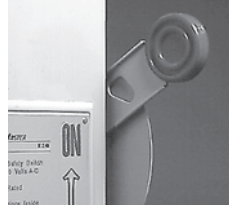


**Clear Line Shield**

- Provide easy removal of fuses



**Built-In Fuse Pullers (NEMA 12 and 4X 30–200A Only)**



**Clearly Visible Handle**

- The position (ON or OFF) can be clearly seen from a distance and the length provides for easy operation



**Triple Padlocking Capability**

- Personnel safety feature because the large hasp can accommodate up to three 3/8-inch (9.5 mm) shank locks



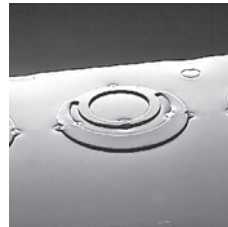
**Additional Locking Capability**

- Cabinet door can be further padlocked at the top and bottom as applicable



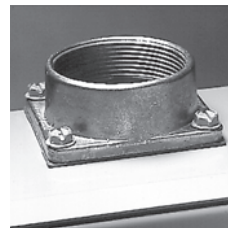
**Interlocking Mechanism**

- Door cannot be opened when the handle is in the ON position. Front and side operable defeater mechanism provides for user access when necessary on single-throw switches



**Tangential Knockouts**

- An ample number are provided on the top, bottom and sides of both NEMA Types 1 and 3R enclosures through 200A



**Bolt-On Hub Kits**

- For switches in a NEMA Type 3R, 30–200A. Use a Myers type hub for all others

### Standards and Certifications

- UL listed File No. E5239
- Meets UL 98 for enclosed switches and NEMA Std. KS-1



## Product Selection

### 120/240 Vac General-Duty, Fusible, Single-Throw

DP221NGB



System	Ampere Rating	Fuse Type Provision	Maximum Horsepower Ratings <sup>①</sup>			DC 250V	NEMA 1 Enclosure Indoor Catalog Number	NEMA 3R Enclosure Rainproof Catalog Number
			Single-Phase AC 120V	240V	Three-Phase AC 240V			
<b>Plug Type—Two-Wire (One Blade, One Fuse, S/N)—120 Vac<sup>②</sup></b>								
	30	Plug (Type S, T or W)	1/2–2	—	—	—	DP111NGB <sup>②</sup>	—
<b>Plug Type—Three-Wire (Two Blades, Two Fuses, S/N)—120/240 Vac</b>								
	30	Plug (Type S, T or W)	1/2–2	1-1/2–3	—	—	DP221NGB <sup>②</sup>	Use cartridge-type fuse catalog number DG221NRB <sup>②</sup>
<b>Cartridge Type—Two-Pole Two-Wire (Two Blades, Two Fuses)—240 Vac</b>								
	30	—	—	1-1/2–3	3–7-1/2	—	③	③
	60	—	—	3–10	7-1/2–15	—	③	③
	100	—	—	7-1/2–15	15–30	—	③	③
	200	H	—	15	25–60	—	DG224FGK <sup>④⑤</sup>	DG224FRK <sup>④⑤</sup>
	400	H	—	—	50–125	—	DG225FGK <sup>④⑤</sup>	DG225FRK <sup>④⑤</sup>
	600	H	—	—	75–200	—	DG226FGK <sup>④⑤</sup>	DG226FRK <sup>④⑤</sup>
<b>Cartridge Type—Three-Wire (Two Blades, Two Fuses, S/N)—120/240 Vac</b>								
	30	H	—	1-1/2–3	3–7-1/2 <sup>⑥</sup>	—	DG221NGB <sup>②</sup>	DG221NRB <sup>②</sup>
	60	H	—	3–10	7-1/2–15 <sup>⑥</sup>	—	DG222NGB <sup>②</sup>	DG222NRB <sup>②</sup>
	100	H	—	7-1/2–15	15–30 <sup>⑥</sup>	—	DG223NGB <sup>②</sup>	DG223NRB <sup>②</sup>
	200	H	—	15	25–60 <sup>⑥</sup>	—	DG224NGK	DG224NRK
	400	H	—	—	50–125 <sup>⑥</sup>	50	DG225NGK	DG225NRK
	600	H	—	—	75–200 <sup>⑥</sup>	—	DG226NGK	DG226NRK

#### Notes

- ① Maximum hp ratings apply only when dual element time delay fuses are used.
- ② These switches do not have an interlock that prevents door from being opened when switch is in the ON position.
- ③ Use three-wire catalog numbers below.
- ④ Solid neutral bars are not included. Order separately from table on **Page V2-T1-14**.
- ⑤ **WARNING!** Switch is not approved for service entrance unless a neutral kit is installed.
- ⑥ Grounded B phase rating, UL listed.

All general-duty safety switches are individually packaged.

Accessories are limited in scope on general-duty safety switches. See **Page V2-T1-14** for availability. In addition, clear line shields are available as an accessory on 200–600A general-duty switches. Catalog Numbers: 200A = 70-7759-11, 400A = 70-8063-8, 600A = 70-8064-8.

#### Dimensions

Approximate Dimensions in Inches (mm)

#### Plug Fuse, 120, 120/240V, Single-, Two-Pole Solid Neutral, Single-Throw

Ampere Rating	NEMA 1 Height	Width	Depth
30	6.88 (174.8)	4.94 (125.5)	3.44 (87.4)

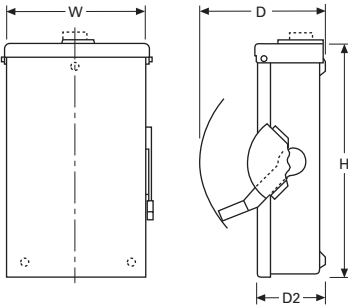
#### General-Duty, Non-Fusible, 240V, Three-Pole, Single-Throw <sup>①</sup>

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
<b>NEMA 1</b>					
30	6.38 (162.1)	10.69 (271.5)	6.88 (174.8)	3.75 (95.2)	6 (2.724)
60	8.69 (220.7)	14.19 (360.4)	7.38 (187.5)	4.21 (106.9)	9 (4.086)
100	9.13 (231.9)	18.81 (477.8)	7.38 (187.5)	4.23 (107.4)	12 (5.448)
200	16.00 (406.4)	24.75 (628.7)	11.25 (285.8)	6.14 (156.0)	48 (21.792)
400	23.00 (584.2)	44.75 (1136.7)	12.63 (320.8)	7.27 (184.7)	100 (45.4)
600	24.00 (609.6)	52.25 (1327.2)	14.25 (362.0)	8.95 (227.3)	130 (59.02)
<b>NEMA 3R</b>					
30	6.38 (162.1)	10.81 (274.6)	6.88 (174.8)	3.75 (95.2)	6 (2.724)
60	8.69 (220.7)	14.38 (365.3)	7.38 (187.5)	4.21 (106.9)	9 (4.086)
100	9.13 (231.9)	19.25 (489.0)	7.38 (187.5)	4.23 (107.4)	12 (5.448)
200	16.00 (406.4)	25.50 (647.7)	11.25 (285.8)	6.14 (156.0)	55 (24.97)
400	23.00 (584.2)	45.19 (1147.8)	12.63 (320.8)	7.27 (184.7)	105 (47.67)
600	24.00 (609.6)	52.70 (1338.6)	14.25 (362.0)	8.95 (227.3)	135 (61.29)

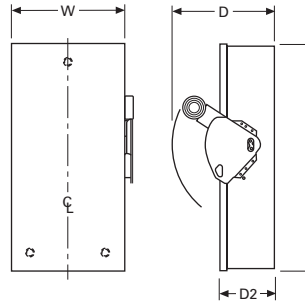
#### General-Duty, Fusible, 240V, Three-Pole Solid Neutral, Single-Throw <sup>①</sup>

Ampere Rating	Width (W)	Height (H)	Depth (D)	Depth (D2)	Weight Lbs (kg)
<b>NEMA 1</b>					
30	6.38 (162.1)	10.69 (271.5)	6.88 (174.8)	3.75 (95.2)	6 (2.724)
60	8.69 (220.7)	14.19 (360.4)	7.38 (187.5)	4.21 (106.9)	10 (4.54)
100	9.13 (231.9)	18.81 (477.8)	7.38 (187.5)	4.23 (107.4)	14 (6.356)
200	16.00 (406.4)	24.75 (628.7)	11.25 (285.8)	6.14 (156.0)	48 (21.792)
400	23.00 (584.2)	44.75 (1136.7)	12.63 (320.8)	7.27 (184.7)	110 (49.94)
600	24.00 (609.6)	52.25 (1327.2)	14.25 (362.0)	8.95 (227.3)	145 (65.83)
<b>NEMA 3R</b>					
30	6.38 (162.1)	10.81 (274.6)	6.88 (174.8)	3.75 (95.2)	6 (2.724)
60	8.69 (220.7)	14.38 (365.3)	7.38 (187.5)	4.21 (106.9)	10 (4.54)
100	9.13 (231.9)	19.25 (489.0)	7.38 (187.5)	4.23 (107.4)	14 (6.356)
200	16.00 (406.4)	25.50 (647.7)	11.25 (285.8)	6.14 (156.0)	55 (24.97)
400	23.00 (584.2)	45.19 (1147.8)	12.63 (320.8)	7.27 (184.7)	115 (52.21)
600	24.00 (609.6)	52.70 (1338.6)	14.25 (362.0)	8.95 (227.3)	150 (68.1)

#### NEMA 1-3R 30–100A General-Duty Non-Fusible and Fusible Single-Throw <sup>②</sup>



#### NEMA 1-3R 200–600A General-Duty Non-Fusible and Fusible Single-Throw



#### Notes

- ① Dimensions are for estimating purposes only.
- ② Figure is not applicable to plug fuse.