

Product Overview

Product Selection Guide

Safety Switch



Description	General-Duty	Heavy-Duty	Six-Pole Motor Circuit	Double-Throw	Enclosed Rotary Switches
Type	Single-throw maximum 240 Vac horsepower rated	Single-throw maximum 600V AC/DC horsepower rated	Single-throw maximum 600 Vac	Maximum 600 Vac horsepower rated	Maximum 600 Vac
Fuse type	Plug	Cartridge	Cartridge	Cartridge	—
Fusible	Cartridge				
Fuse class	①	①	①	①	①
Fusible					
Ampere rating	30–600	30–1200	30–200	30–1200	—
Fusible					
Non-fusible	30–600	30–1200	30–200	30–1200	16–125
Number of poles	1, 2 and 3	2, 3 and 4	6	2 and 3	—
Fusible	2 and 3				
Non-fusible	2 and 3	2, 3, 4 and 6	6	2, 3, 4 and 6	3 and 4
Enclosure types					
NEMA® 1					
Fusible	Yes	Yes	—	Yes	Yes
Non-fusible	Yes	Yes	—	Yes	Yes
NEMA 3R					
Fusible	Yes	Yes	—	Yes	Yes
Non-fusible	Yes	Yes	Yes	Yes	Yes ②
NEMA 12					
Fusible	—	Yes ②	Yes, up to 200A ②	Yes	Yes
Non-fusible	—	Yes, up to 1200A ②	Yes ②	Yes, up to 400A	Yes ②
NEMA 4 painted steel					
Fusible	—	Yes, 400–800A	—	—	—
Non-fusible	—	Yes, 400–800A	—	—	—
NEMA 4X stainless steel					
Fusible	—	Yes	Yes, up to 200A	Yes	Yes
Non-fusible	—	Yes, up to 1200A	Yes	Yes, up to 400A	Yes
NEMA 4X non-metallic					
Fusible	—	Yes, up to 200A	—	—	Yes
Non-fusible	—	Yes, up to 200A	—	—	Yes
NEMA 7/9					
Fusible	—	Yes, up to 100A	—	—	—
Non-fusible	—	Yes, up to 100A ③	—	—	—

Notes

① See specific catalog number page for Fuse Class details. Enclosed rotary switches are non-fusible only.

② NEMA Type 12 enclosures (30–800A) can be field modified to meet NEMA 3R rainproof requirements when a factory provided drain screw is removed.

③ Class J fuse clips provided.

Cross-Reference

General-Duty

Ampere Rating	Catalog Number			
	Eaton	General Electric	Siemens	Square D
Plug Fuse, Single-Pole, Two-Wire, 120 Vac, NEMA 1				
30	DP111NGB	TPF130	LF111N	D211N
Plug Fuse, Two-Pole, Three-Wire, 240 Vac, NEMA 1				
30	DP221NGB	TPF230	LF211N	D211N
Fusible, Two-Pole, Three-Wire, 240 Vac, NEMA 1				
30	DG221NGB	TG3221	GF221N	D221N
60	DG222NGB	TG3222	GF222N	D222N
100	DG223NGB	TG3223	GF223N	D223N
200	DG224NGK	TG3224	GF224N	D224N
400	DG225NGK	TG3225	GF225N	D225N
600	DG226NGK	TG3226	GF226N	D226N
Fusible, Three-Pole, Three-Wire, 240 Vac, NEMA 1				
30	DG321NGB	TG4321	GF321N	D321N
60	DG322NGB	TG4322	GF322N	D322N
100	DG323NGB	TG4323	GF323N	D323N
200	DG324NGK	TG4324	GF324N	D324N
400	DG325FGK	TG3325	GF325N	D325N
600	DG326FGK	TG3326	GF326N	D326N
Fusible, Three-Pole, Four-Wire, 240 Vac, NEMA 1				
30	DG321NGB	TG4321	GF321N	D321N
60	DG322NGB	TG4322	GF322N	D322N
100	DG323NGB	TG4323	GF323N	D323N
200	DG324NGK	TG4324	GF324N	D324N
400	DG325NGK	TG4325	GF325N	D325N
600	DG326NGK	TG4326	GF326N	D326N
Non-Fusible, Two-Pole, Two-Wire, 240 Vac, NEMA 1				
30	DG221UGB	TGN3321	N/A	N/A
60	DG222UGB	TGN3322	N/A	QO260NATS
100	DG223UGB	TGN3323	N/A	QO2000NS
200	DG324UGK	TGN3324	N/A	DU324
400	DG325UGK	TGN3325	N/A	DU325
600	DG326UGK	TGN3326	N/A	DU326
Non-Fusible, Three-Pole, Three-Wire, 240 Vac, NEMA 1				
30	DG321UGB	TGN3321	GNF321	DU321
60	DG322UGB	TGN3322	GNF322	DU322
100	DG323UGB	TGN3323	GNF323	DU323
200	DG324UGK	TGN3324	GNF324	DU324
400	DG325UGK	TGN3325	GNF325	DU325
600	DG326UGK	TGN3326	GNF326	DU326

General-Duty, continued

Ampere Rating	Catalog Number			
	Eaton	General Electric	Siemens	Square D
Fusible, Two-Pole, Three-Wire, 240 Vac, NEMA 3R				
30	DG221NRB	TG3221R	GF221NR	D221NRB
60	DG222NRB	TG3222R	GF222NR	D222NRB
100	DG223NRB	TG3223R	GF223NR	D223NRB
200	DG224NRK	TG3224R	GF224NR	D224NRB
400	DG225NRK	TG3225R	GF225NR	D225NR
600	DG226NRK	TG3226R	GF226NR	D226NR
Fusible, Three-Pole, Three-Wire, 240 Vac, NEMA 3R				
30	DG321NRB	TG4321R	GF321NR	D321NRB
60	DG322NRB	TG4322R	GF322NR	D322NRB
100	DG323NRB	TG4323R	GF323NR	D323NRB
200	DG324NRK	TG4324R	GF324NR	D324NRB
400	DG325FRK	TG3325R	GF325NR	D325NR
600	DG326FRK	TG3326R	GF326NR	D326NR
Fusible, Three-Pole, Four-Wire, 240 Vac, NEMA 3R				
30	DG321NRB	TG4321R	GF321NR	D321NRB
60	DG322NRB	TG4322R	GF322NR	D322NRB
100	DG323NRB	TG4323R	GF323NR	D323NRB
200	DG324NRK	TG4324R	GF324NR	D324NRB
400	DG325NRK	TG3325R ①	GF325NR	D325NR
600	DG326NRK	TG3326R ①	GF326NR	D326NR
Non-Fusible, Two-Pole, Two-Wire, 240 Vac, NEMA 3R				
30	DG221URB	TGN3321R	GNF321R	DU221RB
60	DG222URB	TGN3322R	GNF322R	DU222RB
100	DG223URB	TGN3323R	GNF323R	QO2000NRB
200	DG324URK	TGN3324R	GNF324R	DU324RB
Non-Fusible, Three-Pole, Three-Wire, 240 Vac, NEMA 3R				
30	DG321URB	TGN3321R	GNF321R	DU321RB
60	DG322URB	TGN3322R	GNF322R	DU322RB
100	DG323URB	TGN3323R	GNF323R	DU323RB
200	DG324URK	TGN3324R	GNF324R	DU324RB
400	DG325URK	N/A	N/A	N/A
600	DG326URK	N/A	N/A	N/A

Notes

① Separate neutral kit required.

Always verify the number of poles and wires required since catalog numbers may appear in multiple tables.

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

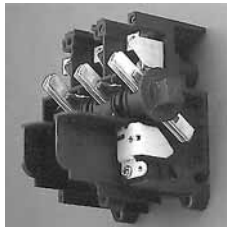
Features, Benefits and Functions

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



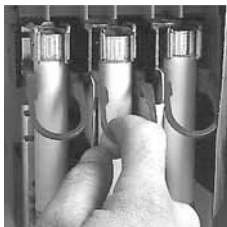
Visible Double-Break Rotary Blade Mechanism

- 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



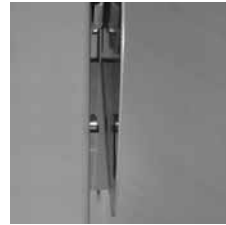
Triple Padlocking Capability

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

DG321NRB

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



System	Maximum Horsepower Ratings ^①					DC 250V	NEMA 1 Enclosure Indoor Catalog Number	NEMA 3R Enclosure Rainproof Catalog Number
	Ampere Rating	Fuse Type Provision	Single-Phase AC 120V	240V	Three-Phase AC 240V			
Cartridge Type—Three-Pole, Three-Wire (Three Blades, Three Fuses)—240 Vac								
	30	—	—	—	—	—	②	②
	60	—	—	—	—	—	②	②
	100	—	—	—	—	—	②	②
	200	H	—	15	25–60	—	DG324FGK ③④	②
	400	H	—	—	50–125	—	DG325FGK ③④	DG325FRK ③④
	600	H	—	—	75–200	—	DG326FGK ③④	DG326FRK ③④
Cartridge Type—Four-Wire (Three Blades, Three Fuses, S/N)—120/240 Vac								
	30	H	—	1-1/2–3	3–7-1/2	—	DG321NGB ⑤	DG321NRB ⑤
	60	H	—	3–10	7-1/2–15	—	DG322NGB ⑤	DG322NRB ⑤
	100	H	—	7-1/2–15	15–30	—	DG323NGB ⑤	DG323NRB ⑤
	200	H	—	15	25–60	—	DG324NGK	DG324NRK
	400	H	—	—	50–125	—	DG325NGK	DG325NRK
	600	H	—	—	75–200	—	DG326NGK	DG326NRK

DG322URB

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



System	Ampere Rating	Maximum Horsepower Ratings			DC 250V	NEMA 1 Enclosure Indoor Catalog Number	NEMA 3R Enclosure Rainproof Catalog Number
		Single-Phase AC		Three-Phase AC			
		120V	240V	240V			
Two-Pole, Two-Wire (Two Blades)—240 Vac							
	30	2	3	—	—	DG221UGB ^{④⑤}	DG221URB ^{④⑤}
	60	3	10	—	—	DG222UGB ^{④⑤}	DG222URB ^{④⑤}
	100	—	15	—	—	DG223UGB ^{④⑤}	DG223URB ^{④⑤}
	200	—	15	—	—	^{④⑥}	DG224URK ^④
Three-Pole, Three-Wire (Three Blades)—240 Vac							
	30	2	3	7-1/2	—	DG321UGB ^{④⑤}	DG321URB ^{④⑤}
	60	3	10	15	—	DG322UGB ^{④⑤}	DG322URB ^{④⑤}
	100	—	15	30	—	DG323UGB ^{④⑤}	DG323URB ^{④⑤}
	200	—	15	60	—	DG324UGK ^④	DG324URK ^④
	400	—	—	125	—	DG325UGK ^⑦	DG325URK ^⑦
	600	—	—	200	—	DG326UGK ^⑦	DG326URK ^⑦

Notes

- ① Maximum hp ratings apply only when dual element time delay fuses are used.
 ② Use four-wire catalog numbers below.
 ③ Solid neutral bars are not included. Order separately from table on **Page V2-T1-14**.
 ④ **WARNING!** Switch is not approved for service entrance unless a neutral kit is installed.
 ⑤ These switches do not have an interlock that prevents door from being opened when switch is in the ON position.
 ⑥ Use three-wire catalog numbers below.
 ⑦ Drilled to accept field installed neutral kits.

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.