2A Switches

Application and Selection Quick Selector Chart

Application:

Switches and enclosures are used in hazardous and non-hazardous areas to disconnect motor, lighting and other circuits and prevent arcing of the enclosed switch from igniting hazardous atmospheres.

Considerations for Selection:

Enclosure Location:
- NEC/CEC: and NEMA/EEMAC compliances for hazardous areas and/or wet and dirty locations

Electrical:
- Consistency with the functions to be performed

Application:
- Selection of appropriate switch and operating mechanism

Options:

- Optional material and finishes available for highly corrosive atmospheres
- Various hub sizes are available to suit particular applications

Quick Selector Chart

Switch Enclosure	NEC/CEC & NEMA/EEMAC Compliances	Electrical Rating			Switch Type	Fused or Unfused
		Max. Amps	Max. Volts	Max. HP		
WST	NEMA/EEMAC: 3R, 4, 12	100	600VAC 250VDC	75	Visible blade Heavy Duty	Fused & unfused
EDS, EDSC, EFD, EFDC	Cl. I, Div. 1 & 2, Groups B, C, D; Cl. II, Div. 1, Groups E, F, G; Cl. II, Div. 2, Groups F, G; Cl. III; NEMA/EEMAC: 3, 7BCD, 9EFG, 12	30	277VAC	2	General use snap	Unfused
FSPC	Cl. I, Div. 1 & 2, Groups A, B, C, D; Cl. II, Div. 1, Groups E, F, G; Cl. II, Div. 2, Groups F, G; Cl. III; NEMA/EEMAC: 3, 7ABCD, 9EFG, 12	20	277VAC	2	General use snap	Unfused
GUSC	Cl. I, Div. 1 & 2, Groups C, D; Cl. II, Div. 1, Groups E, F, G; Cl. II, Div. 2, Groups F, G; Cl. III; NEMA/EEMAC: 3, 7CD, 9EFG, 12	30	600VAC	2	General use snap	Unfused
FLS	Cl. I, Div. 1 & 2, Groups C, D; Cl. II, Div. 1, Groups E, F, G; Cl. II, Div. 2, Groups F, G; Cl. III; NEMA/EEMAC: 3, 4, 7CD, 9EFG, 12	100	600VAC	50	Visible blade Disconnect	Unfused
EBM	Cl. I, Div. 1 & 2, Groups B, C, D; Cl. II, Div. 1, Groups E, F, G; Cl. II, Div. 2, Groups F, G; Cl. III; NEMA/EEMAC 3, 4, 7BCD, 9EFG, 12	200	600VAC	75	Visible blade Disconnect	Fused & unfused
NRS	NEMA/EEMAC 3, 4X, 12	100	600VAC	75	Rotary-Disconnect	Fused & unfused
N2RS	Cl. I, Div. 2, Groups B, C, D NEMA 3, 4X, 12	100	600VAC	60	Rotary-Disconnect	Unfused
6810/7810	NEMA/EEMAC 3R	30	600VAC	15	Contacts, snap	Unfused
GHG	Cl. I, Div 2, Groups A, B, C, D Cl. II, Div 1, Groups E, F, G Cl. I, Zones 1 & 2, Ex de IIB+H[§], EEx de IIC	180	600VAC	150	Rotary	Unfused

EBM Disconnect Switches and Enclosures

600 VAC Heavy Duty

Cl. I, Div. 1 & 2, Groups B,C,D
Cl. II, Div. 1, Groups E,F,G
Cl. II, Div. 2, Groups F,G
Cl. III
NEMA 3,3R,4‡,7BCD,9EFG,12

Explosionproof
Dust-Ignitionproof
Watertight
Wet Locations

Application:

EBM series hinged cover disconnect switches are used:
- to disconnect motor, lighting and other circuits.
- in locations made hazardous by the presence of flammable gases or vapors or ignitable dusts.
- indoors or outdoors in damp, wet and dirty locations, or in areas where frequent washdowns, heavy rain or water spray is prevalent.
- to provide disconnect means and short circuit protection, (fusible version).
- on switchracks or other assemblies where it is desired that motor control be centrally located.

Features:

- Rugged corrosion resistant cast copper-free aluminum construction (less than 0.4 of 1%).
- Switch operating handle is located through the right side wall of the body, permits visual confirmation of correct alignment and operation.
- Total compliance to the wiring end room requirements of the National Electrical Code.
- Semi-clamshell enclosure design, with an external flanged ground joint between body and cover makes interior components more accessible.
- Minimum enclosure-to-enclosure spacing with little interference between the opened cover and an adjacent enclosure.
- Copper-free aluminum hinges allow the cover to swing well out of the way.
- Stainless steel quick release captive hex-head cover bolts. Stainless steel springs provide clear indication that cover bolts are fully retracted from the body.
- Switch operating handle can be padlocked in either the ''ON'' or ''OFF'' position.
- Neoprene cover gasket permanently attached to the cover, seals out moisture.
- Bodies have top and bottom drilled and tapped conduit entrances for power and conduits. Removable reducers are supplied as standard, to accommodate smaller size conduits. All conduit entrances are plugged.
- Tap on mounting feet.

Standard Materials:

- Body and cover – copper-free aluminum
- Operating handle – copper-free aluminum
- Operating shaft and bushing – stainless steel
- Interior parts – sheet steel, electrogalvanized
- Cover bolts, washers and retractile springs – stainless steel

Certifications and Compliances:

- NEC/CEC: Class I, Division 1 & 2, Groups B,C,D
  Class II, Division 1, Groups E,F,G
  Class II, Division 2, Groups F,G
  Class III
- UL Standards: UL1203 – Hazardous (classified) locations
- UL subject 2062 –

High A.I.C. Rating (Interrupting Capacity)

Volt	RMS Symm. Amperes
240	65,000
480	50,000
600	25,000

- CSA Standard: C22.2 No. 30
- NEMA: 3, 3R, 4‡, 7BCD, 9EFG, 12

Electrical Rating Ranges:

- 600 VAC
- 30, 60, 100 and 200 Amp.

Ordering Information:

To order an enclosure complete with the disconnect switch, select the catalog number (based on the necessary rating of the switch), from the listing below.

Enclosures only, without the disconnect switch, can be ordered. Select the catalog number for the required enclosure from the listing below.

	Max. HP Rating				Enclosure	
	AC Polyphase			DC using 2 poles only		
Amp Rating	200/240V	440/480V	550/600V	250V Max.	With Switch 600VAC Cat. #	Without Switch Cat. #
Non-Fusible						
30	10	20	25	7½	EBMBB FD W30360	EBMBB FD
60	20	40	60	15	EBMBB FD W60360	EBMBB FD
100	30	75	75	25	EBMBD FD W10360	EBMBD FD
200					EBMBG WD 20036 DR0294928	N/A
Fusible						
30	—	5	7½	5	EBMBB FD W30361	EBMBB FD
60	—	15	15	10	EBMBB FD W60361	EBMBB FD
100	15	25	30	20	EBMBD FD W10361	EBMBD FD
200					EBMBH W20361DR0295687	N/A

Options:

- For available options, see listing on page 367.

‡ Enclosure not suitable for NEMA 4 with cover mounted operators. Breather and drain entries must be plugged for NEMA 4 rating.

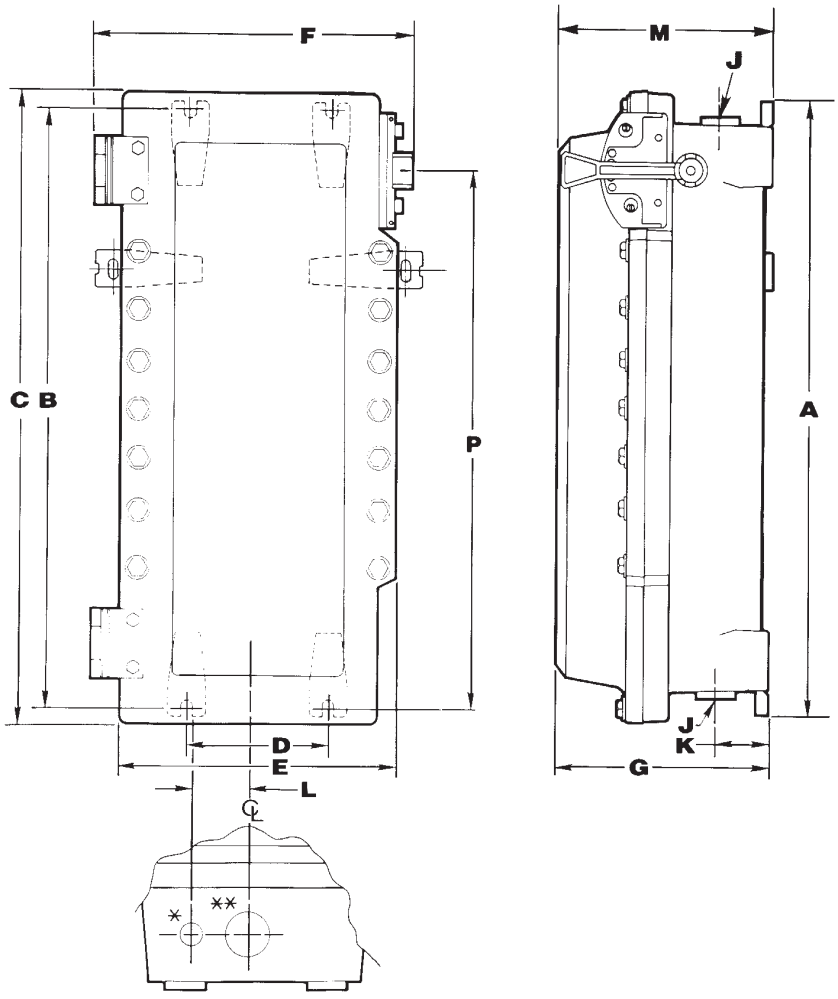
EBM Disconnect Switches and Enclosures

Dimensions (Inches)

Cl. I, Div. 1 & 2, Groups B,C,D
Cl. II, Div. 1, Groups E,F,G
Cl. II, Div. 2, Groups F,G
Cl. III
NEMA 3,3R,4‡,7BCD,9EFG,12

Explosionproof
Dust-Ignitionproof
Watertight
Wet Locations

Dimensions are approximate, not for construction purposes.



* 1″ D & T conduit entry for control conductors supplied with PLG plug top and bottom.

** Conduit entrance(s) for power conductors (top and bottom). (All conduit entrance(s) supplied with RE reducer and PLG plug.)

	Enclosure Only Cat. No.	Enclosure Size Symbol	Dimensions							** J Conduit Entry Trade Size		Dimensions			
			A	B	C	D	E	F	G	D & T ♦	w/RE	K	L	M	P
30 and 60 Amp Frame	EBMBB✓	B	25.75	24.75	26.90	6.00	13.03	14.46	10.25	2″	1.5″	3.25	3.13	10.25	22.00
100 Amp Frame	EBMBD	D	28.25	27.25	29.40	6.00	13.03	14.46	10.25	3″	2.5″	3.25	3.13	10.25	24.50

✓ – available with Lightning Service™ delivery. ♦ Drilled & Tapped.
See Section G for complete details.
‡ Enclosure not suitable for NEMA 4 with cover mounted operators. Breather and drain entries must be plugged for NEMA 4 rating.

Application:

FLS heavy duty enclosed switches are used:
- in a rigid metallic conduit system for surface mounting adjacent to or remote from equipment being controlled
- as disconnect switches for main feed or individual motor control
- to prevent arcing of the enclosed switch from causing ignition of a specific hazardous atmosphere, or atmospheres, external to the enclosure
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas and metal handling or finishing areas where atmosphere may contain hazardous gases and/or dust
- in non-hazardous area where sturdy, durable enclosures are required

Features:

- Enclosed devices are unfused, visible blade motor circuit switches.
- Rugged cast metal enclosures with mounting lugs and taper tapped hubs with integral bushings, in through feed arrangement.
- Interior of the enclosures is readily accessible through threaded cover openings at each end, set at an angle to facilitate wiring.
- Threaded covers and a threaded type operating shaft and bushing provide quick assembly and easy maintenance.
- A padlock can be used to lock the operating handle in an ''ON'' or ''OFF'' position.
- Body and cover threads treated with lubricant at factory to provide raintightness.

Standard Materials:

- Body – copper-free aluminum
- Cover – copper-free aluminum
- Shaft – stainless steel
- Shaft bushings – stainless steel

Standard Finishes:

- Copper-free aluminum – natural
- Stainless steel – natural

Options:

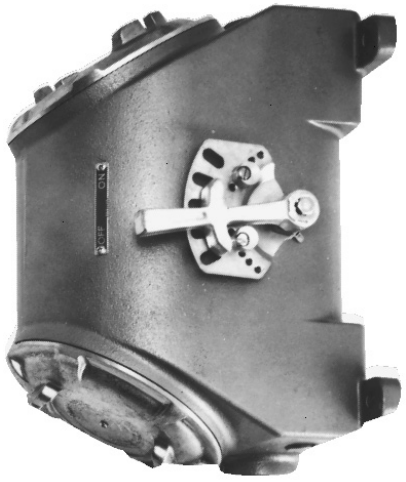
- Ground/neutral wire stud provided. . . . S168
- Breather and Drain S198V
- Auxiliary switch: 1A, 1B. S784
- Auxiliary switch: 2A, 2B S785

Size Ranges:

- Hub size – 1½″ through feed with top entry having a PLG5 plug.

Certifications and Compliances:

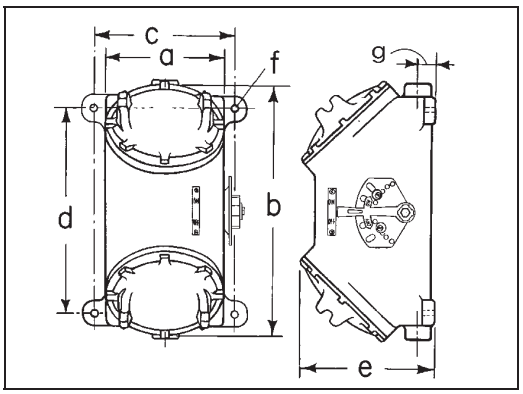
- NEC: Class I, Divisions 1 & 2, Groups C,D
  Class II, Division 1, Groups E,F,G
  Class II, Division 2, Groups F,G
  Class III
- NEMA: 3,4,7CD,9EFG,12
- UL Standard: 894



Furnished with Non-Fusible, Visible Blade Motor Circuit Switch

Switch Ratings							
	Maximum HP – 3 Phase Volts AC					Through Feed Hub	Enclosure With 3-Pole Switch
Amperes	125	240	480	600	250 VDC	Size	Cat. #
30	5	10	20	25	7.5	1½	FLS30364-1-33
60	10	20	40	60	15	1½	FLS60364-1-44
100	15	30	75	75	25	1½	FLS10364-1-55

Dimensions*



a	b	c	d	e	f	g
7½	13⅛	8½	9¾	9⅛	7⁄16	1¾

* Dimensions are approximate, not for construction purposes.

2A Explosion Protected Disconnect Switches

10, 20, 40, 80, 125 and 180 Amp 600VAC Non-Metallic Enclosure

UL/cUL Listed
Class I, Division 2, Groups A, B, C, D
Class I, Zones 1 and 2, AEx de IIB+H_2, T6
Class II, Division 1, Groups E, F, G (cUL)
CENELEC - PTB Certified
EEx de IIC, T6, Zones 1 and 2, IP66

Application:

Explosion Protected disconnect switches are used in a metallic conduit or cable system for surface mounting to control motor, lighting, and other circuits and:

- for individual motor control
- are used to prevent arcing internal to the enclosed switch from causing ignition of a specific hazardous atmosphere or atmospheres.
- are designed for industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, and finishing areas where sturdy, durable enclosures are required.

Features:

- Explosion protected factory sealed motor circuit switches.
- Innovative break-line in cover allows full wiring access, making installation quick and easy.
- High-impact enclosure is designed for excellent corrosion resistance and will not warp from hot or cold water.
- Tongue-in-groove seal guarantees IP66 rating and eliminates possibility of accidental opening or leakage.
- Lockable handle meets OSHA lockout/tagout requirements.
- Molded-in-place mounting feet provide a water channel between wall and enclosure.
- Large rotary handle provides easy gripping with gloved hands.
- Captive cover screws prevent water exposure and possible corrosion.

Certification & Compliances:

- UL/cUL Listed
- Class I, Division 2, Groups A, B, C, D
- Class I, Zones 1 and 2, AEx de IIB+H_2, T6
- Class II, Division 1, Groups E, F, G (cUL)
- CENELEC - PTB Certified
- EEx de IIC, T6, Zones 1 and 2A, IP66
- CSA Standard: C22.2 No.14
- NEMA 4X
- IP66

Standard Materials:

- Enclosure
  10A: Impact-resistance thermoplastic
  20A - 180A: Fiberglass-reinforced polyester
  - Nonmetallic, corrosion resistance
  - Increased safety Ex-e protection
  - Impact Resistance
  - NEMA 4X, IP66 Protection
  - Enclosure meets UL 94-V0
  - UV Rated
- Enclosure Gasket - Silicon
- Handle - Impact-resistant thermoplastic
- Cover Screws - Stainless steel
- Conduit Entries: Zinc Myers® Hubs

Electrical Rating Ranges:

Switches:		Horsepower Ratings:		
		400V	480V	600V
GHG 261	10A	8.4	8.4	–
GHG 262	20A	14.3	14.3	12.2
GHG 263	40A	30.6	37.0	42.6
GHG 264	80A	64.0	76.0	73.5
GHG 265	125A	114.2	126.5	133.3
GHG 266	180A	147.0	147.0	150.0

Explosion Protected Disconnect Switches

10, 20, 40, 80, 125, and 180 Amp 600VAC Non-Metallic Enclosure

UL/cUL Listed
Class I, Division 2, Groups A, B, C, D
Class I, Zones 1 and 2, AEx de IIB + H_2, T6
Class II, Division 1, Groups E, F, G (cUL)
CENELEC - PTB Certified
EEx de IIC, T6, Zones 1 and 2, IP66

Ordering Information

	10 AMP	20 AMP		40 AMP	
Pole	3 Pole	3 Pole	6 Pole	3 Pole	6 Pole
Rated Voltage	500 V	690 V	690 V	690 V	690 V
Auxiliary Contact	1 NO, making – lagging breaking – leading	1 NO, making – lagging breaking – leading	1 NC	1 NO, making – lagging breaking – leading	1 NC
Auxiliary Connection	14 AWG 2 x 2.5 mm²	12 AWG 2 x 4 mm²	12 AWG 2 x 4 mm²	12 AWG 2 x 16 mm²	12 AWG 2 x 16 mm²
Connection Terminals	14 AWG	12 AWG	12 AWG	6 AWG	6 AWG
Conduit Entries	¾″	2 x ¾″	2 x ¾″	2 x ¾″	2 x 1″
Catalog Number	**GHG 261 0005 L0002**	**GHG 262 2301 L0003**	**GHG 262 2601 L0002**	**GHG 263 2301 L0002**	**GHG 263 0050 L0002**
Weight	0.55 kg 1.2 lbs.	1.5 kg 3.3 lbs.	2.3 kg 5.1 lbs.	2.3 kg 5.1 lbs.	6.5 kg 14.3 lbs.
Dimensions	See Figure 1	See Figure 2	See Figure 3	See Figure 4	See Figure 5
Wall Mounting Plate	**GHG 610 1953 R0101**	**GHG 610 1953 R0104**	**GHG 610 1953 R0118**	**GHG 610 1953 R0118**	not required

	80 AMP		125 AMP	180 AMP
Pole	3 Pole	6 Pole	3 Pole	3 Pole
Rated Voltage	690 V	690 V	690 V	690 V
Auxiliary Contact	1 NO, making – lagging breaking – leading	1 NC	1 NO, making – lagging breaking – leading	1 NO, making – lagging breaking – leading
Auxiliary Connection	12 AWG 2 x 50 mm²	12 AWG 2 x 50 mm²	12 AWG 1 x 70 mm²	12 AWG 1 x 120 mm²
Connection Terminals	2 AWG	2 AWG	2/0 AWG	4/0 AWG
Conduit Entries	1½″	2 x 1½″	2 x 1½″	2 x 2″
Catalog Number	**GHG 264 0020 L0002**	**GHG 264 0021 L0002**	**GHG 265 0010 L0003**	**GHG 266 0006 L0002**
Weight	6.5 kg 14.3 lbs.	9.0 kg 19.8 lbs.	16.0 kg 35.2 lbs.	16.5 kg 36.3 lbs.
Dimensions	See Figure 6	See Figure 7	See Figure 8	See Figure 9
Wall Mounting Plate	not required	not required	not required	not required

ORDERING INFORMATION
For Variable Speed, Three Phase Drives

	20 AMP	40 AMP	80 AMP
Pole	3 Pole	3 Pole	3 Pole
Rated Voltage	690 V	690 V	690 V
Auxiliary contact	1 NO, making – lagging breaking – leading	1 NO, making – lagging breaking – leading	1 NO, making – lagging breaking – leading
Auxiliary Connection	12 AWG 2 x 4 mm²	6 AWG 2 x 16 mm²	2 AWG 2 x 35 mm²
Connection Terminals	12 AWG	6 AWG	2 AWG
Conduit Entries	2 x ¾″	1 x 1″ + 1 x ½″	1 x 1½″ + 1 x ½″
Catalog Number	**GHG 262 0014 L0001**	**GHG 263 0053 L0001**	**GHG 264 0024 L0001**
Weight	1.6 kg 3.5 lbs.	2.3 kg 5.1 lbs.	3.5 kg 7.7 lbs.
Dimensions	See Figure 10	See Figure 11	See Figure 12
Wall Mounting Plate	**GHG 610 1953 R0118**	**GHG 610 1953 R0118**	**GHG 610 1953 R0110**

Switches can be mounted directly onto a wall. The optional wall mounting plate offers a more convenient method of mounting.

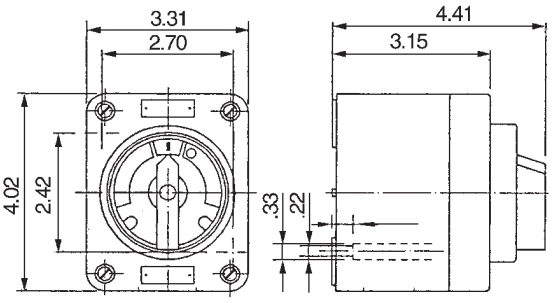


Figure 1 - 10 Amp, 3 Pole

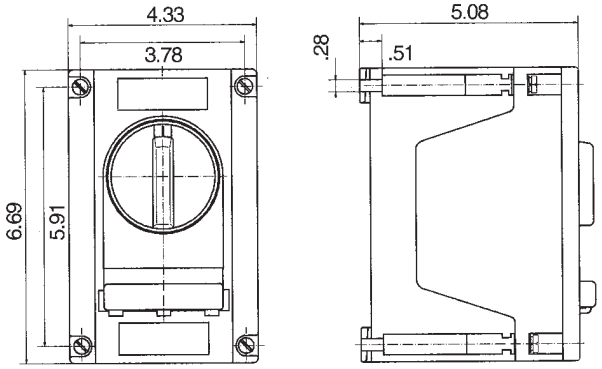


Figure 2 - 20 Amp, 3 Pole

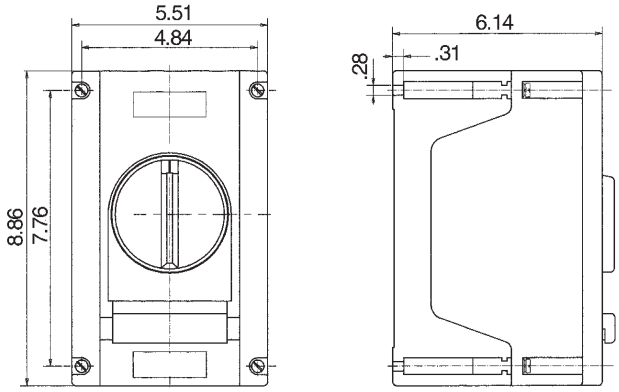


Figure 3 - 20 Amp, 6 Pole

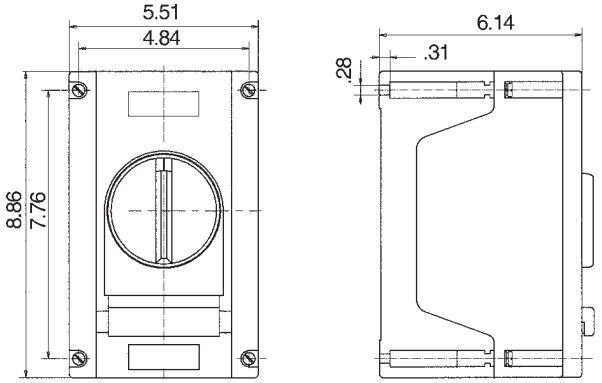


Figure 4 - 40 Amp, 3 Pole

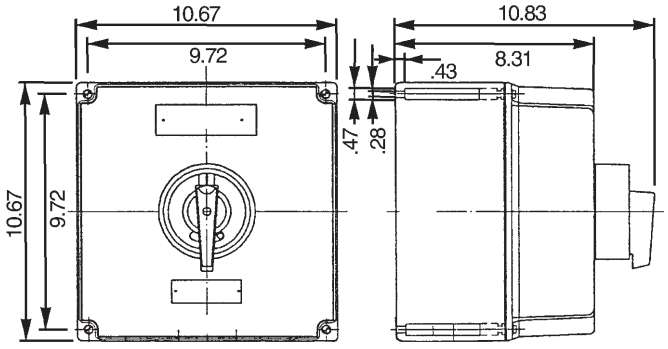


Figure 5 - 40 Amp, 6 Pole

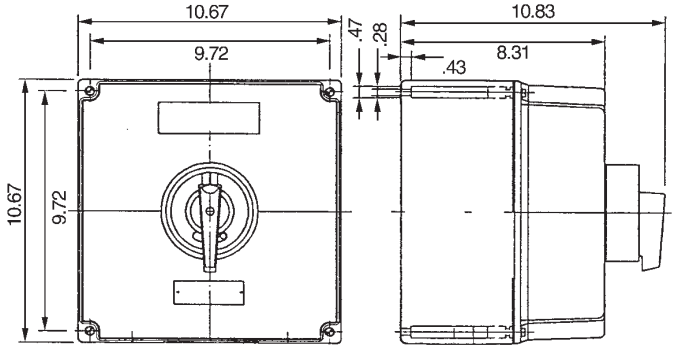


Figure 6 - 80 Amp, 3 Pole

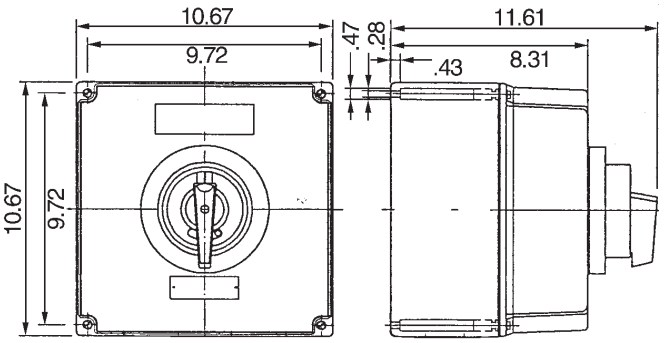


Figure 7 - 80 Amp, 6 Pole

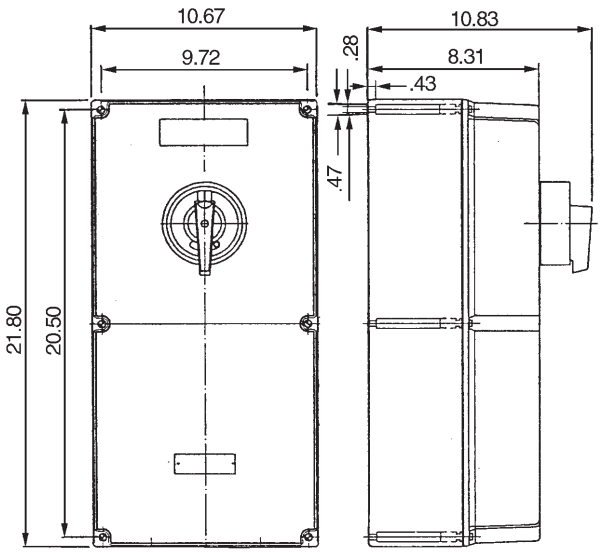


Figure 8 - 125 Amp, 3 Pole
180 Amp, 3 Pole

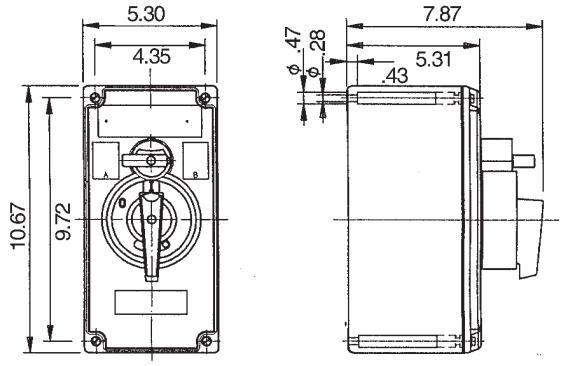


Figure 9 - 20 Amp, 3 Phase Variable Speed

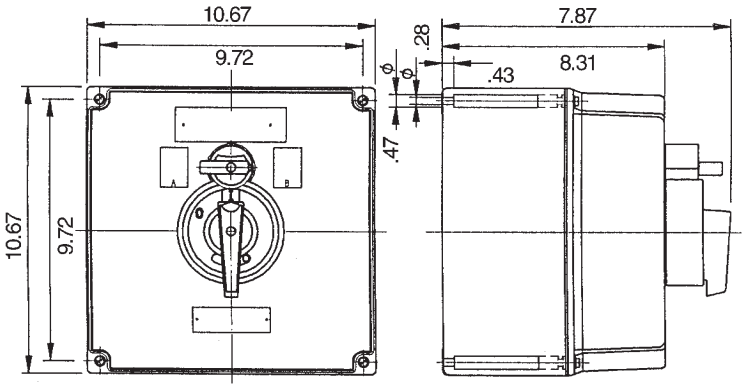


Figure 10 - 40 Amp, 6 Phase Variable Speed

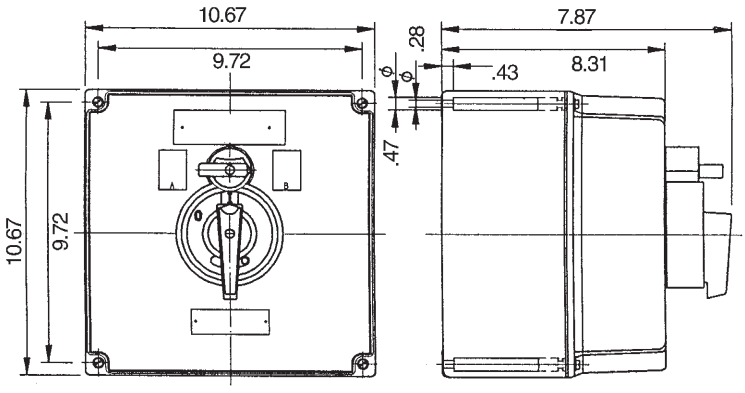


Figure 11 - 80 Amp, 3 Phase Variable Speed

N2RS Enclosed Switches

Heavy-Duty

Cl. I, Div. 2, Groups B, C, D
NEMA 3, 4X, 7 (B, C, D Div. 2), 12
Watertight
Dusttight
Factory Sealed

Application:

N2RS heavy-duty enclosed switches are used:
- in a rigid metallic conduit or cable system for surface mounting adjacent to or remote from equipment being controlled.
- for individual motor control.
- to prevent arcing internal to the enclosed switch from causing ignition of a specific hazardous atmosphere, or atmospheres.
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, and finishing areas where atmospheres may contain hazardous gases.
- in non-hazardous areas where sturdy, durable enclosures are required.
- when controlling motor, lighting and other circuits.

Features:

- Enclosed devices are unfused, factory sealed motor circuit switches.
- Exceeds NEC® wiring end room requirements for ease of installation.
- RSWP factory sealed industrial control switch, no external seals are required.
- Enclosure is made of Krydon® high-impact strength fiberglass-reinforced polyester material having excellent corrosion resistance and stability to heat.
- Krydon material hubs with integral bushings, for dead-end or through-feed arrangements are supplied.
- Krydon material mounting feet supplied.
- Suitable for wash down and corrosive areas (Type 4X).
- A padlock can be used to lock the operating handle in the ''OFF'' position.
- Rotary actuator with snap action.
- Unitized, strong and durable construction provides longer service life for equipment.
- Factory sealed 10A, 600 VAC auxiliary contact switch provided.

Standard Materials:

- Enclosure - Krydon material
- External Hardware - Stainless Steel
- Operating Handle - Nylon

Size Ranges:

- Hub size – (2) 1½″ (30, 60 amps)
  (2) 2½″ (100 amps)

Krydon material hubs included (not mounted)

Certifications and Compliances:

- NEC: Class I, Div. 2, Groups B, C, D
- NEMA: 3, 4X, 7 (B, C, D Div. 2), 12
- UL Standard: 508, 1604
- cUL to CSA Standard C22.2 No.14
- IP65

Furnished with Non-Fusible, Factory Sealed Motor Circuit Switch

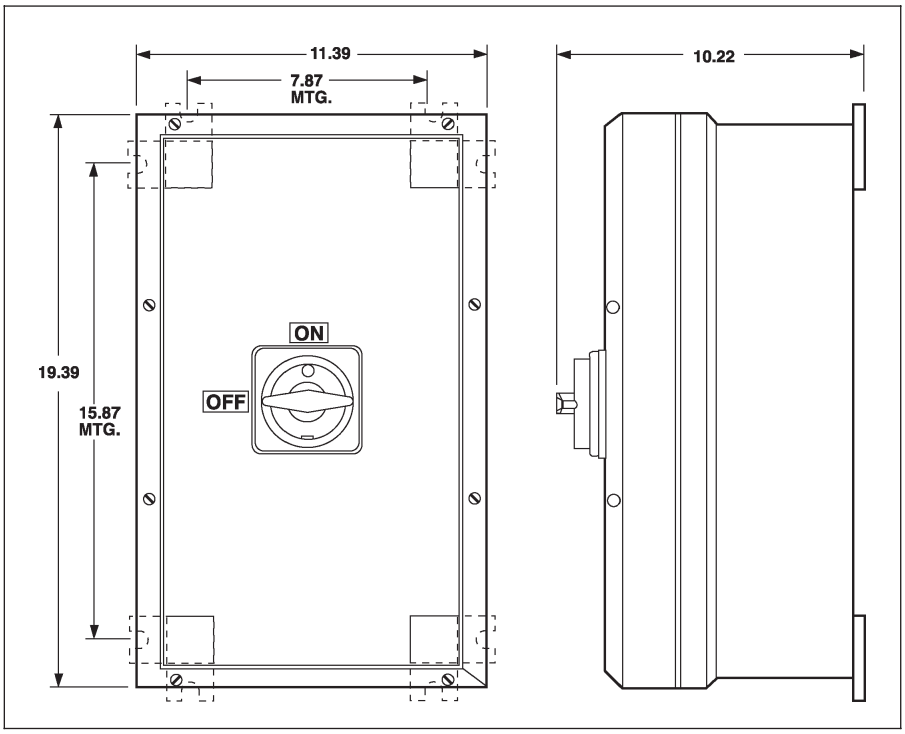
Switch Ratings

	Maximum HP – 3 Phase Volts AC		
Amperes	**240**	**480**	**600**
30	10	20	25
60	15	30	40
100	20	40	60

Ordering Information

Enclosure With 3-Pole Switch	
Hub Size	**Cat. #**
1½″	N2RS603
1½″	N2RS603
2½″	N2RS1003

Dimensions:



GUSC Enclosures

with General Use Snap Switches

Cl. I, Div. 1 & 2, Groups C,D
Cl. II, Div. 1, Groups E,F,G
Cl. II, Div. 2, Groups F,G
Cl. III
NEMA 3,7CD,9EFG,12

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

Application:

GUSC snap switches are used:
- in a rigid metallic conduit system for surface mounting adjacent to or remote from the equipment being controlled
- to prevent arcing of the enclosed switches from causing ignition of a specific hazardous atmosphere, or atmospheres, external to the enclosure
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas, or metal handling or finishing areas where the atmosphere may contain hazardous gases and/or dust
- in non-hazardous areas where sturdy, durable enclosures are required

Features:

- Enclosures are of rugged metal construction with mounting lugs and taper tapped hubs with integral bushings, in a through feed or bottom feed arrangement, for connection to the rigid metallic conduit.
- Cover is threaded, which provides for fast and proper assembly.
- Provided with a threaded operating shaft and bushing.
- Provision is made to use a packlock with ¼″ hasp, to lock the operating lever in an ''ON'' or ''OFF'' position.
- Body and cover threads treated with lubricant at factory to provide raintightness.

Style	Rating	Hub Size	Through Feed Hubs Cat. #	Two Hubs at Bottom Cat. #
2-Pole	30 Ampere, 250 VAC; 20 Ampere, 600 VAC; 2 HP, 115-480 VAC	¾	GUSC2052-AH	GUSC2152-AH
3-Pole	30 Ampere, 250 VAC; 20 Ampere, 600 VAC; 2 HP, 115-575 VAC	¾	GUSC2013-AH	GUSC2113-AH

Standard Materials:

- Body – *Feraloy*® iron alloy
- Cover – copper-free aluminum
- Shaft – stainless steel
- Shaft bushing – stainless steel

Standard Finishes:

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Stainless steel – natural

Size Ranges:

- Hub size – ¾″ (through or bottom feed arrangements)

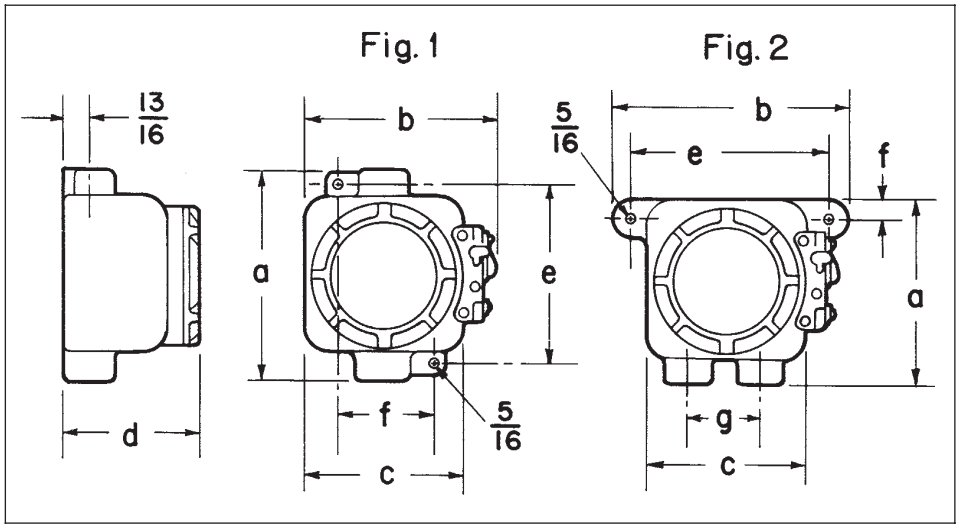
Electrical Rating Ranges:

- 2 and 3-pole – 30 amps, 250vac; 20 amps, 600vac
- 2-pole – 2 hp, 115-480vac
- 3-pole – 2 hp, 115-575vac

Certifications and Compliances:

- NEC/CEC: Class I, Div. 1 & 2, Groups C,D; Class II, Div. 1, Groups E,F,G; Class II, Div. 2, Groups F,G; Class III
- NEMA/EEMAC: 3,7CD,9EFG,12
- UL Standard: 894
- CSA Standard: C22.2

Dimensions* (in inches)



Type	Size	a	b	c	d	e	f	g
Through Feed Hubs – Fig. 1	2, 3-Pole	6 3/16	6 1/16	4 7/8	4 1/8	5 3/8	3	
Two Hubs at Bottom – Fig. 2	2, 3-Pole	5 7/16	6 3/8	4 7/8	4 1/8	5 5/8	3/8	2 1/4

* Dimensions are approximate, not for construction purposes.

FSPC Enclosures

with General Use Snap Switches

Cl. I, Div. 1 & 2, Groups A†,B,C,D Explosionproof
Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof
Cl. II, Div. 2, Groups F,G Raintight
Cl. III Wet Locations
NEMA 3,7A†BCD,9EFG,12

Application:

FSPC snap switches are installed in a rigid metallic conduit system for surface mounting adjacent to or remote from equipment being controlled and are used:

- to prevent arcing of enclosed switch from causing ignition of a specific hazardous atmosphere or atmospheres external to the enclosure
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas, or metal handling or finishing areas where atmosphere may contain hazardous gases and/or dust
- in non-hazardous areas where sturdy, durable enclosures are required

Features:

- Rugged cast metal enclosure with mounting lugs and taper tapped hubs with integral bushings, in a through feed arrangement.
- Threaded cover to provide fast, proper assembly and easier maintenance.
- Journalled type operating shaft – close tolerance fit for flametightness.
- Body and cover threads treated with lubricant at factory to provide raintightness.

Standard Materials:

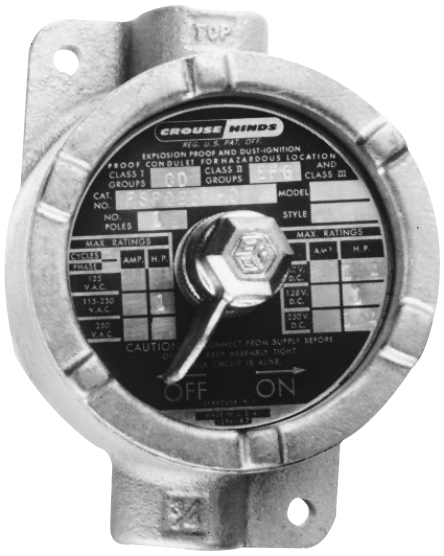
- Body – *Feraloy*® iron alloy
- Cover – copper-free aluminum
- Shaft – stainless steel
- Bushing – stainless steel

Standard Finishes:

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Stainless steel – natural

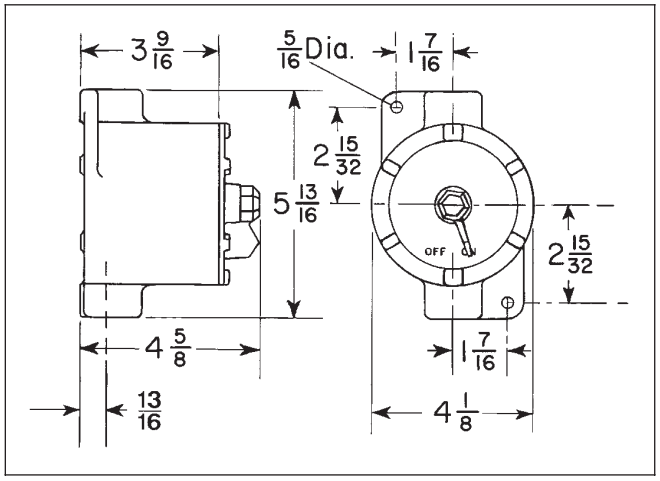
Certifications and Compliances:

- NEC: FSPC 21 series –
  Class I, Div. 1 & 2, Groups C,D
  Class II, Div. 1, Groups E,F,G
  Class II, Div 2, Groups F,G
  Class III
- NEMA: 3,7CD,9EFG,12
- NEC: FSPC 216 series –
  Class I, Div. 1 & 2, Groups A,B,C,D
  Class II, Div. 1, Groups E,F,G
  Class II, Div. 2, Groups F,G
  Class III
- NEMA: 3,7ABCD,9EFG,12
- UL Standard: 894
- CEC: FSPC 216 series –
  Class I, Div. 1 & 2, Groups C,D
  Class II, Div. 1, Groups E,F,G
  Class II, Div. 2, Groups F,G
  Class III
- ENCL. 3,5
- CSA Standard C22.2



Hub Size	Switch Information: Style	Amperes 120VAC§	Amperes 277VAC§	Enclosure with Switch: Cat. #	Cat. #†
¾	1-pole	20	20	FSPC21	FSPC216
¾	2-pole	20	20	FSPC22	FSPC226
¾	3-pole	‡	‡	FSPC230	FSPC2306
¾	3-way	20	20	FSPC23	FSPC236

Dimensions*



§ See table on page 556 for AC-rated switch information.
‡ 30A, 250 VAC; 20A, 600 VAC
† Suitable for Groups A & B usage.
* Dimensions are approximate, not for construction purposes.

Application:

GHG273 series of switches are used:
- to prevent arcing of enclosed switch from causing ignition of a specific hazardous atmosphere external to the enclosure
- in Division 2, Zone 1 and Zone 2 industrial areas such as: chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators and processing industries, coal processing or handling areas, or finishing areas where atmosphere may contain hazardous gases and/or dust
- in non-hazardous areas where sturdy, durable enclosures are required for both indoor and outdoor installations of light switches

Features:

- Small and compact in design.
- Large grounding plate.
- Captive cover screws.
- Protective collar for inadvertent operation.
- Large actuator surface allows for operation while wearing work gloves.
- Labyrinth seal to guarantee the degree of protection IP66.
- The toggle has a luminescent label to locate switch in dark areas.
- Cable entry from the top is made possible by turning the base.

Standard Materials:

Body and cover – low temperature, impact-resistant thermoplastic
Shaft and screws – stainless steel
Grounding plate – brass

Standard Finishes:

Thermoplastic – natural
Stainless steel – natural
Brass – nickel plate

Certifications and Compliances:

Cl. I, Div. 2, Groups A, B, C, D
IP66
PTB Certificate of Conformity Ex-91.C.1017
Cl. I, Zone 1&2, EEx de IIC T6
Cl. I, Zone 1&2, AEx de IIC T6
Cl. I, Zone 1&2, Ex de IIC T6

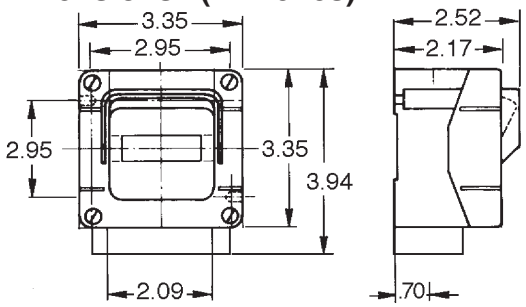
Electrical Ratings:

Voltage	250 VAC	50/60 Hz
Current	16 Amps	

Ordering Information:

Catalog Number	Contact Arrangement	Description	Entry Size
GHG273 2000 L0005		2 pole	½″ NPT
GHG273 2000 L0006		2 pole	¾″ NPT
GHG273 6000 L0001		3-way	½″ NPT
GHG273 6000 L0002		3-way	¾″ NPT

Dimensions* (in inches)



*Dimensions are approximate, not for construction purposes.

2A EDS and EFD Enclosures

with General Use Snap Switches Front Operated

Cl. I, Div. 1 & 2, Groups B*C,D Explosionproof
Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof
Cl. II, Div. 2, Groups F,G Raintight
Cl. III Wet Locations
NEMA 3,7B*CD,9EFG,12

Application:

EDS and EFD enclosures are installed in a rigid metallic conduit system for surface mounting adjacent to or remote from equipment being controlled and are used:
- to prevent arcing of enclosed switch from causing ignition of a specific hazardous atmosphere or atmospheres external to the enclosure
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas, or metal handling or finishing areas where atmosphere may contain hazardous gases and/or dust
- in non-hazardous areas where sturdy, durable enclosures are required

Features:

- Small and compact in design.
- Used with snap switches.
- Mounting lugs and taper tapped hubs with integral bushings.
- Large machine screws for fastening covers to bodies.
- Lockout hole for padlock having ¼″ hasp is provided.
- Threaded type shafts and bushings are used to insure flametightness.

Standard Materials:

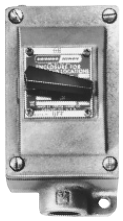
- Bodies and covers – *Feraloy*® iron alloy
- Shafts – stainless steel
- Shaft bushings – stainless steel

Standard Finishes:

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Stainless steel – natural

Certifications and Compliances:

- NEC/CEC: Class I, Div. 1 & 2, Groups B*,C,D
  Class II, Div. 1, Groups E,F,G
  Class II, Div. 2, Groups F,G
  Class III
- NEMA/EEMAC: 3,7B*CD,9EFG,12
- UL Standard: 894
- CSA Standard: C22.2 No. 30



EDS Enclosed Snap Switch

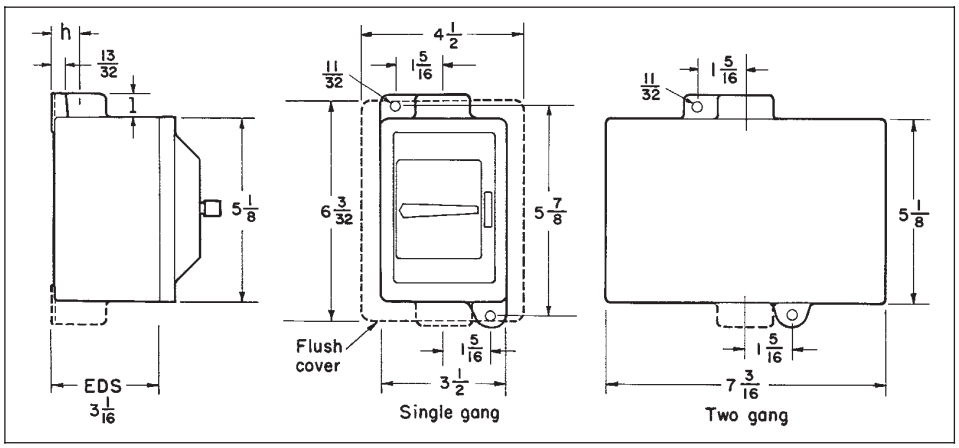
Options:

Description	Suffix to be Added to Encl. Cat. #
• Two or three gang bodies can be supplied with combinations of devices listed for one gang enclosures . . . . Refer to modular listing, section 4C	
• Class I Group B, NEMA 7B – see listing pages	GB
• Flush wall mounting cover with ½″ overhang – single gang only – dull black instrument finish	S173

Complies with U.L. snap switch test requirements as follows:

Type of Test	AC-Rated (only) Switch
Overload	Rated Amp. +380% Power Factor .40-.50 100 cycles, 6-10 cycles per minute
Non-Inductive Endurance	10,000 cycles, 18-24 cycles per minute at rated current – .98 min. P.F.
Inductive Endurance	10,000 cycles, 18-24 cycles per minute – .75-.80 P.F.
Tungsten Filament Lamp Endurance	10,000 cycles, 6-10 cycles per minute at rated current and 120 volts
Temperature Rise	Not to exceed 30°C
Dielectric Withstand	1500 volts

Dimensions† (in inches)



Hub Size	Dim. "h"	Dim. "l"
¾	⅞	13⁄16
1	1	15⁄16

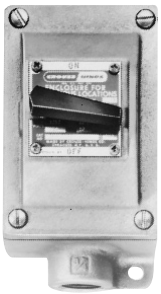
† Dimensions are approximate, not for construction purposes.

* See suffix GB.

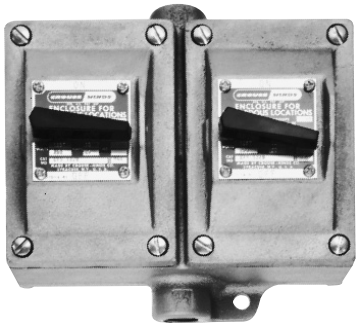
EDS and EFD Enclosures

with General Use Snap Switches Front Operated Single Gang and Two Gang

Cl. I, Div. 1 & 2, Groups B*,C,D Explosionproof
Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof
Cl. II, Div. 2, Groups F,G Raintight
Cl. III Wet Locations
NEMA 3,7B*CD,9EFG,12



Dead end



Through feed

Hub Size	Style	Amperes§ 120VAC	Amperes§ 277VAC	Single Gang Dead End Cat. #	Single Gang Through Feed Cat. #	Two Gang ♦ Dead End Cat. #	Two Gang ♦ Through Feed Cat. #
¾	1-pole	20	20	EDS2129	EDSC2129†	EDS2229	EDSC2229†
¾	2-pole	20	20	EDS218	EDSC218†		EDSC228†
¾	3-pole	‡	‡	EDS2123	EDSC2123		EDSC2223
¾	3-way	20	20	EDS2130	EDSC2130	EDS2230	EDSC2230
¾	4-way	20	20	EDS2140	EDSC2140		EDSC2240
1	1-pole	20	20	EDS3129	EDSC3129†	EDS3229	EDSC3229†
1	2-pole	20	20	EDS318	EDSC318†	EDS328	EDSC328†
1	3-pole	‡	‡	EDS3123	EDSC3123		EDSC3223
1	3-way	20	20	EDS3130	EDSC3130	EDS3230	EDSC3230
1	4-way	20	20	EDS3140	EDSC3140	EDS3240	EDSC3240
1	1-pole	30	30	EFD3591	EFDC3591†	EFD3691	EFDC3691†
1	2-pole	30	30	EFD3593	EFDC3593†		EFDC3693†
1	3-way	30	30	EFD3594	EFDC3594	EFD3694	EFDC3694

*Class I, Group B:

All units listed on this page can be modified for Class I, Group B usage. Add suffix GB to the Cat. No.. Example: EDS2129-GB. Seals must be installed within 1½″ of each conduit opening for Group B usage.

§ See table on page 556 for AC-rated switch information.
† ON-OFF standard marking for 1-pole and 2-pole units
‡ 15A, 125 VAC; 10A, 250 VAC
♦ Combinations of switches can be furnished.

WST Enclosed Switches

Heavy Duty
240 VAC/250 VDC
600 VAC/250 VDC

NEMA 3R,4,12
Wet Locations
Watertight

Application:

WST heavy duty enclosed switches are used in conduit systems:
- as a means of disconnecting motors, lighting and power circuits. A fusible type switch, when used, also provides for short circuit protection
- indoors or outdoors in industrial areas, subways, railroad facilities or any other area that is subjected to dust, dirt, chemical vapors or moisture (rain or hosing)
- either pole-mounted or on flat surfaces

Features:

- Enclosure, handle and other exterior parts are light weight and corrosion resistant.
- Insulated – groundable type terminal block for grounded or ungrounded neutral supplied.
- Mounting lugs may be rotated 90 degrees or moved to the vertical centerline position for pole-mounting.
- Side hinged cover is retained in a closed position by compression spring draw-pull catches, which permits the opening or closing of the cover without having to use any tools. Lower cover latch is equipped for padlocking.
- The cover is interlocked with the body and operating mechanism to prevent the opening of the enclosure, except when the switch is in the ''OFF'' position.
- The operating handle may be padlocked in the ''ON'' or ''OFF'' position, thereby preventing unauthorized operation of the switch and/or opening of the enclosure. Up to three padlocks may be used.
- Switches are NEMA type HD heavy duty with visible blades, a quick make-and-break mechanism with reinforced, positive pressure-type blade and jaw construction. Fusible types have fuse clips with steel reinforcing springs of positive pressure type. Pressure connectors are used for wire connection.

Standard Materials:

- Enclosure – copper-free aluminum
- Operating handle – copper-free aluminum
- Other exterior parts – stainless steel

Standard Finishes:

- Copper-free aluminum – natural
- Stainless steel – natural

Size Ranges:

- Conduit openings for 1″ – 1½″ inclusive are arranged for through feed. Removal of the threaded bushings permits use of the next larger conduit size.
- Other sizes and arrangements are available. Detailed information on request.

Electrical Rating Ranges:

- 2 and 3-pole; fusible or non-fusible; 240vac, 600vac and 250vdc
- 30, 60 and 100 amperes
- 3 to 75 hp

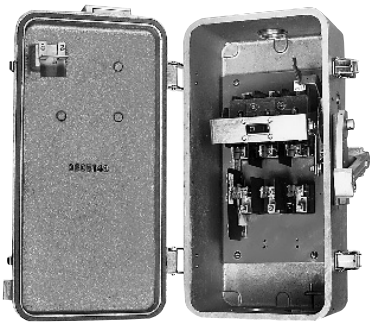
Certifications and Compliances:

- NEMA: 3R, 4, 12
- UL Standard: 98
- CSA Standard. C22.2 Nos. 4 & 14

Options

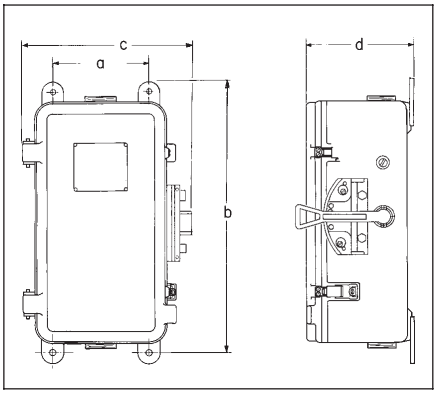
- The following special options are available by adding suffix Cat. No.

Description	Suffix to be Added to Cat. #
Auxiliary switch, 600vac-dc heavy duty pushbutton station rating, can be supplied, and its contacts will close after switch contacts close and open before switch opens	S483



WST shown open

Dimensions* (in inches)



Approximate Dimensions

Amps	a	b	c	d
30	6 9/16	20 1/16	11 3/4	7 1/4
60	6 9/16	20 1/16	12 3/4	7 1/4
100	9 9/16	26 5/16	14 7/8	8 1/4

* Dimensions are approximate, not for construction purposes.

	Amps	Conduit Opening	Standard HP Rating 240VAC	250VDC	600VAC	240 VAC 600VAC/250VDC Cat. #
2-Pole No Fuse	30	1	3	5	10	WST30254
	60	1¼	10	10	25	WST60254
	100	1½	15	20	40	WST10254
3-Pole No Fuse	30	1	7½	5	20	WST30354
	60	1¼	15	10	50	WST60354
	100	1½	30	20	75	WST10354
2-Pole Fusible†	30	1	3	5	10	WST3025**
	60	1¼	10	10	25	WST6025**
	100	1½	15	20	40	WST10025**
3-Pole Fusible†	30	1	7½	5	20	WST3035**
	60	1¼	15	10	50	WST6035**
	100	1½	30	20	75	WST10035**

** Arranged for NEC Class H fuses. May be field converted to NEC Class J fuses.
† Cartridge fuses are not included.

W2ST Factory Sealed Industrial Control Switch

Applications

W2ST Factory Sealed Industrial Control Switches are used:

- in hazardous areas rated Class I, Division 2, Groups B, C and D
- in a rigid metallic conduit or cable system
- for surface or flush mounting adjacent to or remote from equipment being controlled
- in industrial applications such as chemical plants, wastewater treatment plants, oil and gas refineries, steel mills or any other areas where atmospheres may contain hazardous gases
- when controlling motors, pumps, valves, lighting and other circuits

Features

- Enclosed devices are unfused, factory sealed motor circuit switches
- Exceeds NEC® wiring end room requirements for ease of wiring
- RSWP factory sealed industrial control switch, no external seals are required
- The cover is interlocked with the body and operating mechanism to prevent the opening of the enclosure, except when the switch is in the ''OFF'' position
- Mounting lugs may be rotated 90° or moved to the vertical centerline portion for pole mounting
- Side hinged covers are retained in a closed position by compression spring draw-pull catches, which permit the opening or closing of the cover without tools
- The switch operating handle may be padlocked in the ''ON'' or 'OFF'' position with up to three padlocks

Standard Materials

- Enclosure and operating handle - copper-free aluminum
- Exterior hardware - stainless steel

Electrical Rating Ranges

- 3 Pole Switch, No Fuse
- 30, 60 and 100 amperes
- 3 to 60 HP
- 600 VAC

Certifications and Compliances

- NEC/CEC: Class I, Division 2, Groups B, C and D
- Type: 3 and 12
- UL Standard 698
- cUL to CSA Standard C22.2 No. 14.

Options

- Auxiliary switch, factory sealed 10A, 600 VAC add suffix S483

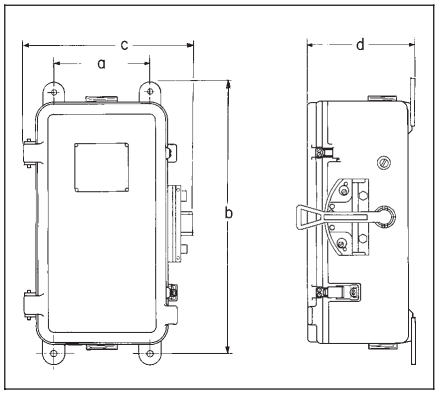
Ordering Information:

Amp	Switch	Catalog Number
30	3 pole, No Fuse	W2ST30354
60	3 pole, No Fuse	W2ST60354
100	3 pole, No Fuse	W2ST10354

Horsepower Ratings

	Single Phase				3 Phase			
W2ST	**120V**	**240V**	**480V**	**600V**	**120V**	**240V**	**480V**	**600V**
30A	3	7.5	20	25	7.5	15	30	40
60A	3	7.5	20	25	7.5	15	30	40
100A	5	10	25	30	10	20	40	60

Dimensions* (in inches)



W2ST Approximate Dimensions (inches):

Amps	a	b	c	d
30/60/100	6 9⁄16	20 1⁄16	11 3⁄4	7 1⁄4

Industrial Disconnect Switches

30, 40, 60, and 100 Amp 600VAC Non-Metallic Enclosure

NEMA Type 3, 4X, 12
Corrosion Resistant
Watertight

Application:

- Used in manual ''ON'' and ''OFF'' control of single-phase or three-phase AC motors where overload protection is not required or is provided separately.
- Meet NEC Article 430 requirements for a separate disconnect means within sight of all motor loads.
- Offers the ability to lock directly wired motor loads in the ''OFF'' position to comply with OSHA Lockout/Tagout requirements.
- Meets stringent hosedown requirements.

Features:

- Enclosures are constructed from high-impact thermoplastic, providing superior durability and corrosion resistance.
- Enclosure designed with tapered edges to keep liquids away from cover opening.
- Large pistol-grip handle provides easy gripping even with gloved hands.
- Lockable handle meets OSHA lockout/tagout requirements. Handles can be locked in the ''OFF'' position.
- Hidden hinge cover opens to 145°, making installation and maintenance quick and easy.
- Formed-in-place continuous gasket ensures NEMA 4X full perimeter sealing.
- Captive cover mounting screws.
- Brass enclosure assembly cover screw inserts allow for higher torque and prevent stripping.

Certifications and Compliances:

All units
- cUL
- NEMA Type 3, 4X, 12

Non-fused Units
- UL 508 – 40 & 60 amp
- UL 98 – 100 amp

Fused Units
- UL 98 – Enclosed Switch

Standard Materials:

- Enclosure – VALOX® thermoplastic
- Enclosure Gasket – Neoprene
- Handle – Impact-resistant Thermoplastic
- Cover Screws – Stainless Steel
- Screw Assembly Inserts – Brass
- Conduit Entries – See Table 1†

Options:

- Auxiliary contacts for use with pilot light of PLC. 10A 600VAC 1 NO. & 1 N.C.

VALOX® is a registered trademark of General Electric Co.

† Hubs must be ordered separately. See catalog section N for ordering information.

Ordering Information:

Cat. #	Description
NRS30	40A, 600V, no auxiliary contacts
NRS30AX	40A, 600V, with auxiliary contacts
NRS30-FS	30A, 600V, with fusible switch for short circuit protection
NRS30AX-FS	30A, 600V, with auxiliary contacts and fusible switch for short circuit protection
NRS60	60A, 600V, no auxiliary contacts
NRS60AX	60A, 600V, with auxiliary contacts
NRS60-FS	60A, 600V, with fusible switch for short circuit protection
NRS60AX-FS	60A, 600V, with auxiliary contacts and fusible switch for short circuit protection.
NRS100	100A, 600V, no auxiliary contacts
NRS100AX	100A, 600V, with auxiliary contacts
NRS100-FS	100A, 600V, with fusible switch for short circuit protection
NRS100AX-FS	100A, 600V, with auxiliary contacts and fusible switch for short circuit protection
NRSK1	40A - 100A nonfused auxiliary contact kit
NRSK2	60A - 100A fused auxiliary contact kit
NRSK3	30A fused auxiliary contact kit

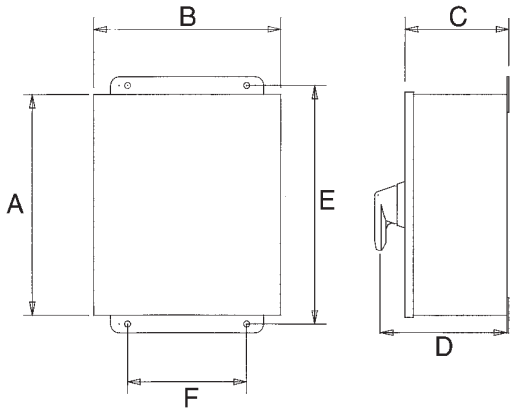
Hub Ordering Information (order hubs separately)

Trade Size	Catalog Number
Krydon	
½″	**NHUB1**
¾″	**NHUB2**
1″	**NHUB3**
1¼″	**NHUB4**
1½″	**NHUB5**
Stainless Steel	
½″	**SSTG-1**
¾″	**SSTG-2**
1″	**SSTG-3**
1¼″	**SSTG-4**
1½″	**SSTG-5**

Electrical Rating Ranges:

Switches	Horsepower Ratings:					
	Single Phase		Three Phase			
	120V	240V	208V	240V	480V	600V
40A Nonfused	1	5	10	10	20	25
60A Nonfused	2	7.5	15	15	30	30
100A Nonfused	5	15	25	30	50	50
30A Fused	2	3	7.5	7.5	15	20
60A Fused	–	–	15	15	30	50
100A Fused	–	–	25	30	60	75

Dimensions (Inches):



Enclosure Type	A	B	C	D	E	F
40 Amp Nonfused	6.0	6.0	5.9	8.1	6.75	4.0
60 Amp Nonfused	8.0	6.0	5.9	8.1	8.75	4.0
100 Amp Nonfused	10.0	8.0	7.9	10.1	10.75	6.0
30 Amp Fused	10.0	8.0	7.9	10.1	10.75	6.0
60 Amp Fused	14.0	12.0	7.9	10.1	14.75	8.0
100 Amp Fused	14.0	12.0	7.9	10.1	14.75	8.0

TABLE 1

Conduit Entries - Ordering Information:

KRYDON®		MYERS® ZINC		MYERS® STAINLESS STEEL	
Cat. No.	Size	Cat. No.	Size	Cat. No.	Size
NHUB1	½″	STG-1	½″	SSTG-1	½″
NHUB2	¾″	STG-2	¾″	SSTG-2	¾″
NHUB3	1″	STG-3	1″	SSTG-3	1″
NHUB4	1¼″	STG-4	1¼″	SSTG-4	1¼″
NHUB5	1½″	STG-5	1½″	SSTG-5	1½″

2A Manual Contactors

AC Only, Full Voltage
30A/40A/60A 600VAC
Without Overload Protection

Application:

Manual Contactors are used:
- for manual starting of motors up to 30 HP
- in damp or wet locations

Features:

Compact enclosure meets NEMA 3R requirements
- Can be padlocked to help conform to OSHA lockout requirements
- Grounding terminal provides ground for box and cover
- Enclosed switch body does not expose contacts
- Double break butt-type silver alloy contacts provide long life
- Two ½″, ¾″, 1″ knockouts on bottom

Standard Materials:

- .060″ thick steel enclosure

Standard Finishes:

6810/7810 Series:
- Gray baked enamel finish

MC Series:
- Polyester urethane

Electrical Rating Ranges:

- 30A/40A/60A 600VAC, two pole, single phase
- 30A/40A/60A 600VAC, three pole, poly-phase

	Amps	Horsepower			Cat. #	Switch &
	600V	120V	240V	480/600V	Switch	Enclosure
2 pole with screw terminals	30	2	5	7.5	6810U	6810W
3 pole with screw terminals	30	3	7.5	15	7810UD	7810WD
2 pole with screw & clamp terminals	40	3	5	15	MC240C	MC240C-3
2 pole with box lug terminals	40	3	5	15	MC240L	MC240L-3
2 pole with box lug terminals	60	3	5	15	MC260L	MC260L-3
3 pole with screw & clamp terminals	40	3	7.5	15/20	MC340C	MC340C-3
3 pole with box lug terminals	40	3	7.5	15/20	MC340L	MC340L-3
3 pole with box lug terminals	60	3	7.5	25/30	MC360L	MC360L-3

Certifications and Compliances:

- UL 508
- CSA Standard: C22.2 No. 14
- NEMA 3R

Dimensions: