Which switch is right for you?

Compact Fusible Switches

Overview

AutomationDirect Gladiator compact fusible switches provide open fuse indication for faster troubleshooting and reduced downtime. Gladiator switches have Lockout / Tagout capability and finger safe construction to promote safe workplace practices by preventing contact with live components. Positive visible circuit isolation via the disconnect switch makes it easy to view status. Each switch is 35mm DIN rail mountable for ease of installation and requires no tools. Taking up only 1/3 the space of a molded circuit breaker and 2/3 the space of a traditional fusible switch, Gladiator fusible switches save space in your panel.

Features and Benefits

- Class CC and Midget fuse options
- 200kA Short-Circuit Current Rating (SCCR) with Class CC fuses meets high assembly SCCR and reduced personal protective equipment (PPE) requirements
- Full voltage rating up to 600 VAC allows installation flexibility versus slash-rated devices at 480/277 VAC
- Horsepower rated for protecting motor circuits with Class CC units
- UL 98 disconnect rated for protection of branch circuits
- 35mm DIN-rail mountable, utilizing spring clip

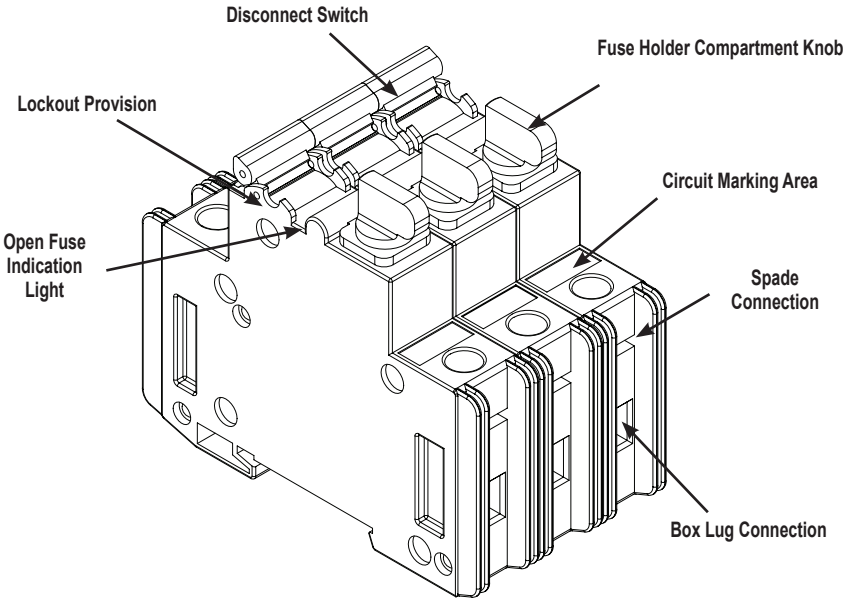
Applications

Feeder and Branch Circuit Protection

- Service Entrance or Main Panel Disconnect (UL 98 Class CC)
- Resistive Heating and Lighting Circuit
- Fusible Isolation Switch
- Convenience receptacle circuits (internal / external)
- Motor control circuits
- Load circuits leaving the equipment (external)
- HACR Equipment (Heating Air Conditioning, Refrigeration)
- Computers
- Power supplies

Listings

- UL Class CC fuse version
- UL Listed under UL 98
  File E339079, Guide WHTY
- cULus 22.2, No. 4-04
  File 339079, Guide WHTY7CE Compliant
- RoHS
- UL Class Midget fuse version
- UL Listed under UL 508
  File E222847, Guide NRNT
- cULus 22.2, No. 14-05
- CE Compliant
- RoHS



Gladiator® from AutomationDirect Compact Fusible Switches

AC and DC Compact Fusible Switches

Single-Pole

Two-Pole

Three-Pole

DC Single-Pole

Compact Fusible Switch Specifications - AC Switches

Part Number	Poles	Max Fuse Ampacity	Voltage Range	Fuse Type	SCCR	Agency Approvals	HP Ratings	Price
CFS-1PCC30	1	30A	90 - 600 VAC	Class CC	200 kA	UL 98 Listed cULus 22.2 No. 4-04	0.5 HP @ 120 VAC	Retired
CFS-1PM30			90 - 240 VAC*	UL Midget	10 kA*	UL 508 Listed CULus 22.2 No.14-05	n/a	Retired
CFS-2PCC30	2		90 - 600 VAC	Class CC	200 kA	UL 98 Listed cULus 22.2 No. 4-04	2.0 HP @ 240 VAC	Retired
CFS-2PM30			90 - 240 VAC*	UL Midget	10 kA*	UL 508 Listed CULus 22.2 No.14-05	n/a	Retired
CFS-3PCC30	3		90 - 600 VAC	Class CC	200 kA	UL 98 Listed cULus 22.2 No. 4-04	3.0 HP @ 240 VAC 5.0 HP @ 480 VAC 7.5 HP @ 600 VAC	Retired
CFS-3PM30			90 - 240 VAC*	UL Midget	10 kA*	UL 508 Listed CULus 22.2 No.14-05	n/a	Retired

Note: The minimum enclosure size is 14 in. x 12 in. x 6 in. Minimum spacings are 2 inches over surface, 1 inch through air.
*** Rating may be lower depending upon installed fuse. Refer to fuse specifications.**

Compact Fusible Switch Specifications - DC Switches

Part Number	Poles	Max Fuse Ampacity	Voltage Range	Fuse Type	SCCR	Agency Approvals	Price
CFS-1PCC30-DC	1	30A	12 - 80 VDC*	Class CC	200 kA*	UL 98 Listed cULus 22.2 No. 4-04	Retired
CFS-1PM30-DC			12 - 80 VDC*	UL Midget	10 kA*	UL 508 Listed CULus 22.2 No.14-05	Retired

*** Rating may be lower depending upon installed fuse. Refer to fuse specifications.**

General Specifications

Construction		RoHS compliant, IP20 compliant with 10 AWG or larger wire
Operating Temperature		-20 °C to 75 °C (-4 °F to 167 °F)
Flammability Rating		UL 94V0
Frequency		50/60 Hz
Padlockable		Yes [4mm (0.16 in) shank]
Local Indication		Yes
Mounting		35 mm DIN Rail
Weight	One-Pole	0.22 lbs. (100g)
	Two-Pole	0.43 lbs. (195g)
	Three-Pole	0.65 lbs. (295g)

Wire Range

Number of Wires	Wire Size	
One Wire	4 AWG	21 mm2
Two Wires	18 to 6 AWG	0.75 to 13 mm2

Note: The use of wire ferrules or crimping terminals is not recommened in box lugs.

Tightening Torque

Cable Size	Tightening Torque	
18 - 10 AWG	2.3 Nm	20 lb-in
8 - 4 AWG	4.0 Nm	35 lb-in

Recommended Fuse Types

AC Voltage Class CC			
Edison	Bussmann	Gould	Littlefuse
HCLR	KTK-R	ATMR	KLKR
HCTR	FNQ-R	ATQR	KLDR
EDCC	LP-CC	ATDR	CCMR

AC Voltage Class Midget			
Edison	Bussmann	Gould	Littlefuse
MCL	KTK	ATM	KLK
MOL	BAF / BAN	OTM	BLF
MEQ	FNQ	ATQ	FLQ
MEN	FNM	TRM	FLM

DC Voltage Class CC			
Edison	Bussmann	Gould	Littlefuse
EDCC	LP-CC	ATDR	CCMR

DC Voltage Class Midget			
Edison	Bussmann	Gould	Littlefuse
N/A	KLM	ATM	KLKD
	DCM		

Gladiator® from AutomationDirect Compact Fusible Switches

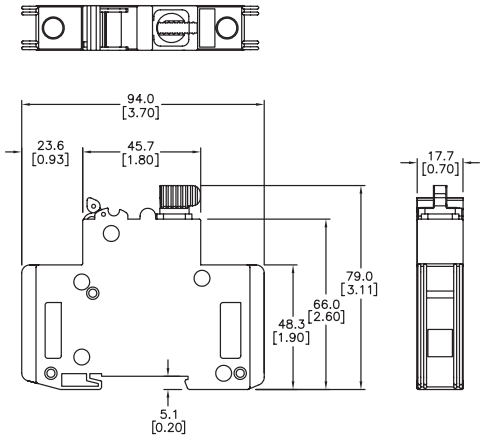
Motor Sizing - Compact Fusible Switches

Motor Sizing Chart						
Voltage	*Motor HP*	*Motor Full Load Amps*	*Fuse Type*	*Minimum Fuse Amperage*	*Code Max Fuse Amperage*	*Heavy Start Fuse Amperage*
115 VAC - 1 Phase	1/6	4.4	EDCC	9	15	15
	1/4	5.8		12	20	20
	1/3	7.2		15	25	25
	1/2	9.8		30	30	30
230 VAC - 1 Phase	1/6	2.2	EDCC	4.5	10	10
	1/4	2.9		6	10	10
	1/3	3.6		7	15	15
	1/2	4.9		10	15	15
	3/4	6.9		15	25	25
	1	8.0		25	25	30
	1-1/2	10.0		30	30	30
200 VAC - 3 Phase	1/2	2.5	EDCC	5	10	10
	3/4	3.7		7.5	15	15
	1	4.8		10	15	15
	1-1/2	6.9		15	25	25
	2	7.8		25	25	30
208 VAC - 3 Phase	1/2	2.4	EDCC	5	10	10
	3/4	3.5		7	15	15
	1	4.6		10	15	15
	1-1/2	6.6		15	20	25
	2	7.5		15	25	30
230 VAC - 3 Phase	1/2	2.2	EDCC	4.5	10	10
	3/4	3.2		7	10	12
	1	4.2		9	15	15
	1-1/2	6.0		12	20	20
	2	6.8		15	25	25
	3	9.6		30	30	30
460 VAC - 3 Phase	1/2	1.1	EDCC	2.25	6	6
	3/4	1.6		3.2	6	6.25
	1	2.1		4.5	10	10
	1-1/2	3.0		6	10	12
	2	3.4		7	15	15
	3	4.8		10	15	15
	5	7.6		25	25	30
575 VAC - 3 Phase	1/2	0.9	EDCC	1.8	3	3.5
	3/4	1.3		2.8	6	6
	1	1.7		3.5	6	6.25
	1-1/2	2.4		5	10	10
	2	2.7		5.6	10	10
	3	3.9		8	15	15
	5	6.1		15	20	20
	7-1/2	9.0		30	30	30

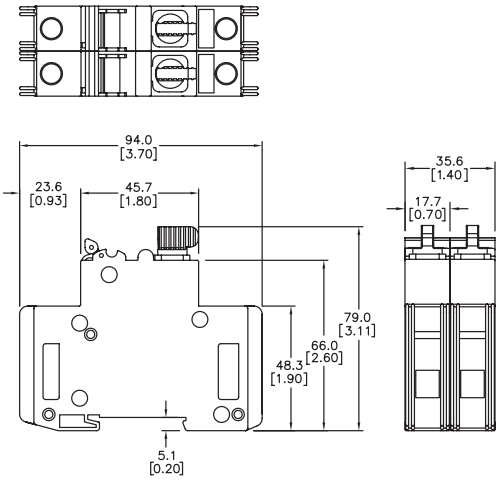
Note: NEMA motors only (no IEC or Design B Energy Efficient). Minimum size if no more than 1 start / hour. Use Code Max Fuse Amperage in low to moderate reverse / jog / plug applications. Use Heavy Start Fuse Amperage only if Code Max does not allow motor start up. For high reverse / jog / plug applications or larger horsepower motors, Class J fuses are recommended. (Refer to time-current curves for specific applications.) Per NEC 430.52

Gladiator® from AutomationDirect Compact Fusible Switches

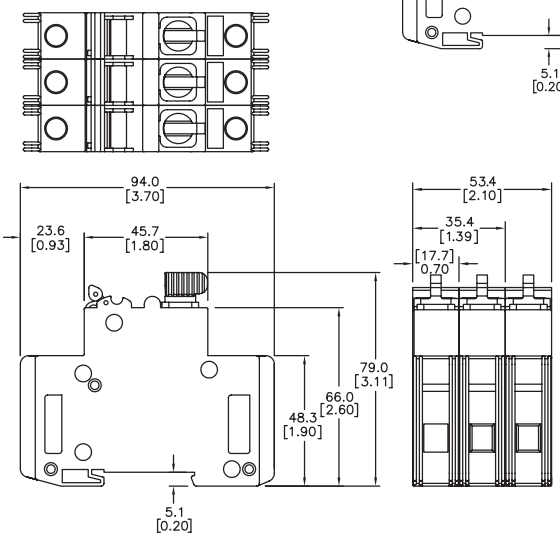
Compact Fusible Switches Dimensions



CFS-1P



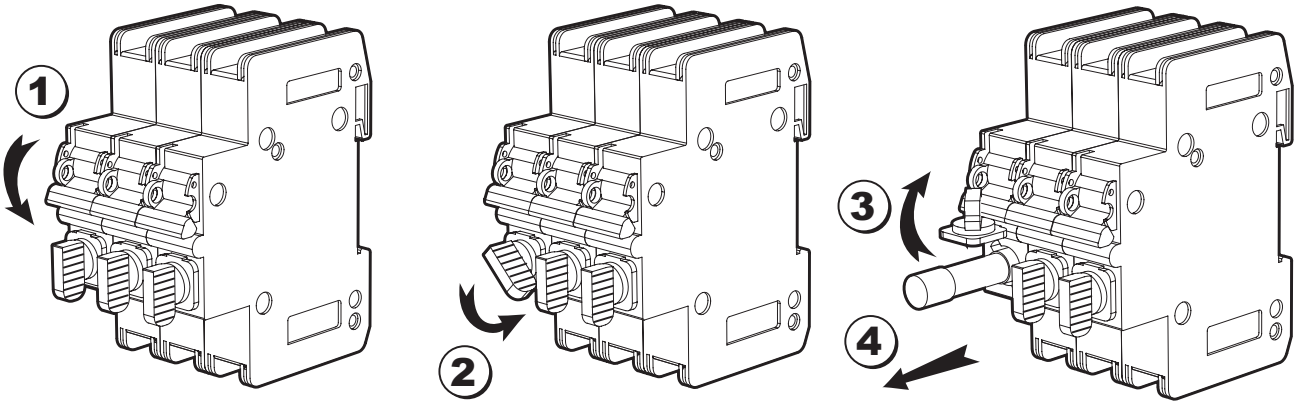
CFS-2P



CFS-3P

Dimensions are approximate, mm [inches]
- Not for construction purposes

Replacing Fuses



Steps:

1. Turn Switch Off.
2. Turn fuse holder compartment knob counterclockwise.
3. Rotate fuse holder compartment knob up.
4. *Remove fuse and replace with appropriate type CC or Midget fuse.

Note: Insert replacement CC fuse with rejection feature (tip) in first.

Gladiator® from AutomationDirect Compact Fusible Switches

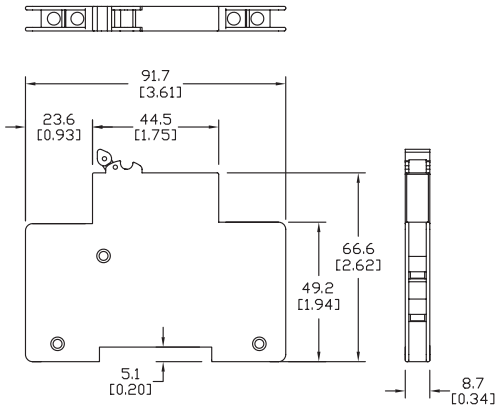
Auxiliary Contact

N.O. + N.C. contact output to indicate the status of the switching mechanism on the Gladiator switch.
Mounts on the right side of the switch.

CFS-AUX

General Specifications - CFS-AUX							
Part Number	***Description***	***Rated Ampacity***	***Rated Voltage***	***Flamibility Rating***	***Agency Approvals***	***Weight***	***Price***
CFS-AUX	Auxiliary contact switch 1 NO + 1 NC	5A	240 VAC	UL 94V0	UL 98 Recognized and cURus 22.2 No. 4-04, IEC 60947-5-1 AC15	0.11 lbs. (50g)	Retired

Auxiliary Contact Dimensions



CFS-AUX