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

Applications

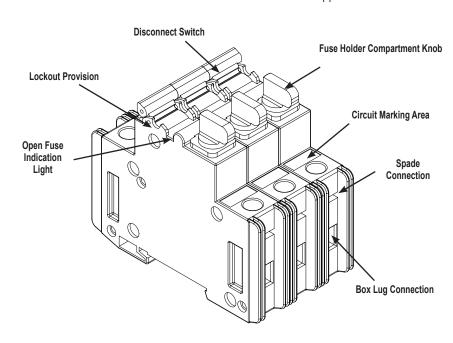
Feeder and Branch Circuit Protection

- 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 Compact Fusible Switches

AC and DC Compact Fusible Switches



Single-Pole



Two-Pole



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.



Three-Pole

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		
CFS-1PM30-DC			12 - 80 VDC*	UL Midget	10 kA*	UL 508 Listed CULus 22.2 No.14-05		

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



DC Single-Pole

General Specifications					
Construct	ion	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	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 luas.

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 Littlefus						
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	e 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						

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



Motor Sizing - Compact Fusible Switches

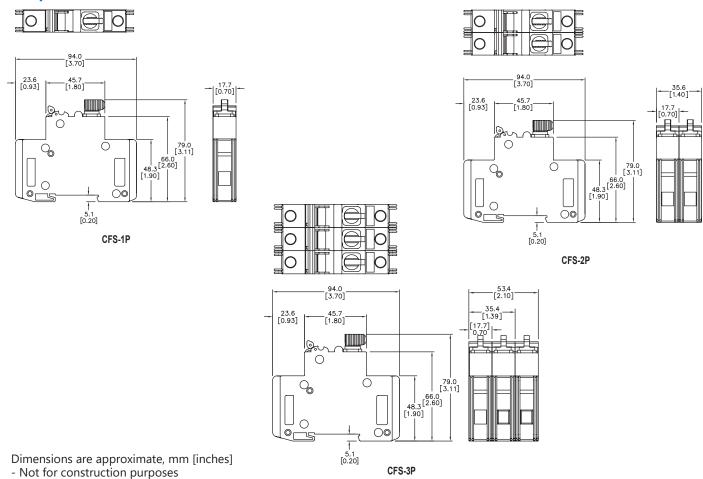
Motor Sizing Chart							
Voltage	Motor HP	Motor Full Load Amps	Fuse Type	Minimum Fuse Amperage	Code Max Fuse Amperage	Heavy Start Fuse Amperage	
	1/6	4.4		9	15	15	
115 VAC - 1 Phase	1/4	5.8	FDCC	12	20	20	
115 VAC - 1 Phase	1/3	7.2	EDCC	15	25	25	
	1/2	9.8		30	Fuse Amperage Fuse Ampera 15 15 20 20	30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

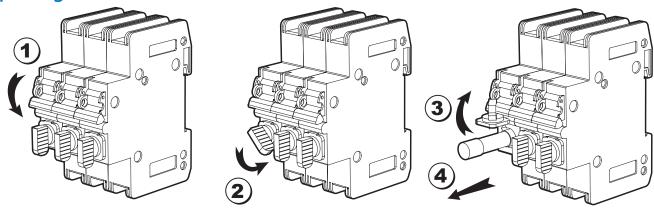
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Gladiator Compact Fusible Switches

Compact Fusible Switches Dimensions



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.



Auxiliary Contact

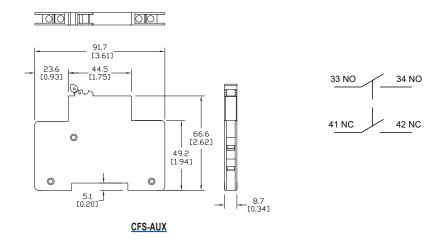
N.O. + N.C. contact output to indicate the status of the switching mechanism on the Gladiator switch. Mounts on the right side of the switch.



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)		

CFS-AUX

Auxiliary Contact Dimensions



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