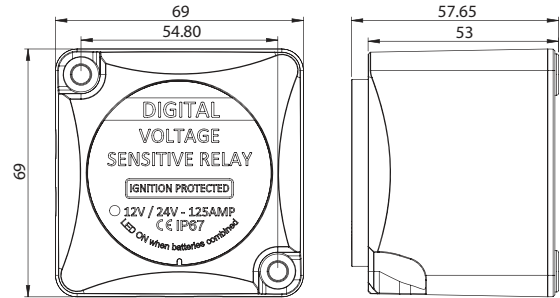


Battery Management

Digital Voltage Sensitive Relay (DVSR) / Automatic Charging Relay

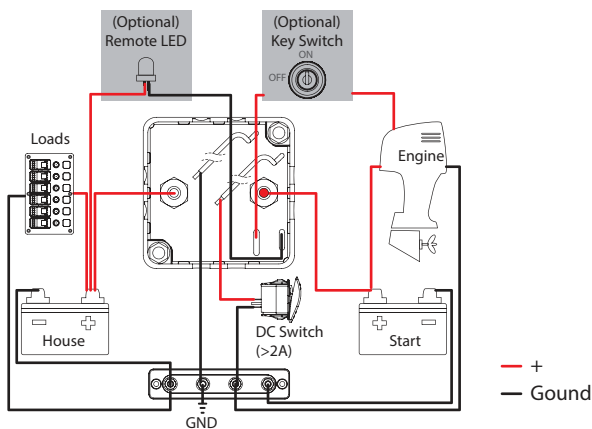
IGNITION PROTECTED **New Product**

BF452



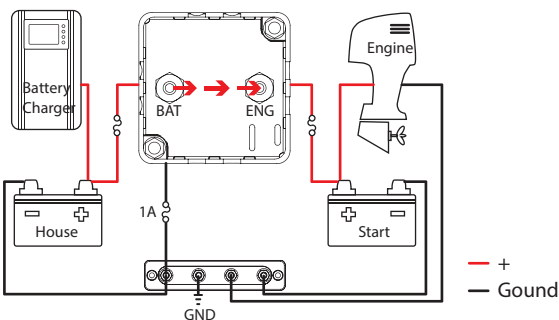
VSR (Voltage Sensitive Relay) or ACR (Automatic Charging Relay) are automatically controlled switches that allow two batteries to be combined when charging, and to be isolated when not charging and current is draining from one of the batteries. When used with battery switches, VSR helps to reserve a fully charged battery at all time, avoid the dead battery and possibility of towing on the sea. D-VSR is an upgraded Digital version of VSR with enhanced features like 12/24V system support, dual-port sensing, much lower standby power consumption and better reliability.

Wiring Example for BF452 D-VSR



※ Wiring Diagrams are for reference only, consult professionals for wiring suits your needs.

Wiring Example for D-VSR with Battery Charger



Dual Port Sensing allows Battery Charger charging to Start Battery when engine is off.

Features

- Automatically combines two batteries when charging and isolates the two batteries when not charging
- DC 12/24V input auto ranging
- Sensing voltage from either battery bank
- No voltage drops comparing to battery isolator diodes (0.6V)
- Dimensions fits BF43x Fuse Box Series and Battery Switch, matching mainstream products in market (BEP style)
- Robust Glass Fiber reinforced Nylon enclosure
- Built-in LED indication (ON when VSR engages)
- Port for remote LED indicating VSR status (LED not included)
- Surface or panel mount options provides flexibility when installing
- Optional Storage Mode allows zero power consumption when engine is off

Specifications

- Nominal Voltage | DC 12V / 24V Auto Detect
- Combine / Open Voltage | DC 13.3V / 12.8V @ 12V
DC 26.6V / 25.6V @ 24V
- Continuous Current Rating | 125A
- Intermittent Current Rating | 140A
- Power Consumption | 3mA (Standby) / 270mA (Engage) / 0mA (Storage Mode)
- Note | **CE** IP67

D-VSR with Cable Kit for 2nd Battery BF452KIT



This Kit provides all the necessary cables, accessories and D-VSR that you need to install the secondary battery. Customer installing this for the first time will find it convenient to have the cables ready in single package.



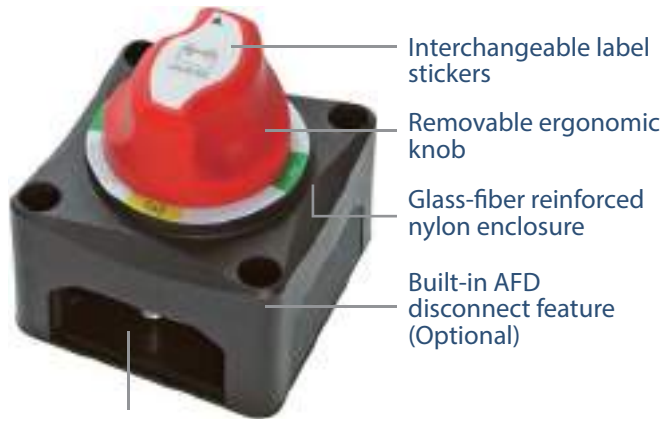
BP-Series Compact Battery Switches (Metric Threading)

Battery Main Switch (On-Off)

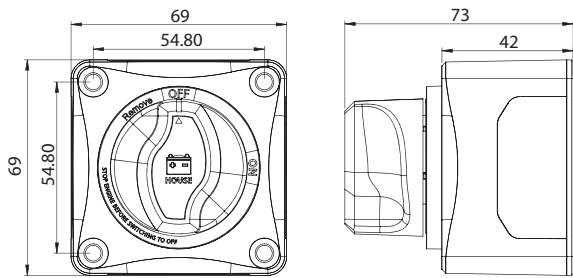
BF441 / BF441A (with AFD)

Battery Selector Switch (1-2-Both-Off)

BF442 / BF442A (with AFD)

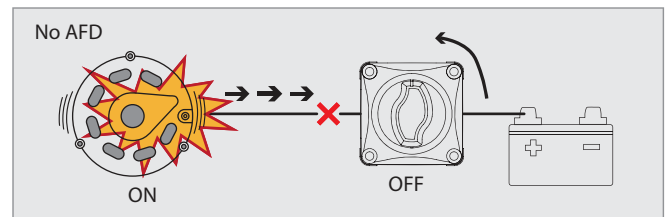


Removable windows on 4 sides

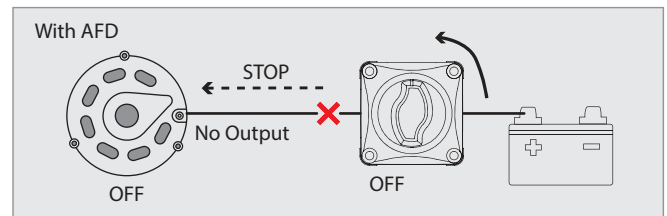


Features

- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety
- Smallest battery switch with AFD (Alternator Field Disconnect) feature in market (BF441A, BF442A)
- Dimensions fits Heavy Duty Modular Fuse Box Series (BF43x)
- Robust Glass Fiber reinforced Nylon enclosure
- Removable windows for unobstructed wiring
- Compact size matching mainstream products in market (BEP style)
- Surface or panel mount options provides flexibility when installing
- Patented in Taiwan(D183413), China(ZL201730358133.0)
- Meet Ignition Protection Standard (ISO8846 / SAE J1171), suitable for use in marine engine room and fuel tank spaces.



Continuous output blows out the alternator.



AFD cuts alternator off before battery switch turned off.

Product Series



BF441 / BF441A

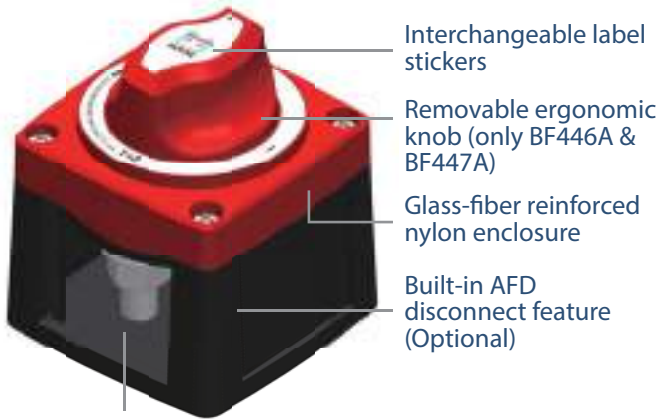
BF442 / BF442A

Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating (10Secs)	Intermittent Rating (5 mins)	Continuous Rating (1hr)	Note
BF441	ON-OFF	48V	M10	1250A	455A	275A	-
BF441A	ON-OFF	48V	M10	1250A	455A	275A	with AFD
BF442	1-2-Both-Off	48V	M8	1000A	300A	200A	-
BF442A	1-2-Both-Off	48V	M8	1000A	300A	200A	with AFD

BM-Series Main Battery Switches (Imperial Threading)

IGNITION PROTECTED New Product PATENTED Pending

- BF446/BF446A **Battery Main Switch (A: with AFD) (ON-OFF)**
 BF447/BF447A **Battery Selector Switch (A: with AFD) (1-2-Both-OFF)**
 BF448 **Dual Circuit Battery Switch (2-OFF-1-ON)**
 BF448P **Dual Circuit Plus Battery Switch (2-OFF-1-ON-PARALLEL)**



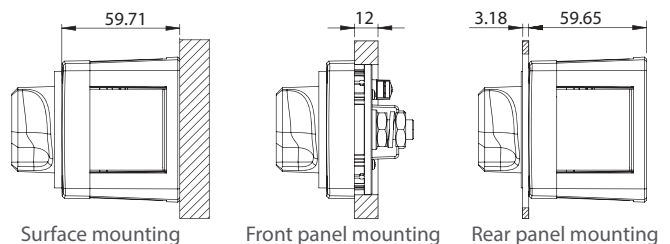
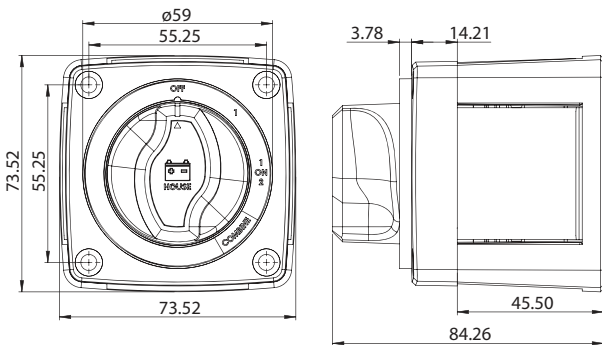
Removable windows on 4 sides

Features

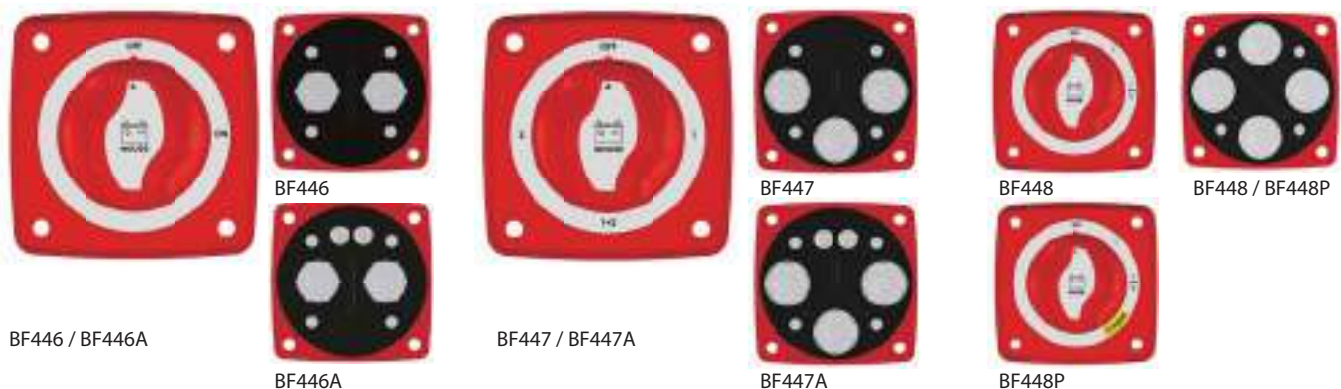
- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety (BF446/BF447 only)
- AFD (Alternator Field Disconnect) feature provides extra safety protection (BF446/BF447 only)
- Dimensions fits popular BlueSea's M-series battery switches
- Robust Glass Fiber reinforced Nylon enclosure
- Removable windows for unobstructed wiring
- 3 mounting options: Surface mount, front panel mount and rear panel mount
- Meet Ignition Protection Standard (ISO8846 / SAE J1171), suitable for use in marine engine room and fuel tank spaces

(BF448 Dual Circuit Plus)

- Dual circuit control with parallel option (BF448P)
- Patent pending design allows convenient "1 Only" & "2 Only" connection



Product Series



Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating(30s)	Intermittent Rating (5 mins)	Continuous Rating (1 hr)	Note
BF446	ON-OFF	48V	3/8"-16	900A	500A	300A	-
BF446A	ON-OFF	48V	3/8"-16	900A	500A	300A	with AFD
BF447	1-2-Both-OFF	32V	3/8"-16	900A	500A	300A	-
BF447A	1-2-Both-OFF	32V	3/8"-16	900A	500A	300A	with AFD
BF448	OFF-1-Both	32V	3/8"-16	675A	450A	300A	Dual Circuit
BF448P	OFF-1-Both-PARALLEL	32V	3/8"-16	675A	450A	300A	Dual Circuit with Parallel option

Circuit Protections

YTK CO.,LTD.

[Http://www.ytk-group.co.jp](http://www.ytk-group.co.jp)

Modular Design Blade (ATP/ATO/ATC) Fuse Blocks

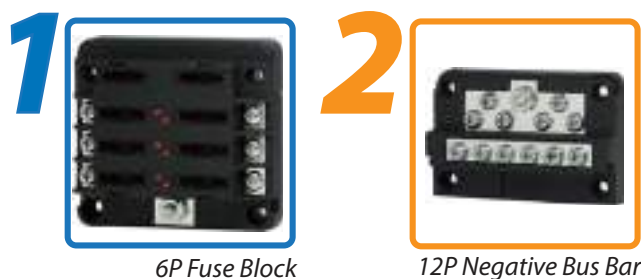
Best Seller PATENTED TW,CH

The BF27x series are compact and solid blade fuse blocks designed for 24-hour circuits. The fuse blocks come with blown fuse indication LEDs, clear cover with recessed areas for label stickers and are available in two versions with different terminals (screw or quick terminals).

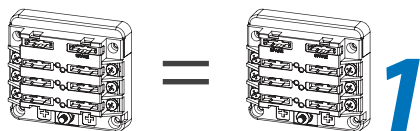


Two Modules for all

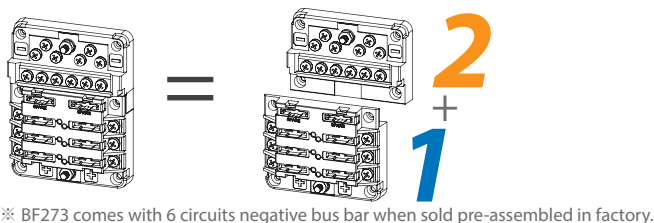
YIS Marine exclusive modular design – two basic modules can be combined into 4 popular fuse blocks (and more depending on specific needs). The assembly is very simple and can be done by consumers alone (instruction manual included). This not only gives consumers flexibility to expand their current fuse block, but also allows retailers to save precious shelf space in the store.



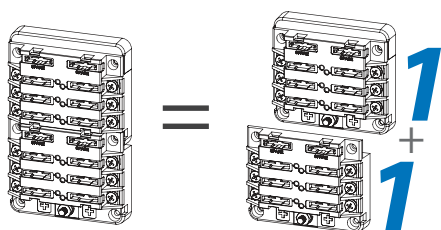
BF271 6P Fuse Block



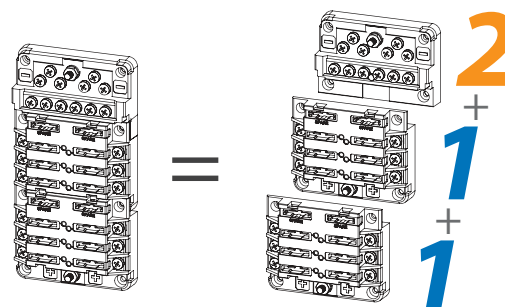
BF273 6P Fuse Block with Negative Bus Bar



BF274 12P Fuse Block



BF275 12P Fuse Block with Negative Bus Bar



New Compact 2 in 1 model

New
Product



BF276 2-in-1 Fuse
Block in one piece



BF273=BF271+BF272
(Modular Design)

- More compact and cost-effective model when you need negative bus bar pre-combined
- Size reduced by 19%, significant cost reduction
- Same design language with all same great features

Series Features

- Accepts Automotive Blade Fuses (ATP/ATC/ATO)
- Modular Design saves shelf space (2 items can be combined into 4 models)
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Storage for 2 spare fuses (for each 6P block)
- LED indication of blown fuses

Specifications

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (Screw Terminals) / 20A (Quick Terminals)
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32") (BF27x Only)
- Note | Patented in Taiwan(M490103) & China(ZL201420495842.4)

Product Series

Basic modules

The two basic module that can be combined into 4 models at end user's end



BF271 / BF281 (6P Fuse Blocks)



BF272 / BF282 (12P Negative Bus Bar)

Combined Models New

Cost-effective combined Fuse Blocks with Negative Bus bar



BF276 / BF286 (6P fuse block + Neg. bus bar)



BF277 / BF287 (12P fuse block + Neg. bus bar)



BF278 / BF288 (12P fuse blocks)

Product ID	Terminals	Circuits	Negative Bus Bar	Product Dimensions (W x L x H)	Note
BF271	Screws (M4)	6	-	86 x 78 x 41 mm	6P Fuse block module
BF281	Quick (0.250")	6	-	86 x 78 x 41 mm	6P Fuse block module
BF272	Screws (M4)	-	12 Circuits	86 x 57 x 41 mm	12P Neg. bus bar module
BF282	Quick (0.250")	-	12 Circuits	86 x 57 x 41 mm	12P Neg. bus bar module
BF276	Screws (M4)	6	6 Circuits	85 x 93 x 36 mm	One-piece fuse block + neg. bus bar
BF286	Quick (0.250")	6	6 Circuits	85 x 93 x 36 mm	One-piece fuse block + neg. bus bar
BF277	Screws (M4)	12	12 Circuits	85 x 132 x 36 mm	One-piece fuse block + neg. bus bar
BF287	Quick (0.250")	12	12 Circuits	85 x 132 x 36 mm	One-piece fuse block + neg. bus bar
BF278	Screws (M4)	12	-	85 x 132 x 36 mm	One-piece fuse block
BF288	Quick (0.250")	12	-	85 x 132 x 36 mm	One-piece fuse block

※ All models can also be sold without covers or without blown fuse indicating LEDs.

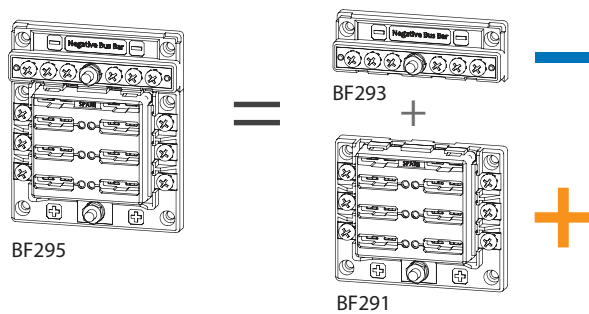
New Product

Multi-use Compact Modular Design Blade Fuse Blocks

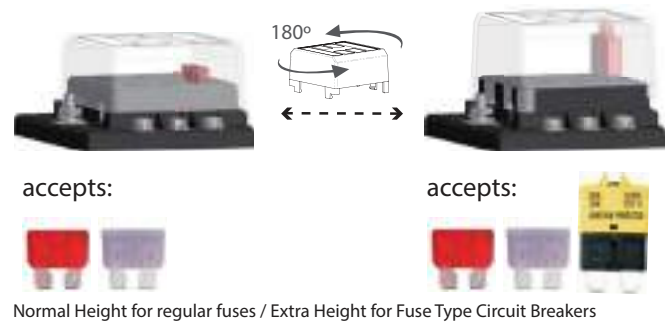
The BF29x series is more compact and economical version of the popular BF27x series. It not only keeps BF27x series signature positive / negative modular design and LED fuse blown indication, but also equipped with new features like circuit breaker type fuse support (with patent pending cover design). The patent pending cover design allows shipping and packaging in compact size while expanding the cover height when required by reversing the cover 180 degrees. BF29x is suitable not only in marine but also in the car/caravan market as a lower-cost alternative to BF27 series.



Signature Positive / Negative Modular Design



Patent pending dual-use cover design:



Features

- Accepts standard (ATP/ATC/ATO) blade fuses
- Patent pending cover design supports circuit breaker type fuses with extra height
- Modular positive and negative bus bar design
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Storage for 2 spare fuses
- LED indication of blown fuses

Specifications

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (Screw Terminals) / 20A (Quick Terminals)
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32") (BF27x Only)
- Note |

Product Series



Product ID	Terminals	Circuits	Negative Bus Bar	Product Dimensions (W x L x H)	Note
BF291	Screws (M4)	6	-	85 x 72 x 40 mm	-
BF292	Screws (M4)	12	-	86 x 117 x 40 mm	-
BF293	Screws (M4)	-	6 Circuits	85 x 29.75 x 30.9 mm	Negative Bus Bar Module (6P)
BF294	Screws (M4)	-	12 Circuits	85 x 29.75 x 30.9 mm	Negative Bus Bar Module (12P)
BF295	Screws (M4)	6	6 Circuits	85 x 100 x 40 mm	Pre-assembled fuse block w/ bus bar
BF296	Screws (M4)	12	12 Circuits	85 x 145 x 40 mm	Pre-assembled fuse block w/ bus bar
BF291Q	Quick (0.250")	6	-	85 x 72 x 40 mm	-
BF292Q	Quick (0.250")	12	-	85 x 117 x 40 mm	-
BF294Q	Quick (0.250")	-	12 Circuits	85 x 29.75 x 25.2 mm	Negative Bus Bar Module (12P)*
BF295Q	Quick (0.250")	6	12 Circuits	85 x 100 x 40 mm	Pre-assembled fuse block w/ bus bar
BF296Q	Quick (0.250")	12	12 Circuits	85 x 145 x 40 mm	Pre-assembled fuse block w/ bus bar

*Quick terminal negative bus bar (BF294Q) comes without cover due to its upward terminal design; use screw terminal version (BF294) if cover is required.

Compact Design Independent Source Blade Fuse Blocks

New Product

BF279 / BF289

Patent pending
Dual-height cover



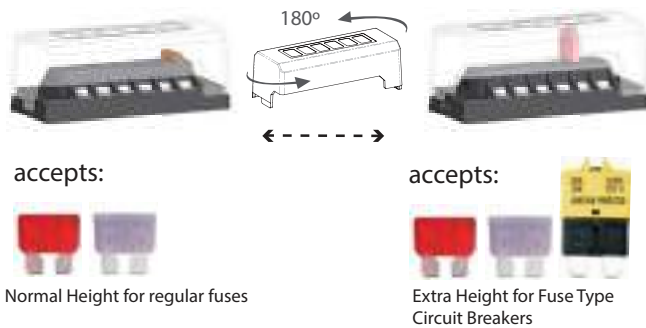
Features

- Ultra compact size 6 way independent source fuse block
- Can be used for switched circuits and 24-hour circuits in the same block
- Accepts standard (ATP/ATC/ATO) blade fuses
- Patent pending cover design supports circuit breaker type fuses with extra height
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- LED indication of blown fuses

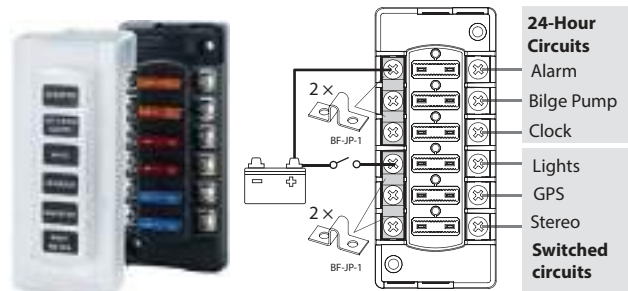
Specifications

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (BF279) / 20A (BF289)
- Max Cumulative Amp | 40A per jumper circuit group
- Screw Size | M4 (5/32") (BF279)
- Note |

Patent pending dual-use cover design

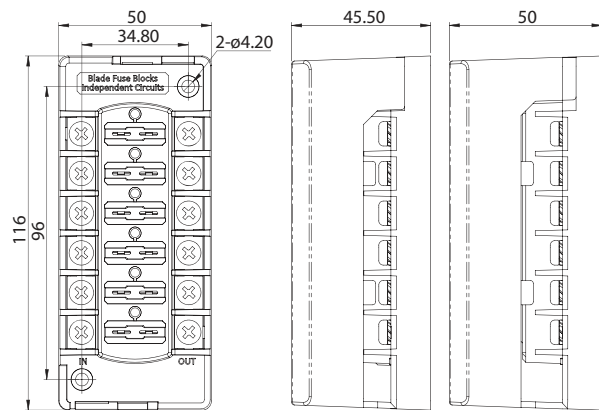


BF279/BF289 Independent Source Fuse Block



Can be flexibly divided into 24 hour circuits and switched circuits
* Jumpers are only available for Screw Terminals version (BF279)

Product Series



PATENTED
 TW,CH

Modern Design Glass-tube AGC Fuse Blocks Series

BF210 / BF211 / BF212



BF210-6 BF211-6 BF212-6

Features

- LED indication of blown fuses
- Redesigned fuse clips hold fuses firmly and steadily
- Transparent cover with recessed area for label stickers and storage for 6 spare fuses
- 60 pieces label stickers included

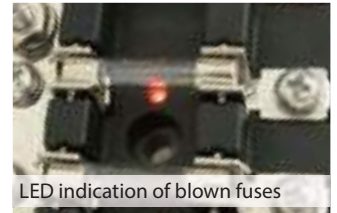
Specifications

- Base Material | PBT, glass fiber reinforced
- Max Operating Voltage | 32V
- Amp Rating per Branch | 30A
- Max Cumulative Amp | 100A per block
- Screw Size | M4 (5/32")
- Terminal Stud Size | M5 (3/16")
- Note | Patented in Taiwan(D182308) & China(ZL201630425859.7)

* M4 screw is comparable to #8-32 screws and M5 stud is comparable to #10-32 Studs.



Storage for spare fuses

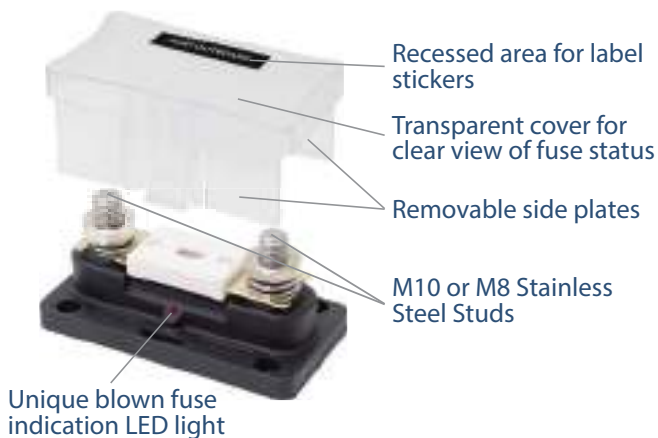


LED indication of blown fuses

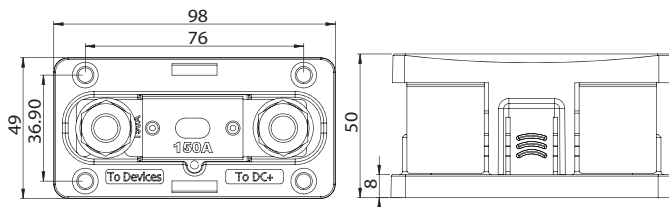
Product ID	Circuits	Positive Source	Negative Bus Bar	Product Dimensions	Note
BF210-6	6	Common Source	6 Circuits	129 x 91 mm	Common Source Fuse Block with Negative Bus Bar
BF211-6	6	Common Source	-	129 x 91 mm	Common Source Fuse Block
BF212-6	6	Independent Source	-	129 x 91 mm	Independent Source Fuse Block

Compact ANL Fuse Holder

BF461 / BF461-M8 New



Unique blown fuse indication LED light



Features

- Accepts 35-300A ANL Fuses (not included)
- Compact size 49 x 98 x 50 (W x L x H) mm (including cover)
- Transparent cover for clear view of fuse status
- Cover with recessed area for label stickers (5 pcs assorted label stickers included)
- Bendable / removable side plates for flexible wiring
- Unique blown fuse indication LED light

Specifications

- Max Operation Voltage | DC 32V
- Max Continuous Current | 35-300A (fuse dependent)
- Terminal Stud Size | 2 x M10(3/8") (BF461)
2 x M8(5/16") (BF461-M8)

CLB / CMB Circuit Breaker Boxes

New Product

BF221I(B) 6P Independent Source (B: with PVC Boot)
 BF221C(B) 6P Common Source with Neg. Bus Bar (B: with PVC Boot)



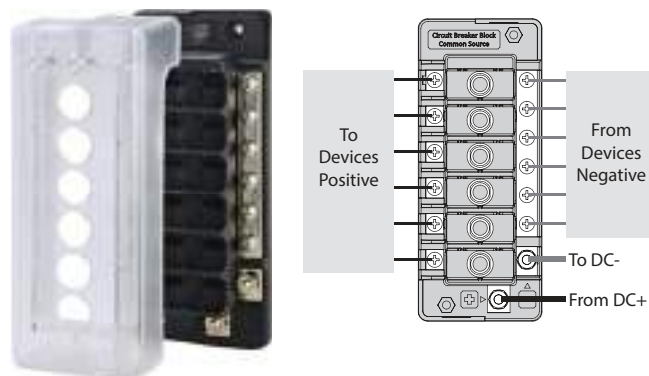
Features

- Install circuit breakers as easy as blade fuses
- Accepts both CLB & CMB circuit breakers
- 100A Positive Bus Bar with M5 (#10) Studs
- M4 (#8) screw terminals accepts ring terminals
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Optional push button waterproof boots can be installed on cover

Specifications

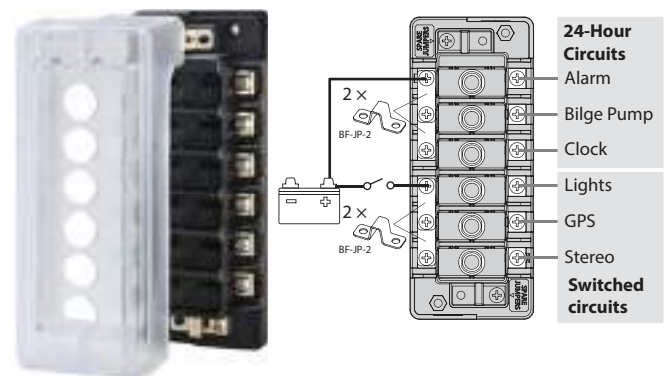
- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32")
- Dimensions | 65.5 x 160 x 56 mm
65.5 x 160 x 73 mm (with PVC Boot)
- Note |

BF221C(B) 6P Common Source with Neg. Bus Bar (B: with PVC Boot)



One positive feed in, six protected output to devices

BF221I(B) 6P Independent Source (B: with PVC Boot)



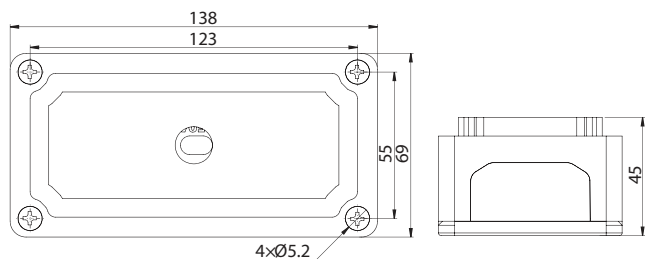
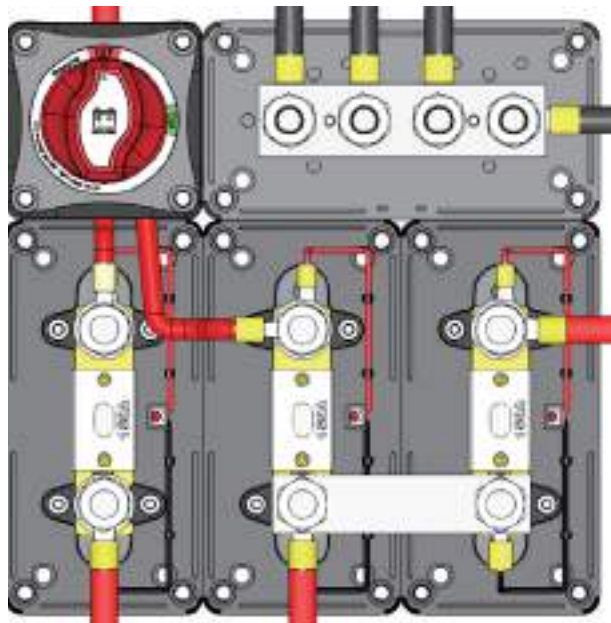
Can be flexibly divided into 24 hour circuits and switched circuits

Related Products

<p>CB-P100</p>  <p>Push Reset Circuit Breaker</p> <p>DC 12V/24V 3-50A</p>	<p>CB-P200</p>  <p>Mini Size Push Reset Circuit Breaker</p> <p>DC 12V/24V 3-50A</p>	<p>BF-JP-2</p>  <p>Fuse Block Jumpers</p> <p>Tin-Plated Brass for use with BF221X</p>
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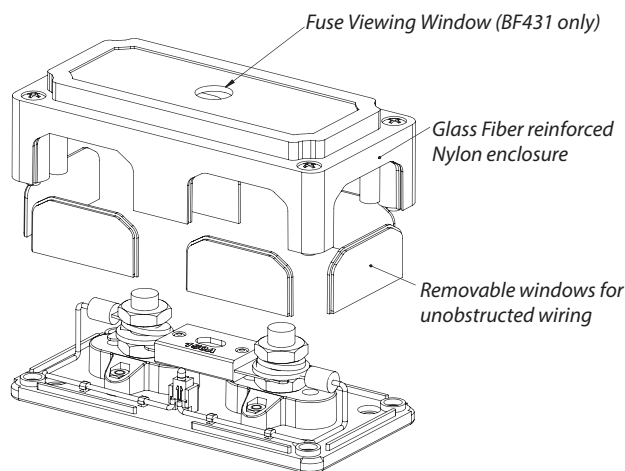
Heavy-Duty Modular Design Fuse Block & Bus Bars

Module box design for clean, neat and easy wiring configurations



Features

- Module box design for easy wiring configurations
- Robust Glass Fiber reinforced Nylon enclosure
- All models are of the same dimensions (see below)
- 6 removable windows at 4 directions
- Blank write-on space on the top allows easy labeling
- Complete product line including fuse blocks, bus bars and terminal studs



Module Design ANL Fuse Box

BF431 Heavy-duty Modular Design ANL Fuse Box

BF431S Heavy Duty ANL Fuse Box with Additional Cable Connection Studs



BF431

- Withstands high currents between 100-300A ANL Fuses (not included)
- Open window on the top for clear vision of blown fuse
- LED indication of blown fuse condition (turns on when fuse blows)

Specifications

- Max Operating Voltage | DC 32V
- Max Continuous Amp | 35-300A (determined by fuse)
- Terminal Stud Size | 2 x M10 (3/8")



BF431S

- Additional studs with heavy duty oxygen-free copper bus bar
- Withstands high currents up to 750A ANL Fuses (not included)
- Open window on the top for clear vision of blown fuse
- LED indication of blown fuse condition (turns on when fuse blows)

Specifications

- Bus Material | Oxygen-free Copper, Nickel plated
- Max Operating Voltage | DC 32V
- Max Continuous Amp | 35-750A (determined by fuse)
- Terminal Stud Size | 4 x M10 (3/8")

Heavy Duty Bus Bar Box

BF432 / BF432-M8 Heavy-Duty Module Design Bus Bar Box with 4 Terminal Studs



- Highest amperage rated bus bar (300A) with M10 terminal studs (also available in M8)
- Blank write-on space on the top allows easy labeling for each branch

Specifications

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 300A
- Terminal Stud Size | 4 x M10 (3/8") (BF432) / 4x M8 (5/16") (BF432-M8)

Heavy Duty Bus Bar Box

BF433 Heavy-Duty Module Design Bus Bar Box with 2 x M10 Terminal Studs & 6 x M5 Screws



- Highest amperage rated bus bar (300A) with M10 terminal studs
- Blank write-on space on the top allows easy labeling for each branch

Specifications

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 300A
- Terminal Stud Size | 2 x M10 (3/8")
- Screw Size | 6 x M5 (3/16")

Heavy Duty Dual Bus Bar Box

BF434 Heavy-Duty Modular Design Dual Bus Bars with Connecting Link



- Dual Bus Bar with removable connecting link
- Nickel plated brass bus bar allowing current up to 100A
- Blank write-on space on the top allows easy labeling for each branch

Specifications

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 100A
- Terminal Stud Size | 4 x M6 (1/4")
- Screw Size | 12 x M4 (5/32")

4 Way Heavy-Duty Terminal Studs Box

BF435 Heavy-Duty Modular Design Terminal Studs with Insulation Partition



- Allow terminating of heavy-duty cables for one or more connections (each terminal)
- Removable insulation partition included
- Heavy duty terminal studs (up to M10), allowing current up to 200A (rating determined by wires connected)
- Terminal Studs available in M8 or M10 (Default: M10)
- Blank write-on space on the top allows easy labeling for each branch

Specifications

- Max Operating Voltage | DC 48V
- Max Amp per circuit | Determined by wires connected
- Terminal Stud Size | 4 x M10 (3/8")

Classic Fuse Block & Bus Bars

Common Source AGC Fuse Blocks

BF201(2P-12P)



Dimensions	
Product ID	Dimensions (H x W)
BF201-2P	57 x 31 mm
BF201-4P	57 x 62 mm
BF201-6P	57 x 93 mm
BF201-8P	57 x 126 mm
BF201-10P	57 x 157 mm
BF201-12P	57 x 188 mm

Specifications

- Base Material | ABS + Glass Fiber
- Clip Material | Brass
- Max Operating Voltage | DC 32V
- Max Amp per circuit | 20A
- Max Cumulative Amp | 60A
- Screw Size | M5 x P0.8 x 6

Reinforced Nylon Base Glass-tube AGC Fuse Blocks

BF202 / BF205 / BF206 (4P, 6P, 8P)



Product ID	BF202	BF206	BF205
Description	Common Source Fuse Block with Negative Bus	Common Source Fuse Block	Independent Source Fuse Block
Positive Source	Common Source	Common Source	Independent Source
Negative Bus Bar	Yes	None	None
Max Cumulative Amp	80A	50A	-
Dimensions (L x W)			
4P	84 x 76 mm	62 x 76 mm	62 x 76 mm
6P	84 x 114 mm	62 x 114 mm	62 x 114 mm
8P	84 x 152 mm	62 x 152 mm	62 x 152 mm

Specifications

- Base Material | Nylon, Glass Fiber reinforced
- Clip Material | Brass
- Max Operating Voltage | DC 32V
- Max Amp per circuit | 20A
- Max Cumulative Amp | See each model
- Screw Size | No.8-32 x 1/4

Bus Bars

Dual Bus Bars

BF204(4P-8P)



Dimensions	
Product ID	Dimensions (H x W)
BF204-4P	38 x 76 mm
BF204-6P	38 x 114 mm
BF204-8P	38 x 152 mm

Specifications

- Base Material | Nylon, Glass Fiber reinforced
- Bus Material | Brass
- Max Operating Voltage | DC 32V
- Max Cumulative Amp | 60A for each bus
- Screw Size | No.8-32x1/4

Large Current Bus Bar

BF207 (10P)



Specifications

- Base Material | PBT, Glass Fiber reinforced
- Bus Material | Copper, Brass-plated
- Max Operating Voltage | DC 48V
- Max Cumulative Amp | 150A
- Screw Size | No.8-32 x 1/4
- Terminal Stud Size | M6 x 25mm
- Dimensions (L x W) | 146 x 31.5mm

Fuses (Glass-tube Fuses / Automotive Blade Fuses & Other Fuses)

AGC / ATE Fuses | American standard size 0.25"x 1.25"(6.3 x 32.0mm) glass-tube fuses



AGC(3AG) Fuses
Fast-acting glass-tube fuses



ATE Fuses
Slow-blow glass-tube fuses

Specifications	
Dimension	Φ6.3 x 32.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	DC 32V, AC 125V/250V
Amps	0.5A, 1A, 1.5A, 2A, 2.5A, 3A, 4A, 5A, 6A, 7.5A, 10A, 15A, 20A, 25A, 30A, 35A
Note	RoHS Compliant

Specifications	
Dimension	Φ6.3 x 32.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	AC 250V
Amps	0.1A – 20A
Note	RoHS Compliant

JMC / JTG Fuses | Japanese standard size 6.3 x 30mm glass-tube fuses



JMC Fuses
Fast-acting glass-tube fuses



JTG Fuses
Slow-blow glass-tube fuses

Specifications	
Dimension	Φ6.3 x 30.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	DC 32V, AC 250V
Amps	0.1A-30A
Note	RoHS Compliant

Specifications	
Dimension	Φ6.3 x 30.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	AC 250V
Amps	0.1A-30A
Note	RoHS Compliant

GMA / GTE Fuses | Mini size glass-tube fuses (5 x 20mm)



GMA Fuses
Mini-size fast-acting glass-tube fuses



GTE Fuses
Mini-size slow-blow glass-tube fuses

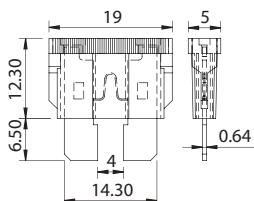
Specifications	
Dimension	Φ5.0 x 20.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	AC 250V
Amps	0.1A-20A
Note	RoHS Compliant UL, CSA for 10A and less

Specifications	
Dimension	Φ5.0 x 20.0mm
Cap Material	Nickel-plated Brass
Max. Voltage	AC 250V
Amps	0.1A-10A
Note	RoHS Compliant

ATP/ ATO/ATC – Standard Blade Fuses



- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse

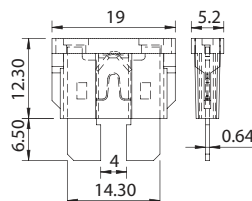


Product ID	Amps	Color Coding
F-ATP-1A	1 A	Black
F-ATP-2A	2 A	Gray
F-ATP-3A	3 A	Violet
F-ATP-4A	4 A	Pink
F-ATP-5A	5 A	Tan
F-ATP-7.5A	7.5 A	Brown
F-ATP-10A	10 A	Red
F-ATP-15A	15 A	Lt. Blue
F-ATP-20A	20 A	Yellow
F-ATP-25A	25 A	Natural
F-ATP-30A	30 A	Lt. Green

ATP/ ATO/ATC Fuses – Standard Blade Fuses with Blown Indication Lamp



- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Indicating lamp lights up when fuse is blown



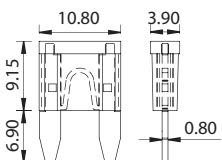
Product ID	Amps	Color Coding
F-ATPL-3A	3 A	Violet
F-ATPL-4A	4 A	Pink
F-ATPL-5A	5 A	Tan
F-ATPL-7.5A	7.5 A	Brown
F-ATPL-10A	10 A	Red
F-ATPL-15A	15 A	Lt. Blue
F-ATPL-20A	20 A	Yellow
F-ATPL-25A	25 A	Natural
F-ATPL-30A	30 A	Lt. Green



ASP/ATM/Mini – Mini Blade Fuses



- Compact size
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse

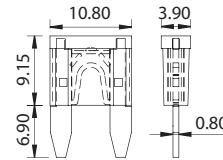


Product ID	Amps	Color Coding
F-ATM-2A	2 A	Gray
F-ATM-3A	3 A	Violet
F-ATM-4A	4 A	Pink
F-ATM-5A	5 A	Tan
F-ATM-7.5A	7.5 A	Brown
F-ATM-10A	10 A	Red
F-ATM-15A	15 A	Lt. Blue
F-ATM-20A	20 A	Yellow
F-ATM-25A	25 A	Natural
F-ATM-30A	30 A	Lt. Green

ASP/ATM/Mini – Mini Blade Fuses with Blown Indication Lamp



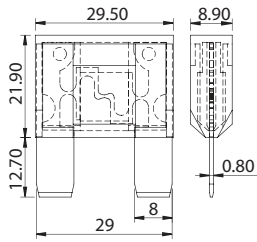
- Compact size
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Indicating lamp lights up when fuse is blown



Product ID	Amps	Color Coding
F-ATML-3A	3 A	Violet
F-ATML-4A	4 A	Pink
F-ATML-5A	5 A	Tan
F-ATML-7.5A	7.5 A	Brown
F-ATML-10A	10 A	Red
F-ATML-15A	15 A	Lt. Blue
F-ATML-20A	20 A	Yellow
F-ATML-25A	25 A	Natural
F-ATML-30A	30 A	Lt. Green



MAXI / ATX – Heavy-duty Blade Fuses



- Heavy-duty blade fuse protects circuits up to 80A
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Optional gold plated terminals available

Product ID	Amps	Color Coding
F-ATX-20A	20 A	Yellow
F-ATX-30A	30 A	Green
F-ATX-40A	40 A	Orange
F-ATX-50A	50 A	Red
F-ATX-60A	60 A	Blue
F-ATX-70A	70 A	Tan
F-ATX-80A	80 A	Natural

Dual-Purpose Fuse Tester/Puller F-FT-1



- Indicating Green LED for easy identification of blown fuse in fuse box
- Adjustable probe pitch allowing test on fuses of different sizes: MAXI, ATO/ATC, ATM
- Fuse puller for easy removal of blown fuse

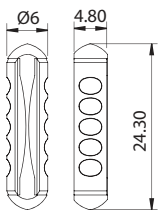


Other Fuses

GBC Fuses– European Style Bakelite Fuses



- $\Phi 6.0 \times 25.0 \text{mm}$
- Voltage Rating: DC 32V

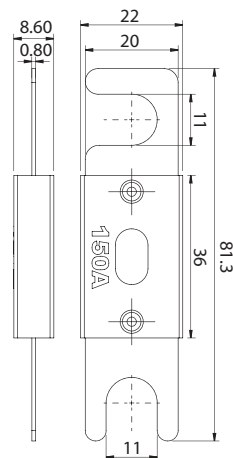


Product ID	Amps	Color Coding
F-GBC-5A	5 A	Yellow
F-GBC-8A	8 A	White
F-GBC-16A	16 A	Red
F-GBC-20A	20 A	Ivory
F-GBC-25A	25 A	Blue
F-GBC-30A	30 A	Green

ANL Fuses– Fuses for high amperage applications



**IGNITION
PROTECTED**



- Body Material: See Below
- Metal Element: Brass, Gold Plated
- Voltage: 32V DC
- Ignition Protected (ISO8846) model available at extra cost

Electrical characteristics	
% of Amp. Rating	Blowtime
100% Rating	4 Hours, Minimum
150% Rating	60 Sec., Minimum
200% Rating	15 Sec., Minimum

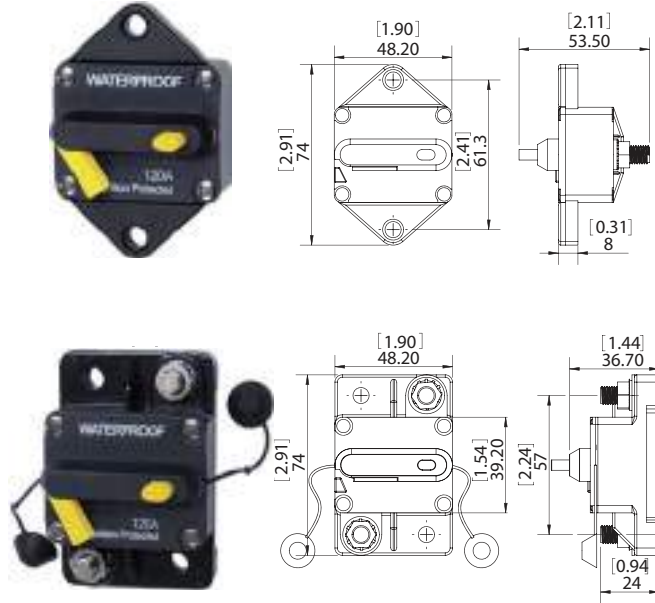
Product ID	Amps	Body Material
F-ANL-35A	35A	Nylon + Glass Fiber
F-ANL-50A	50 A	Nylon + Glass Fiber
F-ANL-70A	70 A	Nylon + Glass Fiber
F-ANL-100A	100 A	Ceramic
F-ANL-150A	150 A	Ceramic
F-ANL-200A	200 A	Ceramic
F-ANL-250A	250 A	Ceramic
F-ANL-300A	300 A	Ceramic
F-ANL-350A	350 A	Ceramic
F-ANL-400A	400 A	Ceramic

Circuit Breakers

Single Pole Thermal Circuit Breaker

CB-E95/E98 Manual Reset

CB-E96/E99 Switchable Reset (Manual ON-OFF)



Features

- Trip-free safety design – cannot be closed after trip
- IP67 – Protection even under temporary water immersion
- Visible reset lever indicating open condition
- Manual OPEN button to manually isolate the circuit (CB-E96 / E99 Only)
- Available in surface mount or panel mount models
- Ignition protected – safe for use in engine compartment

Specifications

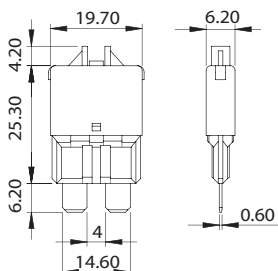
- Interrupting Capacity (AIC) | 3,000A @ DC 48V
- Voltage Rating | DC 48V Max
- Current Rating | DC 25 – 150A
- Terminal Studs | 1/4" – 28
- Note | **CE** SAE J1625 / ABYC E-11 / SAE J1171 / UL 1500 / IP67



Product ID	CB-E95	CB-E96	CB-E98	CB-E99
Mounting	Panel Mount	Panel Mount	Surface Mount	Surface Mount
Function Type	Manual Reset	Switchable Reset	Manual Reset	Switchable Reset

ATC Fuse Type Circuit Breaker

CB-E39



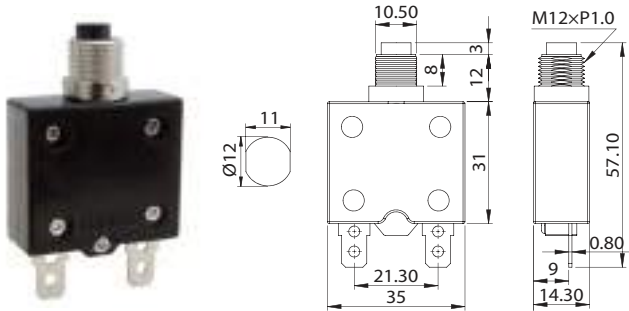
Features

- Low profile design
- Thermal Type Circuit breaker with Manual Reset button
- Compatible with ATC fuse blocks

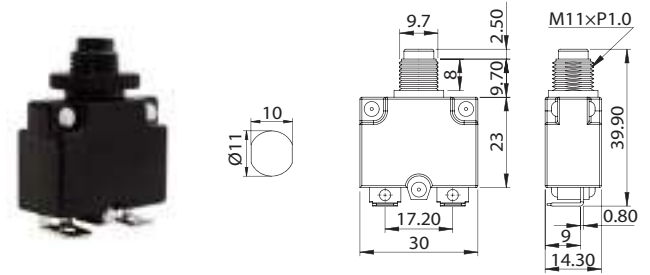
Specifications

- Interrupting Capacity (AIC) | 2,000A @ DC 28V
- Voltage Rating | DC 28V Max
- Current Rating | DC 5 – 30A
- Note | SAEJ 553 / SAEJ 1171 / UL1500 / ISO8846

Push Reset Circuit Breaker
CB-P100



Mini Size Push Reset Circuit Breaker
CB-P200



Specifications

- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-50A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC, 2000A @250VAC
- Insulation Resistance | > 100 MΩ
- Note | Approval: 3-30A 125/250V AC

Specifications

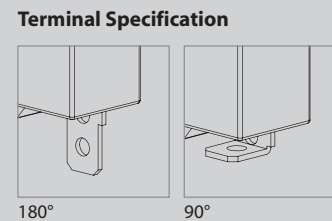
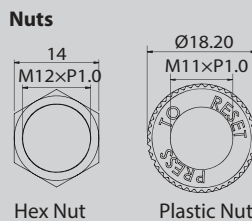
- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-20A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC, 1000A @250VAC
- Insulation Resistance | > 100 MΩ
- Note | Approval: 3-15A 125/250V AC

Coding Guide for Circuit Breakers with Accessories

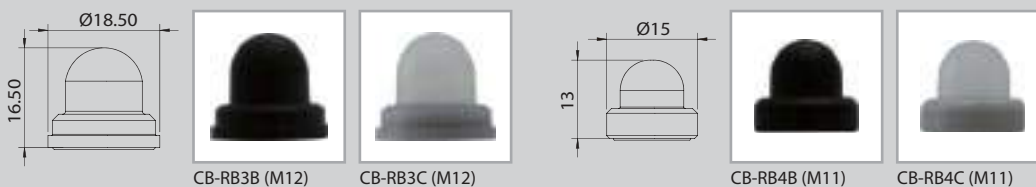
CB-P100□□□□ - □□A - □□
 (1) (2) (3) (4) (5) (6) (7)

(1) Model #	(2) Bushing	(3) Nuts	(4) Nameplate	(5) Terminal	(6) Current Rating
P100 Standard	H Metal M11x1.0	H Hex Nut	None	180°	□□ A □□ Amp
P200 Mini-sized	L Metal M12x1.0 (CB-P100 only) P Plastic M11x1.0 (CB-P200 only)	P Plastic Nut (CB-P200 only)	W with nameplate	F 90°	

(7) Rubber Boot	
Shape	Color
None	B Black
3 Type 1	C Clear
4 Type 2	



Rubber Boots



Fuse Holders

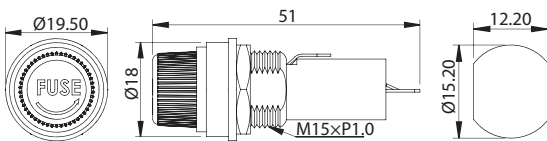
for AGC/JMC fuses



Panel Mount Fuse Holder with Screw Cap BF101



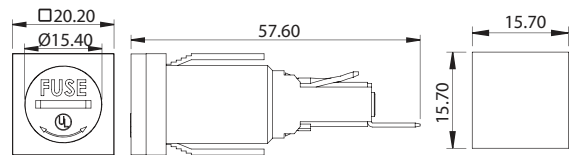
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Water-resistant screw cap
- Solder terminal



Square Panel Mount Fuse Holder with Slotted Bayonet Cap BF105



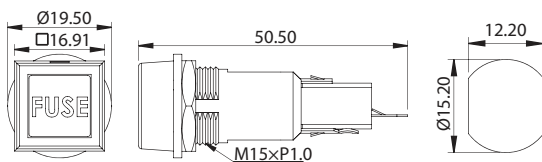
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Slotted bayonet cap
- 0.250" Quick Connect Terminal



Square Panel Mount Fuse Holder with Push-in Cap BF103



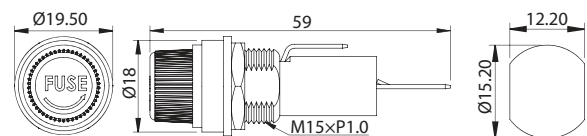
- For 6.3x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Push-in cap available in red or white
- Solder terminal



Panel Mount Fuse Holder with Screw Cap BF110



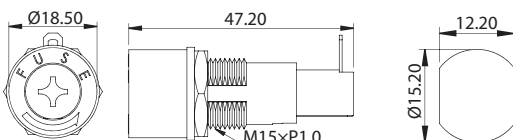
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Water-resistant screw cap
- 0.250" Quick Connect Terminal



Panel Mount Fuse Holder with Screw Cap BF104



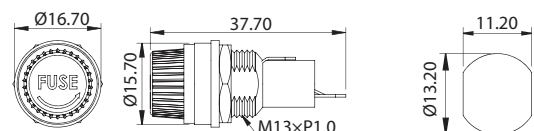
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Screw cap with Phillips drive
- Solder terminal



Panel Mount Fuse Holder with Screw Cap BF102



- For 5 x 20mm (GMA or GTE) fuses
- Bakelite body
- Water-resistant screw cap
- Solder terminal



Coding Guide for pre-wired in-line fuse holders

BF-301 - □ - □ □ □ # - □ □ □ "

(1) (2) (3) (4)

(1) Wire Leads	(2) Wire Spec	(3) Wire Gauge	(4) Wire Length
- Unwired	A UL1007	22# AWG	XX" length in inches
L Loop Lead	B UL1015		
C Cut			
S Semi-stripped			
T Tinned (stripped)			

for AGC/JMC fuses



In-Line Fuse Holder for AGC/JMC Fuses BF309



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Amperage rating: Max 30A
- Wire Gauge: #14-#18 AWG

In-Line Fuse Holder for AGC/JMC Fuses BF301



- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Wire Gauge : #16-#22 AWG

Water-resistant In-Line Fuse Holder for AGC/JMC Fuses BF308



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Wire Gauge: #14-#20
- Water-resistant (for #14-#18 AWG wires only)

In-Line Fuse Holder with 3-pin connector (pre-wired) BF304



In-Line Fuse Holder with 2-pin connector (pre-wired) BF305



In-Line Fuse Holder for AGC/JMC Fuses BF302



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Bakelite body
- Wire Gauge: #10-#22 AWG

BF301 with 3-pin connector (pre-wired)

- BF301 with 2-pin connector (pre-wired)
- BF305A : Standard Type
- BF305B : Mini Type

for GMA fuses



In-Line Fuse Holder for AGC/JMC Fuses BF310



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Wire Gauge: #14-#20 AWG

In-Line Fuse Holder for GMA/GTE Fuses BF303



- For 5 x 20mm (GMA/GTE) fuses
- Wire Gauge: #16-#22 AWG

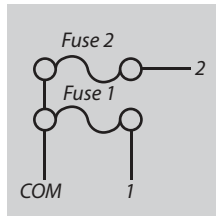
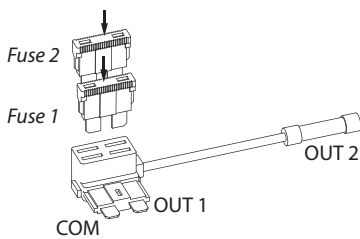
Add-A-Circuit In-line Fuse Holders

BF357 - for ATP/ATC/ATO Fuses
BF357S - for ATM Fuses

New Product



- Add a second protected circuit easily
- 2P fuse holder (1 common source input, 2 outputs)
- Wire Gauge: #14 - #18 (Default: #18/ 4" long)
- Amperage Rating: Max 30A



Wiring Diagram

Water-resistant In-Line Fuse Holder for Automotive Fuses

BF353



- Water-resistant with cap
- Molded wiring for better sealing
- Available in 3 different sizes

Product Series			
Product ID	Compatible Fuses	Wire Gauge	Amp Rating
BF353S	ATM/ASP	#12-#16	30A
BF353	ATP/ATC/ATO	#10-#18	30A
BF353L	MAXI/ATX	#4 - #6	80A

Water-resistant In-Line Fuse Holder for ATP/ATC/ATO Fuses

BF351



- For ATP/ATC/ATO automotive fuses
- Amperage rating: Max 30A
- Wire Gauge: #10-#18 AWG
- Molded wiring for better sealing
- Water-resistant

Water-resistant In-Line Fuse Holder for ATP/ATC/ATO Fuses

BF354



- For ATP/ATC/ATO automotive fuses
- Available in blue or red
- Amperage rating: Max 20A
- Wire Gauge: #14-#18 AWG

In-Line Fuse Holder for ATP/ATC/ATO Fuses

BF352



- For ATP/ATC/ATO automotive fuses
- Amperage rating: Max 20A
- Wire Gauge: #10-#18 AWG
- Cap with see-thru window for clear view of blown fuses
- Holder for spare fuse or for mounting of multiple fuse holders

In-Line Fuse Holder for ATP/ATC/ATO and ATM Fuses

BF356



- Concave shape allowing clear view of blown fuses
- Molded wiring for better sealing

Product Series			
Product ID	Compatible Fuses	Wire Gauge	Amp Rating
BF356S	ATM/ASP	#12-#20	30A
BF356	ATP/ATC/ATO	#10-#18	30A

In-Line Fuse Holder for ATP/ATC/ATO Fuses

BF355



- For ATP/ATC/ATO automotive fuses
- Low cost model
- Amperage rating: Max 20A
- Wire Gauge: #14-#18 AWG