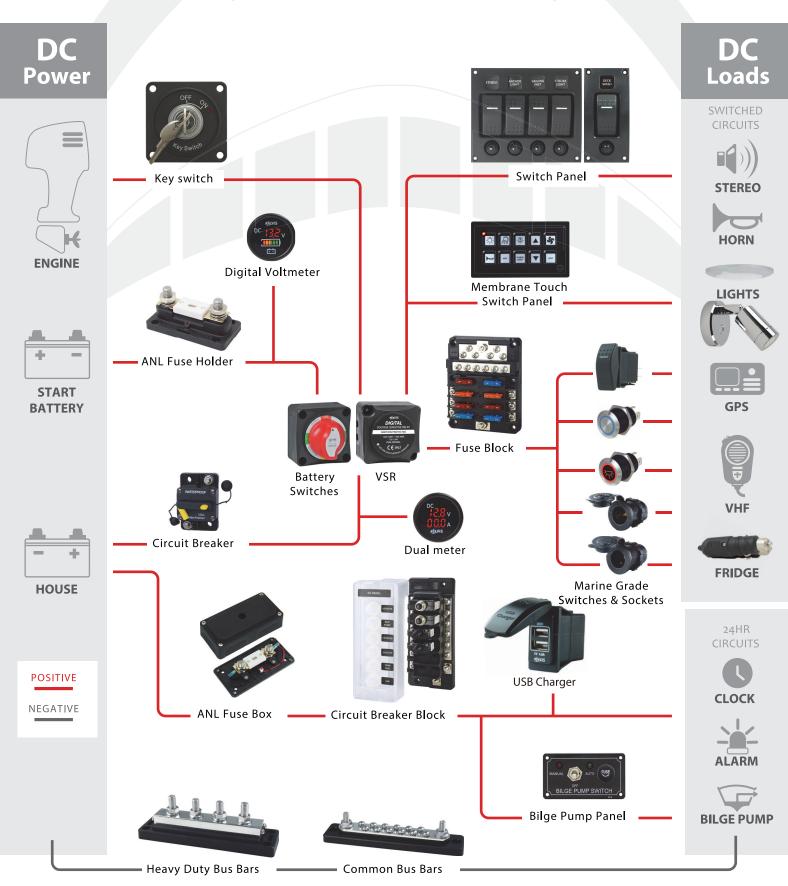
# **BOAT DC ELECTRICAL SYSTEM**

POWERED BY YIS MARINE PRODUCTS



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## **Digital Control Switch Panels**

Digital Smart Switch Panel with Tool-free Lever Actuated Terminal Blocks Digital Membrane Touch Control Panels

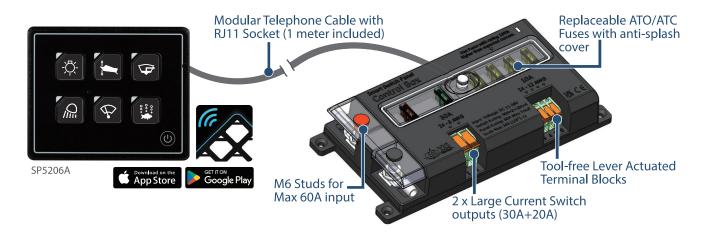
## Water-resistant Switch Panels

C-7 Aluminum Water-resistant Switch Panel C-7 Curved Water-resistant Switch Panel SP3331 1 Gang Curved Switch Panel Series Premium Series Slimline Switch Panel Modern Design Toggle Switch Panel

Power Distribution Panels Wave Design Switch Panel

Other Switch Panels

# **Digital Smart Switch Panel with Tool-free Lever Actuated Terminal Blocks (2025)**



YIS Marine's New Digital Smart Switch Panel upgrades with tool-free spring-loaded clamp terminals (no more crimping) and per-circuit amperage settings for lights, pumps, and more thanks replaceable ATO fuses. An RJ-11 link keeps wiring neat and allows flexible cable routing. Two larger amperage branches allows using large current devices (>20A) without external relays. New Control App also enables advanced programmable switching such as "delayed-off" or "loop" features. These enhancements deliver smarter, more convenient reliable, and safe control in marine, RV, and industrial environments

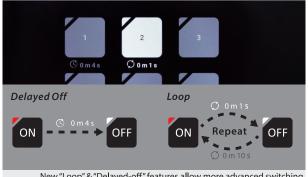
## **Features**

- Ultra compact panel Size
- Easy to install no mounting depth, minimum hole drilling (17 x 21 mm)
- Tool-free Lever actuated terminal blocks eliminate crimping for faster, more secure wiring
- 2 Larger amperage branches (#1: 30A, #2: 20A) allows higher current devices connection without external relays
- 1 meter modular telephone cable with RJ11 socket included, easy to wire and to be replaced with any length (up to 10m)
- Individual ATO fuses for different circuits support for versatile electrical loads
- New digital smart control APP allowing advance switching like "delayed off" or "loop".
- Customizing labels and panel styles in app
- Battery voltage monitoring and low voltage warning in app
- Self-dimming backlight on panel
- 50pcs assorted label stickers included (3 versions available: Marine / RV / 4WD)
- Pairs up to 4 different control boxes and easily switching between boxes
- App memorizes label and panel styles of paired boxes after switching between boxes

- Faceplate | PET membrane touch panel
- Circuit Protection | Replaceable Automotive Fuse (ATO/ATC)
- Panel Ratings | 30A for circuit #1, 20A for #2, 10A for #3–6 @ DC 12-24V
- Maximum Cumulative Amp | 60A (6P) (Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above)
- Notes | **(** € IP67 (Membrane Panel) RED Directive (2014/53/EU)







New "Loop" & "Delayed-off" features allow more advanced switching

# Digital Membrane Touch Control Panels (2019- 4th Gen)



#### **Features**

- Ultra Compact panel size
- Easy to install no mounting depth, minimum hole drilling (13.0 x 8.5mm)
- 1 meter micro-USB cable included, end user can replace cables of any desirable length
- ON-indication LED / 10A Self-resettable fuse for each branch
- Backlight module on panal
- Programmable momentary feature for all buttons
- 60pcs Assorted labels stickers set included

Additional Features for SP5106A / SP5110A (App Version)

- App remote control on cellphone via Bluetooth
- Customizable labels and panel styles in App
- Battery voltage monitoring and low voltage warning in app
- Pairs up to 4 different control boxes and easily switching between boxes
- App memorizes label and panel styles of paired boxes after switching between boxes App Store Google Play

## **Specifications**

- Faceplate | PET membrane touch panel
- Circuit Protection | Built-in Resettable Fuse (PPTC)
- Switch Ratings | 10A per branch
- Panel Rating | Max Cumulative Amp: 35A (6P) / 60A (10P)
- Voltage Rating | DC 9–15V (12V Model) / DC 11–30V (12-24V Model)
- Notes | **(** € IP67 (Panel Only) RED Directive (2014/53/EU)
- Patented



## **Product Series**









## **Accessories**



#### **Membrane Touch Panel 20A Expansion Kit**

This Expansion Kit allows end users to expand current rating of single branch to 20A without disassembling control box. This Kit works for all SP51xx models. Instructions manual included.



# **C-7 Aluminum Water-resistant Switch Panel**

Upgraded IP66 switch panel design with backlight for labels







SP3218P



SP3234P



SP3254P



SP3274

Product ID	Positions	Color	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3216P	6	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	
SP3218P	8	Dark Gray	Circuit Breakers	114 x 238 x 75 mm	96 x 217 mm	
SP3234P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with USB Charger & Cig. Lighter Socket
SP3254P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & Cig. Lighter Socket
SP3274P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & USB Charger

## **Features**

- New modern and compact panel design (15% smaller than SP30xx series)
- Backlight modules for labels, allowing easy operation in darkness
- IP66-protect against strong water jets
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- Square shaped label stickers (30pcs) allow vertical or horizontal installation

- Faceplate | 0.1"(2.54mm) Coated Aluminum Alloy
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A, 45A x 2 (8P)\*
- Notes | IP66 **(** €
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.







## **C-7 Curved Water-resistant Switch Panel**



Upgraded streamline switch panel design with backlight for labels









SP3314P

SP3316P

P3320XX

P3331XX

Product ID	Positions	Color	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3314P	4	Black	Circuit Breakers	114 x 133 x 75 mm	101 x 120 mm	
SP3316P	6	Black	Circuit Breakers	114 x 188 x 75 mm	101 x 166 mm	
SP3320XX	-	Black	Circuit Breakers	114 x 58 x 56 mm	105 x 45 mm	2 Gang Mini Socket Panel*
SP3331XX	1	Black	-	114 x 54 x 75mm	103 x 42 mm	1P Switch Panel for special purposes

<sup>\*</sup> See table below for available sockets combinations

	Socket options for SP3320XX
Product ID	Socket Mounted
SP3320PP	AS212 x2
SP3320PU	AS212 + AS233
SP3320PV	AS212 + AS234
SP3320PG	AS212 + SP-BG1
SP3320XX	Any combination of two

SP3331 Series
Socket Mounted
Bilge Pump Switch Panel
Bilge Pump Switch Panel with Alarm
Deck Wash Control Panel
Windlass Control Panel

<sup>\*</sup> See next page for more details of SP3331 Series

## **Features**

- New modern curved and compact panel design (15% smaller than SP30xx series)
- Mini modular panels allow free combinations at consumers' side
- Backlight modules for labels, allowing easy operation in darkness
- IP66-protect against strong water jets
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- Square shaped label stickers (30pcs) allow vertical or horizontal installation

- Faceplate | Curved shaped plastic (ASA)
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.





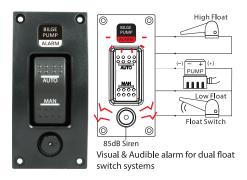




# **SP3331 1 Gang Curved Switch Panel Series**

#### **Bilge Pump Switch Panel with Alarm**

SP3331BA ON-OFF-ON SP3331BAM ON-OFF-(ON)



#### **Features**

- Modern design bilge pump panel with visual and audible alarm (85dB Siren)
- Activates alarms and starts pump automatically when water reaches 2nd (high) float switch
- IP67 C-7 Sealed Switch and water-resistant Siren
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

## **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Pre-installed ATP Fuse 20A
- Switch Function | ON-OFF-ON(SP3331BA) / ON-OFF-(ON)(SP3331BAM)
- Switch Rating | 20A @ DC 12V
- Notes | IP66 **( €**

# **Curved Design Single Branch (1P) Switch Panel** SP3331XX



SP3331ST



SP3331DT



SP3331DW



SP3331WC



SP3331BP

## **Features**

- Blank 1P panel that goes well with other SP33 series panels
- C-7 sealed IP67 switch with dual (12-24V) voltage rating
- Backlight label module allowing easy recognition in darkness
- 5 pcs assorted label stickers included
- Various Switch functions available

## **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Circuit Breaker 20A
- Switch Function | See Table
- Switch Rating | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Notes | IP66 **( €**

## Blank Panels

Product ID	Type	Switch Function	Note			
SP3331ST	SPST	ON-OFF	Blank panel with 5pcs label stickers			
SP3331STM	SPST	(ON)-OFF	Blank panel with 5pcs label stickers			
SP3331DT	SPDT	ON-OFF-ON	Blank panel with 5pcs label stickers			
SP3331DTM	SPDT	(ON)-OFF-ON	Blank panel with 5pcs label stickers			
SP3331DTM2	SPDT	(ON)-OFF-(ON)	Blank panel with 5pcs label stickers			

#### **Functional Panels**

Product ID	Type	Switch Function	Note
SP3331DW	SPDT	ON-OFF	Deck Wash Panel
SP3331WC	SPDT	(ON)-OFF-(ON)	Windlass Control Panel
SP3331BP	SPDT	ON-OFF-ON	Standard Bilge Pump Panel
SP3331BPM	SPDT	ON-OFF-(ON)	Standard Bilge Pump Panel

#### **Label Stickers for SP32 / 33 Series** SP33-ST1



- 30pcs assorted Water-proof PC membrane label stickers
- Designed for SP32 / SP33 backlight modules
- Customizable to local languages or applications

#### **Curved Water-resistant USB Panel** SP3331USB





## **Features**

- Double port USB charger (AS235) fully compatible with latest iPad, iPhone and smartphones
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

## **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Circuit Breaker 5A
- Input | DC 12-24V
- Output | DC 5V 3.4A
- Notes | **( € F©** IP66

#### **Curved Water-resistant Voltage Meter Panel**

SP3331VM – Voltage Meter Panel SP3331DM – Dual (Voltage & Current) Meter Panel





SP3331VM SP3331DM

## **Features**

- Digital meters with 3 LED displays (SP-BG4 / SP-BG5)
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Input Range | DC 2.5V 30V (SP3331VM) / DC 4.5V 30V, 0 15A (SP3331DM)
- Notes | **( €** IP66



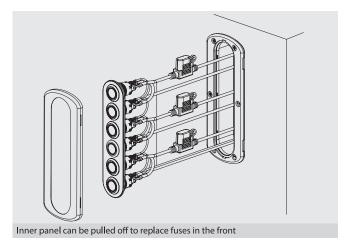
# **Premium Series Slimline Switch Panel**

with Polished Stainless Bezel and 20A Push Button Switches





SP6006B



## Description

Looking for some elegant and premium panel with powerful outputs? Meet these new carbon fiber / stainless steel hybrid panel with market leading 20A stainless steel push button switches. Carefully design with screw-hidden polished bezel, backlight labels on the button and 3D carbon fiber panel finish, this is the most elegant panel in YIS lineup.

#### **Features**

- Elegant Carbon Fiber Vinyl film with vivid 3D texture
- Ultra Compact Panel Size / mounting holes compatible BEP's Contour Panel Series
- Screw hidden design with polished stainless steel 304 bezel
- 20A Anti-Vandal Stainless Steel Push Button Switches with backlight labels
- Easy fuse-replacing design fuse holder retractable from the front (Patent Pending)
- 40 pcs assorted label stickers included
- IP66 Protected against powerful water jets from all directions (when mounted)
- Water-tight gasket included

Product ID	Positions	Circuit Protection	Product Dimension (W $x H x D$ )	Panel Cut-out (W x L)	Note
SP6006	6	ATP Fuses	64 x 169 x 105 mm	32 x 150 mm	Red LED Backlight
SP6006B	6	ATP Fuses	64 x 169 x 105 mm	32 x 150 mm	Blue LED Backlight

## **Specifications**

- Faceplate | Plastic with Carbon Fiber Vinyl Film
- Outer Frame | Stainless Steel 304
- Circuit Protection | in-line 15A ATP fuses pre-installed (per 2 branches)
- Switch Rating | 20A @ DC 12V
- Panel Rating | Max Cumulative Amp: 25A per 2 branches
- Notes | IP66 **(** €
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

## **Accessories**





# **Modern Design Toggle Switch Panel**



Compact economical toggle switch panel with fuse protection



## **Specifications**

- Faceplate | Sleek Design Plastic (ABS)
- Circuit Protection | In-line 15A ATP fuses pre-installed (per 2 branches)
- Switch Ratings | 15A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Max Cumulative Amp: 25A per 2 branches\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

#### **Features**

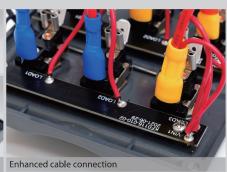
- Compact panel size
- Unique trendy faceplate design (two colors available: Dark Gray /White)
- Heavy duty metal toggle switches with water-resistant PVC boot
- Water-tight mounting gasket included
- LED indication when device turned ON
- 28pcs assorted label stickers included
- IP66 Protected against powerful water jets from all directions (when mounted)
- Spray-proof in-line ATP/ATC fuse holders with fuses pre-installed

Additional Features for SP21XX-RG

- Upgraded with Dual LED colors indication
- Enhanced cable connection

















SP2116	SP2125P	SP2125U	SP2125G	SP2123X
--------	---------	---------	---------	---------

Gray Panel	White Panel	Positions	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP2116	SP2136	6	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	
SP2125P	SP2145P	5	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	with Cig. Lighter Socket
SP2125U/V	SP2145U/V	5	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	USB Charger (U: 1Port V:2Port)
SP2125G	SP2145G	5	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	with Digital Battery Gauge
SP2123P	SP2143P	3	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	with Cig. Lighter Socket
SP2123U/V	SP2143U/V	3	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	USB Charger (U: 1Port V:2Port)
SP2123G	SP2143G	3	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	with Digital Battery Gauge

 $\times$  add -RG in the end of Model # for dual LED color version - ON = Green, OFF = Red)



# **Wave Design Switch Panel**

## Economical switch panels with circuit breakers















1214P SP12

SP1220XX

(Anti-Splash version for all models)

Product ID	Positions	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP1214P	4	Circuit Breakers	100 x 110 x 45 mm	77 x 97.5 mm	
SP1216P	6	Circuit Breakers	100 x 160 x 45 mm	77 x 148 mm	
SP1218P	8	Circuit Breakers	100 x 210 x 45mm	77 x 198 mm	
SP1220XX	-	-	100 x 54 x 56mm	82.5 x 38 mm	2 gang mini socket panel

lpha Anti-splash version with rubber boots for switches and circuit breakers are now available for all models above.

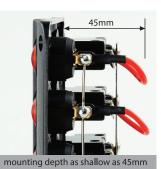
	Socket options for SP1220XX
Product ID	Socket Mounted
SP1220PP	AS212 x2
SP1220PU	AS212 + AS233
SP1220PV	AS212 + AS234
SP1220PG	AS212 + SP-BG1
SP1220XX	Any combination of two



#### **Features**

- 12V DC illuminated (LED) rocker switches
- Pre-wired with resettable circuit breakers
- Ultra shallow mounting depth (~45mm)
- 28 assorted label stickers included

- Faceplate | Wave shaped plastic (ABS)
- Circuit Protection | Circuit breakers
- Switch Ratings | 10A @ DC 12V
- Panel Rating | Maximum Cumulative Amp: 35A\*
- Note | **( €**
- Patented in Taiwan | D155080(TW)
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.





# **Other Switch Panels**

#### The New Classic Rocker Switch Panel (Redesign 2015)





SP1113F

SP1123F





SP1116F

SP1126F





SP1116P

SP1126P



SP1051

#### **Features**

- Classic coated aluminum panel design
- LED illuminated rocker switches
- Pop-out fuse holders with 10A fuse per branch pre-installed (fuse models)
- Circuit Breaker version available for all models
- 20pcs assorted label stickers
- Square shaped stickers allowing vertical or horizontal installation

## **Specifications**

- Faceplate | 1.25mm Coated Aluminum
- Circuit Protection | Fuse / Circuit Breakers
- Switch Ratings | 10A @ DC 12V
- Panel Rating | Maximum Cumulative Amp: 35A\*
- Notes | **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

Product ID	Circuit Protection	Dimension (W x H x D)	Panel Cut-out (W x L)
SP1113F	Fuses	117 x 97 x 70 mm	70 x 65 mm
SP1116F	Fuses	117 x 167 x 70 mm	70 x 130 mm
SP1123F	Fuses	117 x 97 x 70 mm	70 x 65 mm
SP1126F	Fuses	117 x 167 x 70 mm	70 x 130 mm
SP1116P	Circuit Breakers	117 x 167 x 70 mm	95 x 125 mm
SP1126P	Circuit Breakers	117 x 167 x 70 mm	95 x 125 mm
SP1051	-	83 x 64 x 50 mm	65 x 50 mm

<sup>※</sup> Anti-splash version with covers for switches available

## **Bakelite Toggle Switch Panels with Fuses**





SP2013F

SP2016F

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2013F	114 x 92 x 35 mm	90 x 75 mm
SP2016F	114 x 161 x 35 mm	90 x 140 mm

## **Features**

- Classic toggle switch
- Fuse holders with 5A fuses pre-installed
- Optional anti-splash PVC boots available

- Faceplate | Bakelite
- Circuit Protection | Fuses
- Switch Ratings | DC 12V / 24V
- Panel Rating | Maximum Cumulative Amp: 15A
- Notes | **( €**

## Windlass Controlling Panel with LED

SP2211



Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2211	52 x 76 x 35 mm	40 x 45 mm

## **Features**

- Momentary (ON)-OFF-(ON) Toggle Switch with PVC Boot
- Red Lamp Indicator

## **Specifications**

- Faceplate | Aluminum Plate
- Circuit Protection | -
- Switch Ratings | DC 12V
- Panel Rating | 15A @ DC 12V
- Notes | **( €**

# **3-Way Bilge Pump Switch Panel** SP2221AF/BF



- SP2221AF : ON-OFF-ON Bilge Pump Switch Panel with Fuse (AUTO-OFF-AUTO)
- SP2221BF : ON-OFF-(ON) Bilge Pump Switch Panel with Fuse (AUTO-OFF-MANUAL)

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2221AF/BF	90 x 50 x 45 mm	75 x 38 mm

#### **Features**

- 3-Way toggle switch (ON-OFF-ON) with LED indication
- Fuse holders with pre-installed fuses
- Optional anti-splash PVC boots available

## **Specifications**

- Faceplate | Plastic (ABS)
- Circuit Protection | Fuse
- Switch Ratings | DC 12V
- Panel Rating | Maximum Cumulative Amp: 5A
- Notes | **( €**

#### C-7 Streamline Water-resistant Switch Panel





SP3114P

SP3116P

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP3114P	133 x 121 x 75 mm	97 x 101 mm
SP3116P	133 x 173 x 75 mm	97 x 153 mm



## **Features**

- Unique streamline faceplate design
- IP66– protect against strong water jets from all directions (when mounted)
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- 30 pcs assorted label set included

- Faceplate | Streamline shaped plastic (ABS)
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

#### **C-6 Water-resistant Switch Panel**





SP3013F

SP3013P





SP3016F

SP3016P





SP3023F

SP3023P





SP3033F

SP3033P

## **Features**

- IP55– protect against water jets from all directions (when mounted)
- Both circuit breaker and fuse versions available
- Illuminated water-resistant C-6 rocker switches
- Watertight mounting gasket included
- 30 pcs assorted label set included

## **Specifications**

- Faceplate | 0.1"(2.54mm) Coated Aluminum Alloy
- Circuit Protection | Fuse/Circuit Breaker
- Switch Ratings | 16A @ DC 12V
- Panel Rating | Maximum Cumulative Amp: 35A\*
- Notes | IP55 **(**€
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

Product ID	Circuit Protection	Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3013F	Fuses	134 x 95 x 75 mm	75 x 75 mm	
SP3013P	Circuit Breakers	134 x 95 x 75 mm	80 x 75 mm	
SP3016F	Fuses	134 x 190 x 75 mm	75 x 166 mm	
SP3016P	Circuit Breakers	134 x 190 x 75 mm	80 x 166 mm	
SP3023F	Fuses	134 x 190 x 80 mm	75 x 158 mm	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge
SP3023P	Circuit Breakers	134 x 190 x 80 mm	80 x 158 mm	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge
SP3033F	Fuses	134 x 190 x 80 mm	75 x 155 mm	with Cig. Lighter Socket and Battery Gauge
SP3033P	Circuit Breakers	134 x 190 x 80 mm	80 x 155 mm	with Cig. Lighter Socket and Battery Gauge

# **Ignition Switch Panel** SP4010 / SP4011





Product ID	Dimensions (Wx H x D)	Panel Cut-out(W x L)
SP4010	69 x 69 x 45mm	φ40mm
SP4011	69 x 69 x 45mm	φ40mm

## **Features**

- LED ON Indicator
- 2 Keys included

- Faceplate | Nylon 66
- Circuit Protection | -
- Switch Ratings | DC 12V
- Panel Rating | 10 A

## SP Series Selection Guide

Product				
	SP5206A New	SP5106D / SP5106A	SP5110D / SP5110A	SP3216P
Page no.	© P.2	P.3	P.3	P.4
Positions	6P	6P	10P	6P
Faceplate	PET membrane touch panel	PET membrane touch panel	PET membrane touch panel	2.54mm Coated Aluminum
Circuit Protection	Replaceable Automotive Fuse	Built-in Resettable Fuse	Built-in Resettable Fuse	Circuit breakers
Switch Rating	DC 12V 10A	DC 12V 10A	DC 12V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	30A	35A	60A	45A
IP Rating	IP67 (Panel Only)	IP67 (Panel Only)	IP67 (Panel Only)	IP66
Dimensions (W x H x D)	ø28 mm (17 x 21 mm)	ø15 mm (13 x 8.5 mm)	ø15 mm (13 x 8.5 mm)	114x191x75 mm
Note	, , , , , , , , , , , , , , , , , , , ,	SP5106D: 12V/24V SP5106A: App Control Ver.	SP5110D: 12V/24V SP5110A: App Control Ver.	
Product	SP3218P	SP3234P	SP3254P	SP3274P
Page no.	P.4	P.4	P.4	P.4
Positions	8P	4P	4P	4P
Faceplate	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum
Circuit Protection	Circuit breakers	Circuit breakers	Circuit breakers	Circuit breakers
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	45Ax2	45A	45A	45A
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x238x75 mm	114x191x75 mm	114x191x75 mm	114x191x75 mm
Note		with USB Charger and Cig. Lighter Socket	with Battery Gauge and Cig. Lighter Socket	with Battery Gauge and USB Charger
Product	SP3314P	SP3316P	SP3320XX	SP3331ST
			120	
	P.5	P.5	P.5	P.6
Page no.				1P
Page no. Positions	4P	6P		
	4P Curved shaped plastic (ASA)	6P Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)
Positions			Curved shaped plastic (ASA)	
Positions Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)  -  DC 12V 20A / DC 24V 10A	Curved shaped plastic (ASA)
Positions Faceplate Circuit Protection Switch Rating	Curved shaped plastic (ASA)  Circuit breakers	Curved shaped plastic (ASA)  Circuit breakers	-	Curved shaped plastic (ASA)  Circuit Breaker 20A
Positions Faceplate Circuit Protection Switch Rating Panel Rating	Curved shaped plastic (ASA)  Circuit breakers  DC 12V 20A / DC 24V 10A	Curved shaped plastic (ASA)  Circuit breakers  DC 12V 20A / DC 24V 10A	-	Curved shaped plastic (ASA)  Circuit Breaker 20A
Positions Faceplate Circuit Protection Switch Rating	Curved shaped plastic (ASA)  Circuit breakers  DC 12V 20A / DC 24V 10A  45A	Curved shaped plastic (ASA)  Circuit breakers  DC 12V 20A / DC 24V 10A  45A	DC 12V 20A / DC 24V 10A -	Curved shaped plastic (ASA) Circuit Breaker 20A DC 12V 20A / DC 24V 10A -

		5, 555, 51,	5. 555	5, 555 (5)
Page no.	P.6	P.6	P.6	P.6
Positions	1P	1P	1P	1P
Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)
Circuit Protection	Circuit Breaker 20A	Circuit Breaker 20A	Circuit Breaker 20A	Circuit Breaker 20A
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	_	_	-	-
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x54x75 mm	114x54x75 mm	114x54x75 mm	114x54x75 mm
Note				
Product	SP3331BA	SP3331USB	SP3331VM	SP3331DM
Page no. Positions	P.6	P.7	P.7	P.7
Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)
Circuit Protection	Pre-installed ATP Fuse 20A	Circuit Breaker 5A	- Curved shaped plastic (ASA)	- Curved shaped plastic (ASA)
Switch Rating	DC 12V 20A / DC 24V 10A	-	DC 2.5V – 30V	DC 4.5V – 30V, 0 – 15A
Panel Rating	-	-	-	-
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x54x75 mm	114x54x75 mm	114x54x75 mm	114x54x75 mm
Note				
Product	SP6006 / SP6006B	SP2116 / SP2116-RG	SP2125X / SP2125X-RG	SP2123X / SP2123X-RG
Page no.	P.8	P.9	P.9	P.9
Positions	6P	6P	5P	3P
Faceplate	Plastic with Carbon Fiber Vinyl Film	Sleek Design plastic (ABS)	Sleek Design plastic (ABS)	Sleek Design plastic (ABS)
Circuit Protection	ATP Fuses	ATP Fuses	ATP Fuses	ATP Fuses
Switch Rating	DC 12V 20A	DC 12V 15A / DC 24V 10A	DC 12V 15A / DC 24V 10A	DC 12V 15A / DC 24V 10A
Panel Rating	25A per 2 branches	25A per 2 branches	25A per 2 branches	25A per 2 branches
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	64x169x105 mm	107x95x45 mm	107x95x60 mm	107x95x60 mm
Note			X = P: Cig. Light Socket X = U/V: USB Charger Socket X = G: Digital Voltage Meter	X = P: Cig. Light Socket X = U/V: USB Charger Socket X = G: Digital Voltage Meter

SP3331WC

SP3331BP

SP3331DW

Product

SP3331DT

Product	SP1214P	SP1216P	SP1218P	SP1220XX
Page no.	P.10	P.10	P.10	P.10
Positions	4P	6P	8P	-
Faceplate	Wave shaped plastic (ABS)			
Circuit Protection	Circuit breakers	Circuit breakers	Circuit breakers	-
Switch Rating	DC 12V 10A	DC 12V 10A	DC 12V 10A	-
Panel Rating	35A	35A	35A	-
IP Rating	-	-	-	-
Dimensions (W x H x D)	100x110x45 mm	100x160x45 mm	100x210x45 mm	100x54x56 mm
Note				2 gang mini socket panel
Product	SP1113F / SP1123F	SP1116F / SP1126F	SP1116P / SP1126P	SP1051
Page no.	P.11	P.11	P.11	P.11
Positions	3P	6P	6P	-
Faceplate	1.2mm Coated Aluminum	1.2mm Coated Aluminum	1.2mm Coated Aluminum	1.2mm Coated Aluminum
Circuit Protection	Fuses	Fuses	Circuit breakers	-
Switch Rating	DC 12V 10A	DC 12V 10A	DC 12V 10A	DC 12V 10A
Panel Rating	20A	20A	20A	20A
IP Rating	-	-	-	-
Dimensions (W x H x D)	117x97x70 mm	117x167x70 mm	117x167x70 mm	85x64x50 mm
Note				Battery Test Gauge panel with switch
Product	SP2013F	SP2016F	SP2211	SP2221AF/BF  SP2221AF/BF  SP2221AF/BF  SP2221AF/BF  SP2221AF/BF  SP2221AF/BF
Page no.	P.11	P.11	P.12	P.12
Positions	3P	6P	1P	1P
Faceplate	Bakelite	Bakelite	Aluminum Plate	Plastic (ABS)
Circuit Protection	Fuses	Fuses	-	Fuses
Switch Rating	DC 12V / 24V	DC 12V / 24V	DC 12V	DC 12V
Panel Rating	15A	15A	15A	5A
IP Rating	-	-	-	-
Dimensions (W x H x D)	114x92x35 mm	114x161x35 mm	52x76x35 mm	90x50x45 mm
Note				

Product	SP3114P	SP3116P	SP3013F	SP3013P	
Page no.	P.12	P.12	P.13	P.13	
Positions	4P	6P	3P	3P	
Faceplate	Streamline Shaped plastic (ABS)	Streamline Shaped plastic (ABS)	2.54mm Coated Aluminum	2.54mm Coated Aluminum	
Circuit Protection	Circuit breakers	Circuit breakers	Fuses	Circuit breakers	
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 16A	DC 12V 16A	
Panel Rating	45A	45A	35A	35A	
IP Rating	IP66	IP66	IP55	IP55	
Dimensions (W x H x D)	133x121x75 mm	133x173x75 mm	134x95x75 mm	134x95x75 mm	
Note					
Product	SP3016F	SP3016P	SP3023F	SP3023P	
Page no.	P.13	P.13	P.13	P.13	
Positions	6P	6P	3P	3P	
Faceplate	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	
Circuit Protection	Fuses	Circuit breakers	Fuses	Circuit breakers	
Switch Rating	DC 12V 16A	DC 12V 16A	DC 12V 16A	DC 12V 16A	
Panel Rating	35A	35A	35A	35A	
IP Rating	IP55	IP55	IP55	IP55	
Dimensions (W x H x D)	134x190x75 mm	134x190x75 mm	134x190x80 mm	134x190x80 mm	
Note			with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge	
Product	SP3033F	SP3033P	SP4010 / SP4011		
no.	P.13	P.13	P.13		
Positions	3P	3P	-		
Faceplate	2.54mm Coated Aluminum	2.54mm Coated Aluminum	Nylon 66		
Circuit Protection	Fuses	Circuit breakers	-		
Switch Rating	DC 12V 16A	DC 12V 16A	DC 12V		
Panel Rating	35A	35A	10A		
IP Rating	IP55	IP55	-		
Dimensions (W x H x D)	134x190x80 mm	134x190x80 mm	69x69x45 mm		
Note	with Cig. Lighter Socket and Battery Gauge	with Cig. Lighter Socket and Battery Gauge			



## **Battery Management**

BM Series - Main Battery Switches (Imperial Threading)
BP Series - Compact Battery Switches (Metric Threading)
BE Series - Standard Size Battery Switches (Imperial / Metric Threadin)
Digital Voltage Sensitive Relay (DVSR) / Automatic Charging Relay
Digital Voltage Sensitive Relay (VSR) with Start Isolation

#### Circuit Protections

YIS × tigerexped tigerfuse Connect Fuse Blocks
Modular Design Blade (ATO/ATC/ATP) Fuse Blocks
Multi-use Compact Modular Design Blade Fuse Blocks
Compact Design Independent Source Blade Fuse Blocks
CLB / CMB Circuit Breaker Boxes
Modern Design Glass-tube AGC Fuse Blocks Series
Heavy-Duty Modular Design Fuse Block & Bus Bars
Classic Fuse Block & Bus Bars
Fuses (Glass-tube Fuses / Automotive Blade Fuses & Other Fuses)
Circuit Breakers
Fuse Holders

## **Connectors & Buses**

Heavy-Duty Bus Bars (Imperial Threading) Marine Grade Bus Bars (Metric Threading) Heavy-Duty Terminal Studs Terminal Blocks

# **Battery Management**



BM Series - Main Battery Switches (Imperial Threading)

BF446/BF446A Battery Main Switch (A: with AFD) (ON-OFF) BF447/BF447A Battery Selector Switch (A: with AFD) (1-2-Both-OFF)



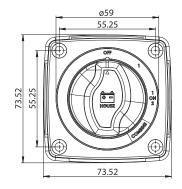
Interchangeable label

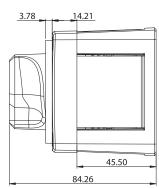
Removable ergonomic

Glass-fiber reinforced nylon enclosure

**Built-in AFD** disconnect feature (Optional)

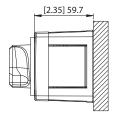
Removable windows on 3 sides

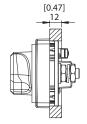


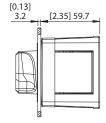


## **Features**

- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety
- AFD (Alternator Field Disconnect) feature provides extra safety protection
- Dimensions fits popular BlueSea's M-series battery
- 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

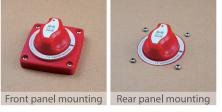












## **Product Series**





BF446









BF447 / BF447A

BF446/	BF446A

Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating(30s)	Intermittent Rating (5 mins)	Continuous Rating (1hr)	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

## 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)



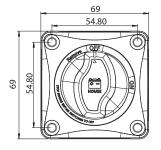
Interchangeable label stickers

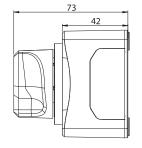
Removable ergonomic knob

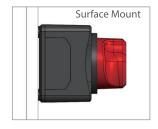
Glass-fiber reinforced nylon enclosure

Built-in AFD disconnect feature (Optional)

Removable windows on 4 sides



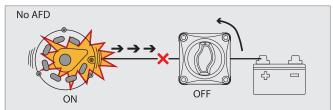




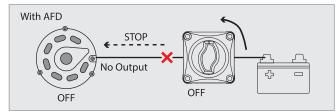


#### **Features**

- 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
- IP66 Protected against powerful water jets from all directions



Continuous output blows out the alternator.



AFD cuts alternator off before battery switch turned off.

## **Product Series**













BF441 / BF441A

BF441

BF441A(with AFD)

BF442 / BF442A

BF442A(with AFD)

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

## BE Series - Standard Size Battery Switches (Imperial / Metric Threading)



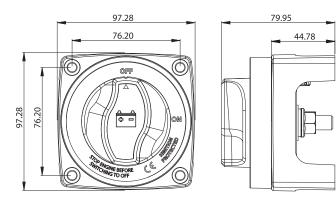
Battery Main Switch (On-Off)
BF443 / BF443A (with AFD)
Battery Selector Switch (1-2-Both-Off)

BF444 / BF444A (with AFD)

# Interchangeable label stickers Removable ergonomic knob Glass-fiber reinforced nylon enclosure Windows on 4 sides Built-in AFD disconnect feature (Optional)

## **Features**

- Market leading 400A Continuous rating
- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety
- AFD (Alternator Field Disconnect) feature provides extra safety protection
- Dimensions fits popular BlueSea's e-series battery switches
- Robust Glass Fiber reinforced Nylon enclosure
- Windows on 4 sides for unobstructed wiring
- 2 mounting options: Surface mount and panel mount
- Meet Ignition Protection Standard (ISO8846 / SAE J1171), suitable for use in marine engine room and fuel tank spaces
- Patent Pending (TW & CH)







## **Product Series**













BF443 / BF443A

BF444 / BF444A

Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating (10Secs)	Intermittent Rating (5 mins)	Continuous Rating (1 hr)	Note
BF443	ON-OFF	48V	3/8"-16	1200A	600A	350A	-
BF443A	ON-OFF	48V	3/8"-16	1200A	600A	350A	with AFD
BF444	1-2-Both-Off	48V	3/8"-16	1200A	600A	350A	-
BF444A	1-2-Both-Off	48V	3/8"-16	1200A	600A	350A	with AFD

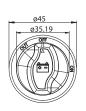
# Mini Size 150A Battery Switch BF449

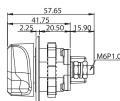


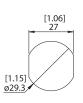












#### **Features**

- Unique ergonomic and aesthetic knob design
- Knobs removeable for isolation / safety
- Robust Glass Fiber reinforced Nylon enclosure
- Ultra compact size fits 1-1/8" mounting holes

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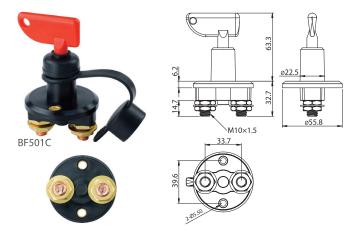
■ ISO8846 Ignition Protected

## **Specifications**

- Cranking Rating (30 Secs) | 500A
- Intermittent Rating (5 mins) | 200A
- Continuous Rating | 150A
- Voltage Rating | 32V
- Terminal Studs | M6
- Note | **( €**

## 300A Battery Isolation Switch with removable key

BF501 /BF501C (With Cocver)



## **Features**

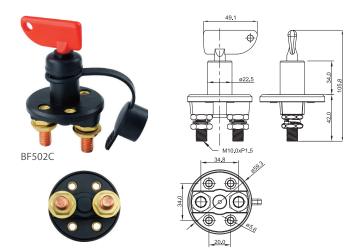
- SPST ON-OFF
- Copper Studs and Contacts
- Keys Removable at OFF position

## **Specifications**

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

## 300A Battery Isolation Switch with removable key

BF502 /BF502C (With Cocver)



#### **Features**

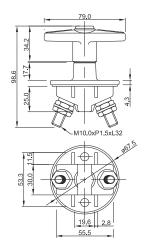
- SPST ON-OFF
- Copper Studs and Contacts
- Keys Removable at OFF position
- 4 mounting screw holes version

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

## **Battery Isolation Switch**

BF503





#### **Features**

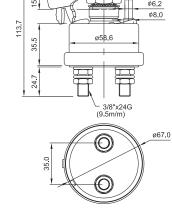
- SPST ON-OFF
- Copper Studs and Contacts
- Heavy Duty T Handle Bar (not Removable)
- Zinc housing with coated white painting

## **Specifications**

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

## Master Disconnect Switch replacing Caterpillar Cat 7N0718 BF504





/4"x16G 9.0m/m)

## **Features**

- SPST ON-OFF
- Copper Studs and Contacts
- Indexing pins align switch and prevent housing from
- Key is removable in the OFF position
- Two keys included
- OEM Parts for Catepillar 7N-0718

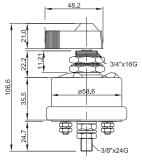
## Specifications

- Rating | 12Volts DC
- Momentary Rating | 450Amps
- Continual Rating | 250Amps
- Note | **( €**

## **Battery Isolation Switch**

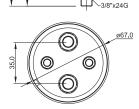
BF505 / BF506 (with AFD)











#### **Features**

- 2 Position Off-On
- Imperial stud terminals (3/8"-24G)
- Copper Contacts
- Die-casting molded housing
- AFD features prevents accidental cut-off (BF506)

- Rating | 6-12Volts DC
- Continual Rating | 250Amps
- Momentary Rating | 450Amps
- Mounting Stem | 3/4"(19.05mm) Diameter
- Note | **( €**



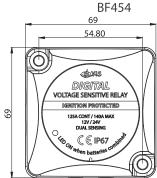


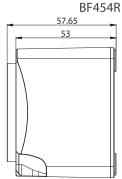
## Digital Voltage Sensitive Relay (DVSR) / Automatic Charging Relay (ACR)











#### **Features**

- New Easy-to-Configure Wiring Design allowing easy configuration without wire peeling or cutting silicon sealing
- Automatically combines two batteries when charging and isolates the two batteries when not charging
- DC 12/24V input auto ranging
- Dual port sensing allowing charging batteries from either direction (starting engine or aux power)
- Ultra Low Stand-by Current (0.3mA) Comparing to Traditional VSR (about 5mA)
- Dimensions fits BF43x Fuse Boxes 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
- Optional Storage Mode allows zero power consumption when engine is off

## **Specifications**

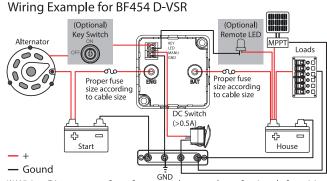
- Nominal Voltage | DC 12V / 24V Auto Detect
- Relay Operating Voltages

, ,	J	
	DC 12V	DC 24V
Combine	13.3V	26.6V
Open	12.8V	25.6V
Low Voltage Lockout	9.5V	19.0V
Over Voltage Lockout	16.0V	30.0V

- Current Rating | 125A Continuous / 140A Intermittent
- Power Consumption | 0.3mA (Standby) / 270mA (Engage) / 0mA (Storage Mode) (@12V) 0.35mA (Standby) / 170mA (Engage) / 0mA (Storage
- Mode) (@24V)
   Note | **(** € IP67 ISO8846 / SAE J1171 (Ignition Protected)

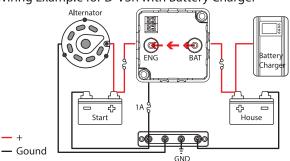
VSR (Voltage Sensitive Relay) are automatically controlled switches that allow two batteries to be combined when charging, and to be isolated when not charging and current is draining from one of the batteries. VSR helps reserve a fully charged battery at all time, and avoid the dead battery and towing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





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.

#### D-VSR with Cable Kit for 2<sup>nd</sup> Battery BF454KIT



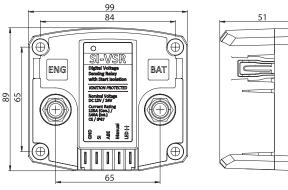
This Kit provides all the necessary cables, accessories and D-VSR that you need to install the secondary battery.
Customer installing this for the first time will find it convenient to have the cables ready in single package.

## Digital Voltage Sensitive Relay (VSR) with Start Isolation



BF453 SI-VSR





BF453 is a higher end Voltage Sensing Relay (VSR) or Automatic Charging Relay (ACR) with more advanced features such as Start Isolation (SI), Auxiliary Battery Charging Extension (ABE) and Manual Override (ON & OFF) in additional to Dual Port Sensing and 12V / 24V Compatibility. This would allow BF453 to better protect the electronics loads in the house battery side and suits more dedicated needs. The upward studs (M10) and configuration terminals design also allows it to be more easily installed than traditional VSR.

#### **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
- Upward studs (M10) and configuration pins allows easier installation
- Robust Glass Fiber reinforced Nylon enclosure
- Built-in LED indication (ON when VSR engages)
- Port for remote LED indicating VSR status (LED not included)
- Optional Storage Mode allows zero power consumption when engine is off
- Optional Start Isolation forces to temporary isolate the connection during engine cranking to protect sensitive electronics in the house loads
- Optional Aux Battery Charging Extension (ABE) allows extra time charging 2nd battery when engine idling by dropping the open voltage to lower 12.25V
- Over and Under Voltage Lockup protects unintentional grounding of the battery positive

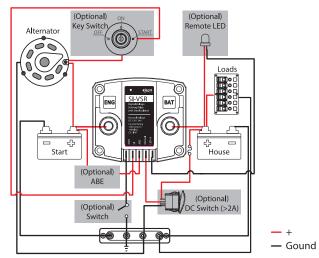
## **Specifications**

- Nominal Voltage | DC 12V / 24V Auto Detect
- Combine / Open Voltage |

	DC	12V	DC 24V		
Combine	13.6V	30 sec.	27.2V	30 sec.	
	13.0V	90 sec.	26.0V	90 sec.	
Open	12.8V	30 sec.	25.5V	30 sec.	
Open(ABE)	12.2V	30 sec.	24.5V	30 sec.	

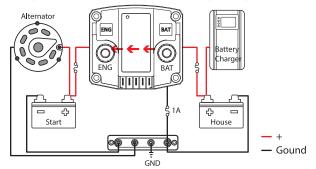
- Continuous Current Rating | 125A
- Intermittent Current Rating | 140A
- Power Consumption | 5mA (Standby) / 300mA (Engage) / 0mA (Storage Mode)
- Note | **(** € IP67 ISO8846/SAE J1171 (Ignition Protected)

## Wiring Example for BF453 SI-VSR



 $\times$  Wiring Diagrams are for reference only, consult professionals for wiring suits your needs.

#### Wiring Example for SI-VSR with Battery Charger



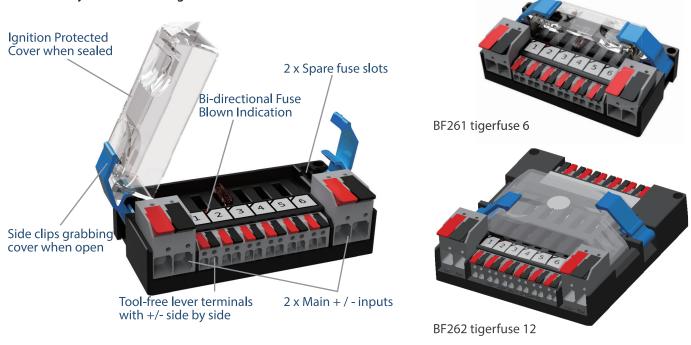
Dual Port Sensing allows Battery Charger charging to Start Battery when engine is off.

## **Circuit Protections**

## YIS × tigerexped tigerfuse Connect Fuse Blocks



BF261 **6 Way fuse block with ground bus bar** BF262 **12 Way fuse block with ground bus bar** 



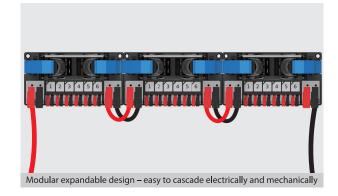
Jointly developed together with real-life camper van lovers for real-life camper van conversions – to finally provide a simple solution to recurring problems. The new YIS x tigerfuse connect 6 & 12 fuse holders offer features that significantly simplify installations and make a real difference in tight installation situations.

#### **Features**

- Tool-free installation with levers actuated terminal blocks no more crimping!
- 2 x Main positives and negatives on either side for flexible wiring and easy cascading
- Supports 6 or 12 individual circuits with plus and minus terminals side-by-side for each port (same side of the unit).
- Modular expandable design easy to cascade electrically and mechanically without gaps (Total Max 70A)
- ISO8846 ignition protected cover with all-around seal locking side clips design
- Patent pending side clips that holds covers when opening no fumbling or loose parts!
- Fuse blown LED indications- works both ways! (also works when current flowing from loads to battery)
- Built in convenient spare fuses slots (2 slots for 6P and 4 for 12P)
- Label sticker sets included

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 25A (Lever Actuated Terminal Block)
- Max Cumulative Amp | 70A per block





# **Successful ODM Partnership Story**

# tigerexped

tigerExped is a German based company started in 2013 with the plan to offer the complete equipment for touring vehicles from a single source - from an empty panel van to a ready-to-travel campervan or expedition vehicle. Being long term real-life campervan travelers themselves, people in Tigerexped have a strong passion and belief to offer products that provide unique, truly useful and premium experience to the end users. YIS Marine has been a close partner with them since 2019. Together we have jointly developed several patent winning popular products yet to be seen elsewhere in the market.

## Central Electrics "UFO" 400 & 200

Revolutionary round shaped multi-fuse power distribution hub" with 15 fuses (MEGA / MIDI / ATO) slots and integrated ground bus, total current up to 400A (UFO400) and 200A (UFO200). Integrated design saves up to 50% installation space and time.





#### convertiger 100 - PD100W USB-C / USB-A Buck-Boost chargers

Market-leading PD100W (20V 5A output) USB charger with dual independent DCDC converters for A and C ports and a "Buck-Boost" step-up convertor ensuring 100W output even when input is 12V system. Compatible with popular RV sockets Inprojal & Berker frames and covers.





#### **REMOTE PANEL - 6P and 10P smart panel with APP control**





Customized version of smart remote switch panel with tigerexped outlook, stickers, packaging, custom app UI design and more unique features.

\*UFO fuse blocks / conventiger / REMOTE PANEL are tigerexped branded products and are only available at www.tigerexped.de

## **ODM Service for Branded Customers**

YIS Marins's experienced RD team and "Can-do attitude" has made countless back and forth discussions, modifications and testing process look easy and fluent. Our quality assurance system and manufacturing capabilities also made sure mass production went smooth without quality issues.

This is just one of many successful OEM/ODM stories between YIS Marine and our valued branded customers. If you are looking for a reliable, proven and responsible partner in marine / RV electrical systems, YIS Maine would be your ideal choice!



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





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).



M5(#10) Studs

M4(#8) Terminal screws with lock washers

Storage for spare fuses



Available in Screw or Quick Terminals



LED indication of blown fuses

#### **Two Modules for all**

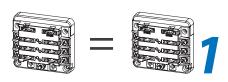
YIS Marine exclusive modular design – two basic modules can be combined into 4 popular fuse blocks (and more depending on specific needs). The assembly is very simple and can be done by consumers alone (instruction manual included). This not only gives consumers flexibility to expand their current fuse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



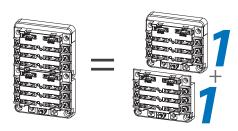
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12P Negative Bus Bar

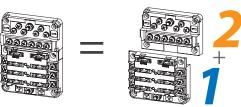
#### BF271 6P Fuse Block



#### BF274 12P Fuse Block

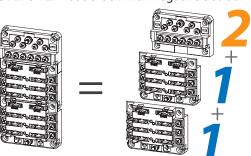


## BF273 6P Fuse Block with Negative Bus Bar



 BF273 comes with 6 circuits negative bus bar when sold pre-assembled in factory.

#### BF275 12P Fuse Block with Negative Bus Bar









#### **New Compact 2 in 1 model**







BF273A=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 (ATC/ATO/ATP)
- 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**

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)



BF277D New (6P + 6P Split Bus Fuse Block)

(or ruse bloc	K i Neg. Dus Dui)	(121 10	ise block i Neg. bus b	(12) (13e blocks)	(or $\pm$ or split bus ruse block)
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
BF277D	Screws (M4)	12	12 Circuits	85 x 158 x 36 mm	6P + 6P Split Bus Fuse Block + neg. bus bar New

<sup>\*</sup> All models can also be sold without covers or without blown fuse indicating LEDs.

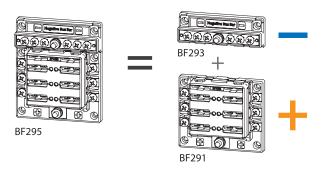
## Multi-use Compact Modular Design Blade Fuse Blocks



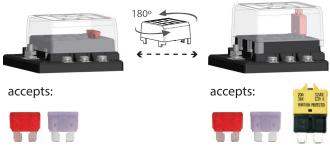
The BF29x series is more compact and economical version of the popular BF27x series. It not only keeps BF27x series signature positive / negative modular design and LED fuse blown indication, but also equipped with new features like circuit breaker type fuse support (with patent pending cover design). The patent pending cover design allows shipping and packaging in compact size while expending the cover height when required by reversing the cover 180 detgrees. 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



#### Patented dual-use cover design:



Normal Height for regular fuses / Extra Height for Fuse Type Circuit Breakers

#### **Features**

- Accepts standard (ATC/ATO/ATP) blade fuses
- 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

- 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") (BF29x Only)
- Note | **(** € Patented in Taiwan(M591252) & China(ZL 2020 2 0206415.5)



## **Product Series**















BF292 / BF292Q

BF294 / BF294Q

BF296 BF296Q

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	-	85 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

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

## How is YIS Marine BF29X series different from cheap products from Chinese Competitors?







Watch Video for More



## Compact Design Independent Source Blade Fuse Blocks



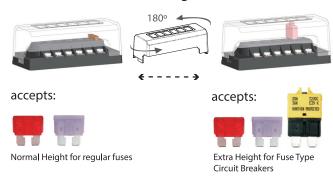
#### BF279 / BF289

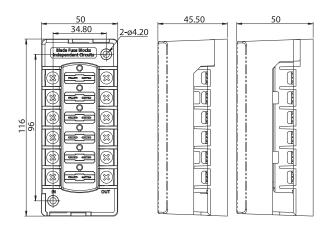
#### Patented Dual-height cover



#### Patented dual-use cover design

label stickers





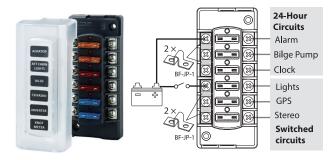
#### **Features**

- 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 (ATC/ATO/ATP) blade fuses
- Patented 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 | **(** € Patented in Taiwan(D214940)

#### BF279/BF289 Independent Source Fuse Block



Can be flexibly divided into 24 hour circuits and switched circuits

## **Product Series**



BF279 6P Screw Terminals

BF289 6P Quick Terminals



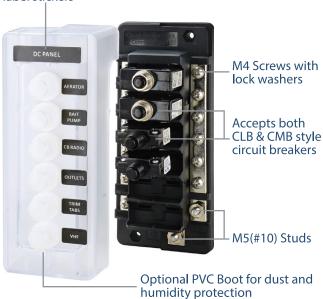
BF-JP-1 Jumper for BF279

<sup>\*</sup> Jumpers are only available for Screw Terminals version (BF279)

### CLB / CMB Circuit Breaker Boxes

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

### Recessed area for label stickers



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



One positive feed in, six protected output to devices

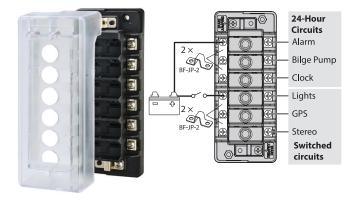
### **Features**

- 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 | **( €**

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



Can be flexibly divided into 24 hour circuits and switched circuits

### **Related Products**









### 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.





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



### **Features**

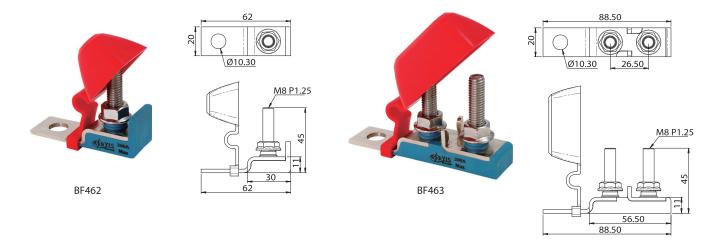
- Accepts 35-300A ANL Fuses (not included)
- Compact size 49 x 98 x 50 (W x L x H) mm (including cover)
- Transparent cover for clear view of fuse status
- Cover with recessed area for label stickers (5 pcs assorted label stickers included)
- Bendable / removable side plates for flexible wiring
- Unique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

- 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)



### **MRBF Terminal Fuse Block**

BF462 / BF463



### **Features**

- Accepts high-amp MRBF fuse—appropriate for inverter, windlass, bow thruster and DC main circuit protection
- Convenient and compact installation directly on battery studs
- Isolated stud design allowing stacking of M8 (5/16") ring terminals
- TPV Insulating cap preventing accidental shorts circuits
- Accepts M8 (5/16") ring terminals
- Mounts on M10 (3/8") terminal studs M8 customized version also available.
- MRBF fuses not included

- Max Operation Voltage | DC 58V
- Max Continuous Current | 30-300A (fuse dependent)
- Terminal Stud Size | M8(5/16")





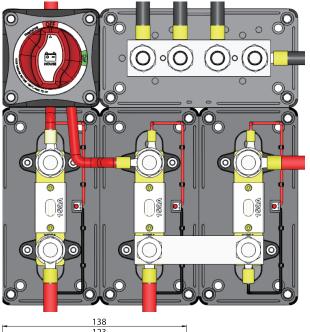
\* Related Product: MRBF fuse (page 38)

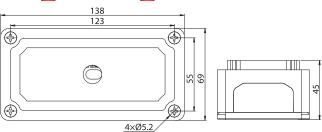




### Heavy-Duty Modular Design Fuse Block & Bus Bars

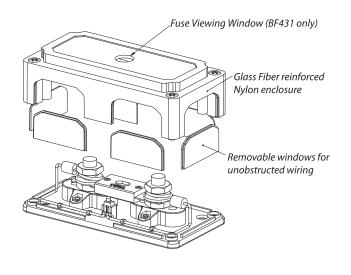
Module box design for clean, neat and easy wiring configurations





### **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



- 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")



- 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)

- Bus Materia | 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 70V
- 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 70V
- 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 70V
- 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

- 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	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	

### **Large Current Bus Bar**

BF207 (10P)



# 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

- 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)

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



**JMC Fuses**Fast-acting
glass-tube fuses

Specifications		
Dimension	Ф6.3 x 30.0mm	
Cap Material	Nickel-plated Brass	
Max. Voltage	DC 32V, AC 250V	
Amps	0.1A-30A	
Note	RoHS Compliant	

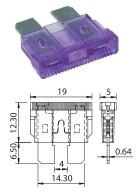
GMA / GTE Fuses | Mini size glass-tube fuses (5 x 20mm)



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

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	

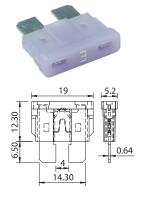
### ATO/ATC/ATP - Standard Blade Fuses



- 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

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



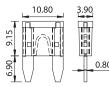
Product ID	Amps	Color Coding
F-ATPL-3A	3 A	Violet
F-ATPL-4A	4 A	Pink
F-ATPL-5A	5 A	Tan
F-ATPL-7.5A	7.5 A	Brown
F-ATPL-10A	10 A	Red
F-ATPL-15A	15 A	Lt. Blue
F-ATPL-20A	20 A	Yellow
F-ATPL-25A	25 A	Natural
F-ATPL-30A	30 A	Lt. Green

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



### ASP/ATM/Mini - Mini Blade Fuses



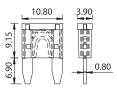


- Compact size
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse

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





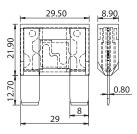
Product ID	Amps	Color Coding
F-ATML-3A	3 A	Violet
F-ATML-4A	4 A	Pink
F-ATML-5A	5 A	Tan
F-ATML-7.5A	7.5 A	Brown
F-ATML-10A	10 A	Red
F-ATML-15A	15 A	Lt. Blue
F-ATML-20A	20 A	Yellow
F-ATML-25A	25 A	Natural
F-ATML-30A	30 A	Lt. Green

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



### MAXI / ATX - Heavy-duty Blade Fuses

# 70.4



- 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



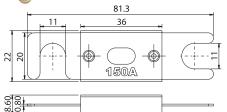


### Other Fuses

### ANL Fuses – Fuses for high amperage applications







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

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

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





### MRBF Terminal Fuses (Marine Rated Battery Fuse / CBBF Fuse)



### F-MRBF-XXA





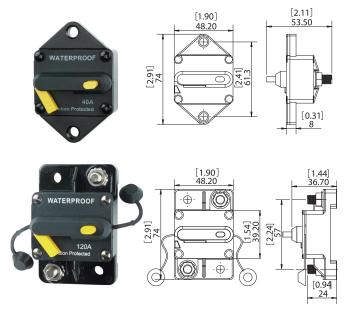


- Ignition protected—safe for installation aboard gasoline powered boats
- Color-coded for easy amperage identification
- Transparent body Easy indication of blown fuse
- For use with MRBF Fuse Holder BF462 / BF463, not to be mounted directly on battery terminals.
- Voltage: 58V DC
- Amperage Rating: 30-300A

### **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 | **( €** SAE J553 / SAE J1171 / UL 1077 / IP67







Mini Size Push Reset Circuit Breaker

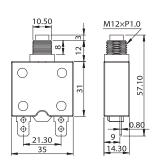


Product ID	CB-E95	CB-E96	CB-E98	CB-E99
Mounting	Panel Mount	Panel Mount	Surface Mount	Surface Mount
Function Type	Manual Reset	Switchable Reset	Manual Reset	Switchable Reset

# **Push Reset Circuit Breaker** CB-P100

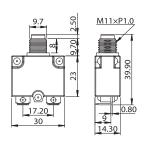






CB-P200





### **Specifications**

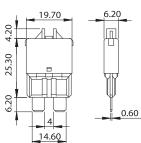
- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-50A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC , 2000A @250VAC
- Insulation Resistance  $| > 100 \text{ M}\Omega$
- Note | 🕦 Approval: 3-30A 125/250V AC

- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-20A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC,1000A @250VAC
- Insulation Resistance  $| > 100 \text{ M}\Omega$
- Note | 🔊 Approval: 3-15A 125/250V AC

### **ATO/ATC Automotive Blade Fuse Type Circuit Breaker**

CB-E02 Auto-Reset CB-E02M Manual-Reset









### ■ Fuse Style Thermal Circuit Breaker

- Compatible with ATC fuse blocks
- UL 94V-0 Thermosetting Plastic Housing
- Trip Free Cycling

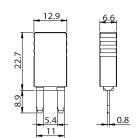
### Specifications

- Interrupting Capacity | 2,000A @ DC 28V
- Voltage Rating | Auto-Reset DC 14V Max Manual Reset - DC 32V Max
- Current Rating | DC 5 30A (Colored Coded Housing)
- Note | **C** RoHS SAEJ553 Ignition Protected SAEJ 1171 /UL1500

### mini ATM Automotive Blade Fuse Type Circuit Breaker

CB-E03 Auto-Reset CB-E03M Manual-Reset







- Compatible with ATM mini blade fuse blocks
- UL 94V-0 Thermosetting Plastic Housing
- Trip Free Cycling

### **Specifications**

- Interrupting Capacity | 2,000A @ DC 28V
- Voltage Rating | Auto-Reset DC 14V Max Manual Reset - DC 32V Max
- Current Rating | DC 5 30A (Colored Coded Housing)
- Note | **(** RoHS SAEJ553 Ignition Protected SAEJ 1171 /UL1500

### **Marine Grade Short-Stop Circuit Breaker**

CB-SS1 Auto-Reset CB-SS1M Manual-Reset







- Trip Free Cycling Thermal Circuit Breaker
- UL 94V-0 Thermosetting Plastic Housing
- Marine Grade water resistant silicon boot
- #10-32 studs with stainless steel lock nuts
- Red insulation cover available

### **Specifications**

- Interrupting Capacity | 2,000A @ DC 28V
- Voltage Rating | Auto-Reset DC 14V Max Manual Reset - DC 32V Max
- Current Rating | DC 5 30A (Colored Coded Housing)
- Note | **C** RoHS SAEJ553 Ignition Protected SAEJ 1171 /UL1500



**IGNITION** 

IGNITION

### **Fuse Holders**

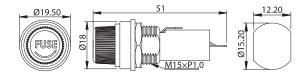
for AGC/JMC fuses



# **Panel Mount Fuse Holder with Screw Cap** BF101



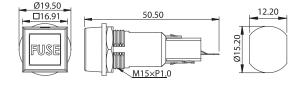
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Water-resistant screw cap
- Solder terminal



# **Square Panel Mount Fuse Holder with Push-in Cap** BF103



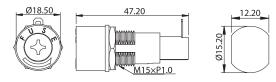
- For 6.3x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Push-in cap available in red or white
- Solder terminal



# **Panel Mount Fuse Holder with Screw Cap** 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

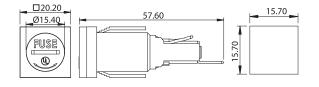


# Square Panel Mount Fuse Holder with Slotted Bayonet Cap

BF105



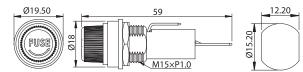
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Slotted bayonet cap
- 0.250" Quick Connect Terminal



# **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



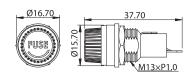
for GMA fuses -

# **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**

### (1) Wire Leads

### (2) Wire Spec

### (3) Wire Gauge

### (4) Wire Length

- Unwired
- UL1007
- 22# AWG
- XX" length in inches

- Loop Lead
- UL1015

- Semi-stripped
- 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

# 3-pin connector



BF308

- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Wire Gauge: #16-#18

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

■ Water-resistant (for #16-#18 AWG wires only)

### 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

# **In-Line Fuse Holder with** (pre-wired)



BF301 with 3-pin connector (pre-wired)

# **In-Line Fuse Holder with** 2-pin connector



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

- BF305B: Mini Type

for GMA fuses

### 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

# **In-Line Fuse Holder for GMA/GTE Fuses**



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

### 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** BF306



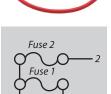


- For 5 x 20mm (GMA/GTE)
- Wire Gauge: #16-#22 AWG

### **Add-A-Circuit In-line Fuse Holders**

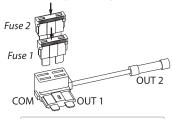
BF357 - for ATC/ATO/ATP Fuses BF357S - for ATM Fuses





Wiring Diagram

- Add a second protected circuit easily
- 2P fuse holder (1 common source input, 2 outputs)
- Wire Gauge: #14 #18 (Default: #16/ 127mm long)
- Amperage Rating: Max 30A





### 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	ATC/ATO/ATP	#10-#18	30A		
BF353L	MAXI/ATX	#6 - #8	80A		

### In-Line Fuse Holder for ATC/ATO/ATP 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	ATC/ATO/ATP	#10-#18	30A			

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

BF351



- For ATC/ATO/ATP 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 ATC/ATO/ATP **Fuses**

BF354



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

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

BF352



- For ATC/ATO/ATP automotive
- 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 ATC/ATO/ATP Fuses BF355



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

# **Connectors & Buses**

### Heavy-Duty Bus Bars (Imperial Threading - Upgraded 2020)

- Imperial threading screws and studs for US market
- Optional insulation cover
- Tin-plated copper bus allowing large current (100A up)
- Stainless steel screws and studs provide great anti-corrosion ability on board
- Upgraded design with Serrated Flange Nuts encourages correct installation of ring terminals
- Can be customized in Metric Threading with MOQ

### **Specifications**

- Voltage Rating | DC 70V Max
- Studs and Screws | Stainless Steel
- Bus Bar | Tin-Plated Copper

Product ID	Studs	Screws	Rating
BF471	2 x 3/16"-24	5 x #8-32	100A
BF472	4 x 3/16"-24	-	100A
BF473	2 x 1/4"-20	10 x #8-32	150A
BF474	4 x 1/4"-20	-	150A
BF475	2 x 1/4"-20	20 x #8-32	150A
BF476	6 x 1/4"-20	-	150A
BF477	2 x 1/4"-20	12 x #8-32	150A
BF478	4 x 5/16"-18	-	300A
BF479	6 x 5/16"-18	-	300A
BF480	2 x 5/16"-18	12 x #10-24	300A
BF481	4 x 3/8"-16	-	600A
BF482	8 x 3/8"-16	-	600A

### **Upgrades from old models**

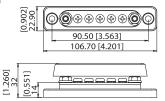




### Mini Bus Bars (100A)

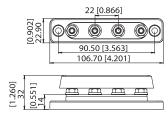
BF471 / BF471C (with cover)





BF472 / BF472C (with cover)



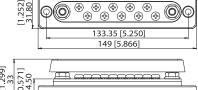


### Common Bus Bars (150A)

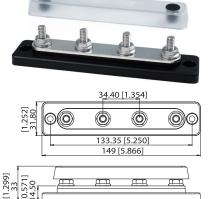
Standard 150A bus bar with sturdy design

BF473 / BF473C (with cover)



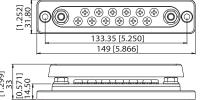


BF474 / BF474C (with cover)



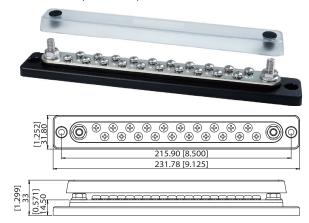
BF477 / BF477C (with cover)



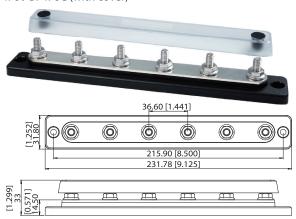








BF476 / BF476C (with cover)



### MaxiPower Bus Bar (300A)

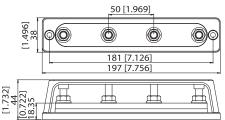
Heavy Duty copper bus bars carry current up to 300A

BF478 / BF478C (with Cover)

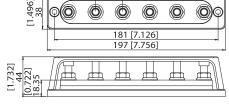
BF479 / BF479C (with Cover)

BF480 / BF480C (with Cover)

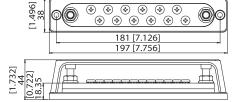












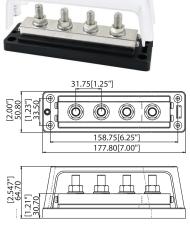
### **Ultra Power Bus Bar (600A)**

Bus bars with very large current up to 600A

BF481 / BF481C (with Cover)



BF482 / BF482C (with Cover)





### Marine Grade Bus Bars (Metric Threading)



- Metric threading screws and studs
- Glass fiber reinforced Nylon base ensures great mechanical strength and durability
- Optional transparent insulating cover with recessed area for label stickers
- Tin-plated copper bus allowing current up to 150A
- Stainless steel studs and screws provide great anti-corrosion ability on board
- Insulated base ensures no leakage to metal hulls

### **Upgrades from old models**









### **Single Bus Bars**

Compact size bus bars with ample 150A capacity

BF421-6P / BF425-6P BF421C-6P / BF425C-6P (with cover)



BF421-12P/ BF425-12P BF421C-12P / BF425C-12P (with cover)

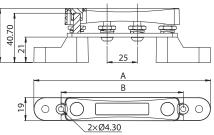


BF423-4P BF423C-4P (with cover)



BF423-6P BF423C-6P (with cover)





Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating	Bus Material
BF421-6P	2 x M6 (1/4")	6 x M4 (5/32")	146	101	100A	Brass
BF421-12P	2 x M6 (1/4")	12 x M4 (5/32")	206	161	100A	Brass
BF425-6P	2 x M6 (1/4")	6 x M4 (5/32")	146	101	150A	Copper
BF425-12P	2 x M6 (1/4")	12 x M4 (5/32")	206	161	150A	Copper
BF423-4P	4 x M6 (1/4")	-	146	101	100A	Brass
BF423-6P	6 x M6 (1/4")	-	206	161	100A	Brass



### **Common Bus Bars**

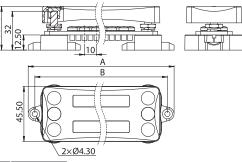
### Standard common bus bars with 10 or 22 terminals

BF424-10P BF424-22P

BF424C-10P (with cover)







Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating
BF424-10P	2 x M6 (1/4")	10 x M4 (5/32")	118	107	150A
BF424-22P	2 x M6 (1/4")	22 x M4 (5/32")	178	167	150A

### **Dual Bus Bars**

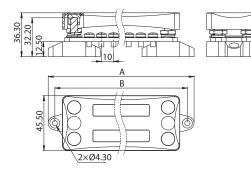
### Dual bus bars with removable connecting link

BF422-6P / BF426-6P BF422-12P / BF426-12P

BF422C-6P / BF426C-6P (with cover) BF422C-12P / BF426C-12P (with cover)







Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating per bus	Bus Material
BF422-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	118	107	100A	Brass
BF422-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	178	167	100A	Brass
BF426-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	118	107	150A	Copper
BF426-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	178	167	150A	Copper

### "2-Steps" Dual Bus Bar

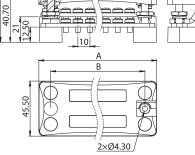
### Bus bars with different heights allowing more flexible wiring

BF427-6P BF427-12P

BF427C-6P (with cover) BF427C-12P (with cover)







Wire Output Options:

Single side

Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating per Bus
BF427-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	94	75	150A
BF427-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	154	135	150A

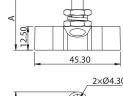
### **Heavy-Duty Terminal Studs**

- Allow terminating of heavy-duty cables for one or more connections
- Red or Black colors allowing easy and clear color coding for wiring
- Glass Fiber reinforced Nylon base ensures great mechanical strength and durability
- Heavy duty terminal studs (up to M10)
- Insulated base ensures no leakage to metal hulls (New Feature)

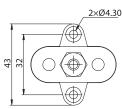
### **Single Terminal Studs**

BF411









Product ID	Stud Size	A. Height (mm)
BF411-M6 / BF411R-M6	1 x M6 (1/4")	32.5
BF411-M8 / BF411R-M8	1 x M8 (5/16")	32.5
BF411-M10 / BF411R-M10	1 x M10 (3/8")	37.5

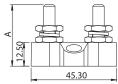
### **Specifications**

- Max Operating Voltage | DC 48V
- Max Amp per circuit | Determined by wires connected
- Terminal Stud Size | See each model

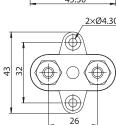
### **Dual Terminal Studs**

BF412









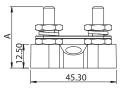
■ Dual Terminal Studs with options of different studs sizes

Product ID	Stud Size	A. Height (mm)
BF412-M6 / BF412R-M6	2 x M6 (1/4")	32.5
BF412-M8 / BF412R-M8	2 x M8 (5/16")	32.5

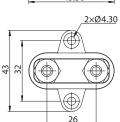
# **Dual Terminal Studs with Connecting Link**

BF413





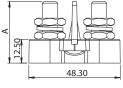




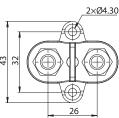
- Dual Terminal Studs with options of different studs sizes
- Removable Connecting Link withstands current up to 80A

Product ID	Stud Size	A. Height (mm)
BF413-M6 / BF413R-M6	2 x M6 (1/4")	32.5
BF413-M8 / BF413R-M8	2 x M8 (5/16")	32.5

### **Dual Terminal Studs with Isolating Plate** BF414







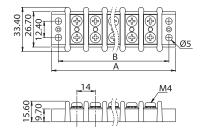
- Dual Terminal Studs with options of different studs sizes
- Removable isolating plate

Product ID	Stud Size	A. Height (mm)
BF414-M8 / BF414R-M8	2 x M8 (5/16")	32.5
BF414-M10 / BF414R-M10	2 x M10 (3/8")	37.5
BF414-M8M10 / BF414R-M8M10	1 x M8 (5/16") + 1 x M10 (3/8")	37.5

### **Terminal Blocks**

# **Independent Source Terminal Blocks 30A** BF401-XXP





BF-JP-3 Jumpers for BF401

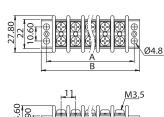


- Maximum Voltage | 300V AC/DC
- Continuous Rating | 30A
- Base Material | UL 94 V0, Nylon
- Bus Material | Nickel-Plated Brass
- Mounting Screw | M5 (#10)
- Screw Material | Stainless Steel
- Terminal Screws | M4 with exterior gear Washer

Product ID	Circuits	A. Length(mm)	B. Mounting Centers(mm)
BF401-2P	2	52	42
BF401-4P	4	80	70
BF401-6P	6	108	98
BF401-8P	8	136	126
BF401-10P	10	164	154
BF401-12P	12	192	182

# **Independent Source Terminal Blocks 20A** BF402-XXP





BF-JP-4 Jumpers for BF402



- Maximum Voltage | 300V AC/DC
- Continuous Rating | 20A
- Base Material | UL 94 V0, Nylon
- Bus Material | Nickel-Plated Brass
- Mounting Screw | M3.5 (#6)
- Screw Material | Steel / Nickel Plated
- Terminal Screws | M3.5
- Wire Terminal Size | M3 (#6)

Product ID	Circuits	A. Length(mm)	B. Mounting Centers(mm)
BF402-2P	2	41	33
BF402-4P	4	63	55
BF402-6P	6	85	77
BF402-8P	8	107	99
BF402-10P	10	129	121
BF402-12P	12	151	143



# 12 / 24V Accessories

PD - Modern Fast Charging Capabilities for USB Charger Sockets

Marine Grade USB Charger Sockets YIS Marine USB Charger Sockets Selection Chart

### 12V-24V Accessories

Battery Gauges
Cigarette Lighter Plugs
Cigarette Lighter Sockets
Other Plugs & Sockets
The 1-1/8" Sockets and Accessories Family
CurvMount Handle Bar Mount Sockets
CurvMount Surface Mount Sockets
Flush Mount Panel for 1-1/8" Sockets

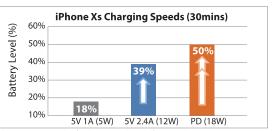
# Automotive Electrical Accessories

Car Battery Clips Accessories

# PD (Power Delivery) - Modern Fast Charging Capabilities for USB Charger Sockets:

### **Charge Compatibility & Fast Charging**

As phone and other digital devices batteries grow larger, fast charging becomes crucial. In the past QC (Quick Charge) provides fast charging but only works with Qualcomm-based Android phones, while the newer PD (Power Delivery) protocol new supports Android, iPhones, iPads, and laptops. PD can charge a smartphone from 0% to 50% in just 30 minutes.



Charging Speed of iPhone Xs by different chargers in 30 mins

### **Power Delivery - High Wattage Charging**

Power Delivery (PD) utilizes higher charging voltage (9V, 12V, 15V or 20V) gear to achieve larger wattage charging. In general PD 3.0 100W (20V 5A) is enough for most devices. Here is a quick chart showing PD Wattage for popular products in market:

PD Wattage	Voltage x Amp (Max.)	Compatible Devices	5	
5W	5V × 1A	Smart Watch	Wireless Earphone	
PD18W	9V × 2A	iPhones	Android phones and tak	olets
PD30W	15V × 2A	Macbook Airs	iPads	iPhone Pro Max
PD45W	20V × 2.25A	Ultrabooks	Flagship smartphones	Switch
PD65W	20V × 3.25A	Macbook Pro	Laptops	Drones
PD100W	20V × 5A	Macbook Pro 16	High-end laptops	

### **Independent DC/DC Converter for 2 USB Sockets**

Currently the most popular USB Charger models are 2 ports USB A + USB C chargers. However in most DC PD chargers A port and C port often "share" a single DCDC converter due to cost or space limit, which PD mode only works when 1 port is used and when both ports are used the charger would only have 5V output. In YIS Marine, our AS239 incorporated 2 independent DCDC converters for the C and A port, allowing 2 PD / QC devices can be fast charged at the same time.



### PD "Buck-Boost" capability for High Voltage output (PD45W or above)



PD45W and above is often needed to charge your laptops. Unlike home AC PD Chargers always do "step-down" converting from AC 110V - 230V to DC PD outputs, in DC 12V systems, we cannot achieve 15V or 20V output (PD45W and above) without costly and bulky "step-up" or "Buck-boost" converter. YIS Marine has successfully developed 2 PD100W "Buck-Boost" USB charger models for branded customers.

### **Product Series**

### PD65W Dual Independent DCDC Converters USB Chargers (1-1/4')

AS239 USB Type A +Type C AS239C USB Type C x 2





- Independent 2 DCDC converters allowing PD / QC fast charging on A & C ports when both are used
- PD 65W (20V 3.25A max) compatible with most laptops, smartphones or tablets
- Spring load cover closes automatically and holds when fully open
- Patent pending locking design when cover closed ensures water resistance rating up to IP66
- PD Color Changing LED indication tells you whether charging is in PD mode (Orange LED)
- IP66 protected against strong water jets (when covered)

### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode

USB A - 5V/3A; 9V/3A; 12V/3A; 20V/3A (60W Max) USB C - 5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/3.25A (65W max.)

USB A+C - USB-A 20V/3A + USB-C 20V/3.25A max

■ Note | **(** € IP66

\*15V/20V mode is only achievable when input > 22V

# **PD45W** Type A + Type C charger with PD Color Changing LED Indication (1-1/8') AS238





- Type A port 5V 2.4A compatible with most smartphones in market
- Type C port PD 45W compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)

Watch Intro Video on Youtube

- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Also charges ultrabooks, Macbooks & Macbook Air (after 2018) in 20V mode

### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode

USB A - 5V/2.4A

USB C - 5V/3A; 9V/3A; 12V/3A; 15V/2.25A; 20V/2.25A; (45W Max)

USB A+C - USB-A 5V/2.4A + USB-C 5V/2A max

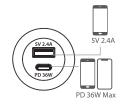
■ Note | **(** € IP65

\* 20V/2.25A mode is only achievable when input > 22V

### PD36W Standard USB Chargers (1-1/8')

AS234PD-1A1C AS234PD-1C















- Type A port 5V 2.4A compatible with most smartphones in market
- Type C port PD 36W compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)
- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Lower cost alternative to AS238
- Standardized 1-1/8" cut-out
- Flame retardant Nylon (glass fiber reinforced) enclosure

### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode

AS234PD-1A1C

USB A - 5V/3A; 9V/2A (18W Max)

USB C - 5V/3A; 9V/3A; 12V/3A (36W max.)

USB A+C - 5V/2.4A + 2.4A

AS234PD-1C

USB C - 5V/3A; 9V/3A; 12V/3A (36W max.)

■ Note | **(** € IP66

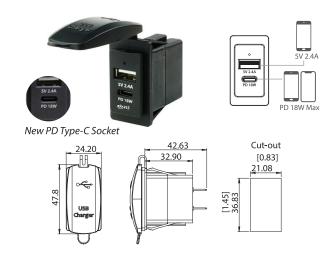
# PD18W Type A+ Type C USB Charger for motorcycles (1-1/8')

AS221



- Type A port 5V 2.4A compatible with most smartphones in market
- Type C port PD 18W compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)
- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Lower cost alternative to AS238
- Enhanced IP66 water-sealing cap design

# **PD18W Type A+ Type C USB Charger (Switch Mount)** AS222



### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode |

USB A - 5V2.4A

USB C - 5V/3A; 9V/2A; 12V/1.5A (18W max.)

USB A+C - 5V 3A max (USB-A+C total)

■ Note | **(** € IP66







# **Double A Ports USB Charger (1-1/8')** AS234

# ## 2.1A AS234 AS234

- Best Cost-Performance value
- Best-selling item with solid performance and competitive price
- Two port 2.4A large current charger
- Charges 2 iPads at full speed at the same time

# **Double A Ports USB Charger (Switch Mount)** AS235



### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode | 5V/2.4A
- Note | **(** € IP66

# **Single Port USB Chargers** AS233



- Single Port 2.4A USB Charger (12W)
- Fast charges iPad /iPhone and Android devices

### **Specifications**

- Input Voltage | DC 10 to 30V
- Output Mode | 5V/2.4A
- Note | **(** € IP66

# **Snap-in Keystone USB Charger Socket (Type A)** AS236





- Snap-in Keystone Charger Socket for Decora Style wallplate (RJ-45 Keystone hole)
- Single Port 2.4A USB Charger (12W)
- Fast charges iPad /iPhone and Android devices

# **YIS Marine USB Charger Sockets Selection Chart**

Model#	USB TYPE A	USB TYPE C	PD/QC	Power	Voltage × Amp. Rating	Note
1-1/8" Sockets						
AS233	× 1	-		12W	5V × 2.4A	Single Port 5V 2.4A
AS234-4.8A	×2	-		24W	5V × 2.4A + 5V × 2.4A	5V 4.8A large current
AS221	×1	×1	•	PD18W	USB-A: 5V × 2.4A USB-C: 5V × 3A; 9V × 2A; 12V × 1.5A (18W) UBS-A+C: 5V × 3A (USB-A + C total)	Designed for Motorcycle market
AS238-18W	×1	×1	•	PD18W	USB-A: 5V × 2.4A USB-C: 5V × 3A; 9V × 2A; 12V × 1.5A (18W) UBS-A+C: 5V × 3A (USB-A + C total)	_
New AS234PD-1C	-	× 1	•	PD36W	USB-C: 5V × 3A; 9V × 3A; 12V × 3A (36W)	_
New AS234PD-1A1C	×1	× 1	•	PD36W	USB-A: 5V × 3A; 9V × 2A (18W) USB-C: 5V × 3A; 9V × 3A; 12V × 3A (36W) UBS-A+C: 5V × 2.4A + 5V × 2.4A	-
AS237	-	×1	•	PD45W	USB-C: 5V × 3A; 9V × 3A; 12V × 3A; 15V × 2.25A; 20V × 2.25A (45W)	with PD Color Changing LED indication *15V/20V mode is only achievable when input > 22V
AS238	×1	× 1	•	PD45W	USB-A: 5V × 2.4A USB-C: 5V × 3A; 9V × 3A; 12V × 3A; 15V × 2.25A; 20V × 2.25A (45W) UBS-A+C: 5V × 2.4A(USB-A) + 5V × 2A(USB-C)	with PD Color Changing LED indication *15V/20V mode is only achievable when input > 22V
1-1/4" Sockets						
New AS239	×1	× 1	•	PD65W	USB-A: 5V × 3A; 9V × 3A; 12V × 3A; 20V × 3A (60W) USB-C: 5V × 3A; 9V × 3A; 12V × 3A; 15V × 3A; 20V × 3.25A (65W) UBS-A+C: 20V × 3A (USB-A 60W) + 20V × 3.25A (USB-C 65W)	Independent Dual DCDC Converters PD Color Changing LED indication *15V/20V mode is only achievable when input > 22V
New AS239C	-	× 2	•	PD65W	USB-C1: 5V × 3A; 9V × 3A; 12V × 3A; 15V × 3A; 20V × 3.25A (65W) USB-C2: 5V × 3A; 9V × 3A; 12V × 3A (36W) UBS-C1+C2: 20V × 3.25A (USB-C1 65W) + 12V × 3A(USB-C2 36W)	Independent Dual DCDC Converters PD Color Changing LED indication *15V/20V mode is only achievable when input > 22V
Switch Mounting	g					
AS235-4.8A	× 2	-		24W	5V × 2.4A + 5V × 2.4A	Designed for Contura Style Switch Sockets
AS222	×1	× 1	•	PD18W	USB-A: 5V × 2.4A USB-C: 5V × 3A; 9V × 2A; 12V × 1.5A (18W) UBS-A+C: 5V × 3A (USB-A + C total)	Designed for Contura Style Switch Sockets
Keystone Jack						
AS236	×1			12W	5V×2.4A	Designed for Keystone Sockets
7.3230						

<sup>\*</sup>Contact our sales for Customize OEM or ODM USB Chargers Design

# 12V-24V Accessories

### **Battery Gauges**





SP-BGX Series are compact size, self-powered DC battery gauges. The patented see-through uni-body housing leaves no opening in the front, allowing low profile outlook and excellent protection against dust, moisture, and vibration. The series includes a voltmeter, an ammeter and a voltage / current dual meter and are available in either wire output or .250" quick terminals (with suffix "T"). These battery gauges are made for either standard 1-1/8" cut-out with several mounting accessories (see page 64) or for popular Contura style switch mounting holes.











IP67: protection against temporary water immersion Two Output Options: Wire & Quick Terminals

Patented see-through display design

SP-BG1 (with wire output) / SP-BG1T (with Quick Connector Terminals)

### **Digital Voltmeter - Switch Mount**

SP-BG4



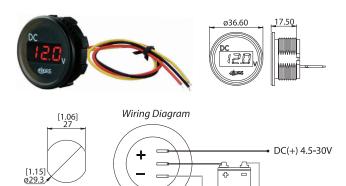
### **Features**

- Compact Size with 3 digits LED display
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution below 10V
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

### **Specifications**

- Voltage Range | DC 2.50-30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.01V (<10V) / 0.1V (>10V)
- Note | **(** € IP67 Patented

### **Digital Voltmeter up to 100V** SP-BG1-100V



DC(-)

### **Features**

- Compact Size with 3 digits LED display
- Measuring large voltage range from 0 100V
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

### **Specifications**

- Measure Voltage Range | DC 0-100V
- Powering Voltage Range | DC 4.5-30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.1V
- Note | **(** € IP67 Patented

Cut-out

# Digital Voltage & Current Dual-meter SP-BG2 / SP-BG2-150A Digital Voltage & Current Dual-meter - 5

# **Digital Voltage & Current Dual-meter – Switch Mount** SP-BG5



### **Features**

- Compact Voltage & Current 2 in 1 meter
- Digital 3 digits LED displays
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

Additional Features for SP-BG2-150A

- Includes 500 Amp shunt
- Measuring large amperage range from 0 150A

### **Specifications**

SP-BG2 / SP-BG5

- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-15A
- Amperage Tolerance | > 10A: ±0.5A, <10A ±0.17A
- Note | **C** IP67 Patented

SP-BG2-150A

- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-150A
- Amperage Tolerance | ±2%
- Shunt Type | 50mV
- Note | **(** € IP67 Patented

### **Digital Ammeter** SP-BG3 / SP-BG3-150A

[1.15]

Cut-out



### **Features**

- Compact Size with 3 digits LED display
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution
- Completely sealed design with no opening (IP67)

Additional Features for SP-BG3-150A

- Includes 500 Amp shunt
- Measuring large amperage range from 0 150A

### **Specifications**

- Voltage Rating | DC 4.5-30V
- Amperage Range | DC 0-15A
- Amperage Tolerance | > 10A: ±0.5A, <10A ±0.17A
- Note | **( €** IP67 Patented

SP-BG3-150A

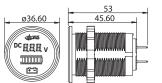
- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-150A
- Amperage Tolerance | ±2%
- Shunt Type | 50mV
- Note | **(** € IP67 Patented

2-M4



# **Digital Voltmeter with Battery Level Display** SP-BG6







### **Features**

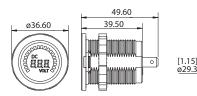
- Compact Size with 3 digital LED display
- Easily recognizable Battery Status LEDs
- 12 / 24V systems auto detect (compatible to both systems)
- Completely sealed with no opening (IP67)
- Reverse polarity input protection
- Self-powered from measuring DC voltage

### **Specifications**

- Voltage Rating | 5 30V (12/24V Auto Detect)
- Refresh Rate | 100ms
- Note | **C** IP67 Patented

# **Digital Voltmeter with Rainbow Battery Level Display** SP-BG7





### **Features**

- Compact Size with 3 digital LED display
- Easily recognizable Battery Status LEDs
- 12 / 24V systems auto detect (compatible to both systems)
- Reverse polarity input protection
- Self-powered from measuring DC voltage
- Low-voltage alarm when volt is lower than 11V in 12V mode, 22V in 24V mode

- Voltage Rating | 7 30V (12/24V Auto Detect)
- Refresh Rate | 100ms
- Low Voltage Alarm | 11.0V (@12V mode) / 22.0V (@24V mode)
- Note | **(**€

# **Cigarette Lighter Plugs**

### Normal Cigarette Lighter Plugs

with AGC/JMC Fuses



# **Bakelite Cigarette Lighter Plug with Fuse** AP101



- Replaceable AGC/JMC Fuses
- Heat-resistant Bakelite body
- Heavy-duty (20A) model available
- Designed for Size A (φ21.0mm)Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- **■** ( ∈

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# **Illuminated Cigarette Lighter Plug with Fuse** AP109



- Replaceable AGC/JMC Fuses
- Illuminated shielding
- Heavy-duty (20A) model available
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- **■**(€

# **Bakelite Cigarette Lighter Plug with Fuse** AP110



- Replaceable AGC/JMC Fuses
- Heat-resistant Bakelite body
- Heavy-duty (20A) model available
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating : Standard Model: 5A / Enhanced Model: 20A
- **■** ( €

# **Cigarette Lighter Plug with Fuse** AP113



- Replaceable AGC Fuses
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: 10A
- **-**(6

# **Bendable Car Cigarette Plug with Switch and Fuse** AP120



 LED power indicator
 Latching collar that latches onto retainers in cigarette lighter sockets

■ Replaceable AGC/JMC Fuses

■ Bendable with multiple angle

- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: 10A

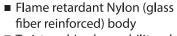
positions (±60°)
■ Built-in On-Off Switch

- Patented: TW No. P-053789
- **(**(

# Marine Grade Locking Cigarette Lighter Plug with Fuse AP121A (with LED) / AP121B (without LED)



Replaceable AGC FusesSturdy, solid design and assembly



- Twist-and-Lock capability when used with AS212
- Rubber ring for better stability and sealing when plugged
- LED power indicator (AP121A only)
  Designed for both Size A (φ
- 21.0mm) & Size B (φ22.0mm) Sockets

Amp Rating: Standard Model:

5A / Enhanced Model: 20A

- **■** ( €
- ② Twist AP121 by 90° until locked. Twist again to unlock

① Insert AP121 with the negative

### **Deluxe Cigarette Lighter Plug with LED (Fused)** AP112A (with LED) / AP112B (without LED)



- Replaceable AGC/JMC Fuses
  - Sturdy, solid design and assembly
- Robust Nylon (glass fiber reinforced) body
- LED power indicator (AP112A only)
   Designed for both Size A (φ
- 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- **■** ( €

### **Deluxe Cigarette Lighter Plug with LED (Fused)**

AP111A (with LED) / AP111B (without LED)



- Replaceable AGC/JMC Fuses
- Sturdy, solid design and assembly
- LED power indicator (AP111A only)
- Heavy-duty (20A) model available
- Best Seller
- Designed for both Size A (φ21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating : See below
- **■** ( €

### **Coding Guide for AP111 Customizations:**

As our No.1 seller in AP series, AP111 can be customized to meet every customer's requirement, please use the following table to pick one AP111 that fits your requirement most:

AP11	1	<b>-</b> [	] -		Α
	(1)	(2	)	(3)	

(1) (2)	(3)			
LED indicator	(2)	Body Material	(3) A	Amp Rating
with LED	Α	ABS	-	5 Amps
without LED	Ν	Nylon, Glass Fiber reinforced	10A	10 Amps
	Р		15A	15 Amps
		(UL94V-0)	20A	20 Amps
	( ) ( )	with LED A without LED N	LED indicator — (2) Body Material with LED A ABS	LED indicator — (2) Body Material — (3) A with LED A ABS — without LED N Nylon, Glass Fiber reinforced 10A P PBT, Glass Fiber reinforced 15A

Best Selling Models							
Product ID	Body Material	Terminals Finish	Amp Rating	Note			
AP111A-A	ABS	Nickel plated	5A	Standard Model with LED			
AP111B-A	ABS	Nickel plated	5A	Standard Model without LED			
AP111A-N-10A	Nylon, Glass Fiber reinforced	Nickel plated	10A	Robust body material with LED			
AP111A-N-20A	Nylon, Glass Fiber reinforced	Gold plated	20A	Heavy-duty (20A) model with LED			
AP111A-P-20A	PBT, Glass Fiber reinforced (UL94V-0)	Gold plated	20A	Heavy-duty 20A with UL94V-0 flame retardant body material and LED			





AP111B Pre-wired AP111\*

AP111A-N-20A





AP111A-2S1-12FT AP111A-1P3-18#-6FT \* AP111 can also be sold pre-wired, see page 54 for available options

with GMA Fuses

AP102





- Replaceable GMA Fuse
- Compact size
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- **■** ( ∈

### Mini Size Cigarette Lighter Plug to DC Jack Adapter AP105



- Replaceable GMA Fuse
- Output : DC Jack 3.5 x 1.3mm
- Compact size
- Designed for Size A (φ21.0mm) Sockets
- Amp Rating: 5A
- **■** ( ∈

### **Cigarette Lighter Plug with Fuse** AP119



- Replaceable GMA Fuses
- Heat-resistant Bakelite head
- Designed for both Size A (φ 21.0mm) &Size B (φ22.0mm) Sockets
- Amp Rating: 5A
- **■** ( €

### **Cigarette Lighter Plug with LED Switch (Fused)** AP130



- Replaceable GMA Fuses
- Illuminated push-button switch
- Wire leads from the side
- Designed for Size A (φ21.0mm) Sockets
- Amp Rating: 3A
- **■** ( €

Unfused -

# **Bakelite Cigarette Lighter Plug** AP103



- Unfused
- Heat-resistant Bakelite body
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- **■** ( €

### Cigarette Lighter Plug AP108



- Unfused
- Heat-resistant Bakelite head
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: 10A
- **■** ( €

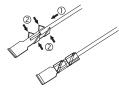
# Cigarette Lighter Plug with Quick Insert-and-Lock Terminals

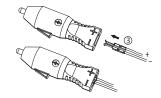
AP106



- Unfused
- "Insert-and-Lock" terminals allowing quick wire assembly (as illustrated)
- Designed for Size A (φ21.0mm)Sockets
- Amp Rating: 10A
- **■** (€

### Assembly Illustration of Quick Terminals:





### Cigarette Lighter Socket Splitters

# **Three Way Cigarette Lighter Sockets Splitter with Fuse** AP116



- 1 x Cig. Lighter Socket with retainer and 2 x DC Outlets
- 3 feet extension cord
- LED power indicator
- Replaceable AGC/JMC Fuses
- Plug designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Wall-mount fixing panel included
- Amp Rating: 10A
- **(**(

### **Dual Port Cigarette Lighter Sockets Splitter with Fuse** AP117



- Replaceable AGC Fuses
- 1 to 2 Cigarette Socket Adapter
- LED power indicator
- Plug designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Amp Rating: 10A
- **■** ( ∈

# **Three Way Cigarette Lighter Sockets Splitter (Unfused)**AP118



- 1 x Cig. Lighter Socket and 2 x DC Outlets
- 3 feet extension cord
- LED power indicator
- Plug designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Wall-mount fixing panel included
- Amp Rating: 10A
- **■** (€

# Specialty Cigarette Lighter Plugs

### Cigarette Lighter Plug Transformer (12V to 8V / 9V) AP104A (DC 12V to 8V) / AP104B (DC12V to 9V)



- Replaceable AGC/JMC Fuses
- Converts DC 12V to 8V (AP104A) or DC 12V to 9V (AP104B)
- Output: DC Jack 3.5 x 1.3mm
- Designed for both Size A -(φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 1A
- **■** ( €

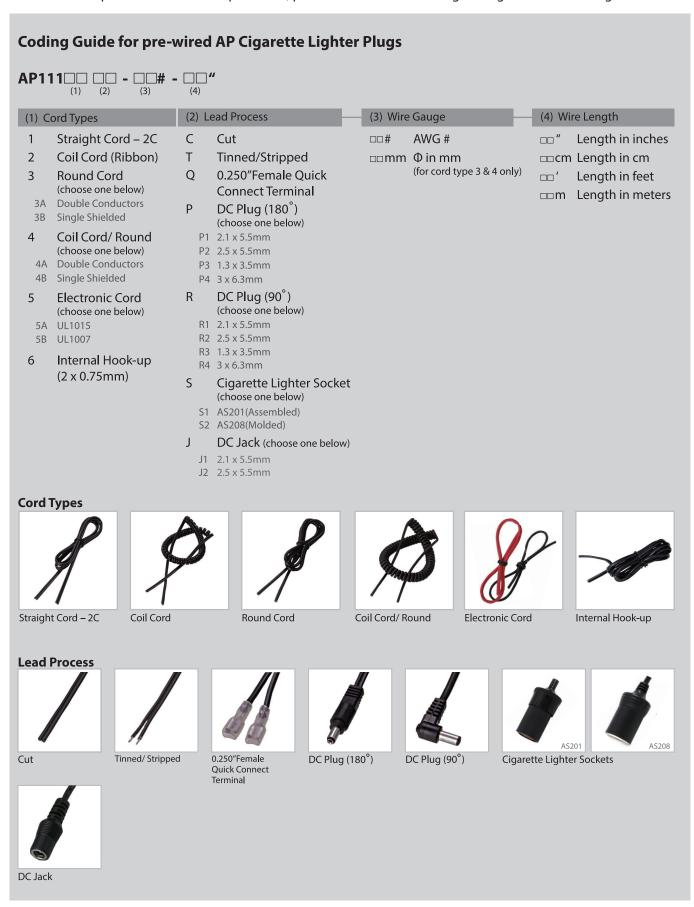
### Cigarette Lighter USB Charger AP133



- DC 5V USB Charger
- LED power indicator
- Designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Amp Rating: AP133-1A: 1A AP133-2A: 2A
- **■** ( ∈

### Wiring for AP Series

Most of our AP products can be sold pre-wired, please refer to the following coding table for ordering details:



# **Cigarette Lighter Sockets**

### Normal Cigarette Lighter Sockets

# **Panel Mount Cigarette Lighter Socket and Retainer** AS202



- Metal case withstands high temperature
- Ceramic base with retaining spring
- Various customization options available (see below)
- Panel mount (screw type)
- Amp Rating: 20A

### **Coding Guide for AS202 with Accessories**

AS202 comes with a variety of terminal configurations and accessories , please use the following table to pick one AS202 that fits your requirement most :

### (1) Terminals

- B Bullet Terminal (Φ=4mm)
- R Screw Nuts for Ring Terminals
- Q Quick Connect Terminal
- S Solder Terminal

### (2) Mounting Panels

- A Mounting Panel Type A
- B Mounting Panel Type B
- C Mounting Panel Type C
- D Mounting Panel Type D
- E Mounting Panel Type E

### **Terminals**



(**0**=4)

Bullet Terminal Screw Nuts for

Ring Terminal



0.250" Quick Connect Terminal



Solder Terminal

### **Accessories**



AS-RC1 Cover cap for AS202 and AS204



AS-IR1
Illumination Ring for

**Mounting Panels** 



Type A L-shaped



Type B Small plate



Type C Small plate/half



Type D Large panel



Type E Large panel/half

# **Panel Mount Cigarette Lighter Socket and Retainer** AS204



- Metal case withstands high temperature
- Ceramic base with retaining spring
- Optional Rubber Cap (AS-RC1) available
- Panel mount (screw type)
- Amp Rating: 20A

# **In-Line Cigarette Lighter Socket** AS201



- DC Power Outlet
- In-Line socket with solder terminals
- Optional cover cap available
- Amp Rating: 10A
- For Wire Gauge: #16-#22 AWG

# **In-Line Cigarette Lighter Socket** AS208



- DC Power Outlet
- Molded wiring for better sealing
- Amp Rating: 10A
- For Wire Gauge: #18-#22 AWG

# **Panel Mount Cigarette Lighter Socket** AS217



- Economical DC Power Outlet
- Push-in panel mounting
- Anti-splash cap
- Bullet Terminal (Φ=4mm)
- Amp Rating: 10A

# **Marine Grade Cigarette Lighter Power Socket** AS212





- DC Power Outlet
- Panel mount and anti-splash cap available (see below)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- Twist-and-Lock capability when used with AP121 (page 51)
- 0.250" Quick Connect Terminals
- Illuminated bottom plate for easy recognition at night (AS212L only)
- Rating: DC 9-36V 20A

### **Coding Guide for AS212 with Accessories**

As our No.1 seller in AS series, AS212 comes with a variety of accessories that meet every customer's requirement, please use the following table to pick one AS212 that fits your requirement most:

AS212 - - (3)

# (1) Bottom Plate

Standard

- L Illuminated
- K Half-threaded Body
- M Half-threaded & Illuminated

### (2) Mounting & Fixing Nuts

A Flat Panel Screw Nut

B Flat Panel Quick Nut C L-Shaped Panel Screw Nut

D L-Shaped Panel Quick Nut

E - Screw Nut F - Quick Nut

### (3) Cap Labels

A Type A: Marine 12V

B Type B: 12V



AS212 with illuminated bottom plate

AS245PU

2 Gang Flush Mount

Charger Sockets -

with AS233

mounted together

### **Mounting Panels**



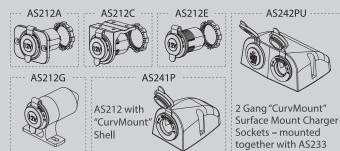
Flat Panel Flat panel for flush mount



L-shaped panel Mounting Panel for 90° installation

### **Mounting Options**

AS212 can be mounted with several options (flush or surface mount) and accessories. See below for possible options.



% See page 66 for further information about the AS24X CurvMount Series.

# Fixing Nuts



Screw Nut



Quick Nut Fixing AS212 quickly

# **Surface Mount Marine Grade Cigarette Lighter Socket** AS212G



- Surface-mount allowing easy installation on any surface (no hole cut-out needed)
- Equipped with the best-selling AS212
- Pre-wired with 6" #16 AWG wire
- Dust and water-resistant cap
- Surface-mount mounting screws included
- UV stabilized PVC boot for better protection against water and dust from the bottom

# **Cigarette Lighter Socket with Panel and Rubber Cap** AS215



- Economical DC Power Outlet
- Panel and rubber cap included
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

# **Other Plugs & Sockets**

### **DIN Plugs & Sockets**

# **Universal DIN / Cigarette Lighter Plug**AP124



- Replaceable GBC Fuses
- Bayonet-catch DIN to Cigarette Lighter Plug adapter
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Cigarette Sockets
- Amp Rating: 16A



# **Panel Mount DIN Socket with Anti-splash Cap** AS213



- Robust Nylon (glass fiber reinforced) enclosure
- Anti-splash cap
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

# **In-Line DIN Socket with Anti-splash Cap** AS214



- Flame retardant Nylon (glass fiber reinforced) enclosure
- Anti-splash cap
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

### **DIN Plugs & Sockets**

DIN sockets, also known as Hella sockets, BMW sockets, Triumph sockets and Powerlet sockets, are connectors that are more suited to motorcycle use for its compact size, robust design and more secure and reliable connection than cigarette lighter sockets.

### 1-1/8" DIN/Merit Socket AS216



- Standardized 1-1/8" cut-out (see page 64 for mounting accessories)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- Water-proof PVC Cap (IP66)
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

# **Deluxe Panel Mount DIN Socket with Anti-splash Cap** AS210



- Robust, elegant anodized aluminum body
- Spring-loaded dust-proof, anti-splash cap
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

### **Engel Plug & Socket**

### 1-1/8" Engel Socket AS218



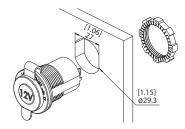
- Standardized 1-1/8" cut-out (see page 64 for mounting accessories)
- Designed for Engel type sockets
- Water-proof PVC Cap (IP66)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- 0.250" Quick Connect Terminal
- LED indication for easy identification at night
- Front View Rating: DC 12V 15A / DC 24V 7.5A

### Engel Plug AP122



- Securing shroud that screws into Engel Type Sockets
- Easy to assemble solder-free screw-terminals for cable connection
- Rating DC 0-36V 15A

### The 1-1/8" Sockets and Accessories Family



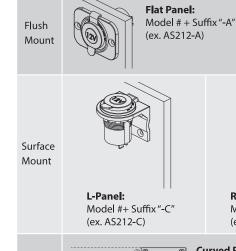
We all love to add a little bit more gadgets to our boats every now and then. That is why YIS Marine keeps introducing new sockets and accessories with standardized mounting dimension (the 1-1/8" system). All of these accessories come with the same threads and design language, and fit in the same panel cut-out, allowing them to fit each other perfectly when mounted together. See this page for coding and ordering guides

### **Product Codes**

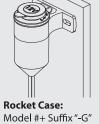
Р	roduct Code	Model #	Name
Р	POR PORP	AS212	Marine Grade Power Outlet (See page 56)
E		AS218	Engel Socket (See 57)
D		AS216	Din/Merit Socket (See page 57)
U	IPad Jaja 65VIS	AS233	1 Port USB Charger (See page 63)
V	2 \$\$34\$	AS234	High Current 2 Port USB Charger (See page 63)
Υ	USB PD 45W	AS237	PD 45W USB Type C Charger (See page 62)

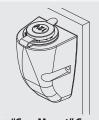
F	roduct Code	Model #	Name
G	12.0 4005	SP-BG1	Battery Gauge (Voltmeter) (See page 58)
М	DC UZU V HHH A dans	SP-BG2	2 in 1 Battery Gauge (See page 59)
С	DC HHH A	SP-BG3	Digital Current Meter (See page 59)
В	DC HHH v	SP-BG6	Battery Level Voltage Meter (See page 60)
R	HEH CONTROLLED	SP-BG7	Digital Voltmeter with Rainbow Battery Level Display(See page 60)
Z	(N) A	AS238	PD 45W USB 1A+1C Charger (See page 62)

### **Mounting Options**

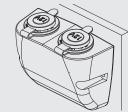












2 Gang Flat Panel:

(See page 67)

AS245 + Product Codes

1 Gang "CurvMount" Case: AS241 + Product Code (See page 66)

Socket only:

(ex. AS212-E)

Model #+ Suffix "-E"

2 Gang "CurvMount" Case: AS242 + Product Codes (See page 66)

**Wave Panel Series** SP1220 + Prod. Codes (See page 10)

**Curved Panel Series** SP3320 + Prod. Codes (See page 5)

(ex. AS212-G)

#### **Cigarette Lighter Outlet Extension Box**

AS901 2-Way Cigarette Lighter Outlet Box with dual USB & Digital Voltage Meter AS902 3 Port Cigarette Lighter Outlet Box





These cigarette lighter outlet box come with 2 or 3 ways standard cig. outlet. Advanced model AS901 comes also with 2 port USB charger and Voltmeter. Both model come with a convenient illuminated rocker switch style circuit breaker, providing not only 16A protection but also an easy way to control multiple devices at the same time. Suitable for 12V and 24V DC power source. Come with 3 feet of wires with circuit break protection. Mounting accessories included.







## **Specifications**

- Rating | DC 12 / 24V 16A
- Cable | 18AWG / Black & Red Wires / Length 3 ft
- Built-in Circuit Breaker Switch (16A)

#### USB (AS901)

- Input DC 12/24V
- Output: DC 5V 3.1A Max (2.1A + 1A)

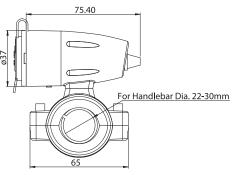
#### Digital Voltage Meter (AS901)

- Voltage Range | DC 2.50~30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.01V (input <10V) / 0.1V (input >10V)

## CurvMount Handle Bar Mount Sockets AS251









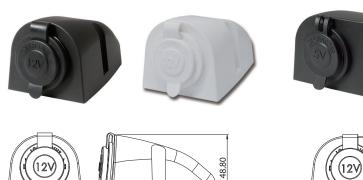
#### **Features**

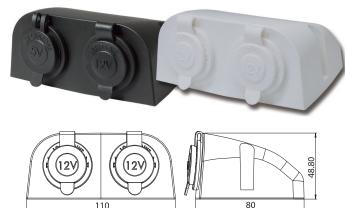
- Suitable for all of our 1-1/8" sockets
- Compatible with most motobike handlebar in the market (diameter: 0.8" -1.18")
- UV-stabilized enclosure material
- Water-tight gasket & water-resistant rubber cap included
- Robust Nylon (glass fiber reinforced) enclosure



### **CurvMount Surface Mount Sockets**

AS241 AS241W AS242 AS242W







The CurvMount cases are fully covered surface mount cases designed for the 1-1/8" socket family. These cases are made of UV-stabilized plastic with water-tight gaskets and water-resistant caps, making them perfect for use with RV, caravans and yachts. They are easy to install and can be mounted vertically, horizontally or even underneath a dash.

#### **Features**

- Surface-mount allowing easy installation on any surface (no hole cut-out needed)
- UV-stabilized enclosure material
- Water-tight gasket & water-resistant rubber cap included
- Robust Nylon (glass fiber reinforced) enclosure

## **Popular CurvMount Models**

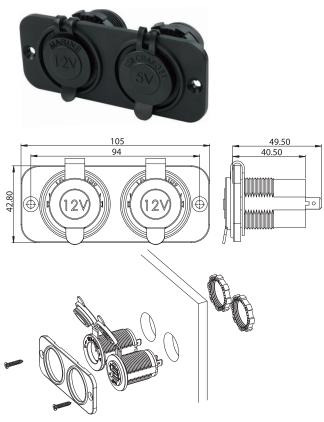
	Model	Socket
AS241P		Power Outlet
AS241U		1 Port USB Charger
AS241V		2 Port USB Charger
AS241D		Din/Merit Socket
AS241E	(ENG)	Engel Socket
AS241G	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Digital Voltmeter
AS241M	SCH V	Digital Voltage /Current Dual Meter

Мо	del	Socket
AS242PP		Power Outlet + Power Outlet
AS242PU	V) (12)	Power Outlet + 1 Port USB Charger
AS242PV	V) (2)	Power Outlet + 2 Port USB Charger
AS242PD	29) (M)	Power Outlet + Din/Merit Socket
AS242PE	22 <b>)</b> (ENG)	Power Outlet + Engel Socket
AS242VG	W 120	2 Port USB Charger + Digital Voltmeter
AS242XX		Any Socket from 1-1/8" family + Any Socket from 1-1/8" family



## Flush Mount Panel for 1-1/8" Sockets

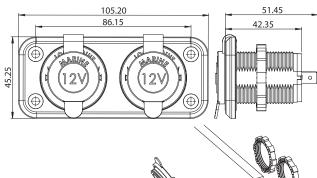
AS245

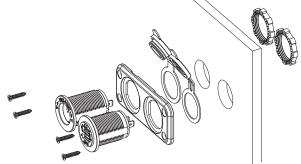


AS245: Decorative Panel mounted in front of sockets

#### AS246







AS246: Panel mounted in back of sockets

## **Flush Mount Models**

	Model	Socket
AS245PP		Power Outlet + Power Outlet
AS245PU		Power Outlet + 1 Port USB Charger
AS245PV		Power Outlet + 2 Port USB Charger
AS245PD		Power Outlet + Din/Merit Socket
AS245PE	(12) (ENG)	Power Outlet + Engel Socket
AS245VG		2 Port USB Charger + Digital Voltmeter
AS245XX		Any Socket from 1-1/8" family + Any Socket from 1-1/8" family



#### **Features**

- Flush Mount Panel available in 1 gang or 2 gang
- UV-stabilized material
- Robust Nylon (glass fiber reinforced) material



## **Solar Ventilator for Marine, Caravans and Motorhomes** SV002



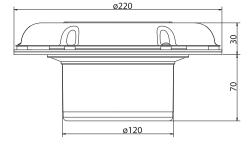




#### **Features**

- Low profile stainless steel solar vent for boats, caravans and motorhomes
- Fully automatic operation powered by solar energy with a solar panel and rechargeable Li-ion battery
- Built-in Battery no external power or wiring requried
- Switching between intake and exhaust ventilation
- Automatically restarts when sunrise after battery is drained
- Mechanical switch allows booting up automatically after sunrise

- Solar cell capacity | Max. 1.8w / 3V / 600mA
- Fan motor operation voltage | DC 3V
- Battery | NiMH LSD AA, 1.2 V, 2400 mAh(not included)
- Mounting holes | Ø120 mm



## **Automotive Electrical Accessories**

### Car Battery Clips Accessories

## **Lead Acid Battery Clip with Cable** AE601-10



- Battery clip for lead acid battery
- UL2468 cord (8" bare wire)

## **Battery Clamp to Cigarette Lighter Socket (Coil Cord)** AE602-25



- Battery clamps for car batteries
- Coil Cord: 0.12/30, 12 feet
- In-line cigaretter lighter socket

## **Lead Acid Battery Clip with Coaxial DC Power Plug** AE601-13



- Battery clip for lead acid battery
- UL2468 cord (8")
- In-line Molded DC Plug -Type A: ID 2.1mm OD 5.5mm -Type B: ID 2.5mm OD 5.5mm

#### Customized battery clips accessories AE60X



- Customizable wire and end processes (See p.9 for wiring options
- You choice of battery clips or clamps (see below)

## **Lead Acid Battery Clip with Cigarette Lighter Socket** AE601-15



- Battery clip for lead acid battery
- UL2468 cord (8")
- In-line cigaretter lighter socket

#### Universal Dry Cell Battery Tester AE603



- Easy to use, portable battery tester
- Universal tester for dry cells(D, C, AA, AAA), 9V (Transistor) batteries, and button cells
- Voltage Range: 0-2V (for dry cells & button cells) / 0-9V (for 9V batteries)

## **Battery Clamp to Cigarette Lighter Socket (Straight Cord)** AE602-15



- Battery clamps for car batteries
- Cable Spec: SPT-1, 18AWG, 1 feet
- In-line cigaretter lighter socket



.....









# **Marine Grade Switch**

#### Marine Grade Rocker Switches

Water-resistant Sealed Rocker Switches (C-7 Series) Water-resistant Rocker Switches (C-6 Series)

## Heavy Duty Toggle Switches

Marine Toggle Switch with Plastic Handle Bar Toggle Switch with On indication LED Heavy Duty Brass Toggle Switch Series

#### Stainless Steel Push Button Switches

Large Current (20A) Anti-Vandal Stainless Steel Push-Button Switch with LED Ring Anti-Vandal Stainless Steel Push-Button Switch with LED Ring Starter Push-Button Switch

## **Marine Grade Switches**

Weather-proof switches specially designed for outdoor environments

## **IP67 Water-resistant Sealed Rocker Switch**

C-7 Series





		Product Series	
Product ID		Туре	Switch Function
C-7124		SPST	(ON)-OFF
C-7137		SPDT	(ON)-OFF-(ON)
C-7144		DPST	(ON)-OFF
C-7167		DPDT	(ON)-OFF-(ON)
C-7231R	-Ö-	SPST	ON-OFF
C-7251R	-Ö-	DPST	ON-OFF
C-7243RR	-ÖÖ-	SPDT	ON-OFF-ON
C-7273RR	-\$ <del>-</del> \$-	DPDT	ON-OFF-ON
C-7246RR	-\documents	SPDT	(ON)-OFF-ON
C-7276RR	-\\docume{\alpha}-\\docume{\alpha}-	DPDT	(ON)-OFF-ON
C-7272RR	-\\docume{\alpha}-\\docume{\alpha}-	DPDT	ON-ON

※ Product ID are for Switch Body only, for full switch with actuators, add suffix like "-H1W" (see Website)



### **Features**

- Fit popular Contura style switch mounting
- Interchangeable actuators with various options
- Available in customized switch function, illuminating and other configurations
- LED illuminated (DC12V/ 24V dual voltage)
- PC Terminals (0.250" Quick Connect Terminals)
- IP67: Water proof even under temporary water immersion
- Exclusive advanced water-tight sealing design (Patented)

IP67 Water proof even under temporary water immersion

## **Specifications**

- Rating | DC 12V 20A 24V 10A
- Electrical Life | 20,000~50,000 switch function dependent
- Note | IP67 Patented in TW CH



Advanced water-tight sealing design (Patented)

#### **Actuator Removal Tool for C-7 Switches**



How to use



■ Used to change C-7 switch actuators

■ Anti-slip grip design

#### **Hole Cover** C7-HC-1



Mounting Cut-out

- Hole Cover for spare switch slots
- Easy snap-in design

#### **Connector Housing** C7-CA-1



- Black Plastic Connector
- Simple installation



## **Actuator for C-7 Switch**

C7A-XXX









https://www.yismarine.com/en/product/Marin e\_Rocker\_Switches-C-7\_Actuators.html

- Available stand-alone without switch body
- Available in various colors, lens configurations and printing options
- Lens color available in white, red, amber, green and blue
- Customizable silkscreen printing or label stickers on square lens available

https://www.yismarine.com/en/product/Marin e\_Rocker\_Switches-C-7\_Laser\_Actuators.html

### **Laser Etched Contour C-7 Actuator**

C-7251XYS ON-OFF





C-7254XYS (ON)-OFF





Premium feeling and backlight effects

**X** Check full patterns online:

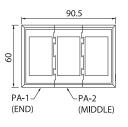
- YIS exclusive trendy actuator shape (Patented)
- Laser etching technology allowing even very complicated patterns
- Illuminates on both symbol and label (label illumination configurable to be always on or power indication)
- 100% customizable with low MoQ
- X Stands for Symbol illumnation LED color, and Y for Label LED Color (X is ON only when switch is ON; Y is configurable externally.)

#### **Mounting Panel for C-7 Series**

C7-PA-1 (End Frame) C7-PA-2 (Middle Frame)







Label Stickers for C-7 Switch with square lens

- 〒 □ D D 部 BILGE PUMP O- OR AR A WATER PUMP (A) F2 P I A ENG HATCH - □- □ A + HORN S- SD L B BLOWER 多到田店 TO N X1 \$\square \court
  LTS PANEL OF OF OF PANEL ANCH LTS S GATTERY TRIM TAB
- 60 pcs assorted label stickers
- For use with Actuators with white square lens C7A-H3W
- Sold separately



- Allows mounting of multiple switches together
- Cascade as many switches as you like
- Push-in installations

#### **Digital Battery Gauges - Switch Mount**

SP-BG4 Digital Voltmeter SP-BG5 Digital Voltage & Current Dual-meter

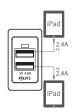




※ Fit popular Contura style switch mounting (See page 58-59)

#### High Power 2 Port USB Charger - Switch Mount AS235-4.8A (2.4A + 2.4A)



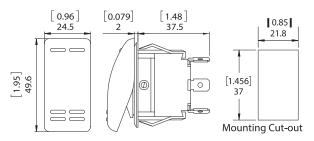


※Fit popular Contura style switch mounting (See page 63)

#### **IP55 Water-resistant Rocker Switch**

C-61/C-62 Series





Product Series				
Product ID	Туре	Switch Function		
C-6124P	SPST	(ON)-OFF		
C-6136P	SPDT	(ON)-OFF-ON		
C-6137P	SPDT	(ON)-OFF-(ON)		
C-6144P	DPST	(ON)-OFF		
C-6166P	DPDT	(ON)-OFF-ON		
C-6167P	DPDT	(ON)-OFF-(ON)		
C-6231P ☆	SPST	ON-OFF		
C-6253P ☆☆	SPDT	ON-OFF-ON		

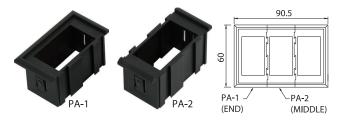
#### **Features**

- Robust design to withstand outdoor environments
- Easy-to-press, stylish curved actuator design
- Available in various switch functions and illuminating configurations
- PC Terminals (0.250" Quick Connect Terminals) or Screw Terminals
- LEDs or Lamps available for illuminated C-62 series
- IP55: Water projected in jets from any direction shall have no harmful effects

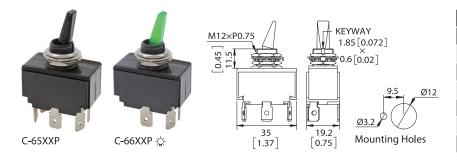
## **Specifications**

- Rating | DC 12V 16A 24V 10A
- Electrical Life | 20,000 make and break cycles at full load

### **Mounting Panel for C-6 Series**



## **Toggle Switch** C-65/C-66 Series



Product Series				
Product ID	Туре	Switch Function		
C-6521P	SPST	ON-OFF		
C-6524P	SPST	(ON)-OFF		
C-6537P	SPDT	(ON)-OFF-(ON)		
C-6631P ☆	SPST	ON-OFF		
C-6634P ☆	SPST	(ON)-OFF		
C-6647P ☆	SPDT	(ON)-OFF-(ON)		

#### **Features**

- Available in various switch functions, illuminating and other configurations
- Current rating up to 16A (@12V DC)
- Self-illuminating handle bar (C-66 only)
- Heat-resistant bakelite switch body
- Available in PC (Quick) Terminals or Screw Terminals
- Hidden color lens allowing up to three different illuminating colors(for illuminated C-66 series)

## **Specifications**

- Rating | DC 12V 16A 24V 10A
- Electrical Life | 20,000 make and break cycles at full load

#### C6653L-CRG: Tri-color illuminated switch ON-OFF-ON







**Rubber Boot** C6-RB-2

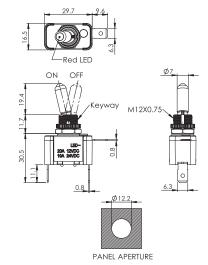


- Water-proof, dust proof rubber boot
- Screw Nuts: M12
- Available in clear/black color

## **Toggle Switch with On indication LED** T-1341





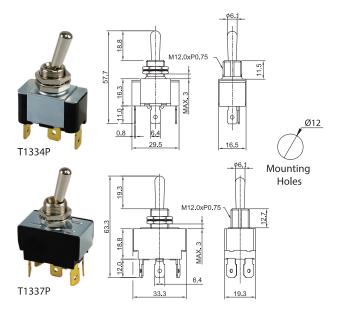


#### **Features**

- 3P SPST ON-OFF Toggle Switch with LED indicated
- 3 Quick-connect terminals: 6.3mm\*0.8mm
- Rating: 20A 12VDC,10A 24VDC
- Mechanical Operating Life: 50,000 cycles
- Electrical Operating Life: 25,000 cycles at full load
- Ingress Protection: IP40
- Mounting holes: 12.2mm Diameter 6.0mm max.
   Thickness

### **Premium Heavy Duty Toggle Switch Series**

T-133X Series



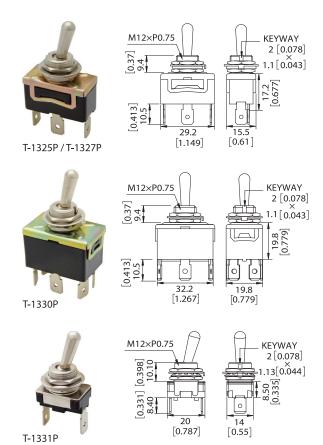
#### **Features**

- Product design matches leading brands switch allowing direct replacement
- More Premium feeling and texture than T1325 Series
- 100% Made in Taiwan

Product Series			
Product ID	Туре	Switch Function	
T-1332P	SPST	ON-OFF	
T-1332PM	SPST	(ON)-OFF	
T-1334P	SPDT	ON-OFF-ON	
T-1334PM1	SPDT	(ON)-OFF-ON	
T-1334PM2	SPDT	(ON)-OFF-(ON)	
T-1337P	DPDT	ON-OFF-ON	
T-1337PM1	DPDT	(ON)-OFF-ON	
T-1337PM2	DPDT	(ON)-OFF-(ON)	

#### **Heavy-Duty Toggle Switch**

T132X Series



### **Features**

- Current rating up to 15A (@12V DC)
- Robust and durable toggle design
- Available in PC (Quick) Terminals or Screw Terminals
- Series-specific nameplates and rubber boot available
- Short Body design saves mounting space (for T-1331 series)

## **Specifications**

- Rating | DC 12V 15 A 24V 10A
- Electrical Life | 50,000 make and break cycles at full load

Product Series				
Product ID	Туре	Switch Function		
T-1325P	SPST	ON-OFF		
T-1325PM	SPST	(ON)-OFF		
T-1327P	SPDT	ON-OFF-ON		
T-1327PM1	SPDT	(ON)-OFF-ON		
T-1327PM2	SPDT	(ON)-OFF-(ON)		
T-1330P	DPDT	ON-OFF-ON		
T-1331P	SPST	ON-OFF		
T-1331PM	SPST	(ON)-OFF		

#### **Rubber Boot**

T-RB-3



- Water-proof, dust proof rubber boot
- Screw Nuts: M12
- Available in clear/black color

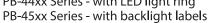
Ø12

Mounting Holes

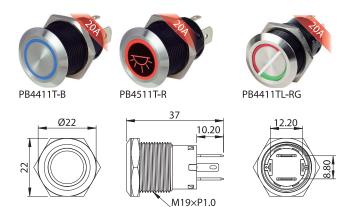


#### Large Current (20A) Anti-Vandal Stainless Steel Push-Button Switch with LED Ring

PB-44xx Series - with LED light ring







Product Series			
Product ID	Voltage Rating	Switch Function	
PB-4411TL- <u>X</u>	DC 12V	ON OFF (1 -+-1-:)	
PB-4511TL- <u>X</u>	DC 12V	ON-OFF (Latching)	
PB-4411T- <u>X</u>	DC 12V	(ONI) OFF (Management)	
PB-4511T- <u>X</u>	DC 12V	(ON)-OFF (Momentary)	
PB-4411TL- <u>X</u> -24V	DC 24V	ON OFF (Latabian)	
PB-4511TL- <u>X</u> -24V	DC 24V	ON-OFF (Latching)	
PB-4411T- <u>X</u> -24V	DC 24V	(ON) OFF (Managetawa)	
PB-4511T- <u>X</u> -24V	DC 24V	(ON)-OFF (Momentary)	

※ X Stands for Symbol illumnation LED color. R: Red / B: Blue / W: White / G: Green

#### **Features**

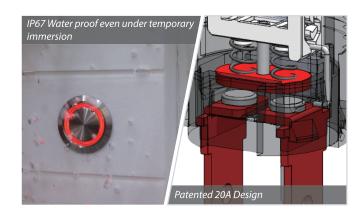
- Market-leading 20A Capability (No more relays!)
- Same compact size as mainstream anti-vandal switches in market (PB-42 Series)
- Durable CNC Stainless Steel (SS316) housing
- 0.250" Quick connect terminals
- LED light rings configurable to be push-on (power indication) or always on (back lighting)
- IP67 protected even under temporary water immersion

#### Additional Features for PB45xx

- Backlight button version
- 5 pcs PC membrane label stickers included
- Additional 40pcs assorted label stickers sold separately (PB-ST-1)



5 pcs labels included with PB45xx series



## **Specifications**

- Rating | DC 12V 20A / DC 24V 10A
- Electrical Life | > 20,000 cycles
- Operation Temperature | -20°C ~ +55°C
- Note | Patented in Taiwan(M558458) & China(ZL2018202565058) & USA(US10297404B1)



### **Label stickers for PB45xx Series**

PB-ST-1



- 40 pcs assorted label sticker
- Scratch resistant, water-proof PC membrane material
- Customized version also possible
- Back printing for better durability

#### Latching Cable set pre-assembled for PB44/PB45xx Series







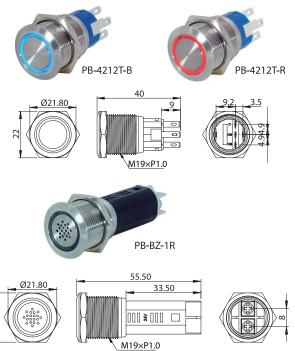




- Upgraded "Latching" design from PB-CA-2 (work only with new switch housing after late 2025)
- Cable set pre-assembled in factory or included as accessories
- Jumper cable allowing configuration of LED Ring to be "Push ON" or "Always ON"
- (Optional) 24V LED negative cable kit allows 12V switch to be applied on 24V applications (PB-CA-2-24V)
- UL1015 18AWG cable capable of carrying 20A current, Cable length: 6" (15cm) (Customizable)

#### **Anti-Vandal Stainless Steel Push-Button Switch with LED Ring**

PB-42xx Series



Product Series				
Product ID	Voltage Rating	LED Color	Switch Function	
PB-4212TL-R	DC 12V	Red	ON-OFF (Latching)	
PB-4212T-R	DC 12V	Red	(ON)-OFF (Momentary)	
PB-4212TL-B	DC 12V	Blue	ON-OFF (Latching)	
PB-4212T-B	DC 12V	Blue	(ON)-OFF (Momentary)	
PB-4212TL-R-24V	DC 24V	Red	ON-OFF (Latching)	
PB-4212T-R-24V	DC 24V	Red	(ON)-OFF (Momentary)	
PB-4212TL-B-24V	DC 24V	Blue	ON-OFF (Latching)	
PB-4212T-B-24V	DC 24V	Blue	(ON)-OFF (Momentary)	
PB-BZ-1R	DC 12V	Red/flashing	Buzzer	

- Up to Double Pole NO/NC/COM Terminals (5 or 8 Terminals)
- Durable stainless steel housing and button
- LED light rings configurable to be push-on (power indication) or always on (back lighting).
- IP67 protected agasint even under temporary water immersion (IP50 for the Buzzer PB-BZ-1R)

#### Cable set pre-assembled for PB42xx Series PB-CA-3



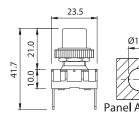
- Cable set pre-assembled in factory or included as accessories
- Cable length: 150mm

## **Specifications**

- Rating | DC 12V 5A / DC 24V 5A
- Electrical Life | > 50,000 cycles
- Operation Temparture | -20°C ~ +55°C

#### **Starter Push-Button Switch** PB-4071





#### **Features**

- Quick terminal blades
- High current push button switch
- Water-resistant cap available
- Rating: AC 125V 15A / 240V 10A





# **LED Lights for Boats**

YIS Marine LED Lights for Boats

WaveLED Marine LED Lights Series

WaveLED Reading Light Series

Marine LED Courtesy Lights

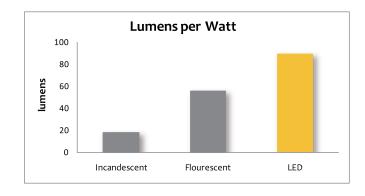
## **YIS Marine LED Lights for Boats**

### **Next Generation of Marine Lighting**

LED is the next generation of lighting. With its lower power consumption, vibration-proof and better durability comparing to traditional halogen lights, the LED lights are an ideal solution on the board. The performance of LED lights, however, is-based heavily on their electronic circuit design, which is very different from traditional luminaire using incandescent lights. With more than 20 years of expertise in automotive electronics designing and manufacturing, YIS Marine is able to provide high performance LED light products with competitive costs.

#### **Low Power Consumption**

Low power consumption means longer cruising time on the sea. As of 2015, the latest LED technology can generate around 80-100 lumens per watt, while the traditional incandescent lights generate less than 20 lumens per watt. In fact, EU has banned use of incandescent lights since 2012, and planned to ban the halogen lights due to their low lighting efficiency.



#### **Life & Durability**







Typically LED's has a lifespan for about 20,000 – 50,000 hours, more than 20 times of that of an incandescent light. LED also has no filaments to break, and thus are very vibration proof. Most of YIS Marine lights are built in one part without replaceable lamps, and some outdoor models are fully sealed to ensure great durability against moisture and shocks.

#### **Electronic Circuit Design**



Electrical systems on the boats are very complex and sophisticated systems. DC power supply on board can vary from 10-15V under different circumstances (for a 12V system). That's why almost all of our LED lights come with Constant-Current technology that keeps the LED output stable despite the input voltage variation. As radio communication is crucial on the boats, all of our LED lights also have EMI suppression design and approved by the EU standards  $\mathbf{C} \in \mathbb{C}$ .

#### Cost

The cost of LED has been dropping consistently each year. This, combing with its steady growth in lighting efficiency, makes LED lights become more and more suitable to replace traditional incandescent lights used on the boat. YIS Marine re-design LED lights on board by removing or modifying parts that were necessary for halogen lights but no longer needed for LED lights. By designing lights exclusively for the LED technology, we are able to build cost-effective LED lights with much better performance than traditional halogen lights.

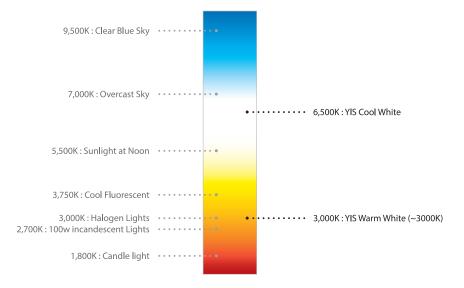
### **LED Terminologies**

LED is the next generation of lighting. With its lower power consumption, no heat radiation and better durability comparing to traditional halogen lights, the LED lights are an ideal solution on the board. Here is some of the important terminologies of LED lights:

#### **Color Temperature** (Unit: K (Kelvin))

Color temperature is conventionally stated in Kelvin (K), the unit of absolute temperature. The color temperature is the temperature that makes an ideal black body radiator radiate comparable hue as the light source.

Usually, color temperatures over 5,200K are called cool colors, color temperature below 3500K are called warm colors.



#### **Luminous Flux** (Unit: Im(lumens))

The total amount of light emitted from a lamp. The higher lumen is, the more intense the light output. Luminous Flux does not vary with distances.

#### **Illuminance** (Unit: Lux )

Illuminance is the total luminous flux falling on a surface. It shows the intensity of the incident light. Mathematically,

Illuminance (Lux) = Lumens (lm) / area( $m^2$ )

where area is the illuminated area of the light source. The farther the surface are away from the source, the larger the area would be, and hence the smaller illuminance, while the Luminous Flux remains the same.

#### Example:

If a light fixture with 100 lumens lights up an area of 1 square meter, the Illuminance would be 100 lux. If, however, the same fixture lights up 10 square meters (at a farther place), the illuminance would be reduced to only 10 lux.

#### **Types of LEDs**

SMD LEDs (Surface Mounted Devices)



SMD LEDs are bright and economical LEDs that are mounted on PC Boards and hence are easy for mass production. With the SMD LED becoming brighter and brighter, they have become mainstream of marine lights.



#### **High Power LEDs**



High power LEDs use from 1 watts to as much as 500 watts in a single package and thus has the ability to provide unparalleled brightness within limited area comparing to SMD LEDs. The heat dissipation issue is an important factor in designing High-Power LED lights. YIS Marine utilizes all-aluminum LED holders/enclosures for our High Power LED product lines.



## **WaveLED Marine LED Lights Series**

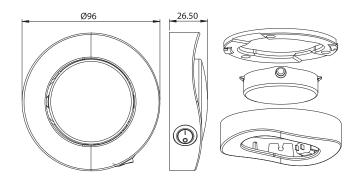


Unique Marine Wave-shaped LED Lights from YIS

WaveLED Ceiling Light LC004W WaveLED Ceiling Light - Dual Color LC004WB / LC004WR



LC004WB-S / LC004WR-S (Dual Color)



#### **Features**

- Unique wave shape enclosure design
- Easy-to-install bayonet latch design
- Matte surface allows soft and smooth light output
- Completely sealed LED Module
- Built-in ON-OFF switch
- Adjustable light angle
- Constant-Current technology design ideal for marine lighting
- DC 12V-24V dual voltage rating
- 2 different enclosure colors available

#### Additional Features for LC004WB/LC004WR

- White/Blue or White/Red dual light color
- Cost-effective bulit-in ON-OFF-ON switch

### **Specifications**

- Lighting Source | SMD LED x 6 (120lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 12-30V
- Power Consumption | 1.5W
- Note | **(**€

#### **Dual Color LC004WB / LC004WR**





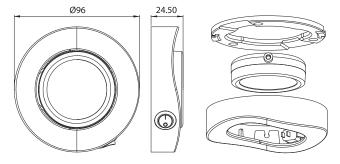
I C004WR

## **WaveLED Ceiling Light / Spotlight with High Power LED** LC003-3x1W



#### **Features**

- Unique wave shape enclosure design
- Easy-to-install bayonet latch design
- Specially designed optical lens provide bright and focused spot light
- 3 x 1 Watt super bright High Power LED
- Built-in ON-OFF switch
- Adjustable light angle
- DC 12V-24V dual voltage rating

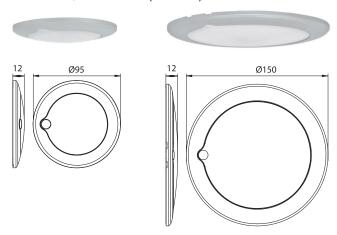


- Lighting Source | High Power LED (1W) x 3
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 12-30V
- Power Consumption | 3.24W
- Note | **( €**



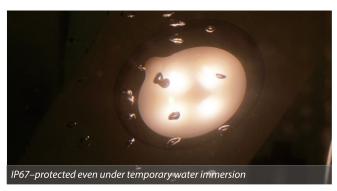
#### **DishLED Dimmable Ceiling Light with Touch Button**

LC005-95 / LC005-150 LC005T-95 / LC005T-150 (Tri-color)











LC005 are ultra-thin ceiling lights with dimmable function and a low profile touch button. They have the same un-intrusive like outlook as the recessed light fixtures yet are also as easy to install as any other surface mount ceiling lights. It can be turned on/off or dimmed linearly with a simple touch, and the memory function allows it to memorize previous brightness level when turned back on. The cut-off memory feature allows multiple DishLEDs to be controlled centrally by a single switch. The completely sealed design made it perfect for use in marine applications (IP67).

#### **Features**

- Ultra-thin surface mount (only 12mm in thickness)
- Low profile touch button
- Linear (non-stop) dimming allowing brightness adjustment to any desirable level (10-100%)
- Memory feature remembering previous brightness level when turned back on
- Power cut-off memory feature allowing central control of several DishLED lights
- Constant-current technology design ideal for marine lighting
- Completely sealed (IP67) protected even under temporary water immersion

Additional Features for LC005T (Tri-color)

■ 3 different color temperatures (3000 to 6500K)

## **Specifications**

- Light Source | Super Bright SMD LED x 4 (200lm)-LC005-95 Super Bright SMD LED x 12 (400lm)-LC005-150
- Color Temperature | 3000 3300K (Warm White)
- Voltage Rating | DC 9 30V (Multi-volt)
- Power Consumption | 2.4W (LC005-95) 4.5W (LC005-150)
- Note | IP67 **( €**

LC005T Color Temperature Selectable (3000K-4000K-6500K)

- Light Source | Super Bright SMD LED x 8 (LC005T-95) Super Bright SMD LED x 20 (LC005T-150)
- Color Temperature | 3000 3300K (Warm White) / 4000 5000K (Neutral White) / 6500K (Cold White)
- Voltage Rating | DC 9 30V (Multi-volt)
- Power Consumption | 6W (LC005T-150)
- Note | IP67 **( €**

## **WaveLED Marine Reading Light Series**



### Cost-effective Reading Lights with Trendy Design



The WaveLED reading light series are modern design, good performance and cost-effective LED reading lights. While High Power LED version provides unparalleled focused light output, the SMD version can provide wider angle and smoother output with much lower cost. There is also a dimmable SMD LED version with touch button. With economical plastic housing, built-in switches, and its easy-to-install feature, this series is ideal for sale in the aftermarket.

#### **Features**

- Unique wave shaped base design
- New screw-free easy-to-install bayonet catch design
- Built in switch for easy wiring
- Adjustable light angle
- 3 Versions available: high power LED, cost-effective SMD LED, and dimmable touch button version





#### 3 Versions of WaveLED reading lights





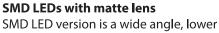






**High Power LED with Condenser** Lens

High power LED provides unparalleled brightness through the ultra clear condenser lens, the high power LED version can light up as far as 5 meters away, suitable forreading or spotlight applications.



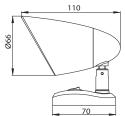
cost alternative. This version is also more suitable for reading at a closer range.

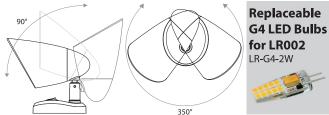
**Dimmable SMD LED** version with TOUCH button

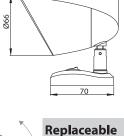
SMD LED version with additional dimming feature and water-resistant touch button design.

#### **WaveLED Cabin / Reading Light** LR002









## **Features**

- New screw-free bayonet catch wave base design
- Economical, light weight PolyCarbonate shielding
- Replaceable G4 LED bulbs
- Built-in ON-OFF switch
- 350° rotatable horizontally and 90° vertically leaving no blind spot

- Lighting Source | G4 LED Bulbs 2W (200-230lm)
- Color Temperature | 2800-3200K (Warm White)
- Voltage Rating | DC 10 30V
- Current Consumption | 2W
- Note | **(**€

#### **WaveLED Reading Light**

LR001-1W / LR001-SMD (SMD Version)



#### **Features**

- Compact size with powerful output
- New screw-free bayonet catch wave base design
- 350° rotatable horizontally and 90° vertically leaving no blind spot
- Constant-Current technology design ideal for marine lighting
- Dual Voltage rating for both 12V & 24V systems

### **Specifications**

LR001-1W(High Power LED)

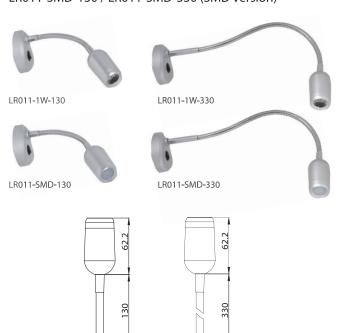
- Lighting Source | High Power LED (1W) x 1 with condenser lens
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 9-30V
- Power Consumption | 1.32W
- Note | **(**€

LR001-SMD

- Lighting Source | 8 super bright SMD LED (160lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 10-30V
- Power Consumption | 1.68W
- Note | **( €**

#### **WaveLED Gooseneck Reading Light**

LR011-1W-130 / LR011-1W-330 LR011-SMD-130 / LR011-SMD-330 (SMD Version)



#### **Features**

- Compact size with powerful output
- New screw-free bayonet catch wave base design
- Bendable gooseneck allows more freedom of light positions
- Constant-Current technology design ideal for marine lighting
- Dual Voltage rating for both 12V & 24V systems

## **Specifications**

LR011-1W(High Power LED)

- Lighting Source | High Power LED (1W) x with condenser lens
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 9-30V
- Power Consumption | 1.32W
- Note | **(**€

LR011-SMD

- Lighting Source | 8 super bright SMD LED (160lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 10-30V
- Power Consumption | 1.68W
- Note | **(**€







#### **LED Reading Light with PD18W USB-C Socket** LR004D / LR014D-S



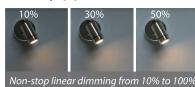


#### **Features**

- Chrome plated plastic housing for premium feeling with low cost (also available in Silver painted finish)
- Compact size with powerful 160lm output
- New USB Type-C PD18W Charging Socket on base
- Screw-free bayonet catch base design
- Low profile touch button design
- Constant-Current technology design ideal for marine lighting
- Dual voltage rating for both 12V & 24V system
- Linear (non-stop) dimming allowing brightness adjustment to any desirable level (10-100%)

### Specifications

- Lighting Source | 4 x super bright SMD LED (160lm)
- Color Temperature | 3000 3300K (Warm White)
- Voltage Range | DC 10V 30V
- Power Consumption | 1.68W (USB not charging) 22W Max (USB Charging)
- Note | **(**€



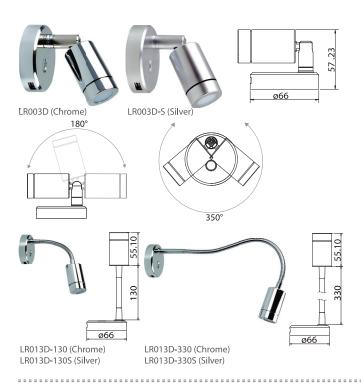








**LED Reading Light with USB Charging Socket** LR003D / LR013D-130 / LR013D-330 (Dimmable)



#### **Features**

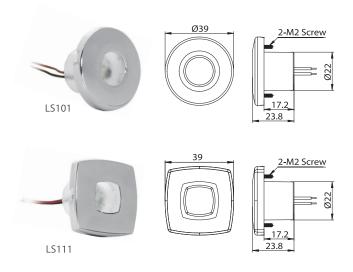
- Chrome plated plastic housing for premium feeling with low cost (also available in Silver painted finish)
- Compact size with powerful 160lm output
- Convenient 1 port 2.4A USB Charge socket on base (Compatible with latest iPad)
- Screw-free bayonet catch base design
- Low profile touch button design
- Constant-Current technology design ideal for marine
- Dual voltage rating for both 12V & 24V system
- Linear (non-stop) dimming allowing brightness adjustment to any desirable level (10-100%)

- Lighting Source | 4 x super bright SMD LED (160lm)
- Color Temperature | 3000 3300K (Warm White)
- Voltage Range | DC 10V 30V
- Power Consumption | 1.68W (USB not charging) 15.5W Max (USB Charging)
- Note | **(** €

## **Marine LED Courtesy Lights**

### LED Step Lights / Courtesy Light with Stainless Steel Faceplate

LS101(Round) LS111(Square)



### **Features**

- Polished marine grade stainless steel (SAE 316) faceplate
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Matte Surface allowing soft and smooth light output
- LED Colors available in Warm White, Blue, Red

### **Specifications**

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 **(**€





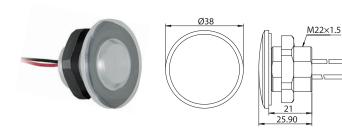


LS101R

## **Economical LED Step Lights / Courtesy Light** LS102

LS101B





### **Features**

- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Matte Surface allowing soft and smooth light output
- LED Colors available in Warm White, Blue, Red
- Also applicable as live well bait tank light







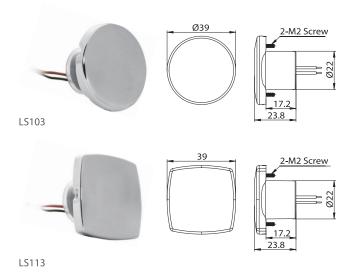
LS102W LS102B

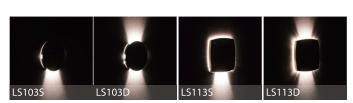
LS102R

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 ( €

#### **LED Step Light / Courtesy Light with Single or Double Light Rays**

LS103 (Round) LS113 (Square)





#### **Features**

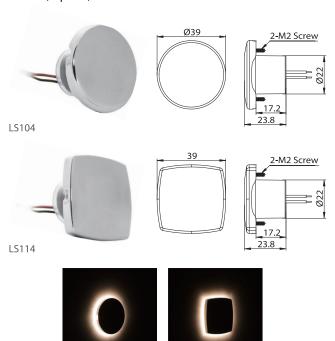
- Polished marine grade stainless steel (SAE 316) faceplate
- Single or Double light rays provides elegant illumination
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Available in warm white or cold white color
- Dual voltage rating for both 12V & 24V systems

## **Specifications**

- Lighting Source | SMD LED
- Color Temperature | 2900-3200K(Warm White)
- Voltage Rating | DC 10-30V
- Power Consumption | 0.24W(Single Ray) / 0.36W (Double Ray)
- Note | IP67 **(**€

#### **LED Step Light / Courtesy Light with Light Ring**

LS104 (Round) LS114 (Square)



#### **Features**

- Polished marine grade stainless steel (SAE 316) faceplate
- Sun eclipse like light ring effects
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Available in warm white or cold white color

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 **(**€



# **Customize Packaging For Your Products More Eco-Friendly!**



Almost all of YIS Marine's quality products come with retail display packages. We can accept low MOQ orders. Designed for the aftermarket, our blister or colored boxes packages typically include customizable label stickers, instruction manual and installation accessories - everything consumers need to install the products themselves. Our blisters and box packages are made locally in Taiwan with good quality that matches the products within them. All of our blister packages are made of 100% recyclable PET plastic and we also offer paper based packaging to ensure more eco-friendly packaging for our planet. In addition to supplying our quality products, we also provide marketing support like blister card / box design, instruction manual or even marketing support for customer's catalogue design. Customer's logo on blister cards are also possible.



