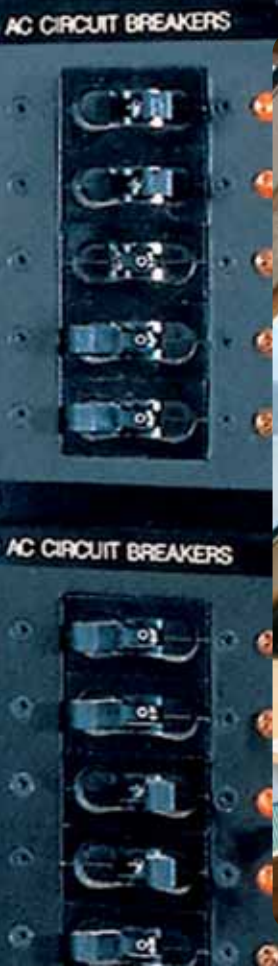




**ELECTRICAL  
SWITCHBOARDS**  
(Modular panels)



# ELECTRICAL SWITCHBOARDS

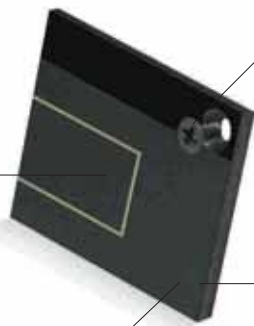
## PROFESSIONAL MODULAR SYSTEM

### Total Adaptation

Modular electrical switchboards combine the classical beauty with the most advanced microprocessor technology. EnerNaval Ibérica offers you a complete design of your panel, including the wiring if required.



Self-adhesive labels in English, French, Spanish or any other languages



Fixing screws included

4mm thickness

Anodised aluminium modules

The modular system offers the possibility to have any possible combination so that your boat will have all the electrical needs covered



Solid fixing system consisting of + and T modules fix, joining panels in the rear part to mount modules between each other. Any combination in possible. Strong system



Series 0 - 240x260mm



Series 1 - 240x130mm



Series 3 - 120x65mm



Series 2 - 120x130mm



Series 4 - 60x65mm



Very large range of measuring and control instruments, automatic circuit breakers, switches, push-buttons, indicators and any other parts

**0ACS:** Complete panel for an AC system (25 or 40A). Panel composed by 6 double pole circuit breakers, analogue instruments for Volts and Amps, an AC selector and shore protection



# DC Circuit Breakers

## Protection + Switch

Circuit breakers are used to protect the electrical installation from eventual overload or short-circuits. They can also be used as a switch to open and close a circuit.

Please, specify the intensity depending on the load (lights, radar, anchor winch, bilge pump, etc.) and check your equipment to know the amperage you need. Available intensities up to 100A.

### Single pole DC circuit breakers, toggle style

**1DCD** (240x130x70)



- Composed by 10 single pole toggle style circuit breakers. Each circuit has a green LED indicator

**D104**



- Single pole breaker, toggle style. Available ratings from 1A... 100A

**2DC5** (120x130x70)



- Composed by 5 single pole toggle style circuit breakers. Each circuit has a green LED indicator

**LED indicators**



- BPI13** - LED indicator 4,4mm Ø, voltage 10... 30V DC, red colour
- BPI14** - LED indicator 4,4mm Ø, voltage 10... 30V DC, green colour
- BPI15** - LED indicator 4,4mm Ø, voltage 10... 30V DC, yellow colour

*In 10 units bag*

# ELECTRICAL SWITCHBOARDS

## Single pole DC circuit breakers, toggle style

### 3DC2 (120x65x70)



- Composed by 2 single pole toggle style circuit breakers with the corresponding green LED indicators

### 3DCU (120x65x70)



- Composed by 1 single pole toggle style circuit breaker with the corresponding green LED indicator
- Very useful module for the anchor winch

## Double pole DC circuit breakers, toggle style

### 1DBC (240x130x70)



- Composed by 5 double pole toggle style circuit breakers with the corresponding green LED indicators
- Ideal module for aluminium boats. The double pole circuit breakers cut the negative and positive poles from the battery in order to prevent the galvanic corrosion
- Available ratings from 1A to 100A

### DI05

- Double pole circuit breaker, toggle style
- Available in ratings from 1A to 100A



### 3DBC (120x65x70)



- Composed by 1 double pole toggle style circuit breaker with the corresponding green LED indicator
- Available in ratings from 1A to 100A



All the modules indicated in this catalogue are supplied with the necessary fixing screws

# DC circuit breakers

## Rocker style

**DI32**



- Single pole rocker style circuit breaker  
Available ratings from 1A to 50A

**DI33**



- Double pole rocker style circuit breaker  
Available ratings from 1A to 50A

**DI09**



- Rocker style circuit breaker  
Ratings: 3A to 25A

**1RCD (240x130x70)**



- Composed by 10 single pole rocker style circuit breakers.  
Each circuit has green LED indicators
- Available ratings from 1A to 50A

**1RBC (240x130x70)**



- Composed by 5 double pole rocker style circuit breakers.  
Each circuit has green LED indicators
- Available ratings from 1A to 50A

**25RE (120x130x70)**



- Composed by 5 single pole rocker style circuit breakers.  
No LED indicators
- Available ratings from 3A to 25A

**3RC2 - 3RC1 (120x65x70)**

**3RC2**



- Composed by 2 single pole, rocker style, circuit breakers and the corresponding LED indicators.  
Available from 1A to 50A

**2RC5 (120x130x70)**



- Composed by 5 single pole, rocker style, circuit breakers and 5 green LED indicators
- Available ratings from 1A to 50A

**3RC1**



- Composed by 1 single pole, rocker style, circuit breaker and the corresponding LED indicator.  
Available from 1A to 50A

# ELECTRICAL SWITCHBOARDS



## AC Circuit Breakers

### Protection + Switch

AC circuits must be protected with circuit breakers which assure a quick trip in case of short-circuit comparing with classical protections. The single pole AC breakers allow having more breakers per module. The double pole AC breakers offer a total security by protecting phase and neutral lines, which is essential for aluminium boats.

### Single pole AC circuit breakers, toggle style

#### 2DA5 (120x130x70)



- Composed by 5 single pole toggle style circuit breakers. Each circuit has amber NEON indicator
- Available ratings from 1A to 100A

#### D104



- Single pole breaker, toggle style. Available ratings from 1A to 100A

#### BPI06



- Amber NEON indicator, 5.5mm Ø, voltage 230V AC. In ten units bag

#### 1DAD (240x130x70)



- Composed by 10 single pole toggle style circuit breakers. Each circuit has amber NEON indicator
- Please, specify the intensity depending on the load (microwave, fridge, TV, air conditioning, battery charger, etc)
- Check your equipment to determine the amperage required
- Available ratings from 1A to 50A

#### 3DA2 (120x65x70)



- 2 single pole toggle style circuit breakers with the corresponding amber NEON indicators. Available ratings from 1A to 100A

#### 3DAU (120x65x70)



- 1 single pole toggle style circuit breaker with the corresponding amber NEON indicator. Available ratings from 1A to 100A

# Double pole AC circuit breakers, toggle style

**D105**



- Double pole circuit breaker, toggle style.  
Ratings: 1A to 100A

**BPI06**



- Amber NEON indicator, 5.5mm Ø, voltage 230V AC.  
In ten units bag

**1DBA (240x130x70)**



- Composed by 5 double pole toggle style circuit breakers. Each circuit has amber NEON indicator
- Available ratings from 1A to 100A
- Double pole breakers cut phase and neutral in order to increase the security in the boat respecting the electrical safety rules

**3DBA (120x65x70)**



- Composed by 1 double pole toggle style circuit breaker with the corresponding amber NEON indicator
- Available ratings from 1A to 100A



All the modules indicated in this catalogue are supplied with the necessary fixing screws

The product information published in this catalogue is subject to change without notice. Please, visit [www.enernal.es](http://www.enernal.es) for updates



# ELECTRICAL SWITCHBOARDS

## AC Circuit breakers

### Protection + Switch

#### Rocker style

DI32



- Single pole rocker style circuit breaker. Available in ratings from 1A to 50A

DI33



- Double pole rocker style circuit breaker. Available in ratings from 1A to 50A

1RAD (240x130x70)



- Composed by 10 single pole rocker style circuit breakers. Each circuit has amber NEON indicator
- Available in ratings from 1A to 50A

1RBA (240x130x70)



- Composed by 5 double pole rocker style circuit breakers. Each circuit has amber NEON indicator
- Available in ratings from 1A to 50A

2RA5 (120x130x70)



- Composed by 5 single pole rocker style circuit breakers. Each circuit has amber NEON indicator
- Available in ratings from 1A to 50A

3RA1 - 3RA2 (120x65x70)

3RA1



- Composed by 1 single pole, rocker style, circuit breaker with the corresponding amber NEON indicator. Available in ratings from 1A to 50A

3RA2



- Composed by 2 single pole, rocker style, circuit breakers with the corresponding amber NEON indicators. Available in ratings from 1A to 50A



# DC switches

## Direct current

Switches allow opening and closing circuits.  
Protection is assured by a fuse installed in the panel (only for panels 1RSF and 2RSF)

### 1RSF (240x130x80)



- Composed by 12 single pole rocker style switches (max. intensity 10A), with individual 5x20mm fuses and corresponding fuse holder. Each circuit has green LED indicator

### 2RSF (120x130x80)



- Composed by 12 single pole rocker style switches (max. intensity 10A), with individual 5x20mm fuses and their corresponding fuse holder. Each circuit has green LED indicator

### IK01



- Single pole rocker style switch (10A) for 1RSF and 2RSF modules

### Led indicators



- BPI13** - LED indicator 4,4mm Ø, voltage 10...30V DC, red colour
- BPI14** - LED indicator 4,4mm Ø, voltage 10...30V DC, green colour
- BPI15** - LED indicator 4,4mm Ø, voltage 10... 30V DC, yellow colour

*In 10 units bag*

### EV-PF-O6.026/H



- Fuse holder for 5x20mm DIN fuses

# ELECTRICAL SWITCHBOARDS

## 34CO (120x65x70)



- Composed by 4 double pole toggle style switches (max. intensity 15A) and 4 green LED indicators

## 2CO8 (120x130x70)



- Composed by 8 double pole toggle style switches (max. intensity 15A) and 8 green LED indicators

## Switches



- IT03 - 1P Push-button switch (ON)-OFF-(ON)
- IT04 - 1P Switch/Push-button switch ON-OFF-(ON)
- IT05 - 1P Switch ON-OFF-ON
- IT06 - 1P Push-button switch (ON)-OFF
- IT07 - 1P Switch ON-OFF
- IT08 - 2P Push-button switch (ON)-OFF-(ON)
- IT09 - 2P Switch/push-button switch ON-OFF-(ON)
- IT10 - 2P Switch ON-OFF-ON
- IT11 - 2P Push-button (ON)-OFF
- IT12 - 2P Switch ON-OFF
- TU01 Black 12mm Ø nut for IT series switches
- TU05 Waterproof nut for IT series switches (front waterproof)
- IP01 - 1P Push-button switch (ON)-OFF
- IP02 - 2P Push-button switch (ON)-OFF

## 2CON and 2INE (120x130x70)



### 2CON

- Composed by 6 double pole toggle style switches (max. intensity 15A) and 6 green LED indicators

### 2INE

- Composed by 6 double pole toggle style switches (max. intensity 15A) and 6 green LED indicators

## AC/DC switches

### 3CON and 3INE (120x65x70)



#### 3CON

- Composed by 3 double pole toggle switches, 15A rated. It can also be used for AC circuits

#### 3INE

- Composed by 3 single pole toggle switches, 15A rated. It can also be used for AC circuitsA

### 4CON and 4INE (60x65x70)



#### 4CON

- Composed by 2 double pole toggle switches, 15A rated. It can also be used for AC circuits

#### 4INE

- Composed by 2 single pole toggle switches, 15A rated. It can also be used for AC circuits



# Shore Protection

EnerNaval Ibérica S.A., manufactures panels that include double pole circuit breaker and RCD protection, in compliance with the current low voltage directive.

## 1PD5 (240x130x80)



- Composed by a 25A double pole circuit breaker/isolator and 25A/30mA RCD. Feeds 5 single pole toggle style circuit breakers. Each circuit has an amber NEON indicator
- Also available for 40A and 63A, depending on the required power
- Available ratings from 1A to 100A

## DI04



- Single pole breaker, toggle style. Available ratings from 1A to 100A

## RCD



- General switch to prevent from earth leakage
- 25, 40 or 63A switches
- RCD protection

## BPI06



- 10 units bag of amber NEON indicator 5,5 Ø, voltage 230V AC

## 1MGP (240x130x50)



- Suitable module for the control and protection of all the AC power supply of the boat and composed by:
  - General operation switch (preheat, start and stop)
  - A 40A double pole circuit breaker/isolator and 40A/30mA RCD
  - AC selector (40A) to choose the power supply required (generator, inverter or shore power)

## 2PCA (120x130x70)



- Composed by a 25A double pole circuit breaker and a 25A/30mA RCD
- Also available for 40A and 63A depending on the power required

# ELECTRICAL SWITCHBOARDS



## Battery switches

Battery switches are used to isolate completely the batteries from the electrical installation. This is essential for the maintenance or when you do not use your boat during a long period of time and you want to be sure there is no connected load.

### 1DES (240x130x140)



- Composed by a single pole battery switch of 200A with the corresponding luminous LED indicators in green colour
- Can be used as an additional switch in case there are more than two battery banks (e.g. generator battery)
- Please, specify 12V DC or 24V DC

### 2DES (120x130x140)



- Composed by a single pole battery switch of 200A with the corresponding luminous LED indicator in green colour
- Can be used as an additional switch in case there are more than two battery banks (e.g. generator battery)
- Please, specify 12V DC or 24V DC

### DE01



- Single pole battery isolator, maximum current 200A continuous (1.000A momentaneous) with removable key

### Led indicators



- BPI07** - LED indicator 12mm Ø, 12V DC, red colour
  - BPI08** - LED indicator 12mm Ø, 24V DC, red colour
  - BPI09** - LED indicator 12mm Ø, 12V DC, green colour
  - BPI10** - LED indicator 12mm Ø, 24V DC, green colour
  - BPI11** - LED indicator 12mm Ø, 220V AC, amber colour
- In 10 units bag  
Other indicators:
- BPI01** - LED indicator 5,5mm Ø, voltage 10... 30V DC, red colour

### 3DES (120x65x40)



- Composed by one 120A single pole battery isolator and its corresponding green LED indicator
- For small boats

### DE02



- Battery isolator, maximum current 120A



# Selecting System

To select the available energy power supply (inverter, generator or shore power). We also manufacture DC selection panel in order to switch from one battery bank to the other.

## AC SELECTORS

### 2SSA (120x130x105)



- Composed by a double pole selector with 3 positions and 2 circuits
- It allows to select between 2 different AC power supplies (e.g. shore power and inverter). It is disconnected in the middle position
- Maximum rating of 63A
- 2 amber NEON indicators included

### 2SA3 (120x130x130)



- Composed by a double pole selector with 3 positions and 3 circuits
- It allows to select between 3 different AC power supplies (e.g. shore power, inverter and generator)
- Maximum rating of 63A
- 3 amber NEON indicators included

## DC SELECTORS

### Selectors



- EV-SC-T401/20** - Selector 2 poles 2 positions (1-2), 20A. Used for 4SEC panel
- EV-SC21304/63** - Selector 3 poles 3 positions (1-2-3), 63A. Used for 2SA3 panel
- EV-SC21684/63** - Selector 1 pole 3 positions (1-0-2), 63A. Used for 2SSC panel
- EV-SC21682/63** - Selector 2 poles 3 positions (1-0-2), 63A. Used for 2SSA panel
- EV-SC21304/40** - Selector 3 poles 3 positions (1-2-3), 40A. Used for 1MGP panel

### 2SSC (120x130x90)



- Composed by a single pole selector with 3 positions and 1 circuit
- It allows to select between 2 different DC power supplies. It is disconnected in the middle position
- Maximum rating of 63A
- Please, specify 12V or 24V
- It includes 2 LED luminous indicators in green colour

## AC/DC SELECTORS

### 4SEC (60x65x50)



- Composed by a double pole selector with 2 positions and 2 circuits
- It allows to select between 2 different power supplies (AC or DC)
- Maximum rating 20A

# ELECTRICAL SWITCHBOARDS



## Instruments

### Analogue 48x48mm

Analogue meters offer a quick and accurate reading of the volts and amps. The voltmeter indicates the state of the battery whereas the ammeter indicates the instantaneous state of charge and discharge of the battery. Zero-centre ammeters are very useful. The charging of the battery deflects the needle to upper side of the scale and the discharging of the battery deflects the needle to the lower side.

#### 2IN1 (120x130)



- Aluminium panel including a DIN 48x48mm analogue meter, voltmeter or ammeter (corresponding current transformer or shunt included). Includes selection switch

#### ANALOGUE VOLTMETERS 48x48mm



- Direct Current: IA12-DC: Scope 9... 15V  
IA24-DC: Scope 18... 30V
- Alternating current: IA300-AC: Scope 0... 300V  
IA150-AC: Scope 0... 150V
- Frequency meter:  
IA50-HZ: Scope 45... 55Hz, input 230V AC

#### 2IN2 (120x130)



- Aluminium panel including 2 DIN 48x48mm analogue meters (current transformer or shunt included as required). With 2 selection switches

#### ANALOGUE AMMETERS 48x48mm



- ALTERNATING:
- IA25-AC: 0... 25A, internal current transformer  
IA40-AC: 0... 40A, input 5A, current transformer required 40A/5A  
IA60-AC: 0... 60A, input 5A, current transformer required 60A/5A
- DIRECT:
- IA25-DC: 0... 25A, input 60mV, shunt required  
IA40-DC: 0... 40A, input 60mV, shunt required  
IA40C-DC: -40... 0... 40A, input 60mV, shunt required  
IA60-DC: 0... 60A, input 60mV, shunt required  
IA60C-DC: -60... 0... 60A, input 60mV, shunt required  
IA80-DC: 0... 80A, input 60mV, shunt required  
IA80C-DC: -80... 0... 80A, input 60mV, shunt required  
IA100-DC: 0... 100A, input 60mV, shunt required  
IA100C-DC: -100... 0... 100A, input 60mV, shunt required

#### IT01 / IT02



- IT01: single pole micro switch + nut to read the amps and/or volts
- IT02: double pole micro switch + nut to read the amps and/or volts

### Panel with analogue voltmeter

|          |   |
|----------|---|
| 2IN1-12  | Panel with a 9...15V DC voltmeter (2 readings)  |
| 2IN1-24  | Panel with a 18...30V DC voltmeter (2 readings) |
| 2IN1-230 | Panel with a 0...300V AC voltmeter (2 readings) |

### Panel with AC analogue voltmeter and ammeter

|             |   |
|-------------|---|
| 2IN2-220-25 | Panel with a 230V AC voltmeter (2 readings) and a 0...25A AC ammeter (current transformer included) |
| 2IN2-220-40 | Panel with a 230V AC voltmeter (2 readings) and a 0...40A AC ammeter (current transformer included) |
| 2IN2-220-60 | Panel with a 230V AC voltmeter (2 readings) and a 0...60A AC ammeter (current transformer included) |

### Panel with AC analogue ammeter

|               |   |
|---------------|---|
| 2IN1-25-TRAFO | Panel with a 25A AC ammeter (current transformer included) - 2 readings |
| 2IN1-40-TRAFO | Panel with a 40A AC ammeter (current transformer included) - 2 readings |
| 2IN1-60-TRAFO | Panel with a 60A AC ammeter (current transformer included) - 2 readings |

### Panel with DC analogue ammeter

|           |   |
|-----------|---|
| 2IN1-25   | Panel with 0...25A DC analogue ammeter (shunt included) - 1 reading         |
| 2IN1-40   | Panel with 0...40A DC analogue ammeter (shunt included) - 1 reading         |
| 2IN1-60   | Panel with 0...60A DC analogue ammeter (shunt included) - 1 reading         |
| 2IN1-80   | Panel with 0...80A DC analogue ammeter (shunt included) - 1 reading         |
| 2IN1-100  | Panel with 0...100A DC analogue ammeter (shunt included) - 1 reading        |
| 2IN1-40C  | Panel with -40...0...40A DC analogue ammeter (shunt included) - 1 reading   |
| 2IN1-60C  | Panel with -60...0...60A DC analogue ammeter (shunt included) - 1 reading   |
| 2IN1-100C | Panel with -100...0...100A DC analogue ammeter (shunt included) - 1 reading |

*An optional Shunt is necessary in case 2 amps reading is required*

### Panel with DC analogue voltmeter and ammeter

|             |   |
|-------------|---|
| 2IN2-12-25  | Panel with a 12V DC voltmeter (2 readings) and a 0...25A DC ammeter (shunt included)  |
| 2IN2-12-40  | Panel with a 12V DC voltmeter (2 readings) and a 0...45A DC ammeter (shunt included)  |
| 2IN2-12-60  | Panel with a 12V DC voltmeter (2 readings) and a 0...60A DC ammeter (shunt included)  |
| 2IN2-12-80  | Panel with a 12V DC voltmeter (2 readings) and a 0...80A DC ammeter (shunt included)  |
| 2IN2-12-100 | Panel with a 12V DC voltmeter (2 readings) and a 0...100A DC ammeter (shunt included) |
| 2IN2-24-25  | Panel with a 24V DC voltmeter (2 readings) and a 0...25A DC ammeter (shunt included)  |
| 2IN2-24-40  | Panel with a 24V DC voltmeter (2 readings) and a 0...40A DC ammeter (shunt included)  |
| 2IN2-24-60  | Panel with a 24V DC voltmeter (2 readings) and a 0...60A DC ammeter (shunt included)  |
| 2IN2-24-80  | Panel with a 24V DC voltmeter (2 readings) and a 0...80A DC ammeter (shunt included)  |
| 2IN2-24-100 | Panel with a 24V DC voltmeter (2 readings) and a 0...100A DC ammeter (shunt included) |

*An optional Shunt is necessary in case 2 amps reading is required*

### Panel with DC analogue voltmeter and ammeter with central zero

|              |  |
|--------------|--|
| 2IN2-12-40C  | Panel with a 12V DC voltmeter (2 readings) and a -40A...0...+40A DC ammeter (shunt included)   |
| 2IN2-12-60C  | Panel with a 12V DC voltmeter (2 readings) and a -60A...0...+60A DC ammeter (shunt included)   |
| 2IN2-12-100C | Panel with a 12V DC voltmeter (2 readings) and a -100A...0...+100A DC ammeter (shunt included) |
| 2IN2-24-40C  | Panel with a 24V DC voltmeter (2 readings) and a -40A...0...+40A DC ammeter (shunt included)   |
| 2IN2-24-60C  | Panel with a 24V DC voltmeter (2 readings) and a -60A...0...+60A DC ammeter (shunt included)   |
| 2IN2-24-100C | Panel with a 24V DC voltmeter (2 readings) and a -100A...0...+100A DC ammeter (shunt included) |

# ELECTRICAL SWITCHBOARDS

## Instruments

### Digital

Digital instruments offer a very accurate and precise measuring reading on board even if there is low light. For DC readings, a shunt is required for each battery bank. For AC readings, a current transformer is required.

#### 2DIG (120x130)



Panel with a DC digital voltmeter and a DC digital ammeter:  
**2DIG-12-100:** 12V, 0 ... 199,9V and 0 ...  $\pm 99,99A$  + 1 shunt  
**2DIG-24-100:** 24V, 0 ... 199,9V and 0 ...  $\pm 99,99A$  + 1 shunt  
**2DIG-24-250:** 24V, 0 ... 199,9V and 0 ...  $\pm 999A$  + 1 shunt  
Panel with an AC digital voltmeter and an AC digital ammeter:  
**2DIG-230-100:** 0 ... 999V and 0... 99,99A + current transformer 100A/5A

#### CURRENT TRANSFORMER



**TRAFO-40:** Current transformer 40A/5A  
**TRAFO-60:** Current transformer 60A/5A  
**TRAFO-100:** Current transformer 100A/5A  
*All our current transformers are bandwidth*

#### SWITCH

#### BUTTON



**IR01:** 3 position rotary switch to read the amps and/or volts



**B001:** Button for IR01 switch

#### SHUNT



**SHUNT-25:** 25A/60mV, precision 0,5%fs  
**SHUNT-40:** 40A/60mV, precision 0,5%fs  
**SHUNT-60:** 60A/60mV, precisión 0,5%fs  
**SHUNT-80:** 80A/60mV, precision 0,5%fs  
**SHUNT-100:** 100A/60mV, precision 0,5%fs  
**SHUNT-250:** 250A/60mV, precision 0,5%fs



All the modules indicated in this catalogue are supplied with the necessary fixing screws

## 3DIG (120x65)



**3DIG-12:** Panel with a 12V DC digital voltmeter, 0... 199,9V

**3DIG-24:** Panel with a 24V DC digital voltmeter, 0... 199,9V

**3DIG-300:** Panel with a 230V AC digital voltmeter, 0... 300V

**3DIG-100-12:** Panel with a digital ammeter, 0... 99,99A. Power supply: 12V DC, shunt 100A/60mV

**3DIG-100-24:** Panel with a digital ammeter, 0... 99,99A. Power supply: 24V DC, shunt 100A/60mV

**3DIG-100TRAFO:** Panel with a digital ammeter, 0... 99,99A. Power supply: 230V AC, current transformer 100A/5A included

**3DIG-50-HZ:** Panel with a frequency meter. Power supply 230V AC

## DIGITAL VOLTMETERS



DC CURRENT      ID12-DC: Scale 0... 199,9V. 12V DC  
                          ID24-DC: Scale 0... 199,9V. 24V DC  
 AC CURRENT      ID300-AC: 0 ... 999,9V. 230V AC

## DIGITAL AMMETERS



AC:  
 ID100-AC: 0... 99,99A, current transformer 100A/5A required

DC:  
 ID100-12-DC: 0... 99,99A, 12V DC, shunt 100A/60mV required  
 ID100-24-DC: 0... 99,99A, 24V DC, shunt 100A/60mV required  
 ID250-24-DC: 0... 999,9A, 24V DC, shunt 250A/60mV required

## OTHER

ID100-TEMP: Thermometer -99,9°C... 0... 199,9°C, PT-100 temperature sensor required. Power supply 12/24V DC. Please, contact us for availability  
 ID50-HZ: Digital frequency meter 45... 55Hz. Power supply 230V AC

## TEMPERATURE SENSOR



**AI06:** PT-100 temperature sensor required. -100... +200°C Special. Please, contact us for availability

# ELECTRICAL SWITCHBOARDS

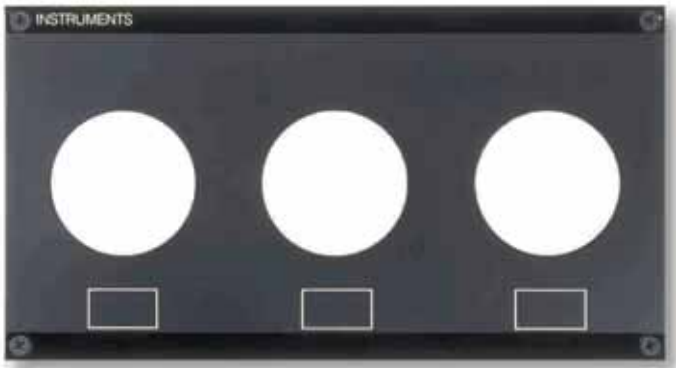


## Instrument

### Modules

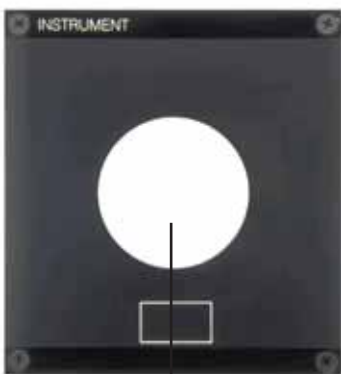
Some important indicators, such as fuel gauge, oil pressure, fresh water level, essential for your boat, are not centralised. Our instrument panels offer the possibility to integrate all these indicators to the switchboard system. Thus you can improve your control centre with better reading facilities.

#### 1IM1 (240x130)



- Module without instrument which accepts three 52mm diameter instruments
- For front mounting

#### 2I53 / 2V72 (120x130)

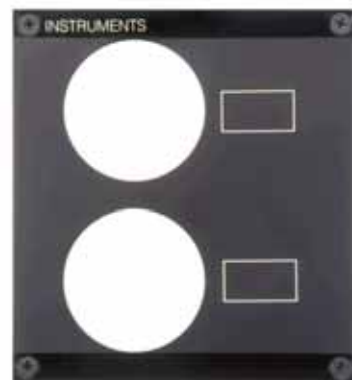


- Module without instrument which accepts one 52mm/72mm diameter instrument. For front mounting



You can mount any instrument with a 52mm or 72mm diameter on the instrument modules

#### 2V52 (120x130)



- Module without instrument for two 52mm diameter instruments. The diameter of the holes is 51mm, i.e. instruments have to be mounted at the rear part of the panel
- Fixing clips for instruments included



All the modules indicated in this catalogue are supplied with the necessary fixing screws



# Control and Indication

All control and alarm functions can be integrated in the switchboard panel for an easy and quick reading.

Bilge pump level alarm, overheating engine indicator, oil level alarm or the charging process of the battery charger are, among others, indicators you can integrate to have a centralised system.

**3SEN (120x65x60)**



- Three LED indicators for indication
- Please, specify 12V DC or 24V DC and indicators' colour (red or green)

**3SEN (120x65x60)**



- Three Neon indicators, orange colour, for AC indication (230V AC)

**3ALV (120x65x60)**



- Battery alarm for 12V DC or 24V DC batteries. Generates an alarm in case of under or over voltage
- Optional relay for 4ZUM buzzer
- Switch to disconnect the alarm

**4ZUM (60x65x60)**



- Buzzer for acoustic alarm. 12/24V DC (9... 30V)

**3SE8 (120x65x60)**



- Module with 8 LED indicators of 4,4mm diameter. Green colour. 12/24V DC

# ELECTRICAL SWITCHBOARDS

## Lights

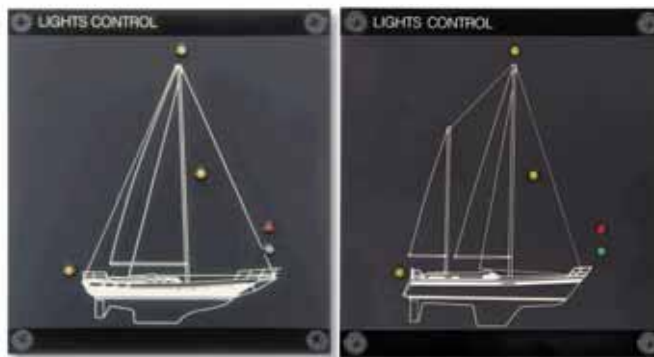
### control

Security in sea lies in being always visible, especially during the night. Thus, it is very important to be sure that navigation and/or anchor lights really work when they are switched on. EnerNaval, well aware of this problem, has designed an electronic system which detects if navigation light is switched on or there is any problem. In this case, an indicator light and an acoustic alarm will warn you.

#### 2CL1F / 2CL2F (120x130x70)

- Sailing boat (sloop) with an electronic PCB which warns you in case some navigation light is faulty
  - 5 luminous LED indicators
  - Alarm relay for each of the 5 circuits included

Possibility to have a customised drawing for your boat



- Sailing boat (ketch) with an electronic PCB which warns you in case some navigation light is faulty
  - 5 luminous LED indicators
  - Alarm relay for each of the 5 circuits included

Possibility to have a customised drawing for your boat

#### 1CLBF (240x130x70)



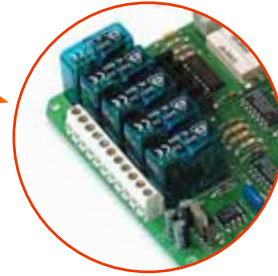
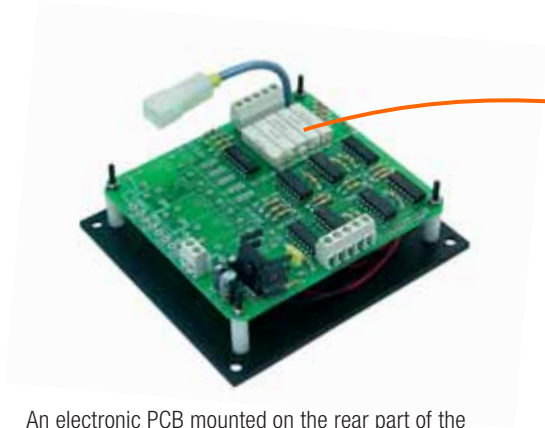
- Module with a motorboat drawing. Navigation lights for 5 position lights included. A second PCB to check the proper running of the bilge pumps is optional
- Possibility to have a customised drawing of your boat with 5 LED indicators for the navigation lights and 3 for the bilge pump control  
Ref. 1CLBF-BP: customised panel without navigation lights circuit

#### 1CLPF (240x130x70)



- Module with a fishing boat drawing with 2 navigation light circuits to control up to 10 position light circuits according to the current laws  
Ref. 1CLP: module with the drawing and LED indicators but WITHOUT navigation light circuits

CLNR



5 relays to connect an acoustic alarm

An electronic PCB mounted on the rear part of the panel allows to detect if any navigation light is faulty through a luminous alarm.

12V\*

\* For a 24V DC power supply, a DC/DC Orion converter (24/12, 5A) is required



# ELECTRICAL SWITCHBOARDS

## Bilge pump

### control

The quicker we notice there is water in the bilge, the more safety is our boat.

Due to our great experience in selecting bilge level sensors, we suggest you to use 2 kind of different sensors in the main bilges of the boat or bilges where there is notable water admission.

These two kinds of sensors (float sensor or capacitive sensor) reduce the faulty running due to a manufacturing fault or strange elements in the bilge (oils, soap, objects, etc.)

#### FLOAT SENSOR



**UPS-01/12:** With alarm, 15A contact, 12V DC power supply

**UPS-01/24:** With alarm, 15A contact, 24V DC power supply

**UPS-02/12:** Without alarm, 12V DC power supply

**UPS-02/24:** Without alarm, 24V DC power supply

#### CAPACITATIVE SENSOR



**ASEIN01:** 12V DC power supply, contact capacity 10A

**ASEIN02:** 12V DC power supply, contact capacity 15A

**ASEIN03:** 24V DC power supply, contact capacity 15A

#### 3CAA (120x65x60)



- Bilge pump control module
- 3 positions switch/push-button switch: automatic, stop, manual
- Luminous alarm
- Please, specify 12V DC or 24V DC

#### 4COA (60x60x60)



- Bilge pump control panel with switch for automatic or manual run. Run indicator

# Blank panels

You may need auxiliary modules to adapt your panel to a determined size. They can also be very useful for future improvement of your switchboard panel

0AUX (240X260X4)



1AUX (240X130X4)



2AUX (120X130X4)



3AUX (120X65X4)



4AUX (60X65X4)



# ELECTRICAL SWITCHBOARDS



## More modules

The design of your panel can be completed with modules which offer you a functionality and comfort, e.g. lighter or DC socket to charge your mobile phone.

**3MAM** (120x65x75)



- Module for engine control
- Composed by:
  - an ignition key with two positions: pre-heating and start
  - a red push-button to stop

**3MAG** (120x65x45)



- Remote control module for the generator
- Composed by:
  - a toggle push-button for the generator pre-heating
  - a toggle push-button to start
  - a red push-button to stop

**4PULN - 4PULR** (60x65x50)



- Composed by a push-button for different uses: warning, windshield wiper, engine stop, etc. For AC and/or DC current, up to 10A
- Please, specify button's colour:
  - PULR red colour and PULN black colour

**3DIMM**



- Composed by a rocker style switch and a potentiometer. This module is very useful to regulate the light intensity (up to 130W)

### 4CHO (60x65x60)



- Hourmeter with 8 numbers without zero reset
- Please, specify 12V DC or 24V DC

### 4ENC (60x65x55)



- Composed by a cigarette lighter
- Please, specify 12V DC or 24V DC

### 4TCC (60x65x35)



- Composed by a DIN type plug and its corresponding pin

### 3TCC (120x65x55)



- Composed by a cigarette lighter and a DIN type plug and its corresponding pin
- Please, specify 12V DC or 24V DC

### 4FLE (60x65x35)



- Module with a flexible lamp for reading (12V DC-5W)



All the modules indicated in this catalogue are supplied with the necessary fixing screws

# ELECTRICAL SWITCHBOARDS

## Mounting accessories

### SCREWS

Bags with 20 screws:  
TR01 3,5x16mm screw to fix the panel on the wood  
TR02 3x8mm screw to fix the breakers  
TR04 2,9x6,5mm screw to fix the "T" and "+"



### MOTE

- T fixing system for 2 panels



### MOCR

- + fixing system for 4 panels



### CMEBA06



Tie bar to connect 5 single circuit breakers  
(for modules 1DCD, 1RCD, 2DC5, etc)

### CMEBA07



Tie bar to connect 5 double pole circuit breakers  
(1DBA, 1DBC)

### CMEBA09



Tie bar to connect 2 single pole circuit breakers  
(3DC2, 3RC2)

### CMEBA11



Tie bar to connect 5 double pole rocker style circuit breakers (1RBA, 1RBC)



# Label Sheets

Label sheets in English, French or Spanish.  
Labels in other languages are available on request.

- |  |  |  |  |  |
|--|--|--|--|--|
| <ul style="list-style-type: none"> <li>• HR-EN-01</li> <li>- 12V DC</li> <li>- 12V DC battery charger</li> <li>- Anchor lights</li> <li>- Available (x2)</li> <li>- Bilge pump</li> <li>- Cabin lights</li> <li>- Deck lights</li> <li>- Engine room light</li> <li>- Klaxon</li> <li>- Microwave oven</li> <li>- Nav. light runnig</li> <li>- Navigation lights</li> <li>- Radar</li> <li>- Refrigerator</li> <li>- Saloon light</li> <li>- Search light</li> <li>- Toilet</li> <li>- Toilet light</li> <li>- Windlass</li> </ul> | <ul style="list-style-type: none"> <li>• HR-EN-02</li> <li>- 230 volt AC</li> <li>- 12V DC outlets</li> <li>- 24V DC</li> <li>- AC/DC converter</li> <li>- Auto pilot</li> <li>- Available (x2)</li> <li>- Bilge pump machinery room</li> <li>- Blower</li> <li>- Earth leakage breaker</li> <li>- Lights</li> <li>- Main breaker</li> <li>- Navigation instruments</li> <li>- Sea water pump</li> <li>- Shore supply volts</li> <li>- Television</li> <li>- VHF / radio</li> <li>- Water heater</li> <li>- Windscreen wiper</li> <li>- Windshield washer</li> </ul> | <ul style="list-style-type: none"> <li>• HR-EN-03</li> <li>- 230V AC sockets</li> <li>- 24V DC battery charger</li> <li>- Available (x2)</li> <li>- Bilge pump aft</li> <li>- Bilge pump centre</li> <li>- Bilge pump fwd</li> <li>- Compass</li> <li>- Deck light aft</li> <li>- Engine room fan</li> <li>- Flaps</li> <li>- Freezer</li> <li>- Fuel tank</li> <li>- Guest cabin</li> <li>- GPS</li> <li>- Head lights</li> <li>- Kitchen light</li> <li>- Rear lights</li> <li>- Shower pump</li> <li>- Water tank</li> </ul>                              | <ul style="list-style-type: none"> <li>• HR-EN-04</li> <li>- Ais conditioning</li> <li>- Available (x2)</li> <li>- Bowthruster</li> <li>- Cabin aft</li> <li>- Cabin fwd</li> <li>- Cockpit lights</li> <li>- Control panel</li> <li>- Courtesy lights</li> <li>- Depth sounder</li> <li>- Engine battery</li> <li>- Generator</li> <li>- Generator start</li> <li>- Main cabin</li> <li>- Phone</li> <li>- Ssb</li> <li>- Service battery</li> <li>- Start</li> <li>- Starting battery</li> <li>- Water pressure</li> </ul> | <ul style="list-style-type: none"> <li>• HN-EN-05</li> <li>- 24V DC sockets</li> <li>- Amps</li> <li>- Available (x2)</li> <li>- Cabin port</li> <li>- Cabin stbd</li> <li>- Centre lights</li> <li>- Chart table light</li> <li>- Hifi</li> <li>- Kitchen blower</li> <li>- Lighting</li> <li>- Parallel</li> <li>- Port lights</li> <li>- Shore</li> <li>- Stbd lights</li> <li>- Steering angle</li> <li>- Toilet blower</li> <li>- Wiper centre</li> <li>- Wiper port</li> <li>- Wiper stbd</li> </ul> |
| <ul style="list-style-type: none"> <li>• HR-EN-06</li> <li>- Bilge pump alarm</li> <li>- Engine alarm</li> <li>- Heating</li> <li>- Saloon</li> <li>- Compass light</li> <li>- Deck light fwd</li> <li>- Panel light</li> <li>- Wind instruments</li> <li>- Oven</li> <li>- Available (x2)</li> <li>- Washing machine</li> <li>- Engine port</li> <li>- Engine stbd</li> <li>- Plotter</li> <li>- Oil temperature</li> <li>- Toilet</li> <li>- Toilet port</li> <li>- Toilet stbd</li> <li>- Fan</li> </ul>                        | <ul style="list-style-type: none"> <li>• HR-EN-07</li> <li>- 1-Service, 2-Engine, 3-Generator</li> <li>- Alternator</li> <li>- Amps 1.2.3.</li> <li>- Available (x2)</li> <li>- Boom lights</li> <li>- Emergency stop</li> <li>- Engine</li> <li>- Fire alarm</li> <li>- Galley lights</li> <li>- Generator stop</li> <li>- Log</li> <li>- Navigation light alarm</li> <li>- Night light</li> <li>- Oil pressure</li> <li>- Revolving sidelight</li> <li>- Rpm &amp; hour</li> <li>- Volts 1.2.3.</li> <li>- Water maker</li> <li>- Water temperature</li> </ul>     | <ul style="list-style-type: none"> <li>• HR-EN-08</li> <li>- 115 volt AC</li> <li>- Available (x2)</li> <li>- Blower port</li> <li>- Blower stbd</li> <li>- Crew lights</li> <li>- Digital instruments</li> <li>- Dishwasher</li> <li>- Dryer</li> <li>- Electronic instruments</li> <li>- Flying bridge</li> <li>- Galley lights</li> <li>- Generator preheat</li> <li>- Loud speaker</li> <li>- Navigation instruments</li> <li>- Oil pressure alarm</li> <li>- Preheat</li> <li>- Shortcircuit</li> <li>- Water temperature</li> <li>- Winches</li> </ul> | <ul style="list-style-type: none"> <li>• HR-EN-09</li> <li>- Alarm</li> <li>- Available (x2)</li> <li>- Black water pump</li> <li>- Crew cabin</li> <li>- Davit</li> <li>- Fresh water pump</li> <li>- Grey water pump</li> <li>- Hydraulic System</li> <li>- Kitchen</li> <li>- Masthead light</li> <li>- Off</li> <li>- On</li> <li>- On-off</li> <li>- Start</li> <li>- Stop</li> <li>- Toilet aft</li> <li>- Toilet fwd</li> <li>- Tricolour light</li> <li>- Wind generator</li> </ul>                                  | <ul style="list-style-type: none"> <li>• HR-EN-10</li> <li>- Accessories</li> <li>- Amps AC</li> <li>- Amps DC</li> <li>- Automatic-off-manual</li> <li>- Available (x2)</li> <li>- Cabin light 1</li> <li>- Cabin light 2</li> <li>- Cabin light 3</li> <li>- Cabin light 4</li> <li>- Computer</li> <li>- Fax</li> <li>- Mute</li> <li>- Port-off-stbd</li> <li>- Stereo</li> <li>- Video</li> <li>- Voltage too high</li> <li>- Voltage too low</li> <li>- Volts AC</li> <li>- Volts DC</li> </ul>      |

# ELECTRICAL SWITCHBOARDS

## Switches

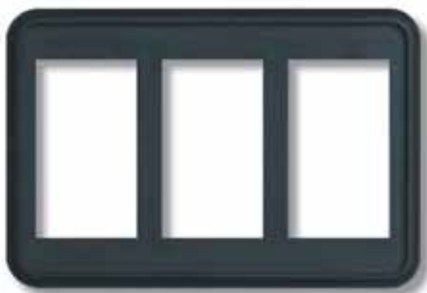
### Waterproof



We can offer a complete range of switches, with sealed front panel components. They are certified to IP65 and IP68, signifying complete protection against dust and prolonged spray and submersion under pressure, and are recognized to UL1500 - Ignition Protection for Marine Products. These switches are vibration, shock, thermoshock, moisture and salt spray resistant. Temperature ratings range from -40°C to 85°C. These single or double pole switches feature removable actuators and can be illuminated by a LED indicator. Thus you can have a complete control panel



VHP



VM3



VMS



VME

VMM

### MODELS

|                    |   |
|--------------------|---|
| <b>VPS</b>         | Panel seal for switches                           |
| <b>VME</b>         | End mounting bracket                              |
| <b>VMM</b>         | Middle mounting bracket                           |
| <b>VMS</b>         | Single mounting bracket                           |
| <b>VM3</b>         | Mounting bracket for 3 switches                   |
| <b>VM6</b>         | Mounting bracket for 6 switches                   |
| <b>VHP</b>         | Mounting panel plug in case no switch is required |
| <b>RemovalTool</b> | Removal key for the actuators                     |

## WATERPROOF SWITCHES (20AMP) WITHOUT LED

### SWITCHES (actuator not included)

|            |                              |
|------------|------------------------------|
| V1DAS00B.0 | Switch ON-OFF single pole    |
| VADAS00B.0 | Switch ON-OFF double pole    |
| V6DAS00B.0 | Switch ON-OFF-ON single pole |
| VJDAS00B.0 | Switch ON-OFF-ON double pole |

### PUSH-BUTTON SWITCHES (actuator not included)

|            |  |
|------------|--|
| V2DAS00B.0 | Push-button switch (ON)-OFF single pole      |
| VBDAS00B.0 | Push-button switch (ON)-OFF double pole      |
| V8DAS00B.0 | Push-button switch (ON)-OFF-(ON) single pole |
| VLDAS00B.0 | Push-button switch (ON)-OFF-(ON) double pole |

### COMBINATION PUSH-BUTTON SWITCH - SWITCH (actuator not included)

|            |   |
|------------|---|
| V7DAS00B.0 | Switch/Push-button switch ON-OFF-(ON) single pole |
| VKDAS00B.0 | Switch/Push-button switch ON-OFF-(ON) double pole |

## WATERPROOF SWITCHES (20A) WITH LED

### SWITCHES WITH LED @ 12V (actuator not included)

|            |  |
|------------|--|
| V1DAAH0B.0 | Switch ON-OFF, green LED indicator, 12V DC, single pole    |
| V1DAAC0B.0 | Switch ON-OFF, red LED indicator, 12V DC, single pole      |
| VADAAH0B.0 | Switch ON-OFF, green LED indicator, 12V DC, double pole    |
| VADAAC0B.0 | Switch ON-OFF, red LED indicator, 12V DC, double pole      |
| V6DAAH0B.0 | Switch ON-OFF-ON, green LED indicator, 12V DC, single pole |
| V6DAAC0B.0 | Switch ON-OFF-ON, red LED indicator, 12V DC, single pole   |
| VJDAAH0B.0 | Switch ON-OFF-ON, green LED indicator, 12V DC, double pole |
| VJDAAC0B.0 | Switch ON-OFF-ON, red LED indicator, 12V DC, double pole   |

### SWITCHES WITH LED @ 24V (actuator not included)

|            |  |
|------------|--|
| V1B1AJ0B.0 | Switch ON-OFF, green LED indicator, 24V DC, single pole    |
| V1DAAD0B.0 | Switch ON-OFF, red LED indicator, 24V DC, single pole      |
| VADAAJ0B.0 | Switch ON-OFF, green LED indicator, 24V DC, double pole    |
| VADAAD0B.0 | Switch ON-OFF, red LED indicator, 24V DC, double pole      |
| V6DAAJ0B.0 | Switch ON-OFF-ON, green LED indicator, 24V DC, single pole |
| V6DAAD0B.0 | Switch ON-OFF-ON, red LED indicator, 24V DC, single pole   |
| VJDAAJ0B.0 | Switch ON-OFF-ON, green LED indicator, 24V DC, double pole |
| VJDAADB.0  | Switch ON-OFF-ON, red LED indicator, 24V DC, double pole   |

### PUSH-BUTTON SWITCHES WITH LED @ 12V (actuator not included)

|            |  |
|------------|--|
| V2DAAH0B.0 | Push-button switch (ON)-OFF, green LED indicator, 12V DC, single pole      |
| V2DAAC0B.0 | Push-button switch (ON)-OFF, red LED indicator, 12V DC, single pole        |
| VBDAAH0B.0 | Push-button switch (ON)-OFF, green LED indicator, 12V DC, double pole      |
| VBDAAC0B.0 | Push-button switch (ON)-OFF, red LED indicator, 12V DC, double pole        |
| V8DAAH0B.0 | Push-button switch (ON)-OFF-(ON), green LED indicator, 12V DC, single pole |
| V8DAAC0B.0 | Push-button switch (ON)-OFF-(ON), red LED indicator, 12V DC, single pole   |
| VLDAAH0B.0 | Push-button switch (ON)-OFF-(ON), green LED indicator, 12V DC, double pole |
| VLDAAC0B.0 | Push-button switch (ON)-OFF-(ON), red LED indicator, 12V DC, double pole   |

### PUSH-BUTTON SWITCHES WITH LED @ 24V (actuator not included)

|            |  |
|------------|--|
| V2DAAJ0B.0 | Push-button switch (ON)-OFF, green LED indicator, 24V DC, single pole      |
| V2DAAD0B.0 | Push-button switch (ON)-OFF, red LED indicator, 24V DC, single pole        |
| VBDAAJ0B.0 | Push-button switch (ON)-OFF, green LED indicator, 24V DC, double pole      |
| VBDAAD0B.0 | Push-button switch (ON)-OFF, red LED indicator, 24V DC, double pole        |
| V8DAAJ0B.0 | Push-button switch (ON)-OFF-(ON), green LED indicator, 24V DC, single pole |
| V8DAAD0B.0 | Push-button switch (ON)-OFF-(ON), red LED indicator, 24V DC, single pole   |
| VLDAAJ0B.0 | Push-button switch (ON)-OFF-(ON), green LED indicator, 24V DC, double pole |
| VLDAAD0B.0 | Push-button switch (ON)-OFF-(ON), red LED indicator, 24V DC, double pole   |

### COMBINATION PUSH-BUTTON SWITCH/SWITCH WITH LED @ 12V (actuator not included)

|            |   |
|------------|---|
| V7DAAH0B.0 | Switch/Push-button switch ON-OFF-(ON), green LED indicator, 12V DC, single pole |
| V7DAAC0B.0 | Switch/Push-button switch ON-OFF-(ON), red LED indicator, 12V DC, single pole   |
| VKDAAH0B.0 | Switch/Push-button switch ON-OFF-(ON), green LED indicator, 12V DC, double pole |
| VKDAAC0B.0 | Switch/Push-button switch ON-OFF-(ON), red LED indicator, 12V DC, double pole   |

### COMBINATION PUSH-BUTTON SWITCH/SWITCH WITH LED @ 24V (actuator not included)

|            |   |
|------------|---|
| V7DAAJ0B.0 | Switch/Push-button switch ON-OFF-(ON), green LED indicator, 24V DC, single pole |
| V7DAAD0B.0 | Switch/Push-button switch ON-OFF-(ON), red LED indicator, 24V DC, single pole   |
| VKDAAJ0B.0 | Switch/Push-button switch ON-OFF-(ON), green LED indicator, 24V DC, double pole |
| VKDAAD0B.0 | Switch/Push-button switch ON-OFF-(ON), red LED indicator, 24V DC, double pole   |

# ELECTRICAL SWITCHBOARDS

## Waterproof Switches



ACTUATORS



**VVA9B00:** Blank



**VVA9B38:** Anchor light



**VVA9BMA:** Running light



**VVA9BMH:** Windshield wiper



**VVA9BMC:** Master light



**VVA9BMB:** Cabin light



**VVA9B42:** Water flushing tap for outboard



**VVA9B40:** Anchor



**VVA9BMF:** Ventilation / fan



**VVA9BME:** Propulsion system trim



**VVA9BMG:** Windshield washer



**VVA9BMD:** Horn



**VVA9BMJ:** Bilge pump

More assortment available at  
Enernaval's office



**VVA9BA6:** Master switch



**VVA9BXX-XRA1:** Running/anchor light



**VVA9BM4:** Search light



**VVA9B3K:** Check



**VVA9B9U:** Speaker



**VVA9BS8:** Winche



**VVA9BMK:** Bilge blower



**VVA9BML:** Potable water pressure



**VVA9BA8:** Fast speed



**VVA9B2Z:** Fuel



**VVA9B3H:** Slow speed



**VVA9B7A:** Bilge pump 1



**VVA9B7C:** Bilge pump 2



**VVA9B7E:** Bilge pump 3

# ELECTRICAL SWITCHBOARDS

## Waterproof Switches



**VVA9BD9:** Steering



**VVA9BY9:** Arrow up



**VVA9BZ2:** Arrow down



**VVA9BBL:** Work light



**VVA9BMM:** Engine start



**VVA9BMN:** Engine stop



**VVA9B33:** Emergency start



**VVA9B55:** Work light



**VVA9B45:** High beam light



**VVA9B48:** Low dipped-beam



**VVA9BDF:** Side marker



**VVA9B52:** Interior light



**VVA9B58:** Work lamp



**VVA9B63:** Rotary beacon



**VVA9B4N:** Side marker lamps



**VVA9B70:** Warning



**VVA9B3M:** Aire conditioning



**VVA9B77:** Rear fog



**VVA9B98:** "NAV LTS" actuator



**VVA9B5J:** Windscreen heating



**VVA9B86:** Direction indicator



**VVA9B1J:** Water pump



**VVA9B6L:** Mute



# GENERAL CONDITIONS

These general sales conditions shall be applied for all requests for proposal, offers, orders, contracts and other legal relationships between Enernaval Ibérica, S.L. and the customer ("you"), regarding the supply and delivery of products by Enernaval Ibérica, S.L. to customer.

These general sales conditions are valid, from the order processing up to the supply (payment and delivery included) of the material.

## ORDERS

- By PHONE: +34 93 759 82 95, by FAX: +34 93 754 20 19, by E-MAIL: [export@enernaval.es](mailto:export@enernaval.es).

Our staff will be at your disposal from Monday to Friday, from 8h30-13h30 and from 15h00-18h00, to answer your questions and to help you to place an order.

## PRICES

The prices are quoted in Euros and payments shall be made in Euros. The prices are exclusive of VAT, freight charges, handling cost and any other taxes.

Enernaval Ibérica, S.L. can change the prices without notice. The applicable price list will be found at our web site: [www.enernaval.es](http://www.enernaval.es)

## DELIVERY

Material will be shipped under the responsibility of the customer. Unless the customer advises the contrary, Enernaval Ibérica, S.L. will ship the material using its normal transport company.

- Delivery conditions

If all the ordered material is available, your order will be processed IMMEDIATELY.

Material will be delivered at the delivery address specified by the customer. In case you are not present for the delivery, a new delivery will be organised, free of charge.

- Reception of the goods

When the material is received, before signing the delivery note, the customer must check:

1/ The received material corresponds to the ordered material.

Contact us if there is any doubt or if you need clarification regarding the received material, and if there is any problem, we will solve it.

2/ The received material is in good conditions.

If you detect some defect in the packing (damaged, crushed or opened package), this has to be indicated in the delivery note.

## RETURNS

Customer satisfaction is our main target. If you are not satisfied with the ordered material, you can turn it back. In order to accept the material refunds:

- You must ask for the refund in the 7 days after the delivery of the material

- Material has to be turned back in perfect conditions, in the original package and together with all additional accessories and technical documentation

- You have to contact us (+34 93 759 82 95) and indicate us the reasons why you want to turn back the material

- You have to return the goods at your charge. If the turned back material is due to a faulty delivery, the return freight charges will be included in the delivery note

- Return material has to be sent to:

Enernaval Ibérica, SL  
Camí del Mig, 20  
08349 Cabrera de Mar  
Barcelona  
SPAIN

All the Enernaval products are covered by a 2 year warranty period time, unless another time is specified. This warranty does not cover manipulated products or products damaged due to a wrong use. Warranty does not include labour work and allowance.

## PRIVACY DATA

Enernaval Ibérica, S.L. is well aware of your importance privacy. For our company, it is very important not to sell our customer database to a third party.

Personal data will be stored in one or more files of an automated process to offer you the best service possible when we attend you. If you have given us your details, whenever you want you can use your right to opposition, access, modification and cancellation, sending us an e-mail or a letter, according the Data Privacy Law.

## PAYMENT MODE

The first order has to be paid in advance. For future operations and after checking your company situation, Enernaval Ibérica, S.L. can contemplate the possibility to open you an account, respecting the conditions established between both companies. Payment will be done through wire transfer.

For orders below 150 Euros net, payment will be done in advance. Repairs have to be paid cash. Orders below 100€ will be increased with 8€ and below 500€ will increase in 5€ due to handling cost.

## APPLICABLE LAW

The conditions of use apply the Spanish law. Enernaval Ibérica, S.L. and the customer will refer to the Barcelona Court in case any dispute occurs during the order process, object of these conditions of use. The customer will accept all the exposed conditions for processing orders.

## COMMUNICATION OF DATA TO OTHERS COMPANIES

In order to give you the required information, products or service, if we should contact other companies (e.g. post office, express delivery company, transport company), we will only give the strictly essential data in order they can give you assistance. It will be forbidden they use this information for any other purpose.

## SALES CONDITIONS UPDATE

It may be possible that we have to make some changes in our General Sales Conditions in order to adapt them to current laws. Thus, we recommend you to have a look at our sales conditions frequently.

# EnerNaval



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