

# VETUS<sup>®</sup> BATTERY CHARGERS

## BATTERY CHARGER (FROM 230 VOLT A.C. TO 12 OR 24 VOLT D.C.)

The fully automatic VETUS battery chargers transform 230 Volt A.C. (e.g. from shore supply) to 12 or 24 Volt D.C. for fast, safe and efficient battery charging, without any risk of overcharging. They may be in operation permanently, even during winter time. These battery chargers feature the ideal I.U. charging characteristic with "float phase", which will reduce the charge current as soon as the gassing voltage (14.2 Volt/28.4 Volt) has been reached and will, in the final stage, reduce the charge even further to the "float" voltage of 13.5 Volt/27 Volt, in order to avoid water consumption by the battery. By using a VETUS battery charger the lifetime of your valuable batteries will be considerably extended.



Type BC 15-B



Type BC 25/30



Type BC 50/60

The models BC 50 and BC 60 are equipped with a second outlet, so that another battery may be connected without the need of a diode splitter. This second outlet will charge the battery with 6 A maximum.

### TECHNICAL DATA

#### BC 15-B (12V)

Input connection : 230/240 Volt 48-62 Hz  
 Charging current : 15 Ampère  
 Charging voltage : 14.2 Volt (adjustable)  
 IU-charging characteristic with "float phase".  
 Dimensions: l x w x h : 200 x 145 x 90 mm  
 Weight : 2 kg (4.4 lbs)

An on/off switch with 6 m cable in length, for possible use as a remote control, is standard supply.

#### BC 25 (24V)

Input connection : 230/240 Volt 48-62 Hz  
 Charging current : 25 Ampère  
 Charging voltage : 28.2 Volt (adjustable)  
 IU-charging characteristic with "float phase".  
 Dimensions: l x w x h : 300 x 190 x 200 mm (11.8" x 7.5" x 7.8")  
 Weight : 3.5 kg (7.7 lbs)

#### BC 30 (12V)

Input connection : 230/240 Volt 48-62 Hz  
 Charging current : 30 Ampère  
 Charging voltage : 14.2 Volt (adjustable)  
 IU-charging characteristic with "float phase".  
 Dimensions: l x w x h : 200 x 190 x 200 mm (7.8" x 7.5" x 7.8")  
 Weight : 3.5 kg (7.7 lbs)

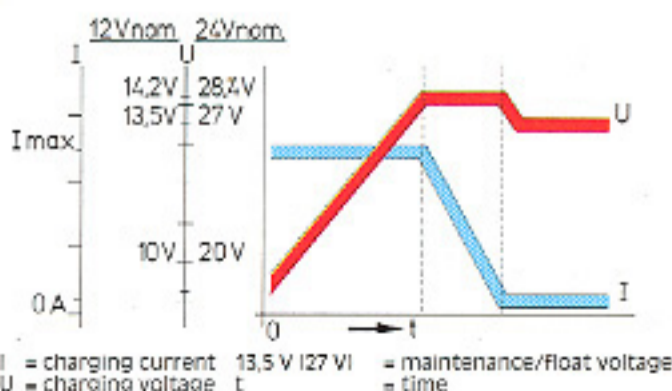
#### BC 50 (24V)

Input connection : 230/240 Volt 48-62 Hz  
 Charging current : 50 Ampère  
 Charging voltage : 28.2 Volt (adjustable)  
 IU-charging characteristic with "float phase".  
 Adjustable charging current only when the remote control is connected.  
 Dimensions: l x w x h : 300 x 190 x 410 mm (11.8" x 7.5" x 16.1")  
 Weight : 26 kg (57 lbs)

#### BC 60 (12V)

Input connection : 230/240 Volt 48-62 Hz  
 Charging current : 60 Ampère  
 Charging voltage : 14.2 Volt (adjustable)  
 IU-charging characteristic with "float phase".  
 Adjustable charging current only when the remote control is connected.  
 Dimensions: l x w x h : 300 x 190 x 410 mm (11.8" x 7.5" x 16.1")  
 Weight : 26 kg (57 lbs)

### CHARGING CHARACTERISTICS IU-FLOAT



#### TEMPERATURE SENSOR FOR THE BATTERY

With an increased battery temperature, a reduced charge voltage should be applied, in order to prevent water consumption by the battery. To all

VETUS battery chargers (except BC 15-B) a temperature sensor of our own make may be directly connected. By doing so, the battery charger can adapt the charge voltage to the battery temperature in the best possible manner.



RCP 25/30



RCP 50/60

**REMOTE CONTROLS:** For each battery charger (except BC 15-B) a remote control is available as an option, providing a read out of the principal functions plus the possibility to start and stop the battery charger itself. The model RCP 50/60 features an additional device to reduce the incoming current, enabling the batteries to be charged even from a low-voltage shore supply. The remote controls come complete with 6 m. cable. Extension cables may be supplied on request. Model BC 15-B comes with an on/off switch and 6 metre cable for remote control of the battery charger.

# VETUS<sup>®</sup> BATTERY GUARDS



## VETUS BATTERY GUARD BW 1 (for one 12 V-battery)

The voltage of the battery is indicated on the control panel. As soon as the battery voltage drops below 10.5 Volt, an acoustic alarm will operate and the load will be disconnected from the battery by means of a relay. This will greatly extend the life of the battery. From the control panel, the relay may also be used as the main battery switch.

**TYPE BW1**

**Technical data:**  
Suitable for 12 Volt D.C. electrical installations.  
**Switch relay, 70 Amp.**  
On/off switch on the control panel.  
Automatic cut-out when the battery voltage becomes too low.  
Cut-out voltage: 10.5 volt with a one minute delay (impervious to brief peak loads).  
Cut-in voltage: 11.5 Volt.  
**Remote control**  
Voltage read-out, via a LED-bar.  
**Monitors:**  
● LED "voltage too low" with alarm buzzer.  
● Battery guard "on".  
● Relay connected.  
Switching possibilities: battery guard on/off, buzzer on/off and switch relay battery on/off.  
Panel dimensions: 94 x 94 mm (3.7" x 3.7").

## VETUS BATTERY GUARDS FOR 2 OR 3 BATTERIES

### THE VETUS BATTERY GUARD MODEL BW 3 CONTAINS A THREE-WAY SEPARATING DIODE, WHICH DOES NOT REQUIRE COMPENSATION.

This VETUS battery guard controls 3 separate battery banks (e.g. starter battery, lighting battery and battery for the bow thruster) and ensures that all three batteries are being charged simultaneously by the engine's alternator or by a battery charger. In actual fact, the VETUS battery watch is:

- a three-way separating diode, with no voltage drop
- a safeguard/alarm when low voltage occurs
- a switch on/off relay for the lighting battery
- a trickle charger of the batteries for starting and the bow thruster (limited to 3A charging current, when using a VETUS combined inverter/battery charger)



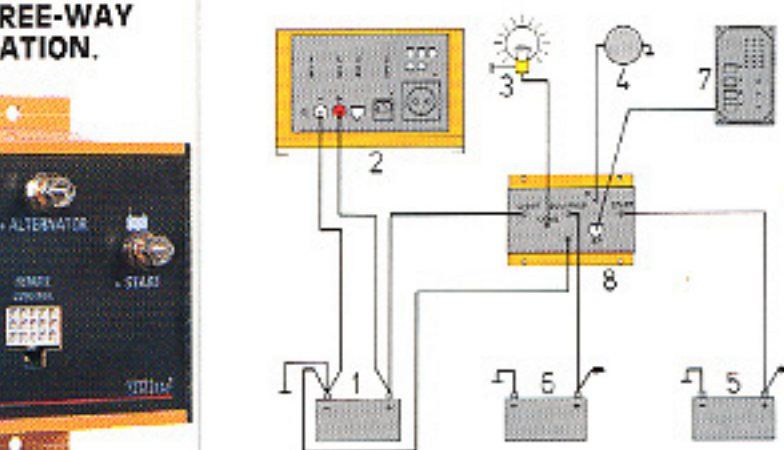
**TYPE BW3-90**

The remote control panel, which is supplied as standard, indicates the voltage of the three batteries and will trigger an acoustic alarm if the battery voltage drops too low. From the control panel the relay may also be operated as a main switch for the lighting battery.

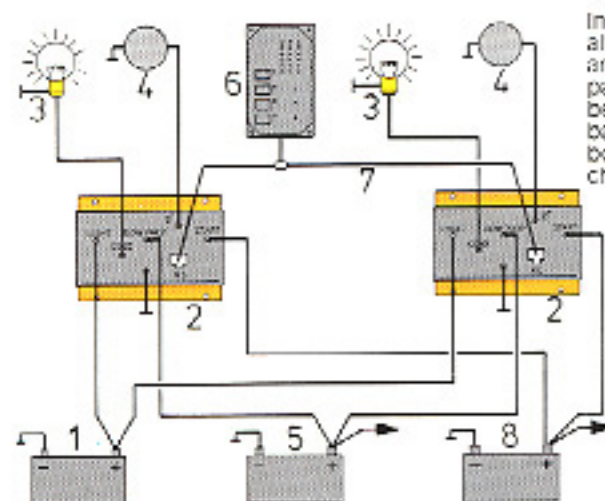
VETUS battery guard possesses a 70 Amps. relay, which will switch off one of the batteries (e.g. the lighting battery) before it is completely discharged by the consumers loads. This will considerably enhance the life of the battery.



**Technical data:**  
Suited for 12 or 24 volt electrical installations.  
**Features three separating diodes, 90A,** suitable for an alternator with a maximum charging current of 90 Amp, with no compensation connection for the alternator required.  
**Switch relay, 70A for the lighting battery(s).**  
May be switched on or off from the control panel.  
Automatic switch-off when the lighting battery reaches a too low voltage.  
Switch-off voltage: 10.5 Volt with a one minute delay (impervious to brief peak loads). Switch-on voltage: 11.5 Volt.  
**Remote control**  
Voltage read-out: by means of 3 LED-bars (lighting battery, bow thruster battery, starter battery).  
Monitoring "low voltage" LED with alarm buzzer.  
Monitoring LED "alternator charging".  
Switching possibilities: control panel on/off, alarm on/off, switch relay on/off and trickle charger on/off.



1. CONSUMER BATTERY
2. BATTERY CHARGER/INVERTER
3. CONSUMER
4. ALTERNATOR
5. STARTER BATTERY
6. BOW THRUSTER BATTERY
7. REMOTE CONTROL
8. BATTERY WATCH

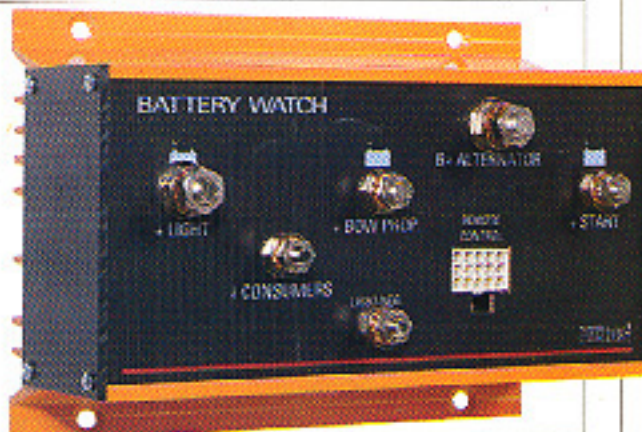


In the case of a twin engine installation (two alternators), it will be possible to control and monitor two battery guards with one panel. To this effect, an extension set may be supplied, consisting of one additional battery guard and a cable to interconnect both battery guards. On the panel, a current charging monitoring light for one alternator only is available, but all other functions can be used in full.

1. DOMESTIC BATTERY (LIGHTING)
2. BATTERY GUARDS
3. DOMESTIC BATTERY (PUMPS ETC.)
4. ALTERNATORS
5. BOW THRUSTER BATTERY
6. REMOTE CONTROL
7. CONNECTION CABLE
8. STARTER BATTERY

Model BW3-90, shown above, is suitable for an alternator with a maximum charging current of 90 A. Model BW3-125 is designed to suit alternators with a charging current of up to 125 A. For this purpose, three separating diodes of 125 A each have been installed. Apart from that, the technical specifications are identical to those of type BW3-90.

**TYPE BW3-125**



## VETUS D.C.-D.C. CONVERTER (24 VOLT D.C. → 12 VOLT D.C.)

### Technical data:

Input connection:  
20 - 35 Volt D.C.  
Power: 20 Ampère  
Output: 13.5 Volt D.C.  
Dimensions:  
200 x 145 x 90 mm  
Weight: 2 kg (4 lbs)



The VETUS D.C.-D.C. converter transforms 24 Volt D.C. battery current to 12 Volt D.C. consumer current. This enables the use of 12 Volt D.C. appliances with a 24 Volt D.C. board circuitry. In particular a car phone requires a very stable 12 Volt supply; this applies as well to various navigational aids. Most common D.C. converters have a very low efficiency, as they transform half of the energy into heat, creating a fire hazard as well. VETUS D.C.-D.C. converters have an efficiency of more than 90% and may be applied in total safety.