

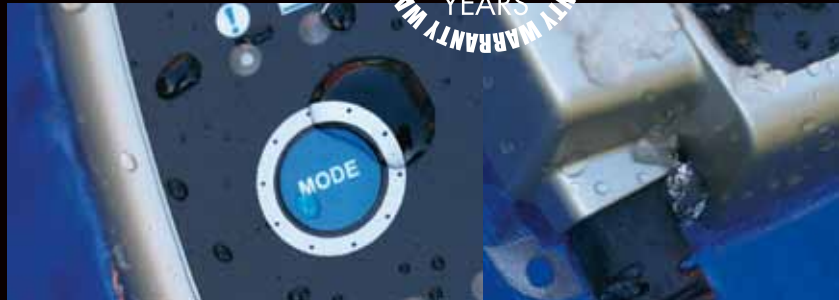
# CTEK MARINE CHARGER FOR SMALLER BATTERIES

**SIMPLICITY – SAFETY – FLEXIBILITY**



## CTEK M45

CTEK M45 is the perfect choice for the marine market and boats with batteries from 1.2-120Ah, like jet skis and smaller boats. Unlike old battery chargers, CTEK chargers are designed with a focus on simplicity, safety and flexibility. Marine batteries need special care as they are put under a lot of pressure. The batteries need to recover quickly to satisfy the needs and comfort of the boat owner.



### • Fully automatic

CTEK M45 offers a fully automatic charging cycle, the charger takes its own readings and then begins to charge the battery, including pulse maintenance (arguably the most caring mode for a battery connected for a long time – patented system by CTEK) for best performance and service life. CTEK M45 can be connected for months, which is ideal when the boat is not in use and during the off season.

### • Flexible for different battery needs

CTEK M45 is specifically developed for different needs, boats and batteries. There is a choice between three different modes. The low-current mode (the jet ski icon) is perfect for smaller 12V batteries such as jet skis. The higher current mode (the boat icon) is for marine applications with batteries up to 120Ah. Finally, an additional AGM mode is specifically aimed at charging and maintenance of the Optima Red Top batteries and is also perfect for cold weather.

### • No harmful galvanic currents

The CTEK M45 produces no harmful galvanic currents that cause corrosion which quickly damages various metal components under the boat, including propellers and ladders.

### • Counteracts sulphation

Unused batteries lose their power and their life is shortened through sulfation. It is also more difficult to charge sulfated batteries. The CTEK M45 has a patented method for reconditioning sulfated batteries. The charger analyzes the state of the battery and, if possible, recovers the battery and its power.

### • Compatible with the boats electronic equipment

The marine environment is filled with GPS, navigation systems and other devices that are sensitive. Unlike less-sophisticated chargers, there is no need to disconnect the battery when charging as CTEK M45 is specially designed not to damage the electronic systems.

### • Made for all weather conditions and situations

The CTEK M45 is prepared to charge and maintain, no matter the weather, temperature or situation. The CTEK M45 is extremely robust and water and dust resistant (IP65 classification). The CTEK M45 is certified for use between -20°C and +50°C. In order to make things easier and more convenient, Comfort Connect (eyelet terminals) can be permanently connected to the boat battery.

### • Designed for safety

All CTEK models are designed to consider the safety of the user. They are spark free, making the connection much easier and safer considering the gases batteries normally produce. The CTEK M45 is also protected from reverse-polarity connections and is short-circuit proof. A red light on the charger will simply indicate that the charging cannot begin until the user has connected the charger correctly.



**12V**  
**0.8/3.6A**  
**45W**

**1.2–75Ah (charging)**  
**1.2–120Ah (maintenance)**  
**IP65**

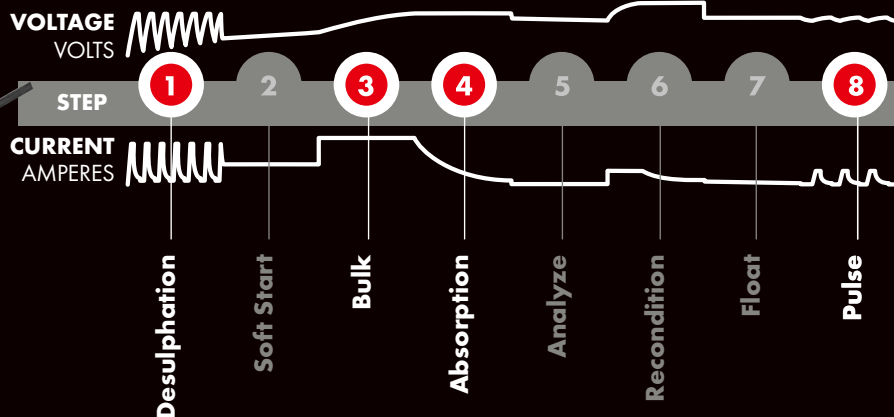


THE SMARTEST BATTERY CHARGERS IN THE WORLD



## M45

4 step



## Technical data – M45

Input voltage AC	170–260VAC, 50–60Hz
Output voltage	Nominal: 12V
Efficiency	HIGH 85%
Charging voltage	14.4V/0.8A, 14.4V/3.6A, 14.7V/3.6A
Charging current	3.6A max
Back current drain *	<1Ah per month
Ripple **	~2%
Ambient temperature	-20 °C to +50 °C, output power is reduced automatically at higher temperatures
Cooling	Natural convection
Type of charger	4 step, fully automatic switch mode with pulse maintenance
Type of batteries	12V lead-acid batteries (Wet, MF, AGM, GEL and Ca)
Battery capacity	Charging: 1.2–75Ah, Maintenance: 1.2–120Ah
Dimensions (LxWxH)	165x61x38mm
Insulation class	IP65 (splash and dust proof)
Weight	0.5kg

\*) Back current drain is what drains the battery if the charger is connected without the power cord connected.

\*\*) Ripple describes the quality of the current and voltage. A high current ripple heats the battery and shortens its life. A linear charger has a current ripple of 70–400% which is much larger than the maximum 5% for a modern sealed battery. High voltage ripple could harm other equipment that is connected to the battery. M45 delivers voltage and current with very low ripple. The battery has a long service life and there is no risk of damage to other electronic devices connected to the battery.



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