

MW-SC4B

Electronic smart charger – 6V/1A , 12V/1A/4A




■ Features:

- Suitable for 6V and 12V lead-acid wet, gel and AGM batteries
- Battery capacity: 1.2Ah – 14Ah(6V), 1.2Ah-120Ah (12V)
- Protections: Short circuit / Over voltage
- Selectable charging current: 1A (6V), 1A/4A (12V)
- LCD display and user-friendly interface, Microprocessor-controlled
- Battery condition detection, recondition mode

■ Applications:

- Cars, quads, boats, lawn mowers, motorcycles, mopeds, snow and water scooters

ELECTRICAL SPECIFICATION

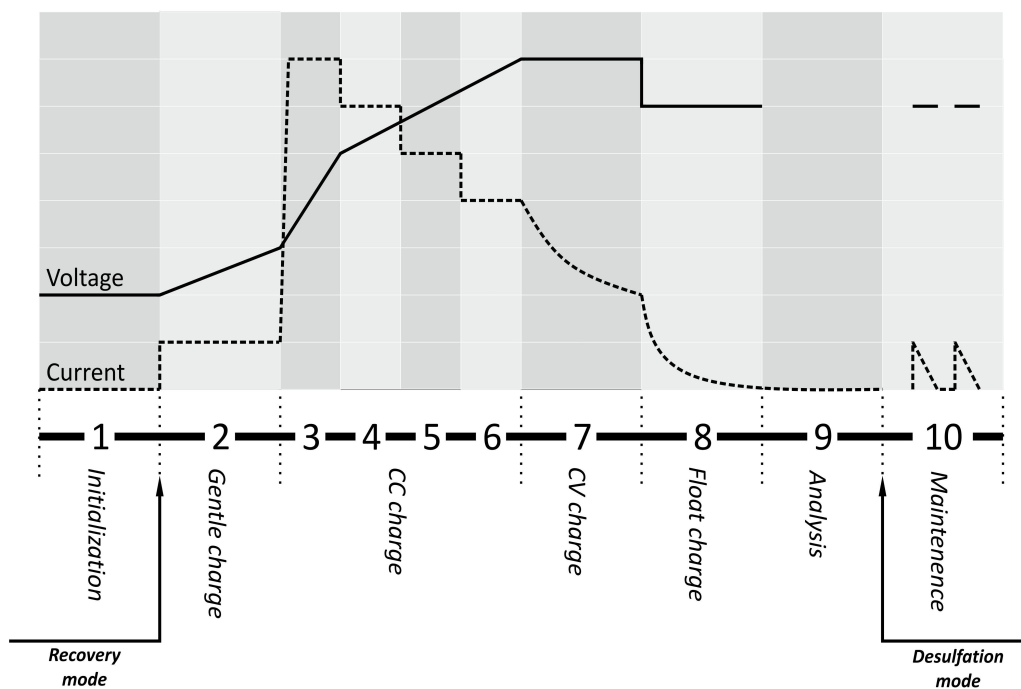
MODEL		MW-SC4B	
INPUT			
Input voltage		220-240V (50Hz)	
Input current (max.)		0.75A/230VAC	
OUTPUT			
Output voltage (max.)		7.4V	14.7V
Output current		1A	1A / 4A (selectable)
Rated power (max.)		88.2W	
Efficiency (typ.)		80%	
PROTECTIONS			
Over voltage		>9VDC (6V mode), >16V (12V mode), shut down output voltage	
Short circuit		Shut down output voltage, indicated on the display	
WORKING ENVIRONMENT			
Working temperature		-5°C ÷ + 40°C	
Working humidity		20-90% (RH non-condensing)	
Storage temperature and humidity		-10°C ÷ 60°C, 10 ÷ 95% (RH non-condensing)	
SAFETY AND EMC REGULATIONS			
Safety standards		EN 60335-2-29:2004 + A2:2010; EN 60335-1:2012 + A11:2014	
EMC standards		EN 55014-1 , EN 61000-3-3, EN 55014-2, EN 61000-3-3, EN-61000-3-2	
OTHERS			
Dimensions	Length	Width	Height
	177.0mm	71.0mm	44.0mm
Weight (net/gross)		0.410kg / 0.525kg	
EAN code		 519021351136027	

MODE

Mode 1 – 6V (max. 7.2V/1A)	Suitable for 6V batteries with a capacity between 1.2Ah and 14Ah in normal state. Charging mode for WET, MF batteries and most GEL batteries.
Mode 2 – 6V (max. 7.4V/1A)	Suitable for 6V batteries with a capacity between 1.2Ah and 14Ah in cold conditions. This charging mode is also designed for many AGM batteries.
Mode 3 – 12V (max. 14.4V/1A)	Suitable for 12V batteries with a capacity between 1.2Ah and 14Ah in normal state. Charging mode for WET, MF batteries and most GEL batteries.
Mode 4 – 12V (max. 14.7V/1A)	Suitable for 12V batteries with a capacity between 1.2Ah and 14Ah in cold state. This charging mode is also designed for many AGM batteries.
Mode 5 – 12V (max. 14.4V/4A)	Suitable for 12V batteries with a capacity between 14Ah and 120Ah in normal state. Charging mode for WET, MF batteries and most GEL batteries.
Mode 6 – 12V (max. 14.7V/4A)	Suitable for 12V batteries with a capacity between 14Ah and 120Ah in cold state. This charging mode is also designed for many AGM batteries.

CHARGING STAGES

MULTI-STAGE CHARGING PROCESS



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No.	Stage	Description
1	Initialization	Checks the battery's condition to determine the charge process. If the battery is deeply discharged, it will enter into the Recovery Mode to refresh the battery.
2	Gentle charge	Starts the charging process with a small current, which can warm up the batteries and avoid the battery suddenly bulk charged.
3 - 6	Constant current charge	Returns 85% of the battery capacity by charging at max rate and other rate.
7	Constant voltage charge	Brings the charge level to 95% by gradually decreasing the current, which limits battery gassing and prolong battery life.
8	Float charge	Finalizes the charging process and brings the battery to maximum capacity.
9	Analysis	It will cut off the output and analyze whether the battery can hold the capacity. It may enter into the Desulfation Mode to deeply recover the battery.
10	Maintenance	Monitors battery condition. If battery voltage falls below its threshold, the charger restarts the charge, which ensures the battery at full charge and without the risk of overcharge.

-	Recovery mode	Achieves the recovery process of deeply discharged or sulfated batteries by pulsing small current - refers to battery reconditioning function. This mode started automatically (when the battery is deeply discharged).
-	Desulfation mode	Recover battery capacity from a sulfated battery by applying a specialized high voltage to soften down sulfate from the battery plates - refers to battery reconditioning function. This stage is initialized after <i>Analysis</i> if the battery does not hold the charge.

For further details, please refer to the user manual.

MECHANICAL SPECIFICATION

