



**MPPT STEP-DOWN**

**SOLAR CHARGE CONTROLLER**

**PRODUCT DATASHEET**

**MPC-25A**



## PRODUCT INTRODUCTION

The step-down MPPT solar controller MPC-25A is an intelligent photovoltaic controller designed for small photovoltaic off-grid power generation systems. It uses the industry leading MPPT maximum power point tracking technology to achieve maximum energy tracking of solar panels, enabling it to quickly and accurately track the maximum power point of solar cells in any environment, and obtain the maximum energy of solar panels in real-time, significantly improve the energy utilization rate of solar systems.

# 1 PRODUCT FEATURE

- MPPT type, suitable for different voltage solar panels.
- Using high efficiency synchronous rectifier circuit structure
- Output power: 200W 300W 400W
- Output voltage adjustable
- Support for lead-acid and lithium battery etc.
- Voltage & current LED display
- Efficiency  $\geq 95\%$
- Short-circuit protection
- Over temperature protection
- Under-voltage protection
- Size: 120\*80\*40mm
- Weight: 500g

## 2 APPLICATION AREA

- Solar charger

## 3 TECHNICAL PARAMETERS

### 3.1 ELECTRIC PARAMETER

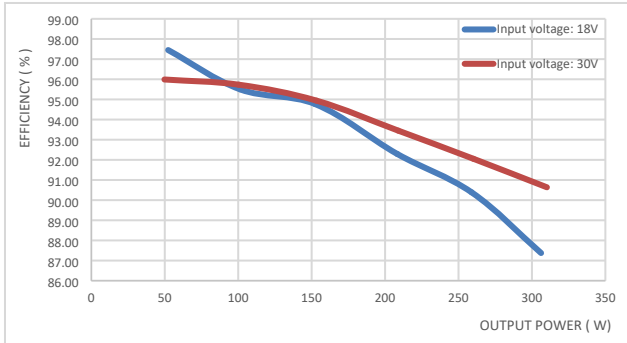
PARAMETER NAME	CONDITION	MIN	RATED	MAX	
POWER			200/300/400	250/350/450	W
Solar tracking voltage range		17		55	V
MAX output voltage		10		30	V
MAX output current	EL-MD200SP		200/Vo	250/Vo or 25 <sup>[1]</sup>	A
	EL-MD300SP	-	300/Vo	350/Vo or 25 <sup>[2]</sup>	
	EL-MD400SP		400/Vo	450/Vo or 25 <sup>[3]</sup>	
Efficiency			97%		
Inside temperature protection			100		°C
Operating ambient temperature	Full load	-40		65	°C
Storage temperature		-40		125	°C

Attention: [1] [2] [3] choose the smaller one.

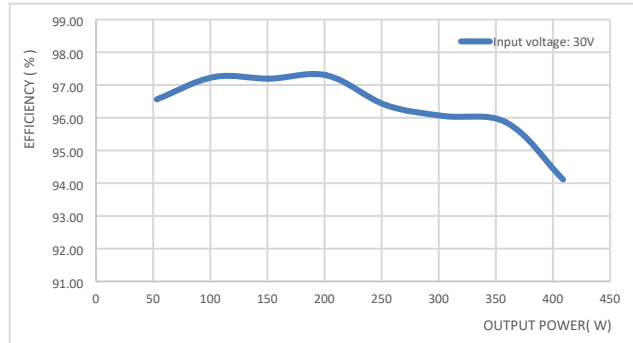
## 3.2 PARAMETER CURVE

### 3.2.1 EFFICIENCY CURVE

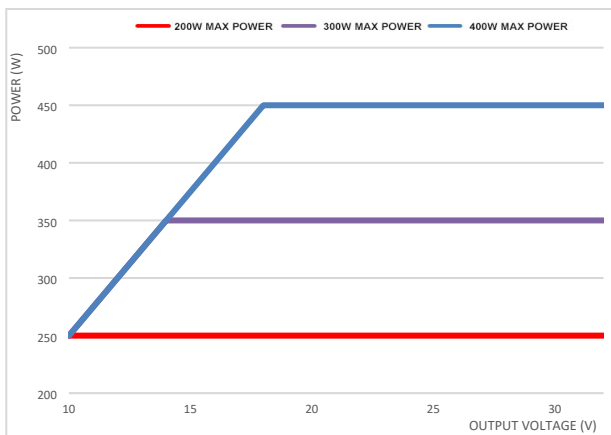
OUTPUT 12V:



OUTPUT 24V:



### 3.2.2 RELATION CURVE BETWEEN OUTPUT VOLTAGE AND MAXIMUM OUTPUT POWER

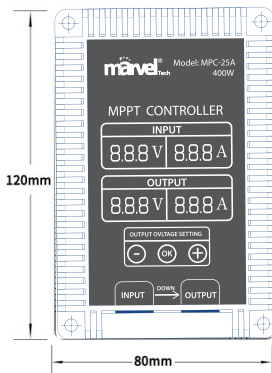


### 3.3 OTHER PARAMETER

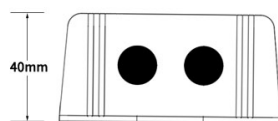
- Level of protection: IP66
- Noise: < 55dB
- Mechanical shock and vibration resistance: accord with SAEJ1378

### 3.4 SHAPE PARAMETER

#### DIMENSION DRAWING



L: 120 mm  
 W: 80 mm  
 H: 40 mm  
 Mounting hole distance:  
 110 mm \* 70 mm  
 Mounting hole size:  
 5 mm



### SCHEMATIC DIAGRAM

