



# MPC-40A

## STEP-DOWN MPPT

## SOLAR CHARGE CONTROLLER

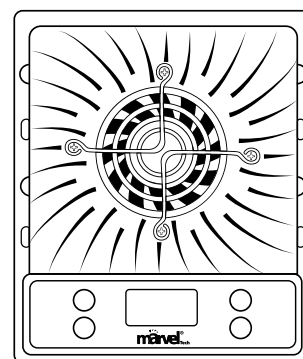


### PRODUCT INTRODUCTION

The step-down MPPT solar controller MPC-40A 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.

### APPLICATION AREA

- Solar power generation
- Outdoor energy storage power supply
- RV backup power supply
- Household appliances
- Lighting
- Digital products
- Solar powered toy cars





## TECHNICAL PARAMETERS

### ELECTRIC PARAMETER

PARAMETER NAME	CONDITION	MIN	RATED	MAX	
POWER			600		W
Solar tracking voltage range		17		55	V
MAX output voltage		10	13.8	30	V
MAX output current	600W		600/Vo	600/Vo or 43 [1]	A
	12V system		40	43	A
	24V system		20	22	A
No-load loss			0.5W-0.8W		
Voltage regulation			1%		
Load regulation			5%		
PWM efficiency			97%		
MPPT efficiency			99.5%		
Cooling method			smart air cooling		
Charging method			CV CC		
Internal temperature protection			110		°C
Operating ambient temperature	Full load	-40		65	°C
Storage temperature		-40		125	°C

Figure 7-1: Electrical Parameter

Note: Items or data that are blank in the table do not exist. [1] The smaller value of the two is used.

Note: This translation may vary slightly depending on the context in which it is used.





# EFFICIENCY CURVE

## 7.2.1 12V system conversion efficiency

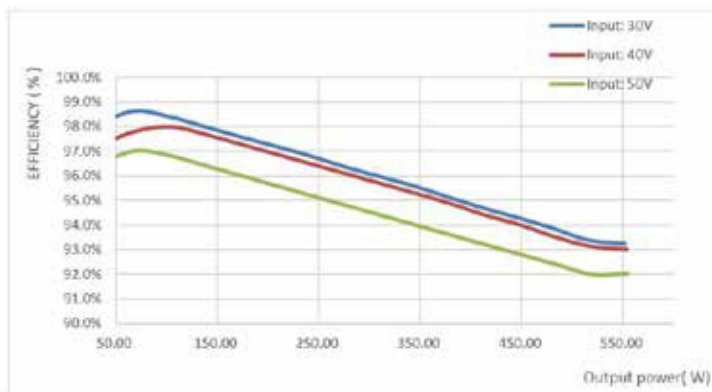


Figure 7.2-1 output 13.8V

## 7.2.2 24V system conversion efficiency

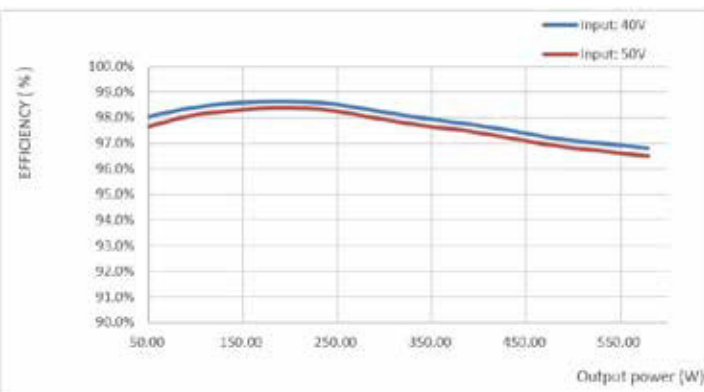


Figure 7.2-2 output 27.6V

## OTHER PARAMETER

- Protection level: IP65
- Noise: <55dB
- Mechanical shock & vibration resistance: Compliant with SAE

J1378

- G.W.: 1300g
- N.W.: 1050g
- Carton size: 295\*176\*70mm

## SHAPE PARAMETER

