---- MPPT Charger
---- Specification

MPPT efficiency≥99.9%

Charging efficiency up to 98%

Ordering type

MC10/MC15

MC10_Li/MC15_Li

Address: Noth of Huafa Rd,Gongming,Guangming new Dis.,Shenzhen,China
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1 Features

Professional design to promote system reliability

- Using international well-know brand semiconductor device such as IR,TI,NXP and so on.
- Using industrial DSP digital technology, without any adjustable resistance, strong anti-interference ability, no aging and drift.
- High LED driving and charging efficiency, significantly reduce the product temperature.
- IP68 protection degree without any buttons, further improve the waterproof reliability.
- No electrolytic capacitor design, more than 15 years of lifetime.

Maximum Power Point Tracker Technology

- MPPT efficiency≥99.9%，System efficiency is up to 98%, Maximizes solar panel power output & reduces system costs.

High charge efficiency

- Charging efficiency up to 98%.

Minimal stand-by power consumption

- The current consumption ≤ 2mA after controller enters sleep mode.

Intelligent battery management

- It is three phase time charge battery, which contains MPPT charge, constant voltage charge and float charge.
- Significantly extends the battery lifetime up to 50% base on intelligent temperature compensation charge and discharge management.
- Intelligent energy management of battery ensures that the battery charge & discharge in shallow state which significantly extend the battery life.

Flexible parameter set

- Excellent man-machine interface, convenient operation.
- Infrared wireless communications, connecting with a handheld remote control for easy installation.

Protect function

- Battery reverse connection protection.
- The solar panel reverse connection protection.
- To prevent the battery discharge to the solar panel .

2 Specification

Item		Model		Unit
		MC10/ MC10_Li①	MC15/ MC15_Li①	
Battery management	System Voltage	12/24V auto recognition		-
	Max. charge current	10	15	A
	Charge Voltage range	8～30		V
	C.V charge@	14.4(12V), 28.8(24V)		V
	Constant voltage float charge@25℃	13.8(12V), 27.6(24V)		V
	Battery Temperature Compensation	-4mV/℃/2V		-
Solar panel parameters	Max Panel Voltage	≤55		V
	MPPT Track Range	14≤Vp≤50(12V),28≤Vp≤50(24V)		V
System parameters	MPPT efficiency	≥99.9%		-
	Max charge efficiency	98%②		-
	Consumption in sleep mode	≤1(12V), ≤2(24V)		mA
	communication	Wireless infrared communication		-
	Operating temp.	-45～60		℃
	Operating Humidity	0～100%		RH
	Altitude	3000		m
	Ingress protection	IP68(1.2m,72h)		-
Mechanical parameters	Wire cross section	2.5		mm 2
	Weight	0. 26～0. 27	0. 34～0. 35	KG
	Mechanical Dimensions	100*82*20	130*82*20	mm

note：

① MC10_Li / MC15_Li supports lithium iron phosphate, lithium manganese oxide, lithium cobalt oxide and lithium polymer batteries, lead-acid batteries are also supported

② Test conditions: The battery voltage is 24V, solar panel voltage 30V (solar panels optimum operating point at 30V), charging power 100W

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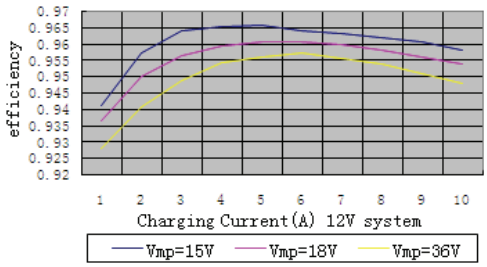
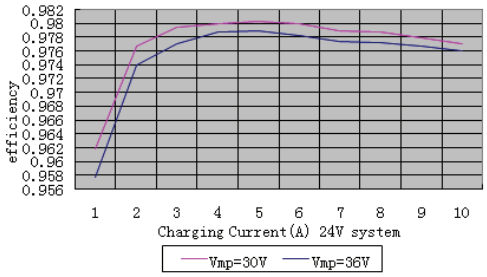
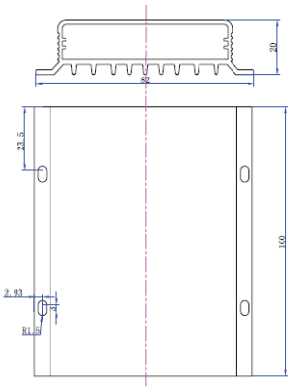
3 Efficiency curve

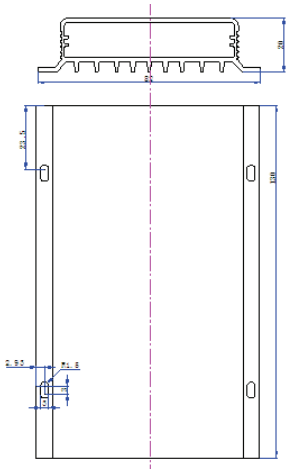


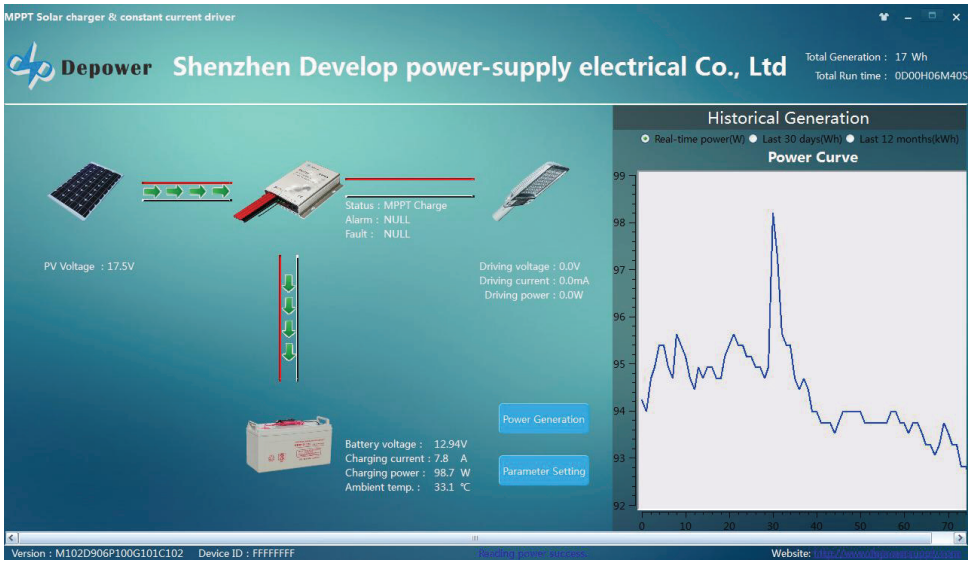
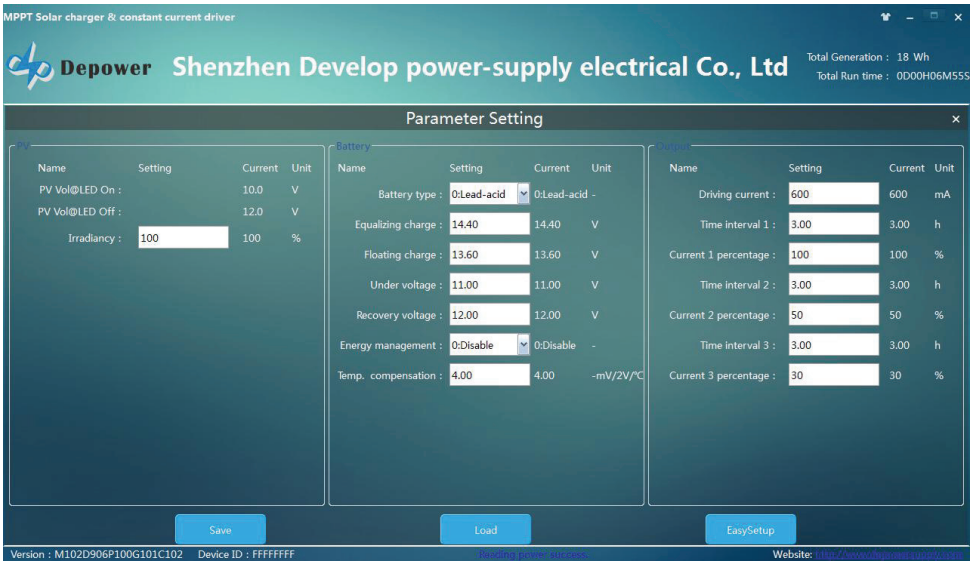


4 Mechanical Dimensions



MC10/ MC10_Li



MC15/ MC15_Li

5 Monitor display