

ISO14001 · ISO9001 · SA8000 · WEEE · RoHS · REACH · FSC

2022



Minwa Electronics Co., Ltd.

Minwa Green Energy Electronics Co., Ltd.



# The ndustrial Park in Hui hou

#### MO IN FORWARD

In 200 , Minwa constructed a new industrial park in uizhou, uangdong with a view to further revolutionizing our development and establishing a better work- ow. The certification of SA 000, ISO9001 200 , ISO1 025 and the execution of PMS, the new factory, which symbolizes our achievement and strong capacity to serve our customers best.

#### **FACILITIES AND ACCOMMODATION**

The new plant is fully vertically integrated. The product development, product tests, in-house tooling, in ection molding, metal stamping, cable fabrication, and coil winding departments, accommodates up to 100 production lines enabling a high exibility in production and products competitiveness. There are more than 3,000 staff and an excellent development team specializes in different disciplines. We provide in-house training to our engineers in order to familiarize with the latest technological developments and requirements of worldwide safety standards. Our well-equipped engineering team is ready to serve our OEM/O M customers with proficiency.







#### ATTER MAN FACT RIN, COPPER WIRE MAN FACT RIN PRINTIN COMPAN

Pursuance of excellence in our products, we started to produce our own rechargeable i-Cd i-M batteries in 200. The entire investment of the department is 1 million US dollars. The professional management team production team persist to provide high quality batteries with low price.

#### LED LI HTIN

In 2010, we moved a big step to manufacture E lighting. The passionate we are on environmental conservation, drives us to develop high energy-efficient and eco-friendly E bulbs. Our development team makes effort on designing the new form of E bulbs which are high quality, versatility in color and long life. Together with our copper wire manufacturing and printing company, which concentrate on equipment automation, production technique and staff training, we can take the advantage.







#### ETTER EN IRONMENT FOR WOR ERS

Minwa pays great attention to provide workers better working and living environment. The 7-storey worker's dormitories with a total oor area of 30,000 sqm site provides a comfortable accommodation, daily necessities, canteen, recreational and leisure facilities for up to 0,000 workers. The new plant certificated SA 000, which proves our working conditions and environment met the international standards. Minwa deposit the electronic waste properly according to WEEE and o S irectives.

#### SOCIAL RESPONSI ILIT

Minwa knows education is the best way to improve standard of living. Being a responsible social business group, we provide on-the- ob training to our workers and subsidies to the establishment of schools for the uizhou. The implementation of PMS, a line-up of the all departments in our factory, not only ensures our products are hazardous free, but also minimizes the emission of harmful substances affecting the area. We hope our actions can contribute to society on the ground of profit making. The new industrial park is the milestone of excellence in Minwa s products and services.









# **Minwa Community**

Our core values are in terms of quality, safety, staff welfare, and social responsibility. Other than the good working place we provide to our workers, Minwa also cares the living environment of our people. The industrial park is a working place, it also a community to the person who live there.

#### IMPRO IN ALIT OF LIFE

Our mission to achieve environment health and ustice is the construction of the new factory plant to a large greenbelt. This pro ect gives us a lot of advantages. The factory will be about 20 of land covered by green plants to enhance the quality of air, the well-being of the workers.





















The landscape-engineering is ongoing with a great success. After the completion of the pro ect, the planted area is full of fruit trees, brushes, arbors, different kinds of owers, etc., which improves the appearance of the new industrial park, and peoples live in here with their family are now en oying fresh air, a healthier living environment, better vision of the working and living place, no matter they are working or during leisure.

We apply the sewage treatment system to irrigate the land. We collect the domestic and industrial used water by sewage pipes. Through the system, the water is filtered and recycled for irrigation. The make use of solar power is to reduce the use of electricity and gas but at the same time increase the living condition of our people. We set up hundreds of solar panel at the roof of every dormitory, converting solar power to heat in order to provide all-weathered hot water for the entire building. We save the environment to bless our generations









#### IMPRO IN LI IN CONDITIONS

Minwa pays great attention to provide our workers with a better working and living environment. The 7-storey dormitories with a total oor area of 30,000 sqm site, which provides a comfortable accommodation for single, couple, and couple with child. Every room has its own bathroom, color T and storage area.

We understand that fresh and nutritional food is good to health. Therefore we purchase fresh vegetables and fruits from the farmers nearby. As a living place, recreation and leisure facilities are essential to keep healthy. The industrial park has enough spaces and facilities for family and children to play with. The basketball badminton courts, table tennis hall, websurfing center and more are provided for up to ,000 workers. We also launched the back home safe program to ensure those kids get back from school safely.

The new plant certificated to SA 000 ISO 1 001, which proves our working conditions and environment are met the international standards. We take pride in what we have achieved, and we shall keep improving ourselves to meet all-round success



Auto batrol







### **About Us**

Minwa Electronics Co., td. established in 19 . Minwa has been robustly growing from a local electronics company to a leading manufacturing company of its kinds serving worldwide customers with experience, innovation and outstanding service for years.

To cater our valued customers needs in the fast-changing market, we diversify our products ranging from OEM products, power supplies, battery chargers, electronic accessories and technological solutions. Minwa certified to ISO9001 and its laboratory obtained the ISO 1 025 accreditation from T heinland. Therefore, the laboratory is entitled to conduct in-house safety tests and calibration tasks in conformity with both E and CB standards. With these laboratories in place, the product development cycle is shortened and become far more advanced. Our products thus getting much cost effective and competitive in the worldwide market. Most of our products carry international approvals, such as cU us, cSAus, CE, S, ET, C-tick, , PSE, CB scheme, e-mark, Argentina S mark, E mark and so forth. We have a newly developed high-energy efficiency SMPS series, aims to reduce energy loss during loading or no load of adaptors, the series consists single voltage and multiple voltage outputs. The new series complies with 2nd enforcement stage of ErP, (for EU countries), which much more rigorous then the CEC and MEPS ones. This explains our new series also complies with CEC (US market) and MEPS (Australian market).

In addition, Minwa implemented the system of ISO 1 001 and acquired the SA 000 certification, which represented our strong capacity to provide quality and environmental friendly electronic products to customers as well as a decent working environment to workers.

Pursuance of excellence in both products and services has led us forward over the past 0 years, we take pride in what we have achieved, but will never cease to seek improvement and growth. We thank our existing customers for their continued support to witness our growth and welcome any suggestions for improvement. We are looking forward to be the opportunity of establishing a partnership with those we have yet to serve in the near future.









ISO9001:2015 Certificate

TÜV ISO 17025 Certificate

ISO 14001 Certificate

SA8000 Certificate

















































# **Words from CE**

I would like to express my gratitude to all of you.

Since the establishment of Minwa Electronics Co, td in 19 , we receive numerous of love and support from our customers and suppliers, and the devoted services from our staff.

Ups and downs were along the way of these years. Experienced the economic

take-off from 0 S - 0 S, we established the foundation of the company, moved the production facilities from ong ong to Shanghai in 19 0. This was our first factory in China. We opened our second manufacturing plant in 19 2 in Shilong, ongguan. Few years later, in 19 5, there were 3 more plants opened in Tianxin, Shahe and Sun iang. A significant movement of Minwa took place in 19 9, we moved the factory to Bu i, Shenzhen, further expanded our business ground wider and wide. This was a well-planned factory, with many facilities and spaces for the company growth.

The SA S and the worldwide financial crisis stroked hard in 2003 and 200 respectively, we took the challenge and even managed to initiate a well-developed industrial park in uizhou. On the other hand, we worked closely to suppliers and customers in order to keep the survival of all of us.



In 200 , we moved to the new plant in uizhou in order to have enough space for the business and production expansion. We started the E business in 2010. Following the development of car battery chargers, game consoles accessories and IOT/ Smart ome products, etc with great success. I thank again our staffs who strive to do the very best of their ability.

The European and American governments imply more and more strict regulations on electronic products in recent years. Such as establish new safety standards and frequent market surveillances. At the same time wages in China are constantly increasing years after years, which result in production cost uctuation. We foresee these difficulties as opportunities. To strengthen products reliability, we invest more resources to ensure that everything from raw materials to finished products is safe. The new EMC laboratory which is up to international standard is now in progress and will be expecting to put into service in 201. The construction of two more new buildings in the factory is for the preparation of our bigger factory automation plan, which is able to solve the shortage of workers and wages problems. We will not be satisfied by this, as we want to be the best within our specialist area.

The investment of our group in ong ong in hotels, shopping malls and buildings are put into services from this year. 201 is not only the 0th anniversary of Minwa Electronics Co., td, but also the milestone of our real estate development.

We will continue taking up challenges. We look forward to your continuous support and guidance in the future.



# **USB Power AC**

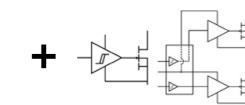
# Notes:

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PD Type-C Charger —	– <b>P. 6-9</b>
uick Charger 3.0 .0	- P. 9-1 I
JSB Charging Station ————————————————————————————————————	-P. 8-12

### **GAN IC introduction**

STRONG POWER, FAST CHARGING, in a nano size. The next-level charging experience with advanced GaN technology. Gallium nitride (GaN) is a high-performance alternative to the traditional silicon used in charging devices. GaN transistors produce less heat, allowing components to be closer together, which means you get a much smaller charger with all the power of a big one.

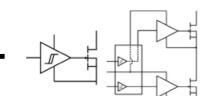
Fastest, most efficient **GaN Power FETs** 



> 20x faster than silicon

> 5x faster than cascoded GaN Proprietary design

**First & Fastest Integrated GaN Gate Drivers** 



> 3x faster than any other gate driver Proprietary design 120+ patents granted/applied

World's First **GaNFast™ Power ICs** 



#### **MW PD30AGANU**

Super Tiny 30W Power Delivery & Quick charge Type-C Charger

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

nput voltage: 100-240V AC Output current: Type-C Outlet

PD: 20V/1.5A; 15V/2A; 9V/3A; 5V/3A QC4+(PPS): 5-10V/3A

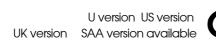
Dimension: 38.1 x 36.4 x 40.2 mm Packing: Individual Color Giftbox





**GaN** 





#### iBz-PD29AC

Power Delivery - 29W Type-C USB chargers for iPhone

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V Output current:

PD: 14.5V/2A; 9V/2.22A; 5V/3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

LED indication: Power LED Blue Dimension: 90.6 x 27.7 x 42mm Packing: Individual clamshell blister



**≰**iPhone | iPad | iPod



Qualcomm Quick Charge compatible

U version US version UK version SAA version available



### **MW PD20ASU**

Super Tiny 20W Power Delivery Type-C Charger

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC

Output current: Type-C Outlet

PD: 12V/1.66A;9V/2.22A; 5V/ 3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Dimension: 29.6 x 37 x 34 mm Packing: Individual Color Giftbox







Quick Charge compatible





U version US version UK version SAA version available



#### **MW PD30AU**

30W Power Delivery & Quick charge Type-C Charger

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

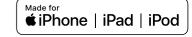
Input voltage: 100-240V AC Output current: Channel 1 (Type-C): PD: 9V/2.22; 5V/3A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Channel 2 (Type-A): 5V/2.4A

Dimension: 55 x 35.5 x 57mm Packing: Individual Color Giftbox







Qualcomm Quick Charge compatible

U version US version UK version SAA version available





### **MW PD40A1**

Power Delivery - 40W AC/ DC Type-C USB Charger with 4 USB Type-A Outlet

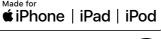
**Erp 3rd stage compliance CEC** efficiency: Level ① MEPS: VI

Input voltage: 100-240V Channel 1 (Type-C):

PD: 14.5V/1.25A; 9V/2.22A; 5V/3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Channel 2-5 (Type-A): 5V/4.4A Shared by 4

LED indication: Power LED Blue Dimension: 60 x 30 x 72mm Packing: Individual Color Giftbox









UK version

U version US version SAA version available



### **MW PD40A2**

Power Delivery - 40W AC/ DC Type-C USB Charger with 2 USB Type-A Outlet **Erp 3rd stage compliance CEC** efficiency: Level ① MEPS: VI

Input voltage: 100-240V Channel 1 (Type-C):

PD: 14.5V/2A; 9V/2.22A; 5V/3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Channel 2-3 (Type-A): 5V/2A Shared by 2 LED indication: Power LED Blue

Dimension: 60 x 30 x 68mm Packing: Individual Color Giftbox







U version US version UK version SAA version available



### **MW PD45ASU**

Super Tiny 45W Power Delivery & Quick charge

New

Type-C Charger

**Erp 3rd stage compliance CEC** efficiency: Level ①

MEPS: VI

Input Voltage: 100-240V AC

**Output Current:** 

(When only 1 channel is connected): PD: 5V, 9V, 12V/3A; 20V/2.25A

Normal Charge: 5V/2.4A (When more than 1 channel is connected):

PD: 5, 9V/3A; 12V/2.5A; 20V/1.5A QC: 5-6.5V/3A; 6.5-9V/ 2A; 9-1V/ 1.5A

Normal Charge: 5V/2.4A Dimension: 52 x 48 x 48.2 mm Packing: Individual Color Giftbox







Quick Charge compatible

U version US version UK version SAA version available



#### **MW PD60A**

Power Delivery - 60W AC/ DC Type-C USB Charger w/ 5 USB ports

**Erp 3rd stage compliance** 

**CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V DC

Output current: Type-C Outlet 1

PD: 14.5V/2A; 9V/2.22A; 5V/3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Type-A Outlet (2-6): 5V/6.0A (Shared by 5)

LED indication: Power LED Blue Dimension: 100.3 x 55 x 81.3 mm Packing: Individual Color Giftbox







U version US version UK version SAA version available



### MW PD60C

**Power Delivery 60W Speedy** Type-C Charger

#### **ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI**

Input voltage: 100-240V DC

Output current:

PD: 5V, 9V, 15V, 20V@3A

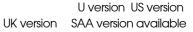
QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A LED indication: Power LED Blue

Dimension: 100.3 x 55 x 81.3 mm Packing: Individual Color Giftbox













## **MW QA20C**

Quick Charge - 20W AC/ DC Type-C USB Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC

Quick Charge: 3.6V-6.5V/3.0A; 6.5V-9V/2.0A;

9V-12V/1.5A

LED indication: Power LED Green Dimension: 86 x 27.5 x 51mm Packing: Individual Color Giftbox









### **MW QA20W**

Quick Charge - 20W AC/ DC USB Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC

Quick Charge: 3.6V-6.5V/3.0A; 6.5V-9V/2.0A; 9V-12V/1.5A

LED indication: Power LED Green Dimension: 86 x 27.5 x 51mm Packing: Individual Color Giftbox









# **MW QA20A**

Quick Charge AC/ DC USB Charger w/ 2 USB ports

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC

Quick Charge:

(When only 1 channel is connected):

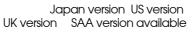
QC: 3.6V-6.5V/3.0A; 6.5V-9V/2.0A: 9V-12V/1.5A

(When more than 1 channel is connected):

Normal Charge: 5V/4A (shared by 2) LED indication: Power LED Green Dimension:86 x 27.5 x 51mm Packing: Individual Color Giftbox









**Oualcomm** 

Quick Charge

compatible

## **MW QA36W**

Quick Charge 36W AC/ DC USB Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① MEPS: VI

Input voltage: 100-240V AC

Quick Charge

(When only 1 channel is connected): 3.6V-6.5V/3A; 6.5V-9V/2A; 9V-12V/1.5A

Normal Charge

(When more than 1 channel is connected):

5V/3.4A (shared by 4) LED indication: Power LED Green

Dimension: 60 x 30 x 68mm Packing: Individual Color Giftbox









### **MW QA40W**

Quick Charge - 40W AC/ DC USB Desktop Charger

**Erp 3rd stage compliance CEC** efficiency: Level ①

**MEPS: VI** 

Input voltage: 100-240V AC Channel 1 (Quick Charge): 3.6V-6.5V/3.0A; 6.5V-9V/2.0A; 9V-12V/1.5A Channel 2 (Normal Charge):

4.1A (Shared by 4) LED indication: Power LED Green

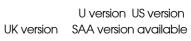
Dimension: 60 x 30 x 72mm Packing: Individual Color Giftbox













# **MW QA60W**

Quick Charge - 60W AC/ DC USB Desktop Station

**Erp 3rd stage compliance CEC** efficiency: Level ①

**MEPS: VI** 

Input voltage: 100-240V AC Channel 1 (Quick Charge): 3.6V-6.5V/3.0A; 6.5V-9V/2.0A; 9V-12V/1.5A Channel 2 (Normal Charge): 5V/8A (Shared by 5) LED indication: Power LED Green Dimension: 100.3 x 55 x 81.3mm Packing: Individual Color Giftbox

**MW U05AU** 

**Erp 3rd stage compliance** 

**CEC** efficiency: Level ①

Input voltage: 100-240V AC

Dimension: 40x 26.5 x 45mm

Packing: Individual Color Giftbox

Normal Charge: 5V/1A

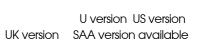
AC/ DC USB Charger

**MEPS: VI** 

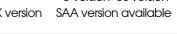
























15W AC/ DC w/ Type-C Outlet USB Charger

**Erp 3rd stage compliance CEC** efficiency: Level ①

**MEPS: VI** 

Input voltage: 100-240V AC

Output current: 5V/3.4A (Shared by 3)

Output: 1 x typeC 2 x typeA

LED indication: Power LED Blue Dimension: 54 x 52 x 27mm Packing: Individual Color Giftbox





3.4A w/1USB A + 1Type-C



3.4A w/2USB A

Japan version US version UK version SAA version available



### **MW CA40W**

Type-C Outlet - 40W AC/ DC USB Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC Output current: 5V/8A (Shared by 5)

Output: 1 x Type C 4 x Type A

LED indication: Power LED Blue Dimension: 60 x 30 x 68mm Packing: Individual Color Giftbox





U version US version UK version SAA version available



## **MW USB12AU**

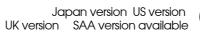
12W AC/ DC USB Type-A Charger **Erp 3rd stage compliance** 

**CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC Output voltage: 5V DC Output current: 2.4A

Dimension: 35.7 x 34 x 69.3 mm Packing: Individual Color Giftbox







#### **MW U12AU**

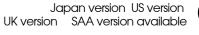
12W AC/ DC USB Type-A Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC Output voltage: 5V DC Output current: 2.4A Shared by 2

Dimension: 45 x 30 x 82.3 mm Packing: Individual Color Giftbox





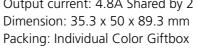


### **MW USB24AU**

24W AC/ DC USB Type-A Charger

**Erp 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC Output voltage: 5V DC Output current: 4.8A Shared by 2









Below USB series is our newly launched USB home chargers. This is a complete solution for automobile devices. Charging range is started from . A to 1.0A; USB outlets from ports to 1 port. Check out the series for the best solution. Below models are the 2-outlet version.

#### **MW USB5U-1**

Compact 4800mA USB Switching Adaptor

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage: 5.0V DC USB Output Current: 2.4A + 2.4A LED indication: Blue power LED Dimension: 60 x 60 x 31mm Packing: Individual clamshell blister



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MW USB5U



2.1A + 2.1A

2.1A + 2.1A

**TD-009** 

2.4A + 2.4A

### **MW USB2U-1**

Compact 2400mA USB Switching Adaptor

**ErP 3rd stage compliance CEC** efficiency: Level ① MEPS: VI

Input Voltage: 100-240V AC, 60/ 50Hz

Output Voltage: 5.0V DC USB Output Current: 2.4 Shared LED indication: Blue power LED Dimension: 48 x 48 x 35.3mm Packing: Individual clamshell blister









**TD-A24** 

2.4A for Apple

TD-A21N TD-010

**TD-A21** 

2.1A for Samsung



MW USB2U-4

USB Power C

PD Type-C DC/DC Power — -P. 16-17 uick Charge DC/DC Power ——— — P. 18 DC/DC USB Power -

Below USB series is our newly designed high speed PD USB car chargers with Type-C outlet. This is a complete solution for all your portable devices.

### MW PD20D

20W Power Delivery & DC/DC Type-C USB Charger

Input voltage: 12-24V DC Output current: Type-C Outlet

PD: 9V/ 2.22A; 5V/ 3A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Dimension: 30 x 28 x 67 mm Packing: Individual clamshell blister



**≰**iPhone | iPad | iPod

**≰**iPhone | iPad | iPod

Quick Charge compatible MW PD18D



## iBz-PD29DC

Power Delivery 29W Type-C USB car chargers for iPhone

Input voltage: 12-24V DC

Output current:

PD: 14.5V/2A; 9V/2.22A; 5V/3A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Power LED Blue

Dimension: 69 x 38.2 x 28.6 mm Packing: Individual clamshell blister





Quick Charge compatible



### **MW PD30D**

Power Delivery 30W DC/ DC Type-C USB Charger

Input voltage: 12-24V Channel 1 (Type-C): PD: 9V/ 2.22A; 5V/ 3A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Channel 2 (Type-A):

5V/ 2.4A

Dimension: 32 x 28 x 69.5 mm Packing: Individual Color Giftbox





**≰**iPhone | iPad | iPod

Qualcomm Quick Charge compatible



#### MW PD60D

**Power Delivery 60W** 

DC/DC Type-C USB Charger w/ USB ports

Input voltage: 12-24V DC Output current: Type-C Outlet 1 PD: 5V, 9V, 12V/3A; 20V/1.8A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A

Type-A: 5V/4.8 (Shared by 2) Dimension: 37 x 37 x 58 mm Packing: Individual color giftbox



**≰**iPhone | iPad | iPod





#### **MW PD40D1**

Power Delivery 40W DC/ DC Type-C USB Charger

Input voltage: 12-24V Channel 1 (Type-C):

PD: 14.5V/1.25A; 9V/2.22A; 5V/3A QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A Channel 2 (Type-A): 4.4A Shared by 2 LED indication: Power LED Blue Dimension: 75 x 42 x 28.6 mm Packing: Individual clamshell blister











## **MW PD40D2**

Power Delivery 40W DC/ DC Type-C USB Charger

Input voltage: 12-24V Channel 1 (Type-C):

PD: 14.5V/2A; 9V/2.22A; 5V/3A

QC: 3.6-6.5V/3A; 6.5-9V/2A; 9-12V/1.5A Channel 2 (Type-A): 2A Shared by 2 LED indication: Power LED Blue Dimension: 75 x 42 x 28.6 mm Packing: Individual clamshell blister









### MW QD20W

Quick Charge - 20W DC/ DC USB Charger

Input voltage: 12-24V Quick Charge: 3.6V-6.5V/3A; 6.5V-9V/2A;9V-12V/1.5A

Normal Charge: 5V/3A (shared by 2) LED indication: Power LED Green Dimension: 69 x 38 x 28 mm Packing: Individual clamshell blister







## **MW QD30W**

Quick Charge - 30W DC/ DC USB Charger

Input voltage: 12-24V DC Output voltage: 5.0V DC Channel 1 (Quick Charge):

3.6V-6.5V/3A; 6.5V-9V/2A; 9V-12V/1.5A

Channel 2 (Normal Charge): 2.4A LED indication: Power LED Green Dimension: 69 x 38 x 28 mm Packing: Individual clamshell blister







#### **MW USB12D**

12W 2.4A DC/DC USB Charger

Input voltage: 12-24V Output Voltage: 5V DC

Output Current: 2.4A Shared by 2 Dimension: 24 x 24 x 48.5 mm Packing: Individual Color Giftbox





### **MW USB24D**

24W 4.8A DC/DC USB Charger

Input voltage: 12-24V Channel 1: 5V/ 2.4A Channel 2: 5V/ 2.4A Dimension: 30 x 28 x 67 mm

Packing: Individual Color Giftbox





#### MW DU1

3000mA DC/DC Converter w/ USB Outlet

Input voltage: 12-13.8V DC

Output voltage:

3.0 / 4.5 / 5.0 / 6.0 / 7.5 / 9.5 /12.0V DC

Output current: 3A (max.)
USB output: 5V DC/ 1A
Output plug: 6XC
LED indication: Power LED
Dimension: 76.2 x 80 x 33r

Dimension: 76.2 x 80 x 33mm Packing: Individual clamshell blister









**≰**iPhone | Apple Watch

#### One sto Solution

As an official licensee of MFi program, all electronic accessories we produce for iPod, iPhone, iPad are officially approved by Apple Inc. with the license Made for iPod/ iPhone/ iPad .

Customers simply choose the items from our MFi series, that particular items going to sell are entitled legally. Customers are allowed to use the MFi logo not only on the packaging but also on different promotions such as online, lea ets, catalogues, etc. without paying extra money but increase the market value. With the authorization of using this well-known logo, end users are easy to recognize and differentiate the licensed items from those copy cats.

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#### OEM/ ODM wit MFi License

Other than buying directly from our MFi series, we entitle to proceed the MFi certification of the items in customers own brand.

Our experienced and strong engineering and design team is ready to develop new items together with customers. Throughout the years, we successfully completed many O M projects with MFi license.

Contact our sales ersons or details or e ail to sales inwa.co .

Type-C to ightning cables — P.21-22

Special Type cable P. 22-2

Type-C Cable P. 25

Micro USB Cable P. 26

Tablet Tips DC Tips — P. 28-29

#### iBz-200PD 1m lightning to **USB Type-C Cable**

Input voltage: 20V DC Output voltage: 20V DC Cable Length: 1m

Packing: Individual clamshell blister

Model Number	Length
iBz-220PD	2m
iBz-230PD	3m

### iBz-AB200PDCG

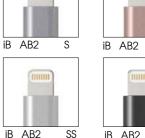
1m lightning to **USB Type-C Braided Cable with** aluminum case

Input voltage: 20V DC Output voltage: 20V DC Cable Length: 1m

Packing: Individual clamshell blister











### 

1m USB Data / Charging Cable

Length

2m

3m

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 1m

**Model Number** 

iBz-220

iBz-230

Packing: Individual color giftbox









Input voltage: 20V DC

Cable Length: 1m

Output Voltage: 20V DC

With a fixed micro USB to Apple Lightning



**€**iPhone | iPad | iPod

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### iBz-MC100

Packing: Individual Clamshell Blister

Micro USB to Apple Lightning & Type-C Cable USB Data & Charge

Input voltage: 5.0V DC Output current: 5.0V DC Cable Length: 1m

& Type-C connector

Packing: Individual clamshell blister



## iBz-AB200CG

1m USB Data/Charging Braided Cable with aluminum case

Input voltage: 5.0V DC Output voltage: 5.0V DC Cable Length: 1m

Packing: Individual color giftbox





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### iBz-GBMC100

1m Micro USB to Apple Lightning &

Type-C Data/Charging Braided Cable

Input voltage: 5.0V DC Output voltage: 5.0V DC

Cable Length: 1m

With a fixed micro USB to Apple Lightning

& Type-C connector

Packing: Individual clamshell blister



**iBz-M100** 

No Way to Lose Micro USB Cable

to Apple Lightning

Cable USB Data & Charge

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 1m With a fixed micro USB to Apple Lightning connector Dimension: 35.5 x 12 x 7.5mm Packing: Individual clamshell blister



**≰**iPhone | iPad | iPod

Model Number	Length
iBz-M115	1.5m
iBz-M120	2m

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#### iBz-DC15

#### Micro USB

#### to Apple Lightning Adaptor

Input voltage: 5.0V DC Output voltage: 5.0V DC \*Ideal for converting Micro USB to Apple Lightning connector Dimension: 35.5 x 12 x 7.5mm Packing: Individual clamshell blister



**≰**iPhone | iPad | iPod

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#### iBz-JS030

30cm Micro USB

to Lightning Jump-Start Cable

Input voltage: 5.0V DC Output voltage: 5.0V DC Cable Length: 30cm

Packing: Individual color giftbox



**≰**iPhone | iPad | iPod

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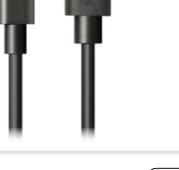
#### **iBz-R009**

9cm Apple Lightning Cable w/ Ring Hold

**USB Data & Charge** 

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 9cm

Packing: Individual clamshell blister



**≰**iPhone | iPad | iPod





### IBZ-GK2010-1/T

10cm Apple Lightning to USB Type-A Cable w/ Ring Hold

Input voltage: 5V DC Output Voltage: 5V DC Cable Length: 10cm

Packing: Individual Clamshell Blister





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### CB19-GKJ2010/T

10cm USB Type-C to USB Type-A Cable w/ **Ring Hold** 

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 10cm

Packing: Individual clamshell blister



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**€**iPhone | iPad | iPod

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### **iBz-021**

20cm USB Data / Charging Flat Cable

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 20cm

Packing: Individual clamshell blister



iBz-F212-1W

1m USB Type-A to Lightning Flat Cable

Input voltage: 5V DC Output Voltage: 5V DC Cable Length: 1m

Packing: Individual Clamshell Blister



**≰**iPhone | iPad | iPod

**≰**iPhone | iPad | iPod

#### **MFi-100**

**USB Data/ Charging Cable** 

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 1m

Packing:

Individual clamshell blister



**≰**iPhone | iPad | iPod

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### MW CB23-200

2.0 USB Type-C to USB Type-C Cable

**USB Data & Charge** Input voltage: 5.0V DC Output voltage: 5.0V DC Cable Length: 1m

Packing: Individual clamshell blister



Model Number	Length
MW CB23-220	2m







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### **MW CB19-200**

**USB A to USB Type-C Cable** 

**USB Data & Charge** 

Input Voltage: 5.0V DC Output Voltage: 5.0V DC Cable Length: 1m

Packing: Individual clamshell blister \*Reversible USB Type-A version, model MW RCB19-100.

**CB19-FJ212W** 

Packing: Individual Clamshell Blister

1m USB Type-A to USB Type-C Cable



Input voltage: 20V DC Output Voltage: 20V DC

Cable Length: 1m

0		
	Model Number	Length
C	MW CB19-220	2m





**CB19-LJ212W** 





#### **MW CB15-AB100CG**

1m Micro USB Data / **Charging Braided Cable** with aluminum case

Input voltage: 5.0V DC Output voltage: 5.0V DC

Cable Length: 1m

Packing: Individual color giftbox







MW CB15-AB100SG MW CB15-AB100RG





MW CB15-AB100SS MW CB15-AB100BB



#### MW CB15-100

**USB to Micro USB Data/ Charging Cable** 

Input Voltage: 5V DC Output plug: Micro USB

Cable Length: 1m

Packing: Individual clamshell blister





MW CB15-300



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#### **Model Number** Length MW CB15-120 2m MW CB15-130 3m

## MW CB25-030

30cm Micro USB to Micro USB Jump-Start Cable

Input voltage: 5.0V DC Output voltage: 5.0V DC Cable Length: 30cm

Packing: Individual color giftbox



MW DC18 (C to M)

**USB Type-C to Micro USB Adaptor** 

Input Voltage: 5.0V DC Output Voltage: 5.0V DC \*Ideal for converting USB Type-C

to Micro USB

Dimension: 35.5 x 12 x 7.5mm Packing: Individual clamshell blister





### **MW CB11**

**USB to USB Female Charging Cable** 

Input Voltage: 5V DC Cable Length: 1.8m

Packing: Individual clamshell blister You may choose our USB cable to make your assortment Contact our sales person for details



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# **MW CB16**

5 in 1 USB Charging Cable for Audio & Games

Input Voltage: 5V DC Cable Length: 1.5m With 5 output plugs: 1. NDSL 2. PSP

3. Mini USB 4. Micro USB

5. Nokia

Packing: Individual clamshell blister



### MW CB8

**USB to 3.5mm Female Charging Cable for Audio & Games** 

Input Voltage: 5V DC Cable Length: 1.5m

With 5 changeable output plugs: (5PPM)

1) Female USB

3) Nokia

4) Mini USB 5) Micro USB

(Pls go to page 79 for more tips options or contact our sales person for details) Packing: Individual clamshell blister







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# **Tablet Tips**

Ordering code	lmage	Diagram	Dimension	Brand(s)	5MNC
M08Q	1		2.0 x 0.6/8	Motorola tablet	•
MND			3.2 x 0.9/10.5	Acer tablet	•
MNX			4.0 x 1.7/11.5	Toshiba/Viewsonic tablet	•
MFi-DC1	en us		26 x 7 x 12	iPod/iPhone/iPad	
MFi-DC9	in m		26 x 7 x 12	iPod/iPhone/iPad	
DC2	en un		26 x 7 x 12	Samsung Galaxy Tab	
DC3			4.7 x 1.7/10	Sony P tablet	1
DC6			3.0 x 1.1/8	Huawei tablet	1
DC7			USB type A	Change Apple to Blackberry setting	
DC10			USB type A	Change Blackberry to Apple setting	
DC11			USB type A Change Apple to Samsung setting		
DC12			USB type A	Change Apple to Sony setting	

PMDCTips

Belo the M plugs are for using ith our AC C a aptors C C converters USB cables The stan ar versions have inclue the M plug set Customers may choose from belo to make their o n combo

Ordering code	Image	Diagram	Dimension	Brand(s)
PM01			3.5 x 1.1mm	NOKIA
PM02			13.2 x 3.9mm	SIEMENS
PM05	57		7.8 x 6.0mm	ERICISSON
PM06			12.65 x 2.3mm	SAMSUNG
PM07			7.9 x 2.35mm	MOTOROLA
PM11			20.5 x 3.9mm	SONY ERICISSON
PM12			9.0 x 1.8mm	LG
PM17			6.8 x 3.0mm	MINI USB
PM20			4.0 x 1.7mm	PSP
PM21			7.8x 3.05mm	FEMALE USB
PM22			7.8x 3.05mm	NDSL
PM23			6.3 x 3.8mm	NDSi
PM24	A.		6.3 x 3.8mm	8 pins Mini USB
PM25			6.3 x 3.8mm	Samsung
PM26			6.3 x 3.8mm	PSP Go
PM28			2.5 x 0.7mm	NOKIA
PM29			6.8 x 3.0mm	MICRO USB
PM32			2.5 x 0.75 x 11mm	ASUS Netbook
PM33			3 x 1.1 x 11mm	ASUS UX31 Ultra- book

# Notebook Power

120W AC Power — P.31 Macbook Power —— P. 37 90W AC Power ——— P. 32-33 Cable Cord — P. 38 70W AC Power ———— P. 3 -35 Notebook Tips —— P. 39- 0 5W Ac Power ————— P. 36

#### **MW F120W**

All-New 120W Single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V DC Output current: 6.3A (max) LED indication: Power LED Blue Dimension: 138 x 62 x 36mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available **(E** 



### **MW M120W**

**New Style 120W Notebook Power** 

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz Output voltage: 15.0V / 16.0V / 19.5V DC

Output current: 6.0A (max) LED indication: Power LED Blue Dimension: 138 x 62 x 36mm Packing: Individual clamshell blister





etachable cable for U version US version UK version SAA version available







#### **MW F90W**

All-New 90W Single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V Output current: 4.74A (max) LED indication: Power LED Blue Dimension: 123.2 x 55 x 33.9mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available ( E



### **MW F90WS**

Ultra Slim All-New 90W single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V Output current: 4.74A (max) LED indication: Power LED Blue Dimension: 130.5 x 65.6 x 25.6mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available



#### **MW M90W**

New Style 90W Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 60/50Hz Output voltage: 15/16/19.5V DC

Output current: 4.62A

LED indication: Blue Power LED Dimension: 123.2 x 55 x 33.9mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available



### **MW M90WS**

Ultra Slim New Style 90W Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 60/50Hz Output voltage: 15/16/19.5V DC

Output current: 4.62A LED indication: Blue Power LED Dimension: 130.5 x 65.6 x 25.6mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available







### **MW F70W**

All-New 70W Single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V Output current: 3.68A (max) LED indication: Power LED Blue Dimension: 113.4 x 48 x 32mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available **( (** 



### **MW F70WS**

Ultra Slim All-New 70W single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V

Output current: 3.68A (max) LED indication: Power LED Blue Dimension: 115.5 x 56.3 x 22.5mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available



#### **MW M70W**

**New Style 70W Notebook Power** 

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 60/50Hz Output voltage: 15/16/19.5V DC

Output current: 3.59A

LED indication: Blue Power LED Dimension: 113.4 x 48 x 32mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available



### **MW M70WS**

Ultra Slim New Style 70W Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 60/50Hz Output voltage: 15/16/19.5V DC

Output current: 3.59A

LED indication: Blue Power LED Dimension: 115.5 x 56.3 x 22.5mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available







**MW F45W** 

All-New 45W Single Voltage Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 19V Output current: 2.37A (max) LED indication: Power LED Blue Dimension: 89.2 x 51 x 33.5mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available **( (** 



### **MW M45W**

All-New 45W Desktop Notebook Power

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 9.5/12.0/14.0/ 16.0/18.5/19.0/20V Output current: 9.5/12.0/14.0/16.0@2.8A; 18.5/19.0@2.36A; 20V@2.25A(max)

LED indication: Power LED Blue Dimension: 89.2 x 51 x 33.5mm Packing: Individual clamshell blister



etachable cable for U version US version UK version SAA version available



#### **MW MAC45AU**

45W Speedy USB Type-C Charger for Macbook

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V AC, 60/50Hz Output voltage: 5.0/ 9.0/ 12.0/ 15.0/ 20.0V DC

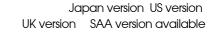
Output current:

5.0/ 9.0/ 12.0/ 15.0V@3.0A max; 20.0V@2.25A

QC4+(PPS): 3.3-5.9V/ 3A; 3.3-11V/ 3A Dimension: 66 x 93.3 x 35.3mm Packing: Individual clamshell blister









### **MW MAC61AU**

60W Speedy USB Type-C Charger for Macbook

**ErP 3rd stage compliance CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V DC

Output voltage: 5.0/ 9.0/ 12.0/15.0/ 20.3V DC

Output current: 3.0A (MAX) QC4+(PPS): 3.3-5.9V/ 3A; 3.3-11V/ 3A

Dimension: 66 x 93.3 x 35.3mm Packing: Individual clamshell blister







UK version SAA version available





#### MW PD60C Power Delivery 60W Speedy Type-C Charger

**ErP 3rd stage compliance** 

**CEC** efficiency: Level ① **MEPS: VI** 

Input voltage: 100-240V DC Output current:

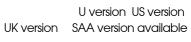
PD: 5V, 9V, 15V, 20V@3A

Dimension: 100.3 x 55 x 81.3mm Packing: Individual color giftbox

Option: Product stand

Pls go to p.24-26 for type-C cable options.



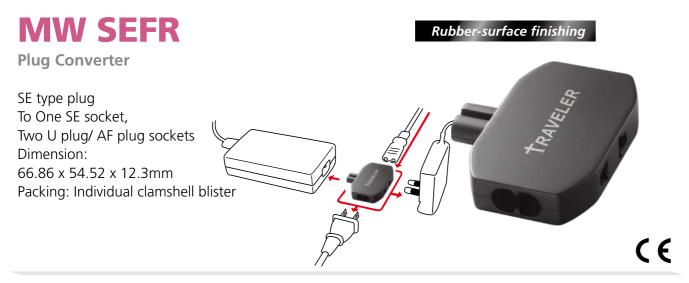






MW SEJT is an AC plug set with SE type output plug which is widely apply to notebook power supply. The changeable input plug set carries international approvals that you can trust in. MW SEFR is a plug converter with SE type input plug which is widely apply to notebook power supply. It splits one AC power source to 3 that allows to apply 3 electronic devices at the same time.







### **Notebook Tips**

Ordering code	Image	Diagram	Dimension	Brand(s)	9LMC	6LMC	6LMC1	5LMC
MAA			6.5 x 1.0/ 12	Dell/ Samsung/ Sony/ Fujitsu/ Dell	✓	✓	✓	✓
МАВ		MAE (I)	5.5 x 1.75/ 12	Compaq/ Gateway/ HP/ Sharp/ Winbook		✓		✓
MAD			6.5 x1.4/ 10	Sony VAIO TZ series/ Samsung/ Fujitsu/ Dell	✓			
MAE		MAE O	6.5 x 3.0/ 10	Toshiba				
MAK			7.4 x 5.1/ 13	HP notebook	✓			
MAM			7.4 x 5.1/ 12	Dell				
MAO			7.9 x 5.6/ 12	IBM				
MAQ			5.5 x 1.9/ 12	Acer				
МС			5.3 x 1.7/ 12	Acer				
МСС			5.5 x 2.0/ 12	Acer Aspire One 522			✓	
MDD			3.0 x 1.1/8	Asus UX31 Ultrabook/ Acer C720				
ME			5.5 x 2.1/ 12	HP/ Compaq/ NEC/ Toshiba/ Lenovo	✓	✓		✓
MEE			2.5 x 0.75/ 9	ASUS (netbook)/ Samsung XE363			✓	
MF			5.0 x 2.5/ 10	Asus EEE PC	1			
MF04AJ		Hron Hron	7.1/9.5	Dell				
MFF			4.5 x 3.0	Dell XPS 13				
MG		MG (S)	5.5 x 2.5/ 12	Gigatech/ IBM/ BenQ Joybook Lite	✓	✓		

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# **Notebook Tips**

Ordering code	Image	Diagram	Dimension	Brand(s)	9LMC	6LMC	6LMC1	5LMC
MGG		MGG 1	7/12.5	Lennovo				
МН		Internal Control of the Control of t	3.5 x 1.35/ 10	Sharp/ Dell		1		1
MJ		MJ (iii)	4.75 x 1.75/ 13	LGX series/ HP mini110/ Compaq/ Asus	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
MJJ		MA	5.5 x 1.8/ 13	Acer				
MKK		MXX O	4.5 x 3.0/ 12	HP Chromebook 14				
ML		MZ O	5.5 x 2.5/ 12.5	LG X series	✓			
MLL			5.5 x 2.5/ 13	Toshiba CB30				
MM			5.5 x 3.4/ 10	Samsung	✓		1	
МММ			6.5 x 4.4/ 13.4	Sony VAIO TZ series/ Samsung/ Fujitsu/ Dell				
MNT		MMT (	5.5 x 2.0/ 10.5	HP/ Compaq				
MNU		MNSJ	5.0 x 3.4/ 12	Samsung				
MNV		MNV (i)	4.8 x 1.7/ 9.5	LG/ Delta/ Acer/ Asus/ HP/ NEC/ Compaq			1	
MNX			4.0 x 1.7/ 11.5	Compaq mini				
MQ		MQ @	6.3 x 3.0/ 10	Toshiba/ NEC/ IBM				
MT			4.75 x 1.75/ 10	Compaq				
MU			4.0 x 1.2/9.7	Asus Zenbook (UX32A)				
MZ		MZ O	4.0 x 1.2/ 9.7	Asus Zenbook				
MNN		Moot	4.75 x 1.75/10	HP Pavilion Sleekbook				

# Automobile Power

# Notes:

ump Starter	P. 2
Household Automotive Battery Chargers	P. 3-53
Marine Battery Chargers	P. 5 -55
I 2/2 V Battery Tester	P. 56
Car Charger Accessories	P. 57
ead Acid Battery Charger	P. 58-59
DC/AC nverters	P. 60

This is Minwa latest design ultra-safe, ultra-compact, rugged, and portable Lithium-ion Jump Starter. Ideal for the widest range of engines, including 10.0L+ gas and 10.0L+ diesel engines. It also has a spark proof reverse polarity protection and had a torch function. Your perfect road-trip companion.

**MW JS2000** 

**2000A Portable Jump Starter** 

Input: DC 5V/2A; 12V/1.5A Battery voltage: 14.8V Capacity: 3750mAh Internal resistance : ≤9mΩ

Recharging time: 5V/2A Est. 10 hours;12V/1.5A Est. 6 hours Over voltage protection (Battery): 17V (Single battery 4.25V)

Over current protection: 2.4A

Output current: 2000A Peak (less than 3second)

Output voltage: 12V-16.8V

Number of cycles: 5 shots max. within 15 minutes

Jump start time:

20-30 seconds per shot (depends on the battery capacity)

Manual control:

The car battery voltage below 2V, manual override feature

Voltmeter to show battery voltage

Torch function:

300 lumens LED (Ultra bright white)

Insulation:

IP 20 (Dust and Water proof)



#### Protection:

- √ Over voltage protection
- √ Over current protection
- √ Short circuit protection
- √ Reverse battery protection

LED indication: For details please check with our sales

Dimension: 230 x 125 x 213mm Packing: Individual color giftbox

### **MW JS4000**

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**4000A Portable Jump Starter** 

Input: DC 5V/2A; 12V/1.5A Battery voltage: 14.8V Capacity: 6000mAh Internal resistance :  $\leq 9m\Omega$ 

Recharging time: 5V/2A Est. 14 hours;12V/1.5A Est. 8 hours Over voltage protection (Battery): 17V (Single battery 4.25V)

Over current protection: 2.4A

Output current: 4000A Peak (less than 3second)

Output voltage: 12V-16.8V

Number of cycles: 5 shots max. within 15 minutes

Jump start time:

20-30 seconds per shot (depends on the battery capacity)

Manual control:

The car battery voltage below 2V, manual override feature

Voltmeter to show battery voltage

Torch function:

300 lumens LED (Ultra bright white)

Insulation:

IP 20 (Dust and Water proof)



#### Protection:

- √ Over voltage protection
- √ Over current protection
- √ Short circuit protection
- √ Reverse battery protection

LED indication: For details please check with our sales

Dimension: 263.5 x 182.6 x 208mm Packing: Individual color giftbox





Check Rescue Soft start Bulk 1 6 Bulk 2 6 Bulk 3 Bulk 4 8 Absorption Analyze

This is our newly developed Household Automotive Battery Charger series. MW LF-CC260A is a 12V/ 16V/ 24V charger for charging LiFePO4 and Lead Acid batteries for different vehicles. The intelligent design is able to charge and protect the charger and battery even users are wrongly choosing the battery type. With this automatic switch-mode charger, users can simply retain their batteries to the original level, recover slightly sulfated batteries and increase battery life.

#### **MW LF-CC260A**

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26A 12V/ 16V/ 24V 10 steps Intelligent Battery Charger for Household Automotive 13.6V Power Supply

With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 2.5A Output current: 26A (max)

Charging voltage:

Lead acid (normal): 14.4/28.8VDC Cold/AGM: 14.7/29.4VDC 16V AGM Racing: 19.6VDC 16V LITHIUM Racing:19VDC

LiFePO4; 12.8V/4 cells 30 Ah-200Ah and 16V/4 cells 25Ah-250Ah

Charging current: 12V lead acid: 26A 24V lead acid: 13A LiFePO4: 26A

13.6V Power Supply: 5.0A

Insulation: IP 20 (Dust and Water proof)

Packed with: MW CC-BC1: Battery Clamp Connector √ Short circuit protection

Dimension: 321 x 144.5 x 77.5mm Packing: Individual color giftbox



Protection:

ON=0.5S,OFF=0.5S

√ Overload protection

√ Wrong polarity protection

 $\sqrt{\text{Reverse}}$  battery protection **MW LF-CC260ALCD** (LCD version)

√ Safety timer protection



#### LED indication: for details please check with our sales Item Indication LED color

Power On Reset	All LED flash 2 times for self-check.	Flashing: ON=0.5S,OFF=0.5S
Stand-by	ON: no battery at Standby. OFF: Battery Charging.	Color: Pure Green
Error (dual color)	Flashing: 1.Timer>10hours at step2 and step3 Recovery+Soft start charge. (red on) If 12V recover (+) mode <12V after 4hours (red on). 2. Timer>15hours at Lithium Bulk charge. (Green on) 3. Total Timer>50hours at Pb battery modes. (yellow flash) 4. Battery voltage>28V, Vbat=1.0-2.0V (yellow on) 5. Reversed Polarity. (red flash)	Color: Red and Yellow Flashing: ON=0.5S,OFF=0.5S
25%	Flashing: Vbat<12.8/25.6V Steady: Vbat>12.8/25.6V after 3sec. OFF: after full charged	Color: Red Flashing: ON=0.5S,OFF=0.5S
50%	Flashing: 12.8/25.6V <vbat<13.6 27.2v<br="">Steady: Vbat&gt;13.6/27.2V after 3sec. OFF: after full charged</vbat<13.6>	Color: Orange Flashing: ON=0.5S,OFF=0.5S
75%	Flashing: 13.6/27.2V <vbat<13.9 27.8v<br="">Steady: Vbat&gt;13.9/27.8V after 3sec. OFF: after full charged</vbat<13.9>	Color: Yellow Flashing: ON=0.5S,OFF=0.5S
100%	Flashing: 13.9/27.8V <vbat<full 3sec.<="" after="" charged="" full="" steady:="" td=""><td>Color: Pure Green Flashing: ON=0.5S,OFF=0.5S</td></vbat<full>	Color: Pure Green Flashing: ON=0.5S,OFF=0.5S
12V Recover(+)	Steady: Mode selected(3sec.) Flashing: Start charging after Step1 (Diagnosis) started.	Color: Pure Green Flashing:

Steady: after go to 12V Small Cold charge,

timer over 4hours, ERROR and full charged

Principle programme representation 12V/ 16V/ 24V	Pb
Voltage Volts	1 Check 2 Rescue 3 Soft start 4 Bulk 1 5 Bulk 2
Step 1 2 3 4 5 6 7 8 9 10	6 Bulk 3
Current Amps	7 Bulk 4 8 Absorption 9 Trickle
	Maintaine

ł	Principle	programme representation LiFePO4	
	Voltage Volts		
1	Step	2 3	Bulk 1
	Current Amps		2 Bulk 2 3 Absorption
J			

#### **MW LF-CC150A**

15A 12V/24V 10 steps Intelligent Battery Charger for Household Automotive

New

13.6V Power Supply

With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, Gel, MF & AGM

Input: 220-240V AC, 50Hz, 2.0A Output current: 15A (max)

Charging voltage:

Lead acid (normal): 14.5/29.0V DC

Cold/AGM: 14.7/29.4V LiFePO4; 12.8V/4 cells Charging current: 12V lead acid: 15 A 24V lead acid: 7.5A LiFePO4: 15A

13.6V Power Supply: 5.0A

Insulation:

IP 65 (Dust and Water proof)

Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

√ Safety timer protection

Packed with:

MW CC-BC1: Battery Clamp Connector

LED indication: for details please check with our sales

Dimension: 279 x 119 x 68mm Packing: Individual color giftbox

#### MW LF-CC150ALCD (LCD version)



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Power On Reset	All LED flash 2 times for self-check.	Flashing: ON=0.5S,OFF=0.5S	-
Stand-by	ON: no battery at Standby. OFF: Battery Charging.	Color: Pure Green	
Error (dual color)	Flashing:  1. Timer>10hours at step2 and step3 Recovery+Soft start charge. (red on) If 12V recover (+) mode <12V after 4hours (red on).  2. Timer>15hours at Lithium Bulk charge. (Green on) 3. Total Timer>50hours at Pb battery modes. (yellow flash) 4. Battery voltage>28V, Vbat=1.0-2.0V (yellow on) 5. Reversed Polarity. (red flash)	Color: Red and Yellow Flashing: ON=0.5S,OFF=0.5S	Principle programme representation 12V/ 24V Pb  Voltage Volts Step 1 2 3 4 5 6 7 8 9 10
25%	Flashing: Vbat<12.8/25.6V Steady: Vbat>12.8/25.6V after 3sec. OFF: after full charged	Color: Red Flashing: ON=0.5S,OFF=0.5S	Current Amps
50%	Flashing: 12.8/25.6V <vbat<13.6 27.2v<br="">Steady: Vbat&gt;13.6/27.2V after 3sec. OFF: after full charged</vbat<13.6>	Color: Orange Flashing: ON=0.5S,OFF=0.5S	Principle programme representation LiFePO4
75%	Flashing: 13.6/27.2V <vbat<13.9 27.8v<br="">Steady: Vbat&gt;13.9/27.8V after 3sec. OFF: after full charged</vbat<13.9>	Color: Yellow Flashing: ON=0.5S,OFF=0.5S	

Flashing: 13.9/27.8V<Vbat<full charged

Steady: after go to 12V Small Cold charge,

timer over 4hours, ERROR and full charged

Steady: Full charged after 3sec.

Steady: Mode selected(3sec.) Flashing: Start charging after Step1

(Diagnosis) started.

100%

ON=0.5S,OFF=0.5S Color: Pure Green

Flashing:

ON=0.5S,OFF=0.5S

Color: Pure Green

ON=0.5S,OFF=0.5S

		Mairitairie
Principle	programme representation LiFePO4	
Voltage Volts Step Current Amps	1 2 3	1 Bulk 1 2 Bulk 2 3 Absorption

LCD display

This is our newly developed APP controlled intelligent Car Battery Charger series. MW LF-CC075LCDBT is a 12V/ 24V dual function charger for charging LiFePO4 and Lead Acid batteries for different vehicles & Boats. The whole charging procedure is under the control of MCU. The charger also has the Memory function which enables itself to return to last selected mode automatically when power is switched on.

With the built-in Bluetooth module, user can check and control the charger by smartphone or tablet.

### MW LF-CC075LCDBT

7.5A 12V/ 24V 10 Steps Intelligent Battery Charger for Vehicles & Boats 13.6V Power Supply

With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, Gel, MF & AGM

Input: 220-240V AC, 50Hz, 1.3A
Output current: 7.5A (max)
Charging voltage:
Lead acid (normal): 14.5/29.0V DC
Cold/AGM: 14.7/29.4V DC
LiFePO4; 12.8V/4 cells
Charging current:
12V lead acid: 7.5A
24V lead acid: 3.75A
LiFePO4: 5A

Protection:

√ Short circuit protection

13.6V Power Supply: 5.0A

Insulation: IP 65 (water & dust)

√ Overload protection

√ Wrong polarity protection √ Reverse battery protection

√ Safety timer protection

Packed with:

(1) MW CC-BC1: Battery Clamp Connector (2) MW CC-ET1: Eyelet Terminal Connector Dimension: 251.3 x 108.4 x 61.4mm Packing: Individual color giftbox

85% 14.2v 85% 14.2v 2.63x

(App control)



₿ Bluetooth (€)

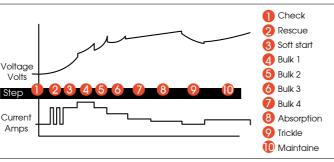
LCD display

compatible

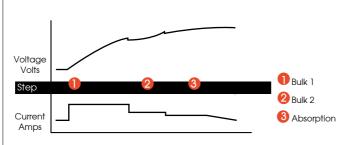
#### LCD indication:

Item Indication		LCD indication
Power On Reset	LCD display flash twice for self-check.	Flashing
➣	Battery not connected	Flashing
	Error:  1. Timer>Zhours at step 2 and step 3     "Recovery+Soft" start charge.  2. If 12V recover (+) mode <12V after 4hours 3. Timer>15hours at Lithium Bulk charge. 4. Total Timer>40hours at Pb battery modes. 5. Battery voltage>14V, Vbat=1.0-2.0V	
$\sim$	Connected in reverse polarity	Flashing
	Capacity of battery Flashing with different no. of bars, 5 bars means fully charged. Steady: Full charged after 3sec.	
<del></del>	Mode selected: 12V Lead acid battery (regular capacity)	On
and Amode selected: cold mode 12V Lead acid battery (regular capacity)		On
Mode selected: 24V Lead acid battery (small capacity)		On
and 💥	Mode selected: cold mode 24V Lead acid battery (small capacity)	
LITHIUM 12.8V Mode selected: Lithium iron phosphate battery		On
RECOVER 12V	ECOVER 12V Mode selected: Recover 12V Lead acid battery	
ADVANCED AGM 12V	Mode selected: Advanced AGM battery	On
<b>SMPS 13.6V</b>	Mode selected: Power supply	On

#### Principle programme representation 12V/ 24V Pb



Principle programme representation LiFePO4



#### MW LF-CC075LCD

7.5A 12V/ 24V 10 Steps Intelligent Battery Charger for Vehicles & Boats 13.6V Power Supply

With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, Gel, MF & AGM

Input: 220-240V AC, 50Hz, 1.3A Output current: 7.5A (max)

Charging voltage:

Lead acid (normal): 14.5/29.0V DC Cold/AGM: 14.7/29.4V DC LiFePO4; 12.8V/4 cells

12V lead acid: 7.5A 24V lead acid: 3.75A

Charging current:

LiFePO4: 5A

13.6V Power Supply: 5.0A Insulation: IP 65 (water & dust)

Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

 $\sqrt{\text{Reverse battery protection}}$ 

√ Safety timer protection

Packed with:

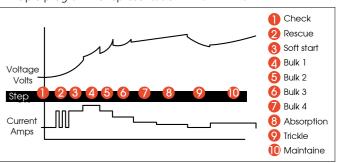
(1)MW CC-BC1: Battery Clamp Connector (2)MW CC-ET1: Eyelet Terminal Connector Dimension: 251.3 x 108.4 x 61.4mm Packing: Individual color giftbox

MW LF-CC075A (LED version)

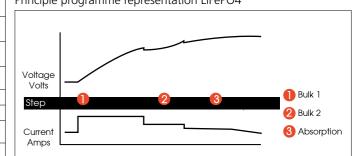
LCD indication:

Item	LCD indication	
Power On Reset	LCD display flash twice for self-check.	Flashing
➣	Battery not connected	Flashing
	Error: 1. Timer>2hours at step 2 and step 3 "Recovery+5oft" start charge. 2. If 12V recover (+) mode <12V after 4hours 3. Timer>15hours at Lithium Bulk charge. 4. Total Timer>40hours at Pb battery modes. 5. Battery voltage>14V, Vbat=1.0-2.0V	Flashing
$\sim$	Connected in reverse polarity	Flashing
Capacity of battery Flashing with different no. of bars, 5 bars means fully charged. Steady: Full charged after 3sec.		Flashing for charging; On for fully charged
<del></del>	Mode selected: 12V Lead acid battery (regular capacity)	On
and 💥	Mode selected: cold mode 12V Lead acid battery (regular capacity)	On
g <b>a</b>	Mode selected: 24V Lead acid battery (small capacity)	On
and 💥	Mode selected: cold mode 24V Lead acid battery (small capacity)	On
LITHIUM 12.8V	Mode selected: Lithium iron phosphate battery	On
RECOVER 12V	Mode selected: Recover 12V Lead acid battery	On
ADVANCED AGM 12V	Mode selected: Advanced AGM battery	On
SMPS 13.6V	Mode selected: Power supply	On

Principle programme representation 12V/ 24V Pb



Principle programme representation LiFePO4



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This is our newly developed APP controlled intelligent Car Battery Charger series. MW LF-CC040LCDBT is a 6V/12V dual function charger for charging LiFePO4 and Lead Acid batteries for different vehicles & Boats. The whole charging procedure is under the control of MCU. The charger also has the Memory function which enables itself to return to last selected mode automatically when power is switched on.

With the built-in Bluetooth module, user can check and control the charger by smartphone or tablet.

#### MW LF-CC040LCDBT

**₿ Bluetooth** (

LCD display



compatible

4.0A 6V/ 12V 8 Steps Intelligent Battery Charger for Vehicles With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, Gel, MF & AGM

Input: 220-240V AC, 50Hz, 0.6A Output current: 4.0A (max)

Charging voltage:

Lead acid (normal): 7.3/14.5V DC Cold/AGM: 7.4/14.7V DC

LiFePO4; 12.8V/4 cells

Charging current:

6V lead acid: 4.0A (normal)

12V lead acid: 0.9 (small), 4.0A (normal)

LiFePO4: 3.0A (normal)

Insulation: IP 65 (water & dust)

Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

√ Safety timer protection

Fixed battery clamp connector Dimension: 211.3 x 84.4 x 49mm Packing: Individual color giftbox (App control)

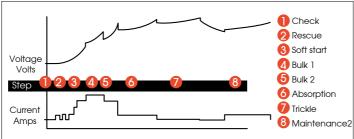
LCD indication



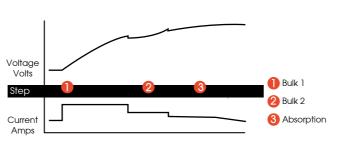
#### LCD indication:

Power On Reset LCD display flash twice for self-check.		Flashing
➣	Battery not connected	Flashing
	Error:  1. Timer>2hours at step 2 and step 3     "Recovery+5oft" start charge.  2. If 12V recover (+) mode <12V after 4hours 3. Timer>15hours at Lithium Bulk charge.  4. Total Timer>40hours at Pb battery modes.  5. Battery voltage>14V, Vbat=1.0-2.0V	Flashing
$\sim$	Connected in reverse polarity	Flashing
	Capacity of battery Flashing with different no. of bars, 5 bars means fully charged. Steady: Full charged after 3sec.	Flashing for charging; On for fully charged
6V	Mode selected: 6V Lead acid battery	On
6V and ₩	Mode selected: cold mode 6V Lead acid battery	On
ð <del>≅</del>	Mode selected: 12V Lead acid battery (small capacity)	On
ð <b>₹</b> and 💥	Mode selected: cold mode 12V Lead acid battery (small capacity)	On
<del></del>	Mode selected: 12V Lead acid battery (regular capacity)	On
$\longrightarrow$ and $\divideontimes$	Mode selected: cold mode 12V Lead acid battery (regular capacity)	On
LITHIUM 12.8V	Mode selected: Lithium iron phosphate battery	On
RECOVER 12V	Mode selected: Recover 12V Lead acid battery	On

Principle programme representation 6V/ 12V Pb



Principle programme representation LiFePO4



#### **MW LF-CC040LCD**

4.0A 6V/ 12V 8 Steps Intelligent Battery Charger for Vehicles
With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, Gel, MF & AGM

Input: 220-240V AC, 50Hz, 0.6A Output current: 4.0A (max)

Charging voltage:

Lead acid (normal): 7.3/14.5V DC

Cold/AGM: 7.4/14.7V DC LiFePO4; 12.8V/4 cells Charging current:

6V lead acid: 4.0A (normal) 12V lead acid: 0.9 (small), 4.0A (normal)

LiFePO4: 3.0A (normal)

Insulation:

IP 65 (water & dust)

#### Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

 $\sqrt{\text{Reverse battery protection}}$ 

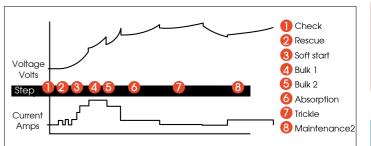
√ Safety timer protection

Fixed battery clamp connector
Dimension: 211.3 x 84.4 x 49mm
Packing: Individual color giftbox

#### LCD indication:

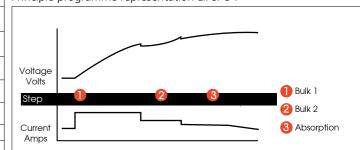
Item	Indication	LCD indication
Power On Reset	LCD display flash twice for self-check.	Flashing
➣	Battery not connected	Flashing
	Error:  1. Timer>2hours at step 2 and step 3     "Recovery+5oft" start charge.  2. If 12V recover (+) mode <12V after 4hours 3. Timer>15hours at Lithium Bulk charge. 4. Total Timer>40hours at Pb battery modes. 5. Battery voltage>14V, Vbat=1.0-2.0V	Flashing
$\sim$	Connected in reverse polarity	Flashing
	Capacity of battery Flashing with different no. of bars, 5 bars means fully charged. Steady: Full charged after 3sec.	Flashing for charging; On for fully charged
6V	Mode selected: 6V Lead acid battery	On
6V and 🗱	Mode selected: cold mode 6V Lead acid battery	On
ð <del>₹</del>	Mode selected: 12V Lead acid battery (small capacity)	On
ð <b>₹ð</b> and 💥	Mode selected: cold mode 12V Lead acid battery (small capacity)	On
<b>←</b>	Mode selected: 12V Lead acid battery (regular capacity)	On
$\stackrel{ ext{ and }}{\bigstar}$	Mode selected: cold mode 12V Lead acid battery (regular capacity)	On
LITHIUM 12.8V	Mode selected: Lithium iron phosphate battery	On
RECOVER 12V	Mode selected: Recover 12V Lead acid battery	On

Principle programme representation 6V/ 12V Pb



LCD display

Principle programme representation LiFePO4



### **MW LF-CC038A**

3.8A 6V/ 12V 8 Steps Intelligent Battery Charger for Vehicles With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 0.6A Output current: 3.8A (max)

Charging voltage:

Lead acid (normal): 7.3V/ 14.4V DC

Cold/AGM: 7.4/14.7V DC LiFePO4; 12.8V/4 cells Charging current:

6V lead acid: 3.8A (normal) 12V lead acid: 3.8A (normal) LiFePO4: 0.9A (small), 3.0A (normal)

Insulation: IP 65 (water & dust)

#### Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

√ Safety timer protection

#### Packed with:

Fixed battery clamp connector Dimension: 203.5 x 74 x 48mm

Packing: Individual color giftbox

#### LED indication:

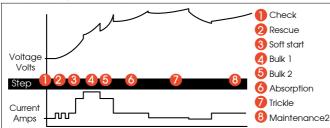
Item	Indication	LED
LED	INDICATION	LED COLOR
Power On Reset	All LED flash 2 times for self-check.	Red Flashing
Stand-by	ON: no battery at Standby. OFF: Battery Charging.	Green
Error(dual color)	Flashing: 1.Timer for lead acid (red ) 2. Timer for Lithium (yellow flash) 3. Total timer (yellow flash) 4. Battery voltage (yellow) 5. Reversed polarity (red flash)	Red & yellow flashing
25%	Flashing Steady OFF: full charged	Red flashing
50%	Flashing Steady OFF: full charged	Orange flashing
75%	Flashing Steady OFF: full charged	Yellow flashing
100%	Flashing Steady: full charged	Green
6V Normal	Mode selected	Red
6V Cold/AGM	Mode selected	Red
12V Normal	Mode selected	Red
12V Cold/AGM	Mode selected	Red
12V Small	Mode selected	Red
12V Small Cold	Mode selected	Red
Lithium	Mode selected	Red
12V Recover(+)	Steady: Mode selected(3sec.) Flashing: Step 1 Steady	Green flashing, Green



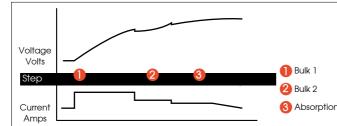




#### Principle programme representation 6V/ 12V Pb



Principle programme representation LiFePO4



This is our newly developed Car Battery Charger series. MW LF-CC015A is a 6V/ 12V dual function charger for charging LiFePO4 and Lead Acid batteries for different vehicles. The intelligent design is able to charge and protect the charger and battery even users are wrongly chose the battery type. With this automatic switch-mode charger, users can simply retain their batteries to the original level, recover slightly sulfated batteries and increase battery life.

#### MW LF-CC015A

1.5A 6V/ 12V 8 Steps Intelligent Battery Charger for Vehicles

With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 350mA

Output current: 1.5A (max)

Charging voltage:

Lead acid (normal): 7.3V/ 14.4V DC

Cold/AGM: 7.4/14.7V DC LiFePO4; 12.8V/4 cells Charging current: 6V lead acid: 1.5A 12V lead acid: 1.5A LiFePO4: 1.5A

Insulation: IP 65 (water & dust)

#### Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

√ Safety timer protection

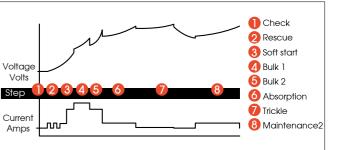
#### Packed with:

Fixed battery clamp connector Dimension: 174 x 65 x 46.5mm Packing: Individual color giftbox

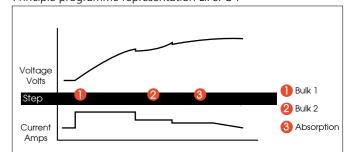
#### LED indication:

Item	Indication	LED
LED	INDICATION	LED COLOR
Power On Reset	All LED flash 2 times for self-check.	Red Flashing
Stand-by	ON: no battery at Standby. OFF: Battery Charging.	Green
Error(dual color)	Flashing: 1.Timer for lead acid (red ) 2. Timer for Lithium (yellow flash) 3. Total timer (yellow flash) 4. Battery voltage (yellow) 5. Reversed polarity (red flash)	Red & yellow flashing
25%	Flashing Steady OFF: full charged	Red flashing
50%	Flashing Steady OFF: full charged	Orange flashing
75%	Flashing Steady OFF: full charged	Yellow flashing
100%	Flashing Steady: full charged	Green
6V Normal	Mode selected	Red
6V Cold/AGM	Mode selected	Red
12V Normal	Mode selected	Red
12V Cold/AGM	Mode selected	Red
Lithium	Mode selected	Red

Principle programme representation 6V/ 12V Pb



Principle programme representation LiFePO4



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This is our newly developed Car Battery Charger series. MW LF-CC008A is a 6V/ 12V dual function charger for charging LiFePO4 and Lead Acid batteries for different vehicles. The intelligent design is able to charge and protect the charger and battery even users are wrongly chose the battery type. With this automatic switch-mode charger, users can simply retain their batteries to the original level, recover slightly sulfated batteries and increase battery life.

#### MW LF-CC008A

0.8A 6V/ 12V 7 Steps Intelligent Battery Charger for Vehicles
With CC/CV Control for LiFePO4 & Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 300mA

Output current: 0.8A (max)

Charging voltage:

Lead acid: 7.3V/ 14.4V DC LiFePO4; 12.8V/4 cells Charging current: 6V lead acid: 0.8A 12V lead acid: 0.8A LiFePO4: 0.8A

Insulation: IP 65 (water & dust)

Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

√ Safety timer protection

Fixed battery clamp connector

Packed with:

Dimension: 107 x 63 x 34mm Packing: Individual color giftbox



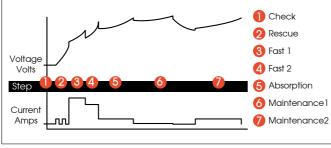
#### **LED** indication:

Lithium Mode selected

INDICATION	LED COLOR
All LED flash 2 times for self-check.	Red Flashing
ON: no battery at Standby. OFF: Battery Charging.	Green
Flashing: 1.Timer for lead acid (red ) 2. Timer for Lithium (yellow flash) 3. Total timer (yellow flash) 4. Battery voltage (yellow) 5. Reversed polarity (red flash)	Red & yellow flashing
Flashing Steady OFF: full charged	Red flashing
Flashing Steady OFF: full charged	Orange flashing
Flashing Steady OFF: full charged	Yellow flashing
Flashing Steady: full charged	Green flashing
Mode selected	Red
Mode selected	Red
	All LED flash 2 times for self-check.  ON: no battery at Standby.  OFF: Battery Charging.  Flashing: 1. Timer for lead acid (red ) 2. Timer for Lithium (yellow flash) 3. Total timer (yellow flash) 4. Battery voltage (yellow) 5. Reversed polarity (red flash)  Flashing Steady  OFF: full charged  Flashing Steady  OFF: full charged

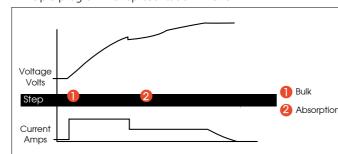
Red

Principle programme representation 6V/ 12V Pb



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Principle programme representation LiFePO4



#### **MW CC04A**

4A 6V & 12V 7 Steps Intelligent Battery Charger for Vehicles & Boats With CC/CV Control for Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 600mA Output current: 4.0A (max)

Charging voltage: 7.3V/ 14.4V/ 14.7V

Charging current: 6V battery: 0.8A

12V battery: 0.8A & 4.0A Protection: IP 65 (dust & water)

Protection:

√ Short circuit protection √ Overload protection

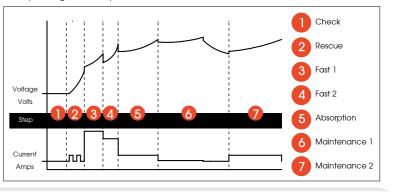
√ Wrong polarity protection

Dimension: 194 x 68 x 47mm Packing: Individual color gift box

#### LED indication:

LED indication:					
	LED position	INDICATION	LED COLOR		
1	Standby	Standby LED Light	Red		
2	6V	6V battery indication	Red		
3	12V/ 0.8A	12V/ 0.8A battery indication	Red		
4	12V/ 4.0A	12V/ 4.0A battery indication	Red		
5	12V/ 4.0A cool	12V/ 4.0A cool battery	Red		
6	Charging	charging	Red		
7	Full	Charge full indication	Green		
8	Error	wrong polarity indication	Red		
9	Bad battery or unsuited battery	Battery voltage <3.7V or Battery voltage>15V	Battery Indicate 4 Red LED Flash		

Principle Programme representation



#### MW CC01A

1A 6V & 12V 6 Steps Intelligent Battery Charger for Vehicles & Boats With CC/CV Control for Lead Acid Battery of Wet, MF, VRLA, AGM & GEL

Input: 220-240V AC, 50Hz, 400mA

Output current: 1.0A (max) Charging voltage: 7.3V/ 14.4V

Charging current: 6V battery: 1.0A 12V battery: 1.0A

Protection: IP 65 (dust & water)

#### Protection:

√ Short circuit protection √ Overload protection

√ Wrong polarity protection

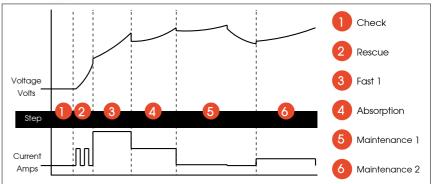
Dimension: 69 x 43 x 46mm Packing: Individual color giftbox

#### LED indication

	LED	LED COLOR		
1	Standby	Stand- By LED Light	Red	
2	6V	6V battery indication	Green	
3	12V	12V battery indication	Green	
4	Charge	Charging	Red	
5	Charge full	Charge full indication	Green	
6	Error	wrong polarity indication	Red	



Principle Programme representation



52

MW MLF-CC140U and MW MLF-CC280U is our newly developed intelligent 8-Step fully automatic switch mode marine charger and maintainer. It is designed special applied to 12V lead-acid Battery: Wet, MF, VRLA, AGM, Calcium and GEL 1.2Ah to 120 Ah, All Battery Sizes for maintenance under 8 step charging.

The whole charging procedure is under the control of MCU.

### MW MLF-CC140U

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4A 12V 8-Step Intelligent Fully Automatic Switch Mode Marine

Charger With CC/CV Control for Lead-Acid Battery of Wet, MF, VRLA, AGM and GEL Input: 220-240V AC, 50/60Hz, 0.6A

Output current: 2.5A/ 4.0A (max)
Charging voltage: 2.0V-14.8V

Charging current:

12V (Normal): 2.0-10.5V @2.5A

12-14.8V @4.0A

Battery Recovery mode:

2.0-10.5V/ 2.5A Pulse Charging

Insulation:

IP68 (Dust and Water-Resistant)

Outdoor Use Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

√ Reverse battery protection

 $\sqrt{\text{Safety timer protection}}$ 

Packed with:

(1)MW CC-BC1: Battery Clamp Connector

#### LED indication:

Item	Indication	LED color
Power On Reset	All LED flash 1time for self check.	RED Flash
Power ON	No battery connected	Switch lighting: RED & Green
Charging	Step1-6	RED steady
Full Charged and Maintenance	Step7-8	Green steady
Error	Flashing: 1. reverse battery connection 2. Charging been interrupted in STEP 2 or 3, 6. 3. 0.5V <battery 4.="" battery="" voltage="" voltage<2.0v="">16V</battery>	Orange Flash

#### Principle programme representation 12V Pb

	Diagnosis	Recovery	Soft Start	Bulk	Absorption	Analysis	Float	Maintenance
Max Time	3 sec.	8 hours	2 hours	25 hours	10 hours	5 mins	12 days	Depend Voltage rise, 20 hours
Voltage(V)								
Step	1	2	3	4	5	6	7	8
					_			
Current(A)		Пппп						
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### **MW MLF-CC280U**

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4A + 4A Dual Channel 12V 8-Step Intelligent Fully Automatic Switch Mode Marine Charger With CC/CV Control for Lead-Acid Battery of Wet, MF, VRLA, AGM and GEL

Input: 220-240V AC, 50/60Hz, 1.2A Output current: Channel (1) 2.5A/4.0A Channel (2) 2.5A/4.0A

Charging voltage: Channel (1) 2.0V-14.8V

Channel (2) 2.0V-14.8V

Charging current:

12V (Normal): 2.0-10.5V @2.5A 12-14.8V @4.0A

Battery Recovery mode:

2.0-10.5V/ 2.5A Pulse Charging

Insulation:

IP68 (Dust and Water-Resistant)

Outdoor Use Protection:

√ Short circuit protection

√ Overload protection

√ Wrong polarity protection

 $\sqrt{\text{Reverse battery protection}}$ 

√ Safety timer protection

Packed with:

(1)MW CC-BC1: Battery Clamp Connector

#### LED indication:

LLD Malcation.				
Item	Indication	LED color		
Power On Reset	All LED flash 1time for self check.	RED Flash		
Power ON	No battery connected	Switch lighting: RED & Green		
Charging	Step1-6	RED steady		
Full Charged and Maintenance	Step7-8	Green steady		
Error	Flashing: 1. reverse battery connection 2. Charging been interrupted in STEP 2 or 3, 6. 3. 0.5V <battery 4.="" battery="" voltage="" voltage<2.0v="">16V</battery>	Orange Flash		

#### Principle programme representation 12V Pb

	Diagnosis	Recovery	Soft Start	Bulk	Absorption	Analysis	Float	Maintenance
Max Time	3 sec.	8 hours	2 hours	25 hours	10 hours	5 mins	12 days	Depend Voltage rise, 20 hours
Voltage(V)								
Step	1	2	3	4	5	6	7	8
Current(A)								

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Below MW337BT is an intelligent Bluetooth battery tester for checking the car battery status on your iOS/Android mobile devices. Now you can check your car battery condition in your car and without opening the hood with the built-in Bluetooth module.

There is also a DC socket for charging the car battery through the tester. User does not need to remove the tester.

### **MW 337BT**

Intelligent 6/12/24V Smart Bluetooth Battery tester for Vehicles

Input voltage: 6/12/24V DC

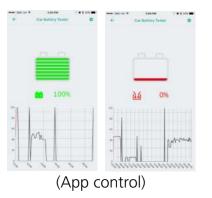
Using car battery

to provide power for testing

Dimension: 68 x 48 x 12mm

Packing:

Individual color giftbox





### **MW 336**

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Intelligent 12V & 24V Battery Tester w/ LCD Panel for Vehicles & Boats

Input: 12.0 or 24.0V DC

Using car battery to provide power for testing

Silde switch for 12V or 24V selection

LED indication:

Extremely low battery voltage: Red

LCD backlight in Blue

Packed with:

(1)Battery Clamp Connector (MW CC-BC2) (2)Eyelet Terminal Connector (MW CC-ET2)

(3)Cigarette Lighter Plug (MW CP1)

Dimension: 75.7 x 49.2 x 19mm Packing: Individual color giftbox











Low voltage indicator: Red LED

LCD backlight button

#### 2WR-LC-RC/0.4/1A

0.4m Supporting Wire for Car Battery Charger





EB-04 plug to terminal Wire (3.5\*7.0MM)

Model Number	Length
2WR-LC-RC/100/1A	1m

#### **2WR-LC-RCF/0.4/1A**

0.4m Supporting Wire for Car Battery Charger W/Fuse





EB-04 plug to terminal Wire with Fuse Clip (3.5\*7.0MM)

#### 2WR-LC-CC/0.4/1A

0.4m Supporting Wire for Car Battery Charger



EB-04 plug to Alligator Clip (3.5\*7.0MM)

#### **2WR-LC-CCF/0.4/1A**

0.4m Supporting Wire for Car Battery Charger W/Fuse



EB-04 plug to Alligator Clip with Fuse Clip (3.5\*7.0MM)

#### **MW 606HCN**

**Tiny 6V Lead Acid Battery Charger** 

Input: 100-240V AC, 60/50Hz Charging current: 600mA Charging voltage: 6.0V Float output voltage: 7.2-8.4V Bulk charge mode voltage: 3.0-6.8V

Packed with: (1) 8X-01E/N2 (2) Plug E

Dimension: 68.4 x 38.7 x 68.4mm Packing: Individual color giftbox

LED indication:

Status	LED
Connect to Power	Red On
Connect to power and battery	Red Off
Completed charging	Rad On

#### Completed charging Red On **MW 1210HCN**

**Tiny 12V Lead Acid Battery Charger** 

Input: 100-240V AC, 60/50Hz Charging current: 1000mA Charging voltage: 12.0V Float output voltage: 14.4V

Bulk charge mode voltage: 6.0-14.0V

Packed with: (3) 8X-01E/N2 (4) Plug E

Dimension: 76.5 x 42.4 x 72.2mm Packing: Individual color giftbox

LED indication:



X8-01E/N2

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Plug E

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Status	LED
Connect to Power	Red On
Connect to power and battery	Red Off
Completed charging	Red On

#### **MW NN-CC003A**

**Ni-MH Battery Pack Charger** 

Input voltage: 220-240V AC, 60/50Hz Output: 4.8V/ 350mA; 9.6V/220mA \*Protection: Short circuit and polarity LED indication: Red LED power display Dimension: 68.35 x 38.68 x 68.41mm Packing: Individual clamshell blister



## **MW LL-CC010A**

Universal Li-ion/Polymer Battery Pack Charger

Input voltage: 100-240V AC, 60/50Hz

Output Voltage: Li-ion:3.7V/8.4V/11.1V/14.8V DC

Output Current: Li-ion:3.7V @1A/1 cell Li-ion:7.4V @1A/2 cells

Li-ion:11.1V @1A/3 cells Li-ion:14.8V @1A/4 cells

LED indication: Charging – Green LED flashes

Full – Green LED on Discharge – Red and Green LED

flashes alternatively

Error – Red LED flashes Dimension: 138 x 246 x 39.2mm Packing: Individual color giftbox





### 

#### 150W DC to AC inverter with 2.1Amp USB Outlet

Input voltage: 12-13.8V DC

Output voltage:

Output (AC): 230V AC, 50Hz, 150W (max.)

AC output wave: Non-Sinusoidal

Output (USB): 5V DC, 2400mA

√ Low voltage protection

√ Over voltage protection

√ Over power protection  $\sqrt{\text{Over temperature protection}}$ 

LED indication:

USB: Green power LED

Socket: normal: blue LED; malfunction: LED off)

Dimension: Ø70 x 166mm

Packing: Individual clamshell blister

\*Contact our sales person for other sockets to different countries





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#### WW UDA150 (AUDIO) (SEAME (SEAME ) (SPUA ) (SPU













#### 150W DC to AC Inverter with USB Outlet & Cigarette Lighter Socket

Input voltage: 12-13.8V DC

Output voltage:

Output (AC): 230V AC, 50Hz, 150W (max.)

Output (USB): 5V DC, 500mA

Output (Car socket): 12V DC, 1000mA

- √ Over-current protection
- √ Low battery protection
- √ Over power protection
- √ Over voltage protection
- √ Over heat protection

LED indication: Power LED

Dimension: 150 x 93.58 x 51mm Packing: Individual clamshell blister



Cligerette lighter scoket USB outlet



















# MW DA300 (AUDIO) (AUDI

#### 300W DC to AC Inverter with 2 USB Outlets

Input voltage: 12V DC, 30A Output voltage:

Output (AC): 230V AC, 50Hz, 1300mA

Output power (AC): 300W (max.)

Output (USB): 5V DC, 1500mA (max for 2 USB ports)

- √ Over-current protection
- √ Low battery protection
- √ Over power protection
- √ Over voltage protection √ Over heat protection

Dimension: 137 x 105 x 54mm

Packing: Individual clamshell blister

#### LED indication:

Status	LED indication
Power	Green
Over-current	Red
Input low voltage	Red
Short circuit	Red
Overload	Red
Over temperature	Red



# **Battery Charger &** Powerbank

**Powerbank** P.62-65 Universal CCCV Battery Chargers — P.66-69 Ni-Cd/ Ni-MH Battery Chargers — P.70

#### 2200mAh Slip-In Pocket Powerbank

Input voltage: 5V DC Input port: Micro USB Output voltage: 5V DC Output current: 1A

Pack with: MW CB18-1 (0.2m)

Built-In battery: 1pc 18650 battery Capacity range:

2200mAh - 2750mAh

LED indication: Power LED Blue

Dimension: 95 x 40 x 22mm

Packing: Individual clamshell blister







### MW BU21-44C (AUDIO) (AMERICA (POD ) (



### 4400mAh All-In-One Compact Powerbank

Input voltage: 5V DC Input port: Micro USB Output voltage: 5V DC Output current: 1A

Pack with: MW CB18-1 (0.2m)

Built-In battery: 2pc 18650 battery Capacity range:

4400mAh - 5500mAh

LED indication: Power LED Blue

Dimension: 97.5 x 51x 24mm

Packing: Individual clamshell blister







#### MW BU22-66C [AUDIG] [AMERIA] [AMERIA | FINDLE |



6600mAh All-In-One Compact Powerbank









compatible

Input voltage: 5V DC Input port: Micro USB

Output voltage: 5V DC

Output current: 2A (Shared by 2)

#### MW BU26 (QC3.0 version)

5V/3A (shared by 2)

Pack with: MW CB18-1 (0.2m)

Built-In battery: 3pc 18650 battery Capacity range:

6600mAh - 8250mAh

LED indication: Power LED Blue

Dimension: 97.5 x 64 x 24mm Packing: Individual clamshell blister







#### MW BU23-88C [ANDIO] [A













compatible

# 8800mAh All-In-One Compact Powerbank

Input voltage: 5V DC Input port: Micro USB Output voltage: 5V DC

Output current: 3.4A (Shared by 2)

### MW BU27 (QC3.0 version)

5V/3A (shared by 2)

Pack with: MW CB18-1 (0.2m)

Built-In battery: 4pc 18650 battery Capacity range:

8800mAh - 11000mAh

LED indication: Power LED Blue

Dimension: 97.5 x 81 x 24mm Packing: Individual clamshell blister



MW CB18-1





#### MW BU18GS-104CGS (AUDIO) (SEED ) (SEED









#### 10400mAh Dual Output Heavy Duty Powerbank

Input: 5.0V DC Input port: Micro USB Output voltage: 5.0V DC Output: 3.4A shared by 2 Pack with: MW CB18 -1 (0.2m) Built in battery

4pcs Samsung Li-ion batteries/ China batteries Features:

√Able fully charge iPhone, tablet PCs & other mobile devices

- √ Capable to charge & output at the same time
- √ CC/CV control
- √ Over discharge protection
- √ Over charging protection
- √ Short circuit protection Dimension: 100 x 84 x 26.2mm

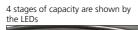
Packing: Individual clamshell blister

Samsung Batteries available as option



MW CB18-1

(0.2m)









**GS** Approved

### MW BU16GS-52CGS (AUDIO) (SEAME) (SEAME













#### 5200mAh All in One Powerbank

Input: 5.0V DC Input port: Micro USB Output voltage: 5.0V DC Output: 2.4A shared by 2 Pack with: MW CB18 -1 (0.2m) Built in battery:

2pcs Samsung Li-ion batteries/ China batteries Features:

√Able fully charge iPhone, tablet PCs & other mobile devices

- √ Capable to charge & output at the same time
- √ CC/CV control
- √ Over discharge protection
- √ Over charging protection
- √ Short circuit protection Dimension: 100 x 62 x 23.8mm

Packing: Individual clamshell blister

**Samsung Batteries** available as option



4 stages of capacity are shown by





**GS Approved** 













**GS** Approved

# MW BU15GS-26CGS (ANDIO) (CEANE ) (POL) (PO

2600mAh Slip in Pocket Powerbank

Input: 5.0V DC Input port: Micro USB Output voltage: 5.0V DC Output: 1.0A

Pack with: MW CB18 -1 (0.2m) Built in battery:

1pc Samsung Li-ion batteries/ China batteries √Able fully charge iPhone & other mobile devices

 $\sqrt{\text{Capable to charge & output at the same time}}$ √ CC/CV control

- √ Over discharge protection
- √ Over charging protection
- √ Short circuit protection
- Dimension: 100 x 39 x 22mm Packing: Individual clamshell blister

**Samsung Batteries** available as option



MW CB18-1

(0.2m)

The LED will flash during charging





### BUAA4 (AUDIO) 












**Tiny Emergency Powerbank** 

Input: 5.0V DC

Output voltage: 5.0V DC

Output: 800mA Battery type:

Alkaline (Blue LED) & Rechargeable (Green LED) Press the power button to choose battery type

\*Able fully charge iPhone & other mobile devices

Dimension: 79 x 34 x 34mm

Packing: Individual clamshell blister













#### VV 1316 (AUDO) (SEAME) 








Universal CCCV/ \( \Delta V \) Charging Docking for Li-polymer/ Li-ion battery & Ni-Cd/ Ni-MH battery w/ 1 Amp USB

**Outlet for Camera & Camcorder** 

· Adjustable contact

USB output

No USB loading

USB output(<500mA)

USB output(>500mA)

 Flexible mounting design • Fit for different sizes of Li-polymer/Li-ion battery

• Fit for charging 2pcs AA/AAA Ni-Cd/ Ni-MH battery

Charging for battery

( with AC input)

5V/1000mA

3.7V/600mA

7.4V/500mA

2.4V/1000mA

3.7V/300mA

7.4V/250mA

2.4V/500mA

0mA

Input: 5V DC (Micro USB)/1A Package includes: MW CB18 Dimension: 106.5 x 55 x 22.1mm Packing: Individual clamshell blister



Charging for battery

5V/500mA

3.7V/300mA

7.4V/250mA

2.4V/500mA

0mA

0mA

( with PC USB input)







Option: 1.0A power adaptor Contact our sales person for details

Charge Li-polymer/

**SEPARATELY** 

Li-ion battery or AA/AAA

Ni-Cd/ Ni-MH battery(ies)

#### NW 1318 (AUDIO) (SEAME INDICE STATE OF SEAME SEAME INDICE STATE OF SEAME S









Universal CCCV/ \( \Delta V \) Charging Docking for Li-polymer/Li-ion battery & Ni-Cd/

Ni-MH battery w/ USB Outlet and LCD Panel

- Adjustable contact (at the back)
- · Flexible mounting design
- Fit for different sizes of Li-polymer/ Li-ion battery
- Fit for charging 2pcs AA/ AAA Ni-Cd/ Ni-MH battery
- · Provide emergency power as power bank by using battery(ies) from the slots
- · Slide switch for turn on USB output port
- · Working status is shown on LCD panel

Input: 100-240V AC, 60/50Hz & 12V DC Charging current: (for Li-polymer/ Li-ion battery)

3.7V DC /1000mA; 7.4V DC /700mA

Charging current: (for Ni-Cd/ Ni-MH battery)

2.4V DC, 1000mA (fast charge)/100mA (Trickle charge)







**USB** output:

5V DC/1000mA (connected to power source) 5V DC/800mA (by external battery(ies))

Dimension: 120 x 60 x 31mm

Packing: Individual clamshell blister

· Charge/ discharge status · "on/ off" of USB output port

· Charging battery type

 Charging voltage Combo included:

MW 3K10GS MW CP1



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9V Ni-Cd/ Ni-MH Battery Charger w/ USB Outlet

Input voltage: 100-240V AC, 60/50Hz or 5V DC

Charging current: (Block 9V):

2x70mA

USB output:

5V DC/ 1000mA When USB output loads over 500mA,

no charging current for Block 9V

When USB output loads below 500mA, charging current for Block 9V keeps unchanged

LED indication:

For Block 9V:

Red LED (fast charge)/ Green LED (trickle charge)

For USB output:

Blue power LED

Dimension: 85 x 43 x 18mm

Package includes: 1pc MW CB18 (cable)

1pc MW FU10GS (adaptor)

Packing: Individual clamshell blister







MW CB18

#### **MW AA01V-4U**

Universal Multiple Channel Ni-MH/Ni-Cd Battery Charger

Input voltage: 100-240V AC, 50Hz

Output: (Slot 1-2 / Slot 3-4): 2.4V; 150mA for AA / AAA size

Channel: 4 PCS compatible channel of AA/AAA

\*Protection: Short circuit and polarity LED indication: Charging - Red LED on

Dimension: 105 x 44 x 80mm

Packing: Individual clamshell blister



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#### **MW AA02V-4U**

Universal Multiple Channel Ni-MH/Ni-Cd Battery Charger

Input voltage: 100-240V AC, 50Hz

Output: Channel 1-4: 1.2V; 200mA for AA / 50mA for AAA size

Channel 5-6: 9V, 13mA for 9V block

\*Protection: Short circuit and polarity

\*Charge & Discharge function: Switch button on the front

LED indication: Charging – Red LED on Dimension: 108 x 68 x 30.8mm Packing: Individual clamshell blister



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#### **MW AA02V-6U**

Universal Multiple Channel Ni-MH/Ni-Cd Battery Charger

Input voltage: 100-240V AC, 50Hz

Output: Channel 1-4: 1.2V; 270mA for AA/C/D /AAA size

Channel 5-6: 9V. 13mA for 9V block \*Protection: Short circuit and polarity

\*Charge & Discharge function: Switch button on the front

\*Timer Function: 20 hours for AAA /AA / C / D size

LED indication: Charging - Red LED on Full - Green LED ON

Discharging – Red and Green LED flashes alternatively

Dimension: 143 x 180 x 54.5mm Packing: Individual color giftbox



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#### **MW AA18-4LCD**

**Universal Li-ion & Ni-MH** Battery Charger w/ Bluetooth Contorl

Input voltage: 5V/2A; 12V/1.5A(QC)

Output; Voltage: 4 x 1.4V (max. 1.85V) (AA/AAA)

4 x 4.2V (Li-ion, 18650)

Output: NiMH - Selectable 1500mA / 800mA / 500mA

USB: 5V/1A

\*Protection: Short circuit and Reverse battery polarity

New

\*Discharge Function

\*Trickle Charge

\*Safety Timmer

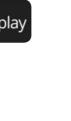
\*LCD Display

Dimension: 105 x 44 x 80mm Packing: Individual clamshell blister









#### **MW AA10V-8**

Universal Multiple Channel Ni-MH/Ni-Cd Battery Charger

Input voltage: 100-240V AC, 50Hz

Output: Channel 1-8: 1.2V; 1000mA for AA / 500mA for AAA size

Channel 9-10: 9V, 70mA for 9V block

Trickle Charge: AA: 100mA

AAA: 50mA

\*Protection: Short circuit and polarity

\*Discharge Function: Button on the front

\*Full Detection: -dV; 0 dV;

Safety timer (AA: 6 hrs, AAA: 5 hrs, 9V Block: n/a);

Max battery voltage (1.65V)

LED indication:

Charging – Red LED on

Full – Green LED on

Discharge – Red and Green LED flashes

alternatively

Error – Red LED flashes

Dimension: 138 x 246 x 39.2mm Packing: Individual color giftbox



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#### **MW LFAA07L-4U**

Plug-in Universal Multiple Channel Ni-MH/Ni-Cd & Li-ion **Battery Charger W/ LCD display** 

Input voltage: 100-240V AC, 50Hz

Output: 1.4V\*4; 700mA for AA Ni-MH/Ni-Cd

3.7V\*4; 700mA for AA Li-ion

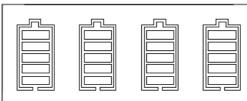
Trickle Charge: 70mA

\*Protection: Short circuit and polarity

\*Timmer Function: 10 hours (Not applicable for Li-ion battery)

after regular charging mode, go to trickle charge mode

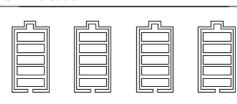
LCD indication:



Dimension: 122 x 78 x 83.2mm Packing: Individual clamshell blister



\*End of Charge: dV:



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MW 8803

Multiple-Channel Ni-MH/Ni-Cd Battery Charger with LCD display

Input voltage: 100-240V AC 50/60Hz

Fit for Charging:

6 PCS compatible channel of AA/AAA/C/D

2 port of 9V block

Dimension: 180 x 143.5 x 53mm Packing: Individual color giftbox

AAA size	500mA
AA size	1000mA
C or D size	1000mA
9V	70mA



MW 8802

Universal Multiple-Channel Ni-MH/Ni-Cd charger

Input voltage: 100-240V AC, 50/60Hz

Fit for Charging:

6 PCS compatible channel of AA/AAA/C/D

2 port of 9V block

Dimension: 143.5 x 180 x 54.5mm Packing: Individual color giftbox

AAA size	1000mA
AA size	1000mA
C or D size	1000mA
9V	30mA



### **MW AA05V-4U**

Plug-in Ni-Cd/ Ni-MH Battery Charger w/ Built-in Switching Power

Input voltage: 100-240V AC, 60/50Hz

Charging current: 4 x 1.2V/ 500mA (AA/AAA),

or 2 x 9V/ 13mA (Block 9V)

LED indication: Red LED (Regular), Green LED (Trickle) AA/AAA

Red LED (Regular), Red off (Full) 9V

Flashing Red LED (Detection of faulty batteries) AA/AAA

AV Detection

Dimension: 108 x 68 x 30.8mm Packing: Individual clamshell blister



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# Gaming Accessories

## Notes:

 XBox power
 P.72-75

 PS5 power
 P.73

 Nintendo Switch
 P.75

70

**Xbox series X/S Charging Base** 

Rechargeable battery type: 2PCS Ni-MH 1200mAh battery

Channel: 2 charging channels Input: USB 5V/DC (USB C socket) Output: 5V/500mA per channels (max) LED indication: Stand-by: LED off

Charging: Orange LED on Full: Green LED on Dimension: 244.6 x 127.8 x 147.7 mm Package include: 1M Type-C cable Packing: Individual color gift-box



New



\*LED indication for reference only

### **MW PS5CDA**

**New Play Station 5 Charging Base** 

Channel: 2 charging channels Input: 5V/DC (USB C socket) Output: 5V/0.5A per channel (max) LED indication: Stand-by: LED off

Charging: Orange LED on Full: Green LED on



New



\*LED indication for reference only

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Below items are our ALL-NEW gaming power accessories specify designs for the Xbox console. Never worry about running out of battery power for your controllers during play again.

#### MW XB-085-2

New Xbox One Power Kit Rechargeable battery type: 2PCS Ni-MH battery

Channel: 1 channel Input: USB 5V/500mA Output: 2.4V/400mA max

Accessories: USB CABLE with 4 pcs LED Dimension: 39.7 x 38.8 x 39 mm Inner battery: 2 x 1.2V / capacity 850mAh Packing: Individual color gift-box



#### **MW XB-120-2**

Charge Base for Xbox One™ Rechargeable battery type: 2PCS Ni-MH battery

Channel: 2 channel

Input: AC100-240V, 50/60Hz 1.8m NISPT-2 cable with UL plug

Output: 3.4V/1A max

LED indication: Power LED white/ red/ yellow/ green

Dimension: 210 x 57.9 x 56.6 mm Package include: 2 x 1.2V NI-MH battery Packing: Individual color gift-box





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## MW XBP-140-2

New Xbox One(TM) Charge Base Rechargeable battery type: XBOX 360 wireless controller

+ 2.4V Ni-MH battery pack

Channel: 1PCS channel Input: DC 5V with USB plug Output: XBOX 360 plug

for XBOX 360 wireless controller charging

Wire length: 3.6m with input and output plug 4.0mm five core

Shielded wire

LED indication: Power LED red/ green Dimension: 39.7 x 38.8 x 39 mm

Weight: Approx 140g exclude packing and battery Packing: Individual clamshell blister



#### MW XB3-140-2

Xbox 360 Pro Power Kit Rechargeable battery type:

XBOX 360 wireless controller + 2.4V Ni-MH battery pack

Channel: 1PCS channel Input: DC 5V with USB plug Output: XBOX 360 plug

for XBOX 360 wireless controller charging

Wire length: 3.6m with input

and output plug 4.0mm five core Shielded wire

LED indication: Power LED red/ green Dimension: 39.7 x 38.8 x 39 mm Packing: Individual clamshell blister



Below are our All-New developed Nintendo Switch gaming accessories series.

All-New 39W Plug-in Type-C charger

for Nintendo Switch **ErP 3rd stage compliance CEC** efficiency: Level **(9)** 

**MEPS: VI** 

Input voltage: 100-240V AC, 50/60Hz

Output voltage: 5/15V DC

Output current: 5V @1.5A; 15V @2.6A Output plug: Type-C (1m fixed cable) LED indication: Power LED Blue Dimension: 60.5 x 60.5 x 35.3mm Packing: Individual clamshell blister











**(VI)** 

#### MW NS39D

All-New 12-24V DC/DC Type-C charger for Nintendo Switch

Input voltage: 12-24V DC Output voltage: 5V DC Output current: 3.4A

Output plug: Type-C (1m fixed cable) LED indication: Power LED Blue Dimension: 69 x 48 x 28.6mm



# Multiple Output Power

80W Universal Power Supply — P.77 3.6W-36W AC/DC Adaptor ———— P.78-81 Below MW PS235 is a precise, adjustable power supply of both output current and voltage. Select the 2 dial switches are representing current and voltage options. By turning the current dial for current adjustment while turning the voltage dial for voltage selection. The corresponding voltage, current, in CC or CV status is all shown on the panel.

**MW PS235** 

80W Universal Power Supply w/ CC/CV Output

**ErP 3rd stage compliance** CEC efficiency: Level 🕅 MEPS: V

Input voltage: 100-240V AC, 60/ 50Hz Output voltage (1): 0.0- 16.0V DC Output current (1): 0.0- 5.0A (max) Output voltage (2): 0- 27.0V DC Output current (2): 0.0- 3.0A (max) Output voltage (3): 0.0- 36.0V DC Output current (3): 0.0- 2.2A (max) Accuracy of the Voltage: +/- (1% + 2 counts)

Accuracy of the Current: +/- (1%+2 counts)

Resolution of voltage: 0.1V Resolution of Current: 0.01A LED indication:

Function LEDs Green Packed with: MW CC-BC3

Dimension: 281.5 x 132 x 62mm Packing: Individual color giftbox





New









MW CC-BC3

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#### MW ME30PU

36W AC/DC Switching Apaptor W/ LCD Display

**ErP 3rd stage compliance** CEC efficiency: Level @ MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 5-24V DC

Output Current: 5-12V/3A; 13V/2.7A; 14V/2.5A; 15V/2.4A; 16V/2.2A; 17V/2.1A; 18V/2.0A; 19V/1.88A; 20V/1.8A; 21V/1.7A; 22V/1.63A; 23V/1.56A; 24V/1.5A LCD Display:

88 V

Dimension: 115 x 51 x 32mm Packing: Individual color giftbox

- √ Over voltage protection
- √ Over current protection
- √ Short circuit protection
- √ Memory function

#### MW MC30PU

40W AC/DC Switching Apaptor

ErP 3rd stage compliance CEC efficiency: Level®

MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage: 5.0/6.0/7.5/9.0/12.0/13.5/15.0V DC Output Current: 5.0/6.0/7.5/9.0/12.0V@3A; 13.5/15.0V@2.67A

LED Indication: Indicate the selected voltage

Dimension: 104 x 51 x 71mm Packing: Individual color giftbox

- √ Over voltage protection
- √ Over current protection
- √ Short circuit protection
- √ Memory function





#### MW MD40PU

60W AC/DC Switching Apaptor **ErP 3rd stage compliance** 

**CEC** efficiency: Level **1 MEPS: VI** 

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage: 12.0 / 15.0 / 16.0 / 18.5 / 19.0 / 20.0 / 24.0V DC

Output Current: 4A @ 12.0 / 15.0V;

3A @ 16.0 / 18.5 / 19.0 / 20.0V; 2.5A @ 24.0V LED Indication: Indicate the selected voltage

Dimension: 118 x 51 x 71mm Packing: Individual color giftbox

Contact our sales person to check out the compatible products

√ Over voltage protection √ Over current protection √ Short circuit protection √ Memory function



### **MW MA06PU**

7.2W AC/DC Switching Adaptor

#### **ErP 3rd stage compliance CEC** efficiency: Level **9 MEPS: VI**

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC

Output Current: 600mA (max)

With Power LED

Dimension: 69 x 39 x 31mm Packing: Individual color giftbox

the compatible products.

Optional: Add-on USB outlet FUSB: 5V DC/600mA (for USB Type A) FMUSB: 5V DC/600mA (for Micro USB) FNUSB: 5V DC/600mA (for Mini USB) Contact our sales person to check out



## **MW MB10PU**

12W AC/DC Switching Adaptor

**ErP 3rd stage compliance** CEC efficiency: Level @ **MEPS: VI** 

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC

Output Current: 1000mA (max)

With Power LED

Dimension: 75 x 43 x 32mm Packing: Individual color giftbox

Optional: Add-on USB outlet FUSB: 5V DC/1000mA (for USB Type A) FMUSB: 5V DC/1000mA (for Micro USB) FNUSB: 5V DC/1000mA (for Mini USB)

Contact our sales person to check out the compatible products.



√ Over voltage protection

√ Over current protection

√ Memory function

√ Short circuit protection

√ Memory function

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#### **MW MA03**

3.6W AC/DC Switching Adaptor

**ErP 3rd stage compliance CEC** efficiency: Level **9** MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0V DC, 600mA

> 7.5V DC, 480mA 9V DC, 400mA 12V DC, 300mA

With Power LED

Dimension: 69 x 39 x 31mm Packing: Individual color giftbox

Optional: Add-on USB outlet FUSB: 5V DC/600mA (for USB Type A) FMUSB: 5V DC/600mA (for Micro USB) FNUSB: 5V DC/600mA (for Mini USB) Contact our sales person to check out

the compatible products.







## **MW MA06**

7.2W AC/DC Switching Adaptor

**ErP 3rd stage compliance CEC** efficiency: Level **9** MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC

Output Current: 600mA (max)

With Power LED

Dimension: 69 x 39 x 31mm Packing: Individual color giftbox

Optional: Add-on USB outlet FUSB: 5V DC/600mA (for USB Type A) FMUSB: 5V DC/600mA (for Micro USB) FNUSB: 5V DC/600mA (for Mini USB) Contact our sales person to check out the compatible products.





FNUSB

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MW MA06HT 7.2W AC/DC Switching Adaptor with 4 Changeable Input Plugs

**ErP 3rd stage compliance** CEC efficiency: Level (n) MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC

Output Current: 600mA (max)

With 4 detachable input plugs (U, UK, SAA, AF)

With Power LED

Dimension: 69 x 74 x 41mm Packing: Individual color giftbox Optional: Add-on USB outlet FUSB: 5V DC/600mA (for USB Type A) FMUSB: 5V DC/600mA (for Micro USB) FNUSB: 5V DC/600mA (for Mini USB)

Contact our sales person to check out the compatible products.

MW MB10 (2012) 12W AC/DC Switching Adaptor

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**ErP 3rd stage compliance CEC** efficiency: Level **(/)** MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC

Output Current: 1000mA (max)

With Power LED

Dimension: 75 x 43 x 32mm Packing: Individual color giftbox Optional: Add-on USB outlet FUSB: 5V DC/1000mA (for USB Type A) FMUSB: 5V DC/1000mA (for Micro USB) FNUSB: 5V DC/1000mA (for Mini USB)

Contact our sales person to check out the compatible products.



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**ErP 3rd stage compliance CEC** efficiency: Level **(9)** 

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC Output Current: 1000mA (max)

With 4 detachable input plugs (U, UK, SAA, AF)

With Power LED

Dimension: 69 x 74 x 42mm Packing: Individual color giftbox Optional: Add-on USB outlet FUSB: 5V DC/1000mA (for USB Type A) FMUSB: 5V DC/1000mA (for Micro USB) FNUSB: 5V DC/1000mA (for Mini USB) Contact our sales person

to check out the compatible products.





## MW MC15 (2) 18W AC/DC Switching Adaptor

**ErP 3rd stage compliance** CEC efficiency: Level 🕅 MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC Output Current: 1500mA (max)

With Power LED

Dimension: 82 x 52 x 36mm Packing: Individual color giftbox Optional: Add-on USB outlet FUSB: 5V DC/1500mA (for USB Type A) FMUSB: 5V DC/1500mA (for Micro USB)

FNUSB: 5V DC/1500mA (for Mini USB) Contact our sales person

to check out the compatible products.





MW MD15 WHILLIE

24W AC/DC Switching Adaptor **ErP 3rd stage compliance** 

**CEC** efficiency: Level **1** 

**MEPS: VI** 

Input Voltage: 100-240V AC, 60/50Hz Output Voltage: 9.0/ 12/ 13.5/ 15/ 18/ 20/ 24V DC Output Current: 9.0/ 12/ 13.5/ 15V DC, 1.5A 18/ 20V DC, 1.2A 24V DC, 1.0A With Power LED

Dimension: 88 x 51 x 42mm Packing: Individual color giftbox



**MW MD25** 

27W AC/DC Switching Adaptor **ErP 3rd stage compliance CEC** efficiency: Level **1** 

MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz Output Voltage:

3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC Output Current: 2250mA (max)

With Power LED

Dimension: 88 x 51 x 42mm Packing: Individual color giftbox

MW ME25

27W AC/DC Switching Adaptor **ErP 3rd stage compliance CEC** efficiency: Level **1** 

MEPS: VI

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage:

3.0/ 4.5/ 5.0/ 6.0/ 7.5/ 9.0/ 12V DC Output Current: 2250mA (max)

With Power LED

Dimension: 96 x 50 x 30mm Packing: Individual color giftbox



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**MW MG36** 



36W AC/DC Switching Adaptor **ErP 3rd stage compliance CEC** efficiency: Level **1** 

**MEPS: VI** 

Input Voltage: 100-240V AC, 60/50Hz

Output Voltage:

5.0/ 6.0/ 7.5/ 9.0/ 12.0/ 13.5/ 15V DC Output Current: 3000mA (max)

With Power LED

Dimension: 110 x 50 x 30mm Packing: Individual color giftbox



## **Smart Home Automation** by Minwa

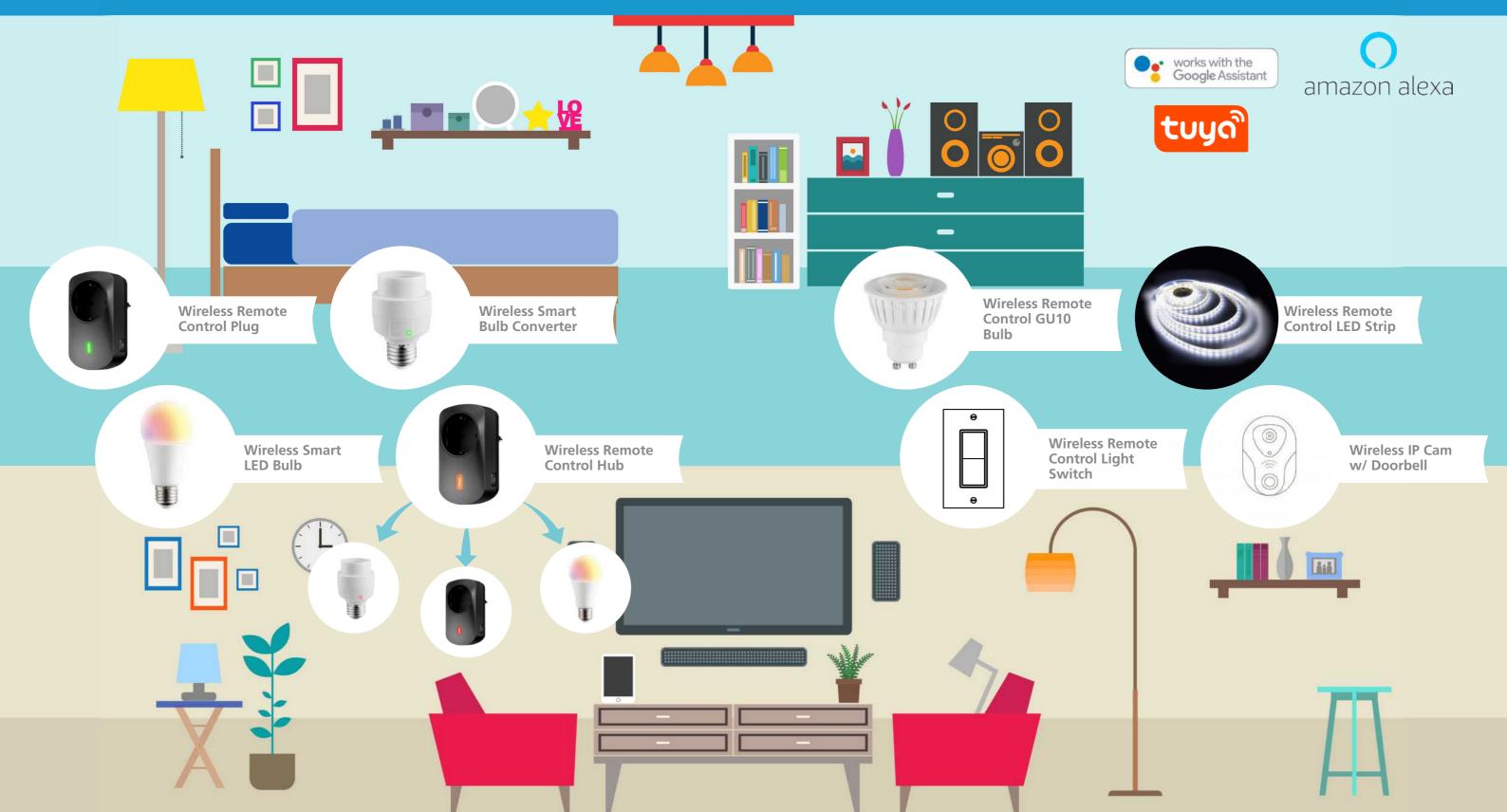
With our 41 years' experience in manufacturing power related products, together with our the strong software partner, Minwa provides multiple solutions for you to start with us.

## **Minwa Home-Automation Mobile Application**









### TRANSFORMING THE WORLD WITH INTERNET OF THINGS SOLUTIONS

With Minwa IOT program, we provide one-stop solution To help you catch the next big wave.

Manufacturing

Our pursuance of

excellence in both of our

products and services

have lead us forward

over the past 40 years.



#### **Present Status**

Mechanical & Plastic Housing, Hardware, Firmware,

**Software and Certification** have all been processed and are market ready.



#### **Big Data**

Direct and transparent, Minwa holds no data and will handle all data from the platforms then give it to you.



#### **Technical support**

Our well-equipped software & hardware engineering team are ready to serve.



Connectivity

Our program with an open

proprietary platform with

connectivity to third parties'

platform such as Amazon

Echo and Google Home.

#### Security

As we are using AWS server with receipt, you are all-around network secured.



#### Customization

You can tailor-made all UI as per your preference.



#### All-In-One App

With our All-In-One APP, you can easily control multiple products by clicks.

With our 41 years experience in manufacturing power related products, together with our the strong software partner, Minwa provides multiple solutions for you to start with us.

Different technology has its pros & cons, contact us at sales@minwa.com.hk today for a tailor solution for you.

Туре	Countries
Type A	USA, Mexico, Canada & Japan
Type E	France, Slovakia & Czech Republic
Type F	Germany, Norway, Spain, Netherlands & Russia
Type G	Britain, Ireland & Singapore
Type J	Switzerland
Type K	Denmark & Finland
Type L	Italy

#### **MW WFAS01**

Wireless Remote Control Plug w/ Wi-Fi Technology

## ErP 2nd stage compliance **CEC** efficiency: (9)

**MEPS: VI** 

Input voltage: 220-240V AC, 50/60Hz

Input power: 3500W (max) Input flow current: 16A (max)

Input plug: VDE

Output voltage: 220-240V AC, 50/60Hz New

Output power: 3500W (max)

Output current:

16A (max) purely resistive load

Output socket:

VDE, 220-240V 16A, 2 poles,

3 wires, grounding type Self-resettable function

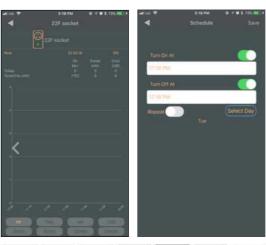
On/off switch at the side

LED indication:

Output LED Green

Dimension: 93 x 53 x 51mm Packing: Individual color giftbox

- 1) Specification is varied from different countries' version.
- 2) HomeKit option is available.

























### **MW LED-LSW1065RGBW**

Wireless Remote Control LED strip set w/RGBW

**ErP 2nd stage compliance CEC** efficiency: (v)

**MEPS: V** 

Input voltage: 220-240V AC, 50Hz

Lumen per meter: 900lm

Dimension: 1m Max extend: 5m

Insulation: IP65 (water & dust) Packing: Individual color giftbox Set include: IP65 LED strip 1m RGBW Wifi controller, Power supply 1) Specification is varied from different counties' version 2) HomeKit option is available



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compatible
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Works with Apple HomeKit

available

amazon alexa

works with the Google Assistant

tuuo

#### LED-LSW1065W/CW/D

Wireless Remote Control LED strip set w/Color Temperature control

Insulation

IP20

**ErP 2nd stage compliance** 

Model Number

LED-LSW1020RGBW

CEC efficiency: (V)

**MEPS: V** 

Input voltage: 220-240V AC, 50Hz Color Temperature: 2700K/ 3000K/ 6000K

Dimension: 1m

LED-L

Max extend: 5m

Insulation: IP65 (water & dust) Packing: Individual color giftbox Set include: IP65 LED strip 1m RGBV

Wifi controller, Power supply 1) Specification is varied from

different counties' version

2) HomeKit option is available



v,	

lodel Number	Insulation
LSW1020W/CW/D	IP20





amazon alexa









#### **LED-EMH05DE**

**Wireless Smart Bulb** 

Converter w/ Wi-Fi Technology

**ErP 2nd stage compliance CEC** efficiency: (VI)

MEPS: VI

Input voltage:

220-240V AC, 50/60Hz

Light Bulb Type:

Light bulb compatibility

LED lamp Energy saving lamp

Incandescent lamp

(dimmable or non-dimmable)

Socket: E27 Bulb's Max Power:

25W (max) LED indication: Power LED Green

Dimension: Φ50\*79.8mm

Packing:

Individual color giftbox

















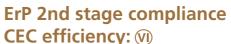




### **LED-MUSA27WE8**

Smart LED Bulb Wireless controlled via smart phone app Over 16 million colors Light schedule setting Mood controller, different lighting mood can be created such as disco mode & sleeping mode

New



**MEPS: VI** 

Wattage (W): 7W

Voltage (V): 220-240V AC

CRI: Ra 80

Lifetime (hrs): 30,000 Dimension (mm): 60 x 124

Beam Angle: 300°

Base: E27 2700K - 6500K: lumens 600, Wat 48

RGBW: lumens 540, Watt 44





















(V)

Works with Apple HomeKit

available

Wi (Ei)

compatible

# Introducing the innovative WiFi integrated RF (Radio Frequency) Technology



#### How It works?



## The Hub Combined a WiFi Plug & RF technology



MW RF Series
Now you can control our RF series through the hub











#### **MW WFAS01HUBV**

**Wireless Remote Control Hub** 

w/ built-in Wi-Fi integrated RF Technology

## ErP 2nd stage compliance CEC efficiency: (1)

**MEPS: VI** 

Input voltage: 220-240V AC, 50Hz

Input power: 3680W (max)
Input flow current: 16A (max)

Input plug:VDE

Output voltage: 220-240V AC, 50Hz

Output power: 3680 (max)

Output current:

16 A (max) purely resistive load

Output socket:

VDE, 220-240V 16A, 2poles,

3 wires, grounding type

On/off switch at the side

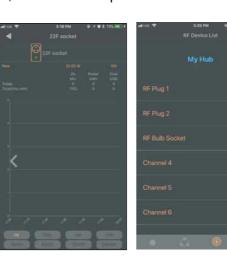
LED indication:

Output LED Orange

Dimension: 100 x 53 x 51mm Packing: Individual color giftbox

1) Specification is varied from different counties' version

2) HomeKit option is available







**Control MW RF series** 





### **MW BTAS01**

Wireless Remote Control Plug w/ Bluetooth MESH **Technology** 





**ErP 2nd stage compliance** CEC efficiency: (9)

MEPS: VI

Input voltage: 220-240V AC, 50/60Hz

Input power: 3500W (max) Input flow current: 16A (max)

Input plug: VDE

Output voltage: 220-240V AC, 50/60Hz

Output power: 3500W (max)

Output current: 16A (max) purely resistive load

Output socket:

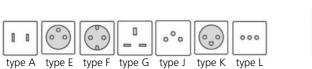
VDE, 220-240V 16A, 2 poles, 3 wires, grounding type

Self-resettable function On/off switch at the side

LED indication: Output LED Blue

Dimension: 93 x 53 x 51mm Packing: Individual color giftbox 1) Specification is varied from different countries' version. 2) HomeKit option is available.







**(€ (VI)** 

## **MW RCAC01**

Wireless Remote Control Plug w/ 433 MHz

**ErP 2nd stage compliance CEC** efficiency: (vi)

MEPS: VI

Input voltage: 220-240V AC, 50/60Hz

Input power: 3500W (max) Input flow current: 16A (max)

Input plug: VDE

Output voltage: 220-240V AC, 50/60Hz

Output power: 3500W (max)

Output current: 16A (max) purely resistive load

Output socket:

VDE, 220-240V 16A, 2 poles, 3 wires, grounding type

Self-resettable function On/off switch at the side

LED indication: Output LED Red

Packed with: MW RC01 (remote control)

Dimension: 93 x 53 x 51mm Packing: Individual color giftbox \*Specification is varied from different countries' version.

















## Note page:

#### Minwa has Successfully Conformed to WEEE and RoHS Directives



#### **About WEEE and RoHS Directives**

The Directive of WEEE and RoHS regarding waste management and hazardous materials of electrical products have been currently launched by the EU (European Union). The two directives play a vital role in the manufacturing, design, and recycling of electrical products. They have been adapted into national laws and effective since 1st of July 2006.



WEEE (2002/96/EC), the directive of waste electrical and electronic equipment, is aimed at preventing electrical and electronic waste; and in addition, to encourage reuse, recycling and other recovery measures to reduce the disposal of waste. It specifically requires the equipment that fall under the directive be marked clearly with a symbol of a crossed out wheeled bin; and an additional solid bar/ date code according to EN 50419 to contribute information to assist in the recycling of products.



RoHS (2002/95/EC), the directive of restriction of the use of certain hazardous substances in electrical and electronic equipment, is aimed to substantially reduce or eliminate the use of Lead, Mercury, Hexavalent Chromium, Polybrominated Byphenyls, Polybrominated Dyphenyl and Cadmium in the production of electrical and electronic equipment so as to reduce WEEE. This Directive has been effective from 1st of July 2006.

Every product we make is completely compliant with the requirements of both RoHS and WEEE directives. There is no more non-RoHS product is being produced. Also all of them are marked with the crossed out wheeled bin on the back of the unit.

REACH, We also work closely to international laboratories to get the update information about REACH regulation and the banned materials to ensure the components and raw materials we use are complied to REACH requirements. Minwa Electronics is fully committed to support both the RoHS & WEEE directives. As a forward- looking company, we keep ourselves in the front so as to stay abreast of all the latest market conditions and demands.

#### A Strong Commitment from Minwa

#### ISO 14001

We moved a big step to strengthen our commitment not only to our staff, our products but also to the environment. In 2013, we obtain the certificate of ISO14001 which is a organization planning, implementation, inspection, review environmental management operational systems normative standards. The system consists of five parts, includes control the comsumption of harzard materials, the establishment of procedures and established a planned and ongoing assessment Improved circulation within the organization in order to ensure the continuous improvement of environmental management systems and



We understand we all live in one world. The more we can do on control and improvement of our production and factory running, the more benefit to environment. We made certain efforts to achieve the goal. Other than products itself, we also pay attention to air, land or water, anything relates to the conservation.

#### SA 8000

Minwa pays great attention to provide our workers and staff with a better working and living environment. As we believe that good relationship build trust, cooperation and loyalty among us, which in turn enhance the efficiency and productivity.





Our core values are in terms of quality, safety, staff welfare, and social responsibility. We have remained competitive in terms of price, and our production machinery and equipment are state-of-the-art. We take pride in what we have achieved, and we shall keep improving ourselves to meet all round success.

EuP (2005/32/EC), the directive of energy efficiency and saving launched by the EU (European Union). It has been effective in April 2009, and it will become mandatory efficiency requirements for external power supplies in April 2010.

We have a newly developed high-energy efficiency SMPS series, aims to reduce energy loss during loading or no load of adaptors, the series consists single voltage and multiple voltage outputs. It complies with 2nd enforcement stage of ErP, (for EU countries), which is much more rigorous then the CEC and MEPS ones. This explains our new series also complies with CEC (US market) and MEPS (Australian market).

#### **FSC CERTIFICATION**

The future of the world's forests is very important to the planet, to animals, to businesses, to all of us. That's why FSC certification exists. ... Being FSC certified means that your forest, or supply chain, is managed responsibly; that Minwa is complying with their environmental, social, and economic standards.

We provide various products with reliability, affordability and environmental friendly, contact us today at sales@minwa.com.hk for details.

MW LF-CC040LCDBT

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MW BU22-66C	63	MW M120W	31
MW BU23-88C	63	MW M45W	36
MW BUAA4	65	MW M70W	35
MW CA15W	12	MW M70WS	35
MW CA15W-1	12	MW M90W	33
MW CA40W ( STAND)	12	MW M90WS	33
MW CB11	27	MW MA03	79
MW CB15-100	26	MW MA06	79
MW CB15-120	26	MW MA06HT	80
MW CB15-130	26	MW MA06PU	78
MW CB15-300	26	MW MA10PU	78
MW CB15-AB100BB	26	MW MAC45AU	37
MW CB15-AB100CG	26	MW MAC61AU	37
MW CB15-AB100RG	26	MW MB10	80
MW CB15-AB100SG	26	MW MB10HT	80
MW CB15-AB100SS	26	MW MC15	80
MW CB15-B300	26	MW MC30PU	77
MW CB16	27	MW MD15	81
MW CB19-200	25	MW MD25	81
MW CB19-220	25	MW MD40PU	78
MW CB19-300	25	MW ME25	81
MW CB19-B300	25	MW ME30PU	77
MW CB23-200	25	MW MG36	81
MW CB23-220	25	MW MLF-CC140U	54
MW CB23-300	25	MW MLF-CC280U	55
MW CB23-B300	25	MW NN-CC003A	59
MW CB25-030	26	MW NS39A	75
MW CB8	27	MW NS39D	75
MW CC01A	53	MW PD18ASU	7
MW CC04A	53	MW PD18D	16
MW CC10A	52	MW PD20ASU	7
MW DA300	60	MW PD20D	16
MW DC18 (C to M)	27	MW PD30AGANU	6
MW DC19 (M to C)	27	MW PD30AU	7
MW DU1	19	MW PD30D	16
MW F120W	31 (	MW PD40A1	8
MW F45W	36	MW PD40A2	8
MW F70W	34	MW PD40D1	17
MW F70WS	34	MW PD40D2	17
MW F90W	32	MW PD40D3	18
MW F90WS	32	MW PD45ASU	8
MW I316	66	MW PD60A	9
		MW PD60C	
MW I318	66		9
MW I319	65	MW PD60C	37
MW iDA150U	60	MW PD60D	17
MW iDA150V	60	MW PS235	77
MW JS2000	42	MW PS5CDA	73
MW JS4000	42	MW QA20A	10
MW LFAA07L-4U	69	MW QA20C	9
MW LF-CC008A	51	MW QA20W	10
MW LF-CC015A	50	MW QA36W	10
MW LF-CC038A	49	MW QA40W	11
MW LF-CC040BT	47	MW QA60W	11
MW LF-CC040LCD	48	MW QD20W	18
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MW QD30W

MW RCAC01 11 MW SEER 11 MW SEHT 12 MW SFIT 12 MW U05AU 60 MW U05AUk 18 MW U12AU 12 MW U12AUK 18 MW UDA150 12 MW USB12AU 13 MW USB12D 13 MW USB24D 13 MW USB24U 13 MW USB2U-1 13 MW USB2U-4 13 MW USB5U 81 MW USB5U-1 MW USBA2U-1 MW USBA5U-1 MW WFAS01 MW WFAS01HUB MW WFAS01TU-SEL MW XB-120-2 MW XB3-120-2 MW XB-85-2 MW XBOXCDA 13 MW XBP-140-2 13 Note 13 Notebook Plua set 13 Notebook Plua set 13 Rohs & SA8000 92 Tablet tips list 28 TD-009 14 TD-010 14 TD-A21 14 TD-A21N 14 14 TD-A24 92 WEEE & ISO 140001 WI-FI \* RF tech intro



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