

Medical PSU



- High protection
- High efficiency
- Minituarisartion

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OUR PRINCIPLE



SAFE



ECO-FRIENDLY



EFFICIENT



About UNIFIVE

Since 1989, UNIFIVE has been known for its "high quality and high reliability" in the AC/DC power supplies market (Adapters, open Frames, etc.).

In the face of the ever-evolving electronics industry, UNIFIVE remains steadfast in our commitment to developing power supplies that cater to a wide range of sectors, including consumer, home, IoT, medical, audio, industrial, and more.

Furthermore, we own one of the world's exclusive designs, the patent AC PIN interchangeable type adapter.



Quality Improvement

Constantly Improving Quality

UNIFIVE's power supply is designed to be small, light, simple, and efficient. It is also available for PSE, CE, UKCA, FCC, DOE VI, and other certifications required by the customer.

Customized Solution

We are proud of our customization. UNIFIVE endeavors to fulfill customer desires, including specifications, quality, various regulations, and all kinds of special requests.

Experienced Team

It has been more than thirty years since UNIFIVE was established. An experienced research and development team and the most professional service team are the undoubted advantages of UNIFIVE. We will keep pursuing perfection for our customers.



Understand your needs and do our best!

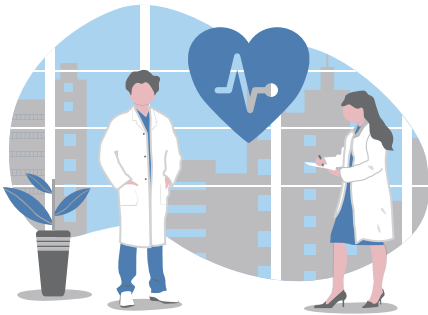
Product overview

The medical device market is growing due to health awareness and aging trends in Japan and developed countries in recent years.

UNIFIVE continues to expand its lineup of medical PSU dedicated to healthcare and medical devices to meet customer needs.

Our medical PSU have successively passed **IEC/EN 60601-1-2 4th** regulation and have **2xMOPP/2xMOOP** insulation levels, providing the highest level of safety protection for patients and healthcare workers.

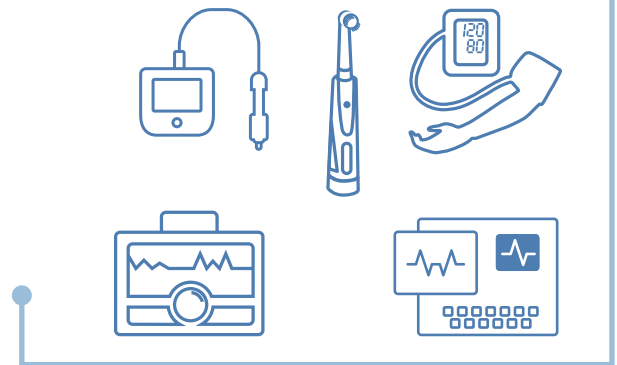
In addition, even if the product you need is not listed in the catalog, we can modify or customize it to meet your needs.



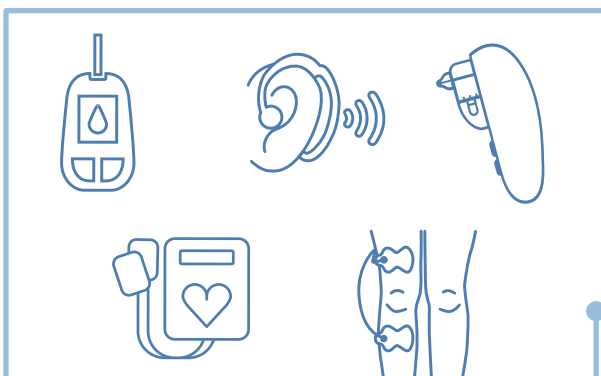
Product Usage

Peak load

The PA series provides peak loads of approximately twice the rated current and is used in motor-driven products/medical equipment that require peak loads. Examples include blood pressure monitors, syringes/nebulizers, nasal washers, sputum suction devices, massagers, electric toothbrushes, oxygen generators, and other equipment.



General



Other medical PSU series are used for standard medical power supplies and general medical equipment, dental equipment, home medical equipment, etc.

Examples include ear thermometers, low-frequency therapy devices, blood glucose meters, hearing aids, oximeters, and other home health equipment.

MEDICAL

IEC 60601-1 As medical equipment pertains to the safety of patients and operators, the **first** edition of IEC 60601 was published in **1977**, and this standard has been adopted internationally to ensure the safety and basic performance requirements of medical electronic equipment. Since patients may not be able to respond normally due to anesthesia or unconsciousness, or patients may rely on the equipment to sustain their lives, the safety regulations for medical equipment are more stringent than those for general electrical products.

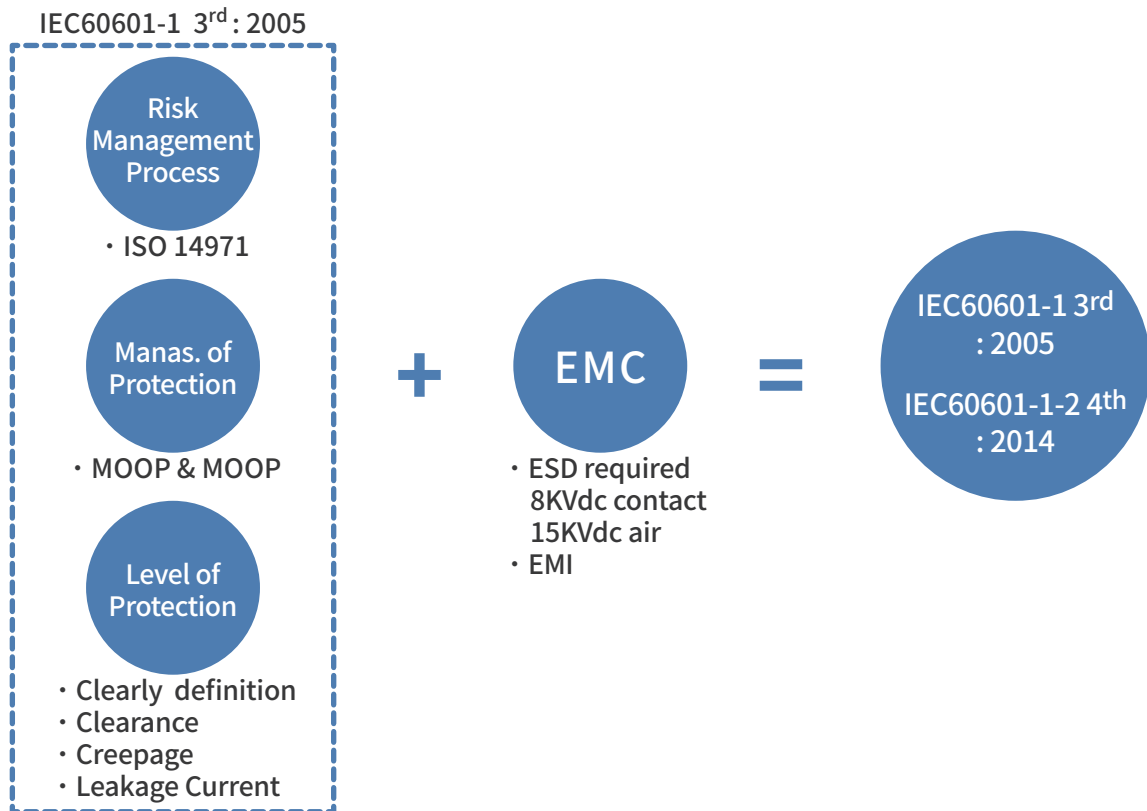
1st

3rd

In **2005**, IEC 60601-1 was updated with the **third** edition to include risk management and classification of potential hazards for operators and patients (**MOOP & MOPP**).

4th

With the popularity of smartphones and tablets, which can communicate wirelessly in various locations through the Internet, WIFI, and Bluetooth, the operation of medical devices has been affected. Therefore, IEC 60601-1-2 was updated in **2014** with the **fourth** edition, which mainly specifies the safety standards related to electromagnetic interference.



Given that the fourth edition has been adopted in Europe, the United States, and Canada since 2019, UNIFIVE has to ensure that end-users in these regions use products that comply with the latest standard, and thus upgrade the level of protection in general.

MOOP & MOPP

In 2005, the International Electrotechnical Commission (IEC) issued the third edition of the medical safety standard (IEC60601-1:2005), replacing the second edition (IEC60601-1:1998). The main difference between the second edition and the third edition is the insulation level, and the concept of Means of Protection (**MOP**) is introduced into the third edition.

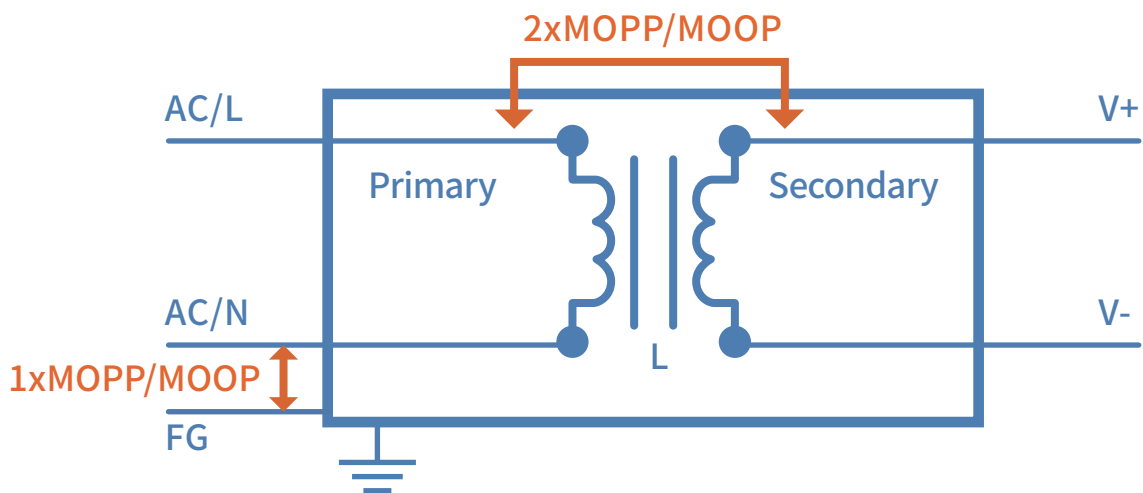
MOP is further divided into two different categories, MOPP and MOOP.

MOOP: Means of Operator Protection - Insulation protection for **operators**

MOPP: Means of Patient Protection - Insulation protection for **patients**

In either case, when PCB is under normal conditions

- (1) The insulation between the primary and secondary levels must comply with at least two MOPs
- (2) Primary and Frame Ground (FG) must comply with at least one MOP



UNIFIVE medical PSU



High protection

Medical safety
Compact desing



High efficiency

Continuously
improve efficiency



Compact desing

Reduced size

MEDICAL

Charging Optimization

We insist choosing the most appropriate material. What's more, precision resistance, capacitor, and inductance are selected as a crucial part of materials. All we do is to ensure maximum performance and reliability of our product.

Multilayered protection

The medical switching power supply circuit is designed with a multilayered protection mechanism to provide more secure power supply protection.



OCP



OVP



OTP



SCP



LPS



EMC

Safety Standard



UL



PSE



BSMI



CB



CE

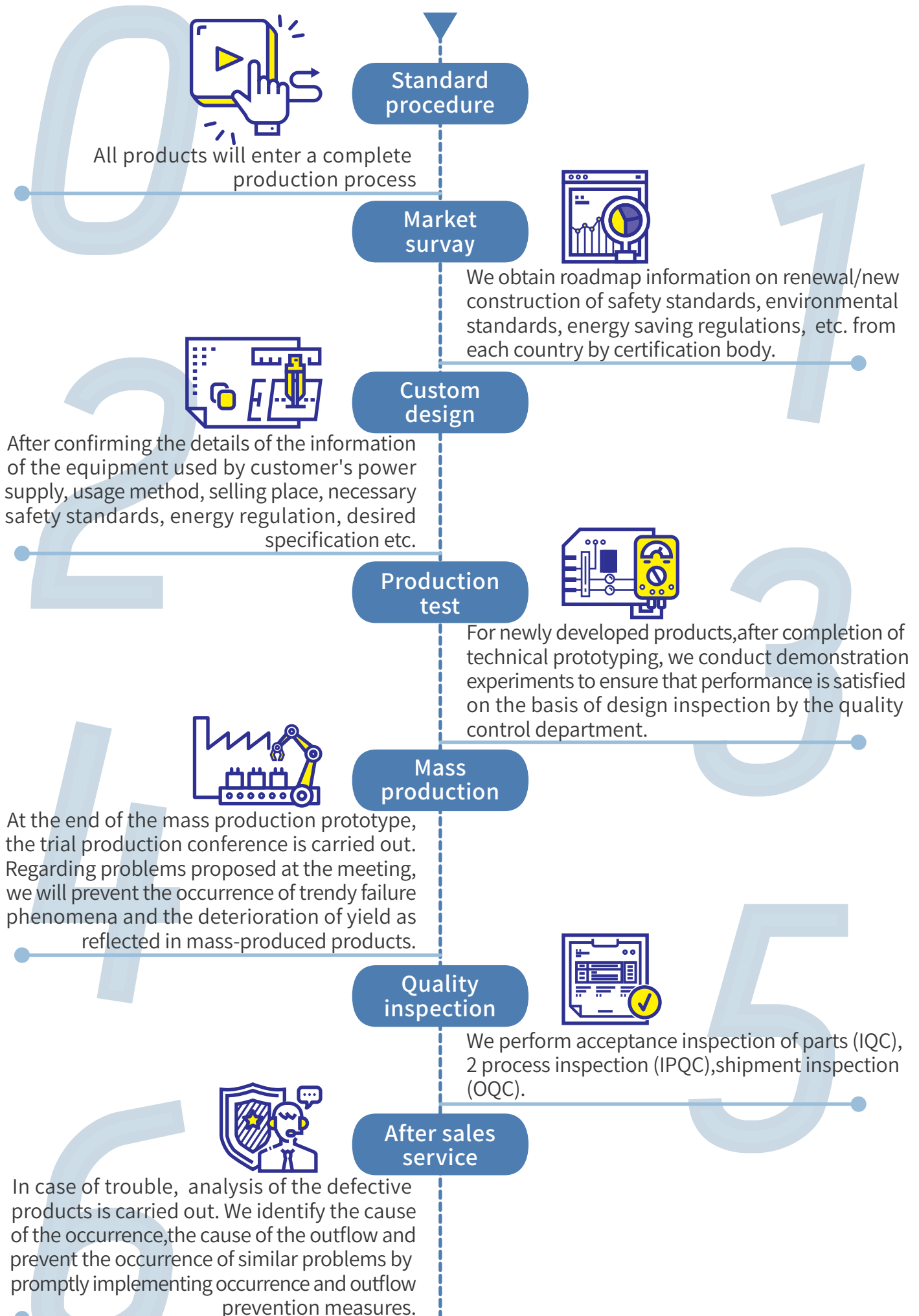


FCC



UKCA

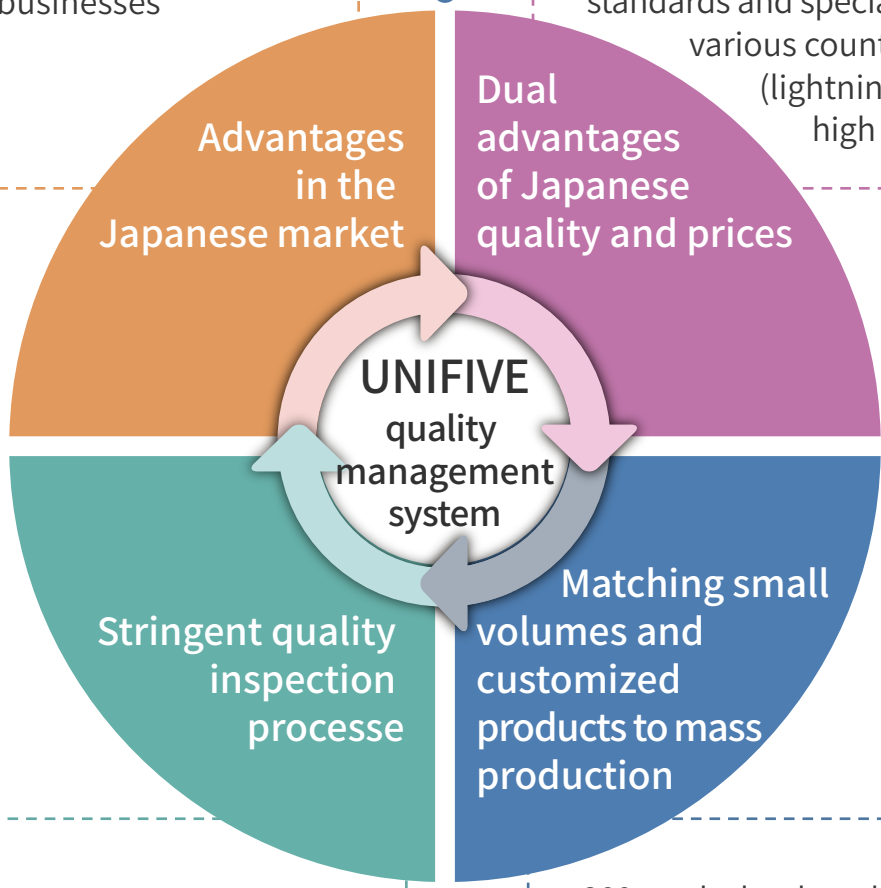




Trade with Japanese clients has increased continuously on our accumulated credibility.

- Most of our clients are Japanese electronics manufacturers
- Familiarity with the requirements of Japanese businesses

- All of our products are developed by our company and have the added value of Japanese quality and advantages
- Our products comply with the safety standards and special standards of various countries (lightning protection, high peak current)



- Our Chinese factory is managed by multiple Japanese supervisors.
- Through our knowledgeable and experienced business staff, we can relieve the troubles of our clients.

- 200 newly developed special products
- Our Japanese company has an annual sales volume of 5 million units on average over the past 10 years or longer



Advantages in the Japanese market

- **Vast experience**

Since our Japanese headquarters was established in 1989, UNIFIVE has steadily expanded its extensive sales network as a comprehensive manufacturer of AC adapters and switches over 33 years.

- **Market advantages**

Most of our partnering manufacturers are well-known Japanese brands and have the advantage of being familiar with the Japanese market.



Dual advantages of Japanese quality and prices

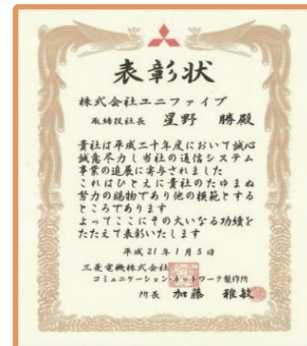
- **Top-grade quality**

UNIFIVE upholds quality as our business philosophy.

Through scientific management, we continuously improve our product quality and collect customer feedback, and strive to provide customers with products most suited for them through continuous improvement.

- **Client satisfaction**

We have received praise for the company from various clients for the high quality and excellent services provided by our company.



- **Quality assurance of our Chinese factory**

UNIFIVE's factory has passed ISO quality system certifications and passed various stages of inspection.

- ISO9001:2015
- ISO14001:2015
- Various safety standard certifications





- **Matching small volumes and customized products to mass production**

- **Small minimum order quantity**

We have an accurate grasp of diverse market and client needs and can handle small volumes of customized orders with flexibility.

- **Customized products**

We search through the 1,500 available models from our factory according to product requirements provided by our clients (such as safety standards, design, electrical characteristics, environmental standards, and efficiency) to determine if there are suitable products for them. If not, we then work on customizing the products.

- Semi-customization

- Full customization



We modify our products based on the development records of product specifications (with modules). The closer the specifications required by the client to the specifications of UNIFIVE products, the shorter the expected development duration. In terms of cost, this can reduce development costs compared to the cost of full customization.

Our customized power values can satisfy the various needs of clients, such as electrical characteristics, environmental standards, and efficiency standards, and comply with various safety standard regulations.

- **Mass production**

After production at small volumes and continuous updates to product quality, we then embark on mass production in accordance with standard processes.

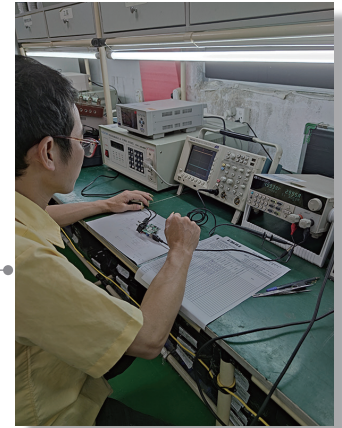


Quality inspection

01

Visual inspection Manual measurement

- IQC IPQC.....etc.
- QC QA.....etc.



02

Electrical performance measurement test

- ICT testing
- Leakage current inspection
- ATE (efficiency/ Ripple Noise / OCP OVP SCP....etc.)



03

Environmental test

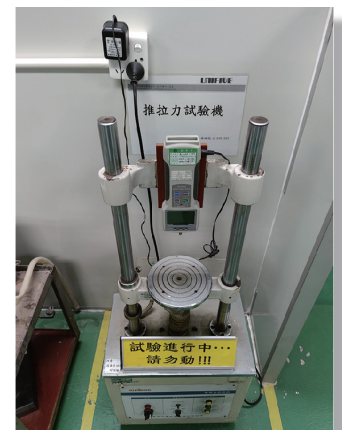
- Thermal shock test
- ESD Test
- Surge Test....etc.



04

Mechanical testing

- Vibration Test
- Mechanical Shock
- Push pull test....etc.



2024

Safe, Eco-Friendly, Efficient



New Product

- ✓ Compact Size
- ✓ OVP

- ✓ Stability
- ✓ OCP

- ✓ Customized Design
- ✓ OTP
- ✓ SCP

UMDNx3024

98.5*46.8*32.1mm

24W

MEDICAL SPECIFICATION

- 2xMOPP/2xMOOP
- IEC/EN 60601-1-2 4th Ed

MEET

- PSE
- CE
- UKCA
- FCC

EFFICIENCY

- DOE VI

WORKING TEMPERATURE

- ▶ 0°C~40°C

DC OUTPUT

- 5.9V/3.0A
- 9V/2.6A
- 12V/2.0A
- 15V/1.6A
- 24V/1.0A



200W

UMONTx3200

127.0*76.2*36.6mm

MEDICAL SPECIFICATION

- 2xMOPP/2xMOOP
- IEC/EN 60601-1-2 4th Ed

MEET

- CE
- UKCA
- FCC

EFFICIENCY

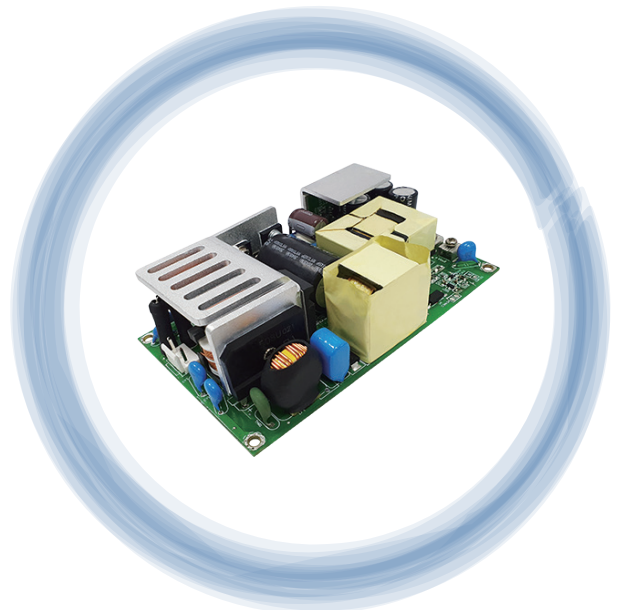
- DOE VI

WORKING TEMPERATURE

- ▶ 0°C~40°C

DC OUTPUT

- 12.0V / 12.5A
- 24.0V / 7.5A
- 48.0V / 4.16A
- 54.0V / 3.7A

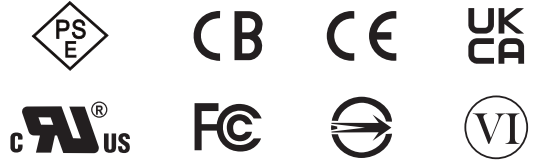


Typical model

Safety

Not all the products possess the safety standards below. Please contact us for further information, even customization.

Power Rating	Input Voltage	Output Voltage
6W-300W	90V-264V	3.3V-54V



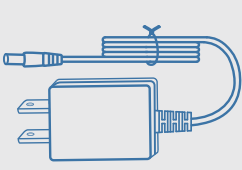
Wall Mount

Desktop

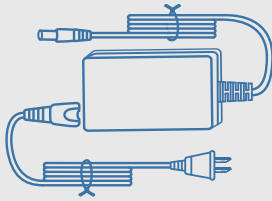
USB Type

Peak Load

Open Frame



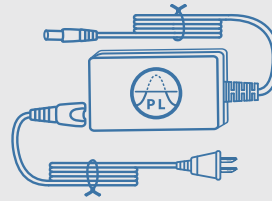
6W ~ 36W



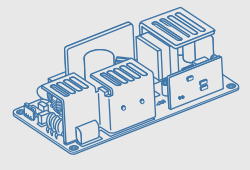
12W ~ 120W



6W



36W ~ 65W



12W ~ 300W

6W

UMx305

Output 5V-24V



5V/ 0.5A~0.8A~1.0A~1.2A
 5.6V/ 0.5A~0.6A
 5.9V/ 0.5A~0.6A~0.85A~1.0A
 7.5V/ 0.8A 8.5V/ 0.5A~0.7A
 8.6V/ 0.6A 9V/ 0.5A 9.6V/ 0.2A
 12V/ 0.25A~0.5A 13V/ 0.45A
 15V/ 0.4A 18V/ 0.3A
 24V/ 0.2A~0.25A



59.0*28.0*37.6mm

8W

UMUSx308

Output 5V-24V



5V/1.6A or 9V/1.0A or
 12V/0.7A or 15V/0.55A or
 18V/0.45A or 24V/0.35A



60.0*44.0*30.0mm

10W

UMVUx3010

Output 3.3V-24V



3.3V/2.0A or 5.9V/1.6A or
 9V/1.1A or 10V/1.0A or
 12V/0.8A or 15V/0.6A or
 24V/0.4A



70.0*35.0*48.0mm

12W

UMVUx3012

Output 5V-24V



5V/2.0A or 5.9V/2.0A or
 9V/1.3A or 10V/1.2A or
 12V/1.0A or 15V/0.8A or
 24V/0.5A



70.0*35.0*48.0mm

15W

UMVUx3015

Output 3.3V-24V



3.3V/2.5A or 5V/2.5A or
5.5V/2.5A or 5.9V/2.3A or
7.5V/2.0A or 9V/1.6A
12V/1.25A or 15V/1.0A or
18V/0.8A or 24V/0.65A



70.0*35.0*48.0mm

18W

UMVUx3018

Output 3.3V-24V



3.3V/3.0A or 5V/3.0A or 5.5V/3.0A
5.9V/2.8A or 7.5V/2.4A or 9V/2.0A
12V/1.5A or 15V/1.2A or 18V/1.0A
24V/0.75A



70.0*35.0*48.0mm

24W

UMVUx3024

Output 5V-24V



5V/3.0A or 5.9V/3.0A or
12V/2.0A or 15V/1.6A or
24V/1.0A



72.7*35.7*53.0mm

36W

UMVUx3036

Output 12V-36V



12V/2.5A-3.0A or 15V/2.4A
16V/2.2A or 18V/2.0A or 24V/1.5A
35V/1.0A or 36V/1.0A



72.7*35.7*53.0mm

12W

UMDNI3012

Output 5V-24V



5V/2.4A or 5.9V/2.0A or
9V/1.34A or 12V/1.0A or
15V/0.8A or 18V/0.67A or
24V/0.5A



75.0*50.6*29.8mm



UMDNI

UMDNB

15W

UMDNI3015

Output 5V-24V



5V/2.5A or 5.9V/2.5A or
9V/1.6A or 12V/1.2A or
15V/1.0A or 18V/0.83A
24V/0.62A



75.0*50.6*29.8mm



UMDNI

UMDNB

18W

UMDNI318

Output 5V-24V



5V/3.0A or 5.9V/2.8A or
9V/2.0A or 12V/1.5A or
15V/1.2A or 18V/1.0A or
24V/0.75A



75.0*50.6*29.8mm



UMDNI

UMDNB

24W

UMDNIx3024

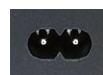
Output 5.9V-24V



5.9V/3.0A or 9V/2.6A or
12V/2.0A or 15V/1.6A
24V/1.0A



98.5*46.8*32.1mm



UMDNI

UMDNB

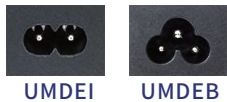
36W

UMDEx3036

Output 12V-24V



12V/3.0A or 15V/2.4A or
19V/1.9A or 24V/1.5A



98.5*46.8*32.1mm

45W

UMDVx3045

Output 12V-24V



12V/4.0A or 15V/3.2A or
19V/2.5A or 24V/2.0A



113.5*54.0*36.3mm

60W

UMDVx3060

Output 12V-48V



12V/5.0A or 15V/4.0A or
19V/3.15A or 24V/2.5A or
30V/2.0A or 48V/1.25A



113.5*54.0*36.3mm

65W

UMDVx3065

Output 24V-30V



24V/2.7A or 28V/2.3A or
30V/2.15A



113.5*54.0*36.3mm

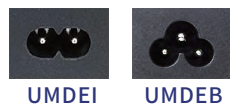
90W

UMDEx3090

Output 12V-24V



12V/7.5A or 15V/6.0A or
19V/4.73A or 24V/3.75A



160.0*57.5*37.7mm

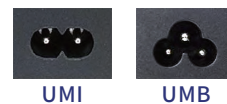
100W

UMx3100

Output 24V



24V/4.167A



160.0*57.5*37.7mm

120W

UMDEC3120

Output 12V-24V



12V/10.0A or 15V/8.0A or
19V/6.3A or 24V/5.0A



174.7*72.3*35.1mm

more information on next page

USB Type

6W

UMBx305

Single USB-A



5V/0.5A or 5V/0.8A or
5V/1.0A or 5V/1.2A



59.0*28.0*37.6mm

Peak Load

36W

UMDEx3036

Output 12V-24V

P Series



12V/3.0A or 15V/2.4A or
19V/1.9A or 24V/1.5A



98.5*46.8*32.1mm



UMDEI

UMDEB

45W

UMDEx3045

Output 12V-24V

P Series



12V/3.8A or 15V/3.0A or
19V/2.3A or 24V/1.8A



113.5*54.0*36.3mm



UMDEI

UMDEB

UMDEC

45W

UMDVx3045

Output 12V-24V

P Series



12V/4.0A or 15V/3.2A or
19V/2.5A or 24V/2.0A



113.5*54.0*36.3mm



UMDVI

UMDVB

UMDVC

60W

UMDVx3060

Output 12V-48V

P Series



12V/5.0A or 15V/4.0A or
19V/3.15A or 24V/2.5A or
30V/2.0A or 48V/1.25A



113.5*54.0*36.3mm



UMDVI

UMDVB

UMDVC

65W

UMDVx3065

Output 24V-30V

P Series



24V/2.7A or 28V/2.3A or
30V/2.15A



113.5*54.0*36.3mm



UMDVI

UMDVB

UMDVC

more information on next page

12W

UMOAT3012

Output 5V-12V



5V/2.0A or 9V/1.3A or
12V/1.0A

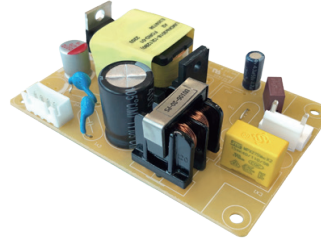


60.0*43.0*22.6mm

18W

UMOAT3018

Output 5V-24V



5V/3.0A or 9V/2.0A or
12V/1.5A or 24V/0.75A

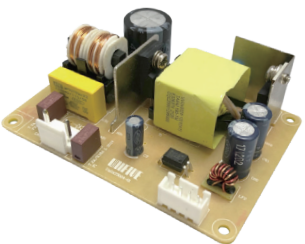


75.0*50.0*29.6mm

24W

UMOAT3024

Output 5V-24V



5V/3.0A or 12V/2.0A or
15V/1.6A or 24V/1.0A



80.0*56.7*28.6mm

36W

UMOAT3036

Output 12V-24V



12V/3.0A or 15V/2.4A or
19V/1.9A or 24V/1.5A



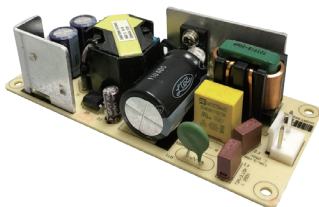
103.0*47.0*31.6mm

36W

UMOAT3036

Output 12V-24V

P Series



12V/3.0A or 15V/2.4A or
19V/1.9A or 24V/1.5A

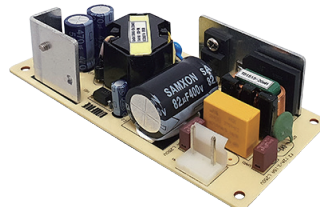


103.0*47.0*31.6mm

45W

UMOAT3045

Output 12V-48V



12V/3.8A or 15V/3.0A
19V/2.4A or 24V/1.9A
35V/1.3A or 48V/0.93A



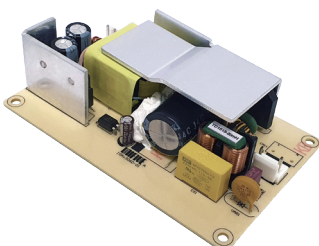
103.0*47.0*32.6mm

45W

UMOAT3045

Output 12V-24V

P Series



12V/4.0A or 15V/3.2A
19V/2.5A or 24V/2.0A



106.0*67.5*32.6mm

60W

UMOAT3060

Output 12V-24V



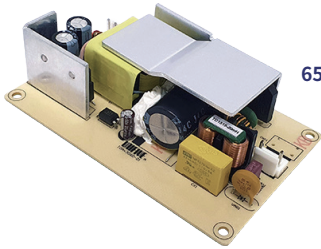
12V/5.0A or 24V/2.5A



105.4*70.0*31.6mm

60/65W UMOAT3060 / 3065 Output 12V-48V

P Series



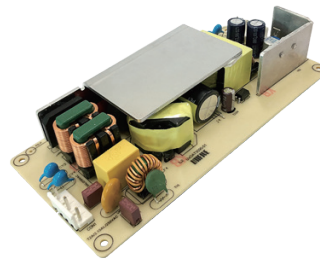
60W: 12V/5.0A or 15V/4.0A or 19V/3.15A
24V/2.5A or 26V/2.3A or 30V/2.0A
48V/1.25A

65W: 24V/2.7A or 28V/2.3A or 30V/2.15A



106.0*67.5*32.6mm

90W UMOAT3090 Output 12V-24V

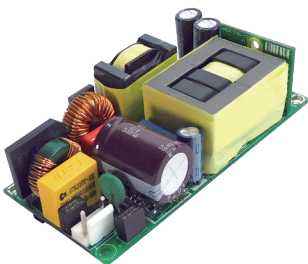


12V/7.5A or 15V/6.0A
19V/4.73A or 24V/3.75A



172.0*86.0*40.6mm

100W UMONT3100 Output 12V-54V

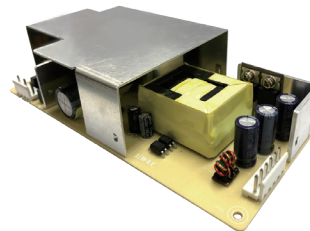


12V/8.33A or 15V/6.67A
24V/4.17A or 48V/2.08A
54V/1.85A



102.6*51.8*32.2mm

120W UMOAT3120 Output 12V-24V



12V/10.0A or 15V/8.0A
19V/6.3A or 24V/5.0A



172.0*86.0*40.6mm

150W UMOWT3150 Output 12V-48V

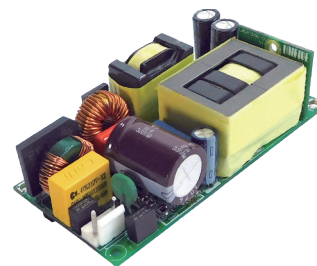


12V/12.5A or 24V/6.3A
36V/4.16A or 48V/3.13A



160.0*75.0*37.0mm

160W UMOAT3160 Output 12V-54V



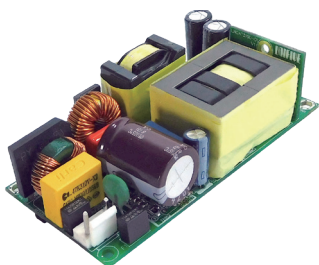
12V/8.33A(13.33A) or
15V/6.67A(10.67A) or
24V/4.17A(6.67A) or
48V/2.08A(3.33A) or
54V/1.85A(2.96A)

“() ” Condition for forced air is no less than 15CFM.



102.6*51.8*32.2mm

200W UMOAT3200 Output 24V-54V



24V/4.17A(8.33A) or
48V/2.08A(4.17A) or
54V/1.85A(3.7A) or

“() ” Condition for forced air is no less than 15CFM.



102.6*51.8*32.2mm

200W UMONT3200 Output 12V-54V



12V/12.5A or 24V/7.5A
48V/4.16A or 54V/3.7A



127.0*76.2*36.6mm

300W

UMOAT3300

Output 12V-54V



12V/12.5A(20.83A) or
 24V/7.5A(12.5A) or
 48V/4.16A(6.25A) or
 54V/3.7A(5.56A)

"()" Condition for forced air is no less than 20.5CFM.

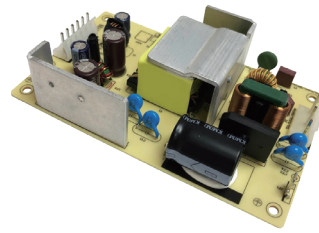


127.0*76.2*36.6mm

45W

UMOBT3045

Dual Output 5V | 12V | 24V



A. 5V/2.0A & 12V/3.0A
 B. 5V/2.0A & 24V/1.5A

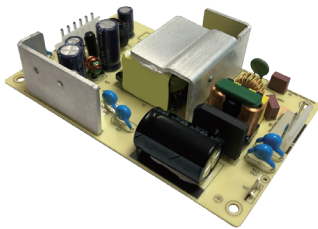


127.0*76.0*36.0mm

60W

UMOBT3060

Dual Output 5V | 12V | 24V



A. 5V/2.5A & 12V/4.0A
 B. 5V/2.5A & 24V/2.0A



127.0*76.0*36.0mm

More information please check on our website.

Medical PSU

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