

210W Enclosed Power Supply



UL62368-1 IEC62368-1 BS EN62368-1

*The picture is for reference only

Key Features

- Selectable input range: 90~132Vac/180~264Vac
- Operating up to 5000m altitude
- Operating Temp. range: -30~70°C(-40°C can start)
- Over voltage category III
- Small size, matches multiple installation methods
- Standard version with conformal coating
- Complete protection functions: OVP, OCP, SCP, OTP
- LED indicator for power on

Product Overview

MPT210 series is an industrial control enclosed power supply. With a 30mm height design, with high efficiency, high reliability, and high power density advantages. The product has outstanding performance, reliable EMC performance, and complete protection functions. It is complied with the international safety regulations such as IEC/EN/UL 62368-1. Standard version with conformal coating and terminal covers, suitable for a variety of complex conditions, is widely used in security, industrial control, power, renewable energy, and other industries.

Model Information

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen
Tel: (0755) - 86600666 Web: www.megmeet.com

Model	Output Power	Input voltage range	Output voltage	Output adjustable range	Efficiency
MPT210-12V	204W	90~132Vac/180~264Vac	12V	10.2~13.8V	Typ. 87.5%
MPT210-15V	210W	90~132Vac/180~264Vac	15V	13.5~18V	Typ. 88.0%
MPT210-24V	211.2W	90~132Vac/180~264Vac	24V	21.6~28.8V	Typ. 89.5%
MPT210-36V	212.4W	90~132Vac/180~264Vac	36V	32.4~39.6V	Typ. 89.5%
MPT210-48V	211.2W	90~132Vac/180~264Vac	48V	43.2~52.8V	Typ. 90.0%

Input Characteristic

Input Voltage Range*	90~132Vac/180~264Vac, by switch; 240 ~ 370VDC (switch on 230VAC)
Input Frequency	47-63 Hz
Input Current	MAX. 4.5A @115Vac, MAX. 2.5A @230Vac
Inrush Current(Typ.)	60A @ 230Vac, Cold Start

Note: The positive pole of DC needs to be connected to "L", and the negative pole of DC needs to be connected to "N" when DC input.

Output Characteristic

Model Number	MPT210-12V	MPT210-15V*	MPT210-24V	MPT210-36V	MPT210-48V
Rated Voltage	12V	15V	24V	36V	48V
Voltage ADJ. range	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V
Rated Current	17.0A	14.0A	8.8A	5.9A	4.4A
Voltage Tolerance	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Ripple& Noise (20MHz)	≤150mVp-p	≤150mVp-p	≤200mVp-p	≤200mVp-p	≤200mVp-p
Start-up Time	≤1s@230Vac				
Rise Time	50ms Typ.				
Hold-up Time	≥16ms@230Vac				

Note: This model is under development and not yet available for sale.

Protection Function

Over current	110%-180% of rated output power, Hiccup mode
--------------	--

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen

Tel: (0755) - 86600666 Web: www.megmeet.com

Short circuit	Hiccup mode, Auto-Recovery when the fault is removed				
Over voltage	Latch mode, restart to recovery when the fault is removed				
	≤16.2V	≤22.0V	≤33.6V	≤46.8V	≤59.5V
Over temperature	Hiccup mode, Auto-Recovery when the fault is removed				

Environment

Operating Temperature	-30°C to +70°C(Refer to "Derating Curve")
Working Humidity	20% to 90% RH (Non-Condensing)
Storage Temp. & humidity	-40°C to +85°C, 10% to 95% RH (Non-Condensing)
Shock Test	5G, 3 directions, each direction duration of 11 ms
Vibration	10 ~ 500Hz, 5G; 10 min per cycle, 60min for each axis (X, Y, Z)
Operating Altitude	5,000m
Safety Class	CLASS I
Temp. Coefficient	±0.03 Typ.

Safety Regulation

Safety Standards	Design to meet IEC/EN/UL62368-1、IEC/EN61558-1、IEC/EN 60335-1、GB4943.1	
MTBF	MIL-HDBK-217F@25°C > 300,000 hrs	
Insulation Resistance	Input to Output	≥100MΩ (500VDC /70% RH/Non-Condensing)
	Input to Ground	≥100MΩ (500VDC /70% RH/Non-Condensing)
	Output to Ground	≥100MΩ (500VDC /70% RH/Non-Condensing)
Withstand test voltage	Input to Output	4.0KVac
	Input to Ground	2.0KVac
	Output to Ground	0.5KVac

EMC

CE	EN55032	150K-30MHZ	Class A
RE	EN55032	30M-1GHZ	Class A

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen
Tel: (0755) - 86600666 Web: www.megmeet.com

ESD	IEC/EN61000-4-2 Contact 6KV/Air 8KV	Criterion A
RS	IEC/EN61000-4-3 10V/m	Criterion A
EFT	IEC/EN61000-4-4 $\pm 2KV$	Criterion A
Surge	IEC/EN61000-4-5 Com $\pm 4KV$ /Dif $\pm 2KV$	Criterion A
CS	IEC/EN61000-4-6 10 V	Criterion A
PFMF	IEC/EN61000-4-8 30 A/m	Criterion A
DIP	IEC/EN61000-4-11	

Note: This power supply does not meet the harmonic current requirements outlined by BS EN/EN61000-3-2. Please do not use this power supply under the following conditions:

- a) The terminal equipment is used in the European Union;
 - b) The terminal equipment is connected to public mains supply with 220VAC or greater rated nominal voltage that mandatory to meet the requirements of EN61000-3-2;
 - c) The power supply is installed in a terminal equipment with average or continuous input power greater than 75W;
 - d) The power supply is belong to a part of lighting system;
- Exception:
- a) Professional equipment with a total rated input power greater than 1000W;
 - b) Symmetrically controlled heating elements with a rated power less than or equal to 200W.

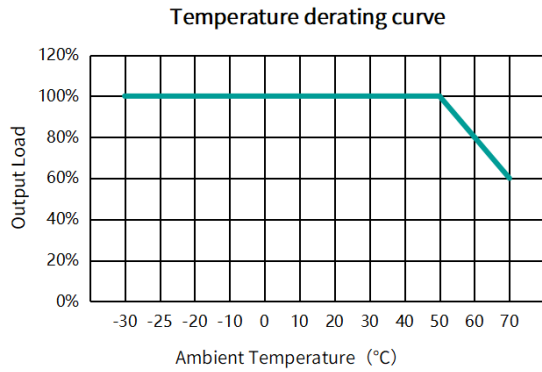
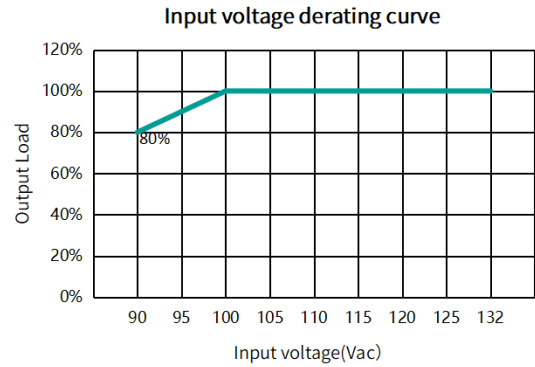
Mechanical

Dimensions (L*W*H)	215*115*30mm
Cooling Method	Convection

Derating Curve

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen
Tel: (0755) - 86600666 Web: www.megmeet.com



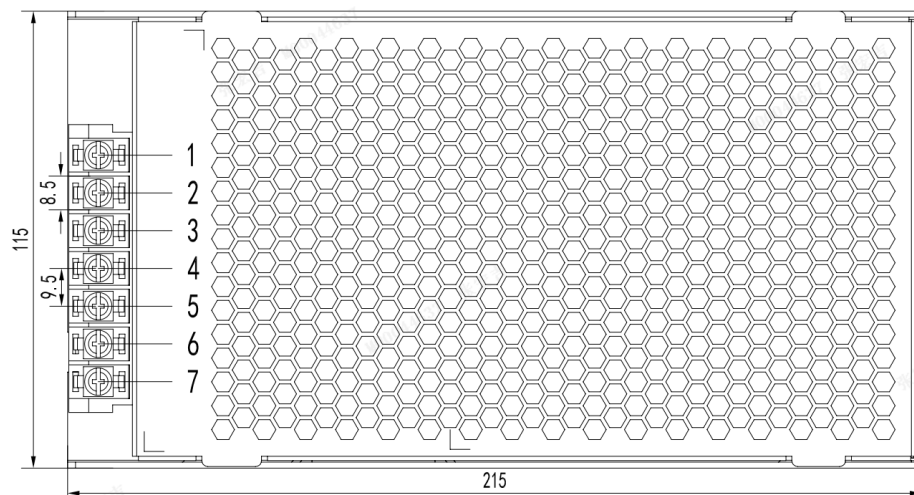
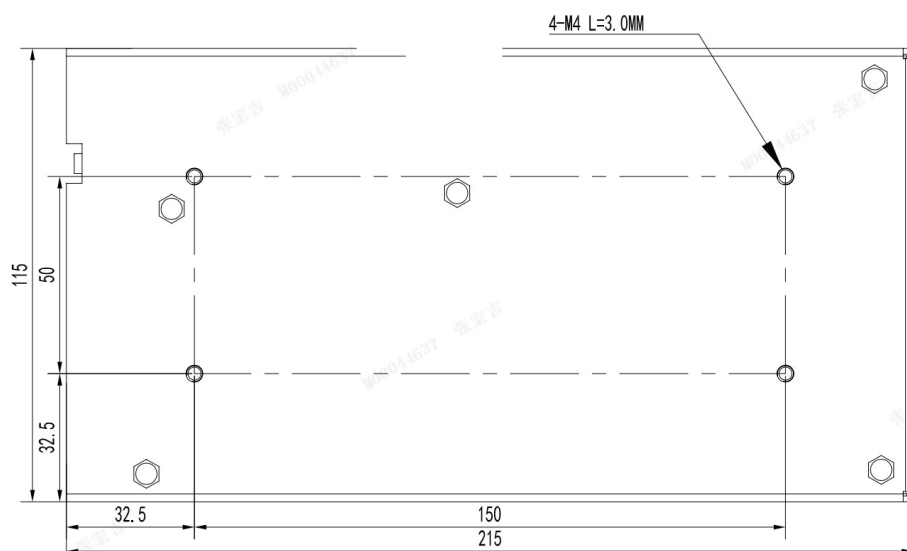
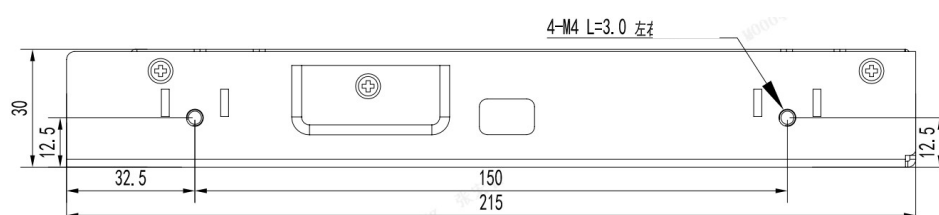
Note:

1. When the product operates at an input voltage of 85-100VAC, temperature derating should be performed on input voltage derating and temperature derating curve show above;
2. This product is suitable for use in natural air cooling environment, when the product is used in a closed environment, please consult our FAE.

Dimensions

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen
Tel: (0755) - 86600666 Web: www.megmeet.com



Terminal Pin No. Assignment	
Pin No.	Assignment
1~2	+V
3~4	-V
5	Ground 
6	AC(N)
7	AC(L)

Note:

Unit: mm

General tolerances: ± 1.00

Connector tightening torque: M3 screw 0.4N·m, M4 screw 0.9N·m

Statement

Shenzhen Megmeet Electrical Co., Ltd.

Address: 34th floor, Joint Headquarters Building, Ronggao New District, No. 63 Xuefu Road, Nanshan District, Shenzhen

Tel: (0755) - 86600666 Web: www.megmeet.com

1. Unless otherwise specified, the above parameters are tested under the conditions of ambient temperature of 25°C, humidity of 50%, 100% load, and input voltage of 230Vac;
2. When working at an altitude of over 2000 meters, please derate 5% per KM;
3. Ripple&Noise measurement method: Use a twisted pair cable with 0.1uf and 47uf capacitors connected in parallel at the terminal, and measure at a bandwidth of 20MHz;
4. The power supply should be considered as a part of the system components, and electromagnetic compatibility needs to be checked in conjunction with the terminal equipment;
5. The power supply must be mounted by metal screws onto a grounded metal surface;
6. All indicators in this guidebook are tested according to our company's standards;
7. The right of final interpretation of the documents and the product belongs to Shenzhen Megmeet Electric Co., LTD