



MEAN WELL UHP-200A Series 200W Single Output with PFC Function User Manual

[Home](#) » [MEAN WELL](#) » MEAN WELL UHP-200A Series 200W Single Output with PFC Function User Manual 

Contents

- 1 MEAN WELL UHP-200A Series 200W Single Output with PFC Function
- 2 Product Information
- 3 Product Usage Instructions
- 4 Features
- 5 GTIN CODE
- 6 Description
- 7 Model Encoding
- 8 SPECIFICATION
- 9 Block Diagram
- 10 OUTPUT LOAD vs TEMPERATURE
- 11 STATIC CHARACTERISTIC
- 12 Mechanical Specification
- 13 Function Manual
- 14 Installation
- 15 Documents / Resources
 - 15.1 References



MEAN WELL UHP-200A Series 200W Single Output with PFC Function



Product Information

Specifications

Model	DC Voltage	Rated Current	Current Range	Rated Power
UHP-200A-4.2	4.2V	40A	0~40A	168W
UHP-200A-4.5	4.5V	40A	0~40A	180W
UHP-200A-5	5V	40A	0~40A	200W

Output:

- **Line Regulation:** N/A (Not specified in the manual)
- **Load Regulation:** N/A (Not specified in the manual)
- **Setup Time:** 2000ms at 230VAC, full load
- **Rise Time:** 200ms at 230VAC, full load
- **Hold Up Time (Typ.):** 3000ms at 115VAC, 80% load
- **DC OK Function:** PSU turns on when DC is ok; PSU turns off when DC fails

Input:

- **Voltage Range:** 90 ~ 264VAC
- **Frequency Range:** 47 ~ 63Hz
- **Inrush Current (Typ.):** 85A at 230VAC, cold start
- **Power Factor (Typ.):** 0.97 at 115VAC, full load; 0.95 at 230VAC, full load
- **Efficiency (Typ.):** 88%
- **AC Current (Typ.):** 2.4A at 115VAC; 1.2A at 230VAC
- **Leakage Current:** N/A (Not specified in the manual)

Product Usage Instructions

Installation

1. Ensure that the power supply is disconnected from the power source.
2. Connect the input terminals of the power supply to the appropriate AC power source using the provided cables.
3. Connect the output terminals of the power supply to your device using the appropriate cables.
4. Double-check all connections to ensure they are secure.

Operation

1. Ensure that the power supply is connected to a power source.
2. Turn on the power supply using the power switch.
3. Monitor the DC OK function to ensure that the power supply is functioning properly.
4. Adjust the output voltage if necessary using the provided controls.

Maintenance

To ensure the longevity and optimal performance of the power supply, please follow these maintenance guidelines:

- Regularly inspect the power supply for any signs of damage or wear.
- Keep the power supply clean and free from dust or debris.
- Avoid exposing the power supply to extreme temperatures or humidity.
- Do not attempt to open or repair the power supply yourself. Contact a qualified technician for any repairs or servicing.

Safety Precautions

When using the power supply, please adhere to the following safety precautions:

- Read and understand all instructions provided in the user manual before operating the power supply.
- Ensure that the power supply is connected to a grounded outlet.
- Avoid touching any exposed electrical components while the power supply is in operation.
- Do not overload the power supply by connecting devices that exceed its rated capacity.
- In case of any abnormal behaviour or malfunction, immediately disconnect the power supply from the power source and contact a qualified technician for assistance.

FAQ

- **Q: What is the voltage range for this power supply?**

A: The voltage range for this power supply is 90 ~ 264VAC.

- **Q: What is the rated power for each model?**

A: The rated powers for each model are as follows:

- **UHP-200A-4.2:** 168W
- **UHP-200A-4.5:** 180W
- **UHP-200A-5:** 200W

- **Q: How do I adjust the output voltage?**

A: You can adjust the output voltage using the provided controls. Please refer to the user manual for specific

instructions on how to adjust the voltage.

User's Manual



Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Low profile:26mm
- Built-in active PFC function
- Fanless design, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage/Over temperature
- Low leakage current<1.0mA
- LED indicator for power on
- 3 years warranty
- Applications
 - LED signage display
 - Moving sign
 - LED channel letter
 - LED TV wall

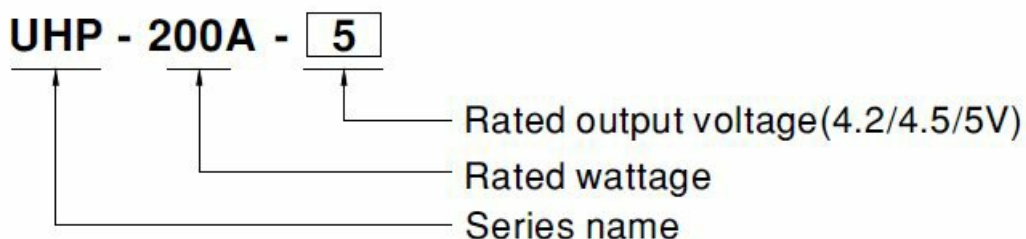
GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>.

Description

UHP-200A series is a 200W LED display power solution. The ultra-low profile design allows the height and weight of the sign module to be slim. It greatly simplifies the delivery and installation process. Accounting for high efficiency and energy saving, the series effectively achieves electricity reduction. It is suitable for LED signage display, moving signs, LED channel letter LED TV walls etc.

Model Encoding



SPECIFICATION

MODEL		UHP-200A-4.2	UHP-200A-4.5	UHP-200A-5
OUTPUT	DC VOLTAGE	4.2V	4.5V	5V
	RATED CURRENT	40A	40A	40A
	CURRENT RANGE	0~40A	0~40A	0~40A
	RATED POWER	168W	180W	200W
	RIPPLE & NOISE (max.) Note.2	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	4.0~4.4V	4.3~4.7V	4.7~5.3V
	VOLTAGE TOLERANCE Note.3	±4.0%	±4.0%	±4.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2.5%	±2.5%	±2.5%
	SETUP, RISE TIME	2000ms, 200ms/230VAC at full load, 3000ms, 200ms/115VAC at 80% load		
	HOLD UP TIME (Typ.)	10ms/230VAC 10ms/115VAC		
	DC OK FUNCTION	PSU Turns on:DC ok; PSU turns off:DC fail		
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF≥0.97/115VAC PF≥0.95/230VAC at full load		
	EFFICIENCY (Typ.)	88%	88%	88.5%
	AC CURRENT (Typ.)	2.4A/115VAC 1.2A/230VAC		
	INRUSH CURRENT (Typ.)	Cold start 85A/230VAC		
	LEAKAGE CURRENT	<1.0mA / 240VAC		
		110~140% rated output power		

PROTECTION	OVERLOAD	Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	SHORT CIRCUIT	Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	4.6 ~ 6V	5 ~ 6.4V	5.6 ~ 7.1V
		Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER TEMPERATURE	Protection type : Shut down O/P voltage, recovers automatically after fault condition is removed		
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C(Refer to “OUTPUT LOAD vs TEMPERATURE”)		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes		
SAFETY & EMC (Note. 5)	SAFETY STANDARDS	UL 62368-1,TUV BS EN/EN62368-1,CCC GB4943, EAC TP TC 004 approved		
	WITHSTAND VOLTAGE	I/P-O/P:3.0KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC/25°C/ 70%RH		
	EMC EMISSION Note.8	Compliance to BS EN/EN55032 (CISPR32),GB9254,Class A, BS EN/EN61000-3-2,-3,GB17625.1,EAC TP TC 020		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11;BS EN/EN55035, light industry level (surge 4KV),EAC TP TC 020		
OTHERS	MTBF	1949.0 K hrs min. Telcordia SR-332 (Bellcore) ; 211.7K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	167*55*26mm (L*W*H)		
	PACKING	0.42kg; 20pcs/ 11.4kg/0.76CUFT		

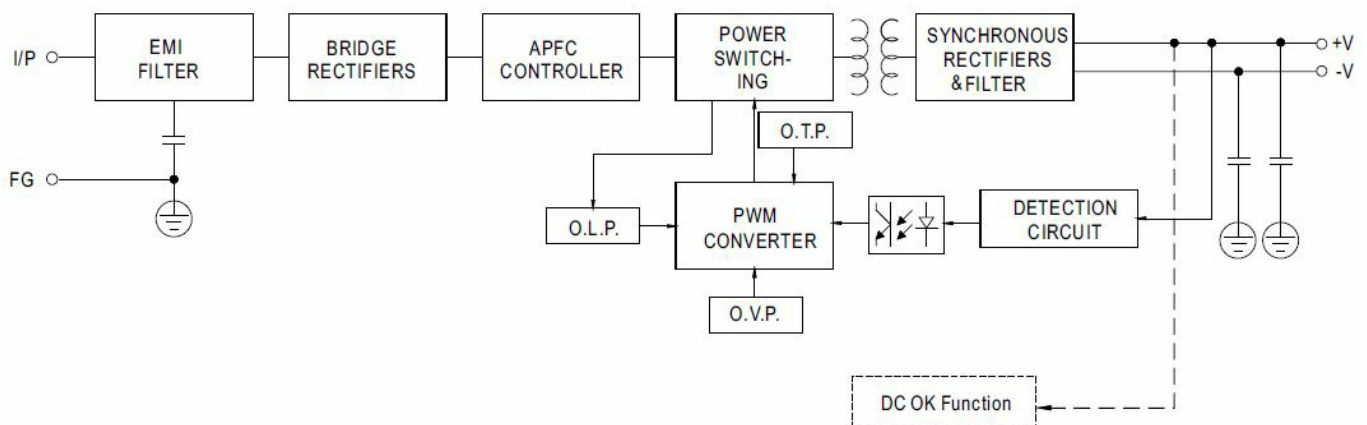
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: line regulation and load regulation.
4. Derating may be needed under low input voltages. Please check the static characteristics for more details.
5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to an increase in the set-up time.
6. Transient response measures shall be made with 10% load at least.
7. The power supply is considered a component that will be installed into the final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <http://www.meanwell.com>)
8. Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment may cause radio interference.

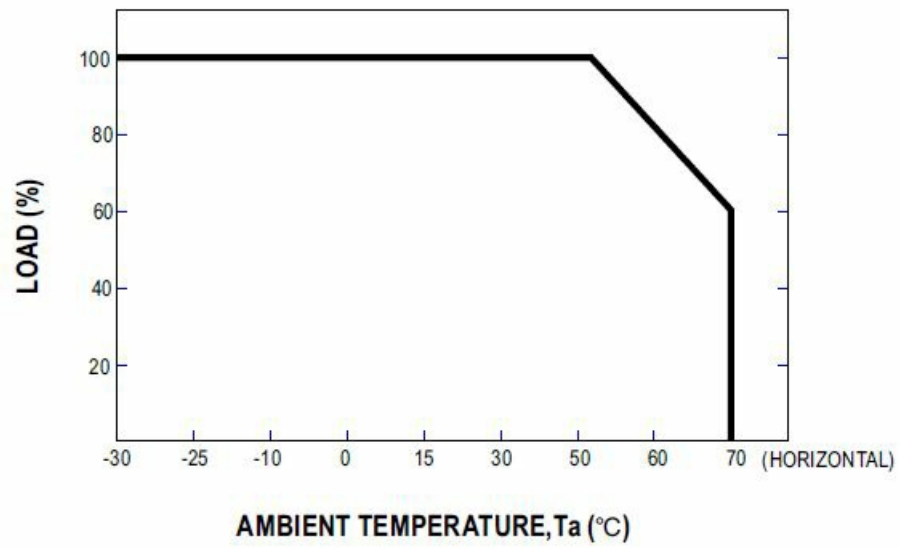
Product Liability Disclaimer: For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>.

Block Diagram

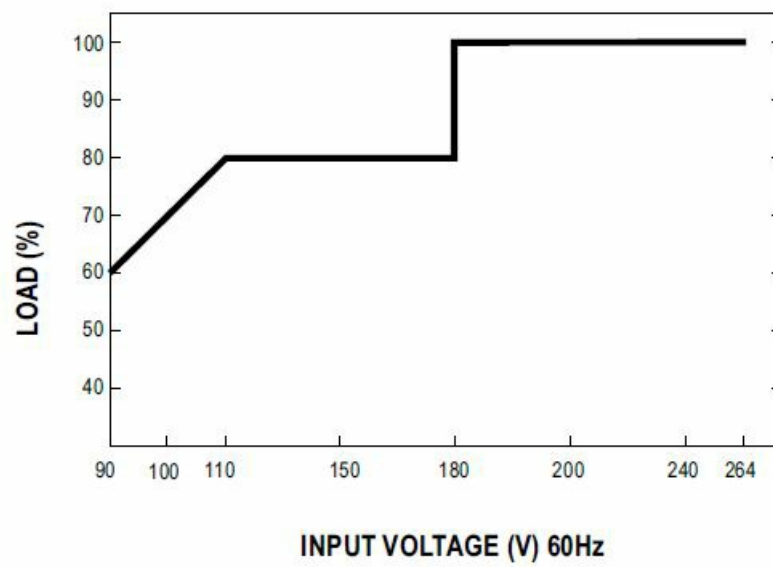
- PFC fosc: 65KHz
- PWM fosc: 75~200KHz



OUTPUT LOAD vs TEMPERATURE

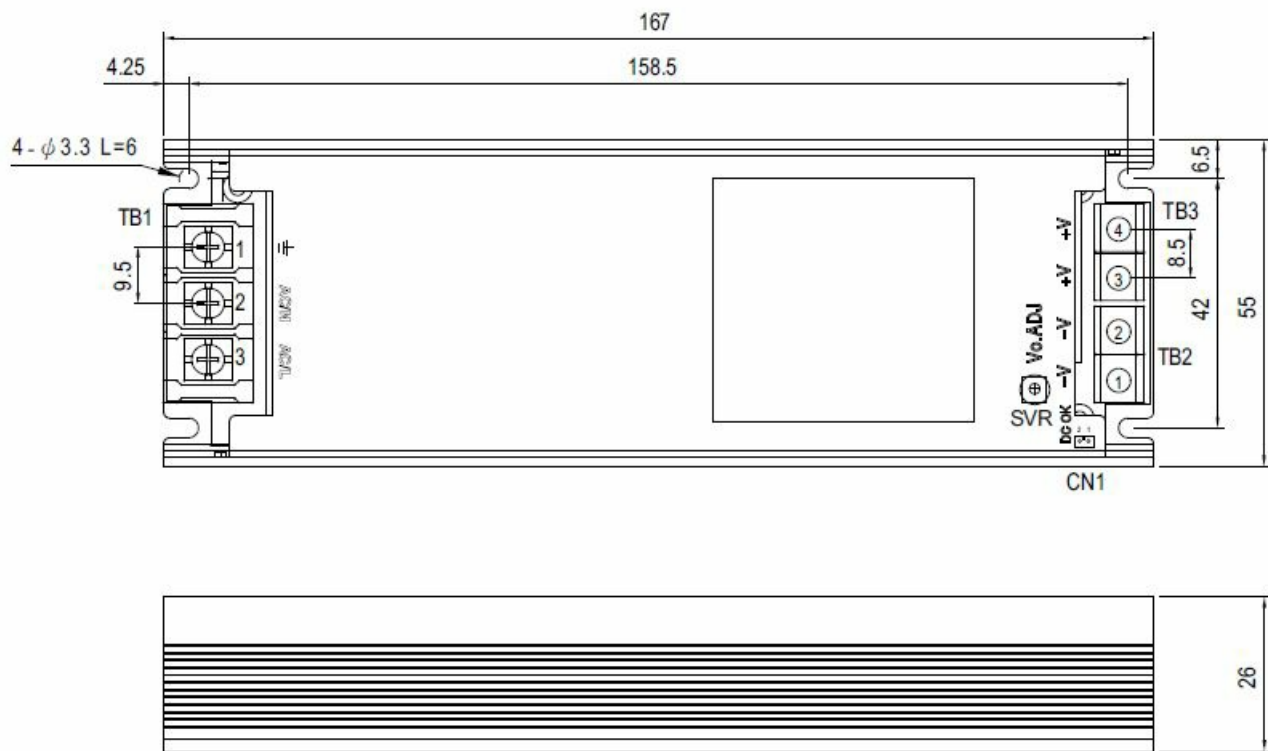


STATIC CHARACTERISTIC






Mechanical Specification

- **CASE NO.:** 249A
- **Unit:** mm



AC Input Terminal(TB1) pin NO. Assignment

Pin No.	Assignment			Terminal	Max mounting torque
1	AC/L			(DECA)	13Kgf-cm
2	AC/N				
3					

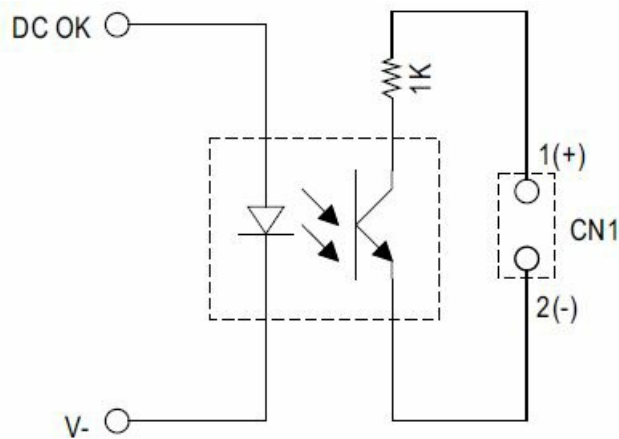
DC OK Connector(CN1):JST B2B-PH-K-S or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC OK +V	JST PHR-2	JST SPH-002T-P0.5S
2	DC COM	or equivalent	or equivalent

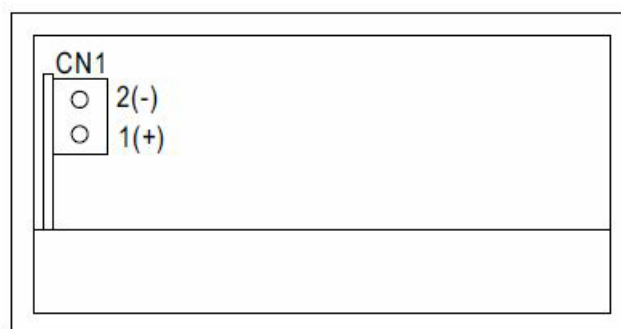
DC Output Terminal(TB2,TB3) pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1,2	-V	(MW)	8Kgf-cm
3,4	+V	TB-HTP-200-40A	

The internal circuit of DC ok



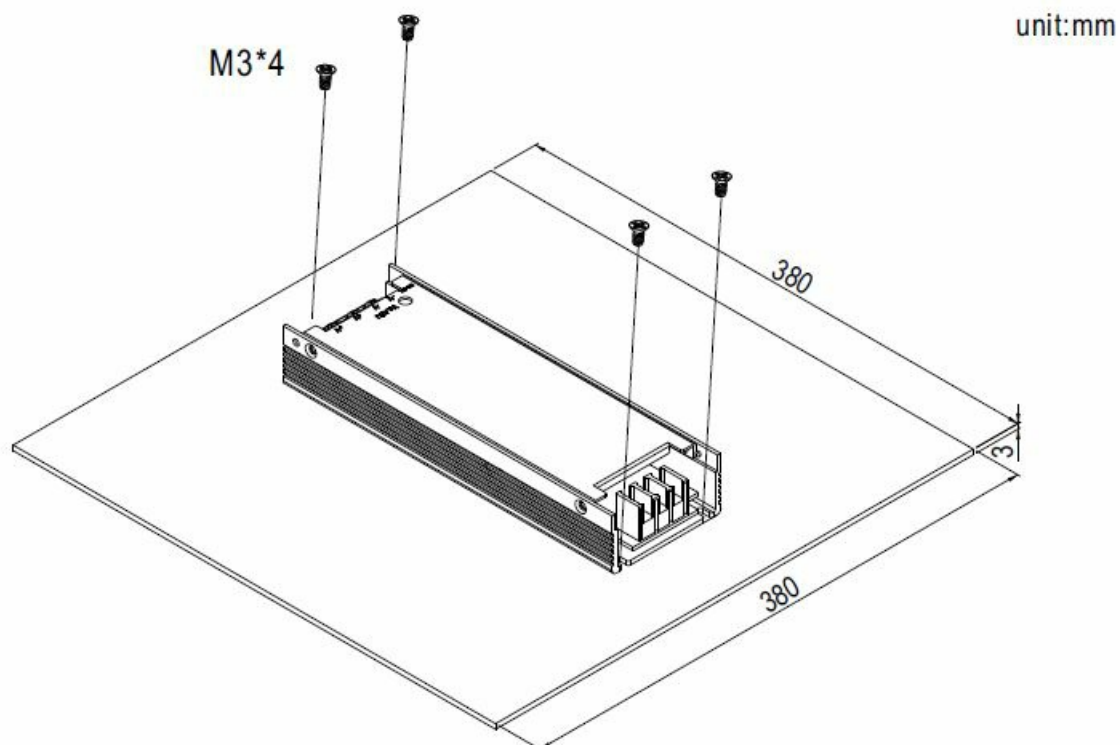
Contact Close	PSU turns on	DC ok
Contact Open	PSU turns off	DC fail
Contact Rating(max.)	10Vdc/1mA	



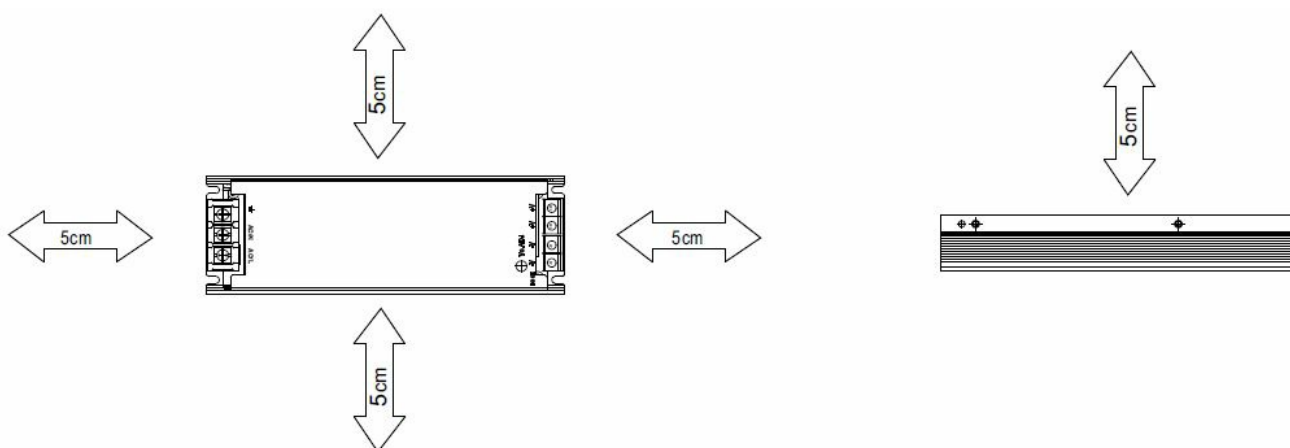
Installation

1. Operate with additional aluminium plate

To meet the “Derating Curve” and the “Static Characteristics”, the UHP-200A series must be installed onto an aluminium plate (or a cabinet of the same size) on the bottom. The size of the suggested aluminium plate is shown below. To optimize thermal performance, the aluminium plate must have an even and smooth surface (or be coated with thermal grease), and the UHP-200A series must be firmly mounted at the centre of the aluminium plate.




2. For heat dissipation, at least 5cm installation distance around the PSU should be kept, shown as below:



User's Manual



Documents / Resources

 The image shows the cover of a user manual for the MEAN WELL UHP-200A Series. It features the MEAN WELL logo at the top left, a photograph of the power supply unit in the center, and technical specifications and safety information in Chinese and English on the right side.	<p>MEAN WELL UHP-200A Series 200W Single Output with PFC Function [pdf] User Manual UHP-200A Series 200W Single Output with PFC Function, UHP-200A Series, 200W Single Output with PFC Function, Single Output with PFC Function, Output with PFC Function, PFC Function, Function</p>
---	--

References

- [User Manual](#)