## MORNSUN®



**RoHS** 

#### FEATURES

- Universal input Voltage : 90 264VAC, 50/60Hz
- DoE Level VI efficiency
- Over voltage, Over current, Short circuit protection
- Fully enclosed plastic case
- 2 pole Europe plug
- Small wall-mounted type

MH12-EU-A series is a small wall-mounted type adapter. This series features universal input voltage, low power consumption, high efficiency, high reliability, and safer isolation, meets IEC/EN61000-4, CISPR22/EN55032 and EN60950.

Electric S	Specifications		
	Model	MH12-0500250EU-A	
Output	DC Voltage	5V	
	Rated current	2.5A	
	Current range	0-2.5A	
	Rated power	12.5W	
	Voltage Accuracy	±5%	
	Line Regulation	±1%	
	Load Regulation	±5%	
	Ripple & Noise*	80mVp-p max	
	Start-up time	3s@100-240VAC, full load	
	Hold-up time	10ms@115VAC, full load, 20ms@230VAC, full load	
	Rise time	30ms max	
	Overshoot/Undershoot	±10%	
	Transient response	Output voltage range ±5%,load 25%-50%,50%-75%,slope:0.5A/us,frequency:50Hz-10KHZ	
	Input voltage	90 - 264VAC	
	Input frequency	47 - 63HZ	
	Efficiency(Typ.)	80.21%	
Input	Input current	0.35A Max@100VAC, full load	
	Inrush current	Cold start:30A/115VAC,60A/230VAC	
	No load power	<0.1W	
	Leakage current	0.25mA Max@240VAC	
	Over voltage	Rated output voltage 110%-150%	
Protections	Over current	Rated output current 110%-200%,self-recovery	
	Short circuit	Hiccup, Continuous, self-recovery	
Note	* Ripple and noise are measured by 20MHz bandwidth; at full load, 100-240VAC input, output terminated with a 0.1uF cerami capacitor and a 10uF electrolytic capacitor.		



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### 12W AC/DC Adapter

#### MH12-EU-A Series

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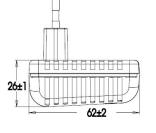
General Specifications					
Item	Operating Conditions	Min.	Тур.	Max.	Unit
Isolation Voltage	Input-output, Test 1 minute, leakage current<5mA	3000			VAC
Insulation Resistance	Input-output, add 500Vdc test voltage	100			MΩ
Operating Temperature		-10		40	
Storage Temperature		-25		°C	
Operating Humidity				90	0/ DU
Storage Humidity				95	%RH
Altitude				2000	m
Lifetime	25°C	2			years
MTBF	MIL-HDBK-217F (25°C)	50000			hours

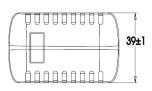
Physical Specifications		
Casing Material	PC,120°C 94V-0	
Color	Black/White(Other color can be designed by customization)	
Dimension	(L)62.00mm*(W)39.00mm*(H)26.00mm	
Weight	55.7g(Typ.)	
Cooling Method	Free air convection	

EMC Specifications				
EMI	RE	EN55032, CLASS B		
	CE	EN55032, CLASS B		
	ESD	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV	perf. Criteria B	
ENAC	RS	IEC61000-4-3 3V/m	perf. Criteria A	
EMS	CS	IEC61000-4-6 3Vrms	perf. Criteria A	
	Surge	IEC/EN61000-4-5 ±2KV/ ±2KV	perf. Criteria B	

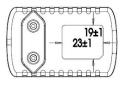
Safety Standards					
Application fields	Standard	Status	Note		
IT	EN60950	Approved			
AV	EN60065	Meet			
Home appliances	EN61558-2-16	Meet			
Lighting	EN61347	Meet			

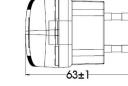
#### Mechanical Drawing





Note: No display tolerance: ±0.12 Unit: mm





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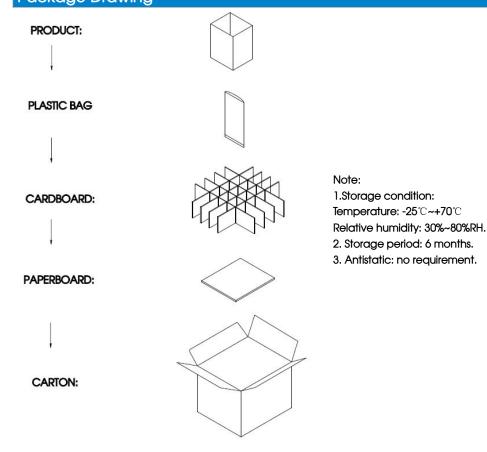
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### 12W AC/DC Adapter

MH12-EU-A Series

Package Drawing

## **MORNSUN**<sup>®</sup>



#### Note:

- 1. Products are related to laws and regulations: see "Features" and "EMC".
- 2. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.
- 3. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet;
- 4. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25 °C, humidity<75% with nominal input voltage and rated output load;
- 5. All index testing methods in this datasheet are based on our Company's corporate standards;
- 6. We can provide product customization service; Please contact our technicians directly for specific information;

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