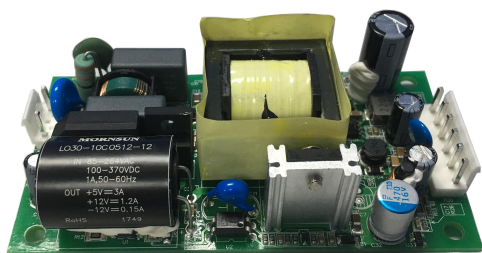


AC charging point dedicated 30W, AC-DC converter **FEATURES**



- Input voltage range: 85 - 264VAC/100 - 370VDC
- Triple regulated output, High output voltage accuracy
- High efficiency up to 78%
- Output short circuit, over-current, over-voltage protection
- Safety Class: CLASS II

LO30-10C0512-12—a compact size power converter offered by Mornsun. It features universal input voltage, taking both DC and AC input voltage, high efficiency, high reliability, safer isolation. It offers good EMC performance, which meet IEC60950 standard, and it's widely used in charging point application.

Selection Guide

Part No.	Output Power	Nominal Output Voltage and Current			Efficiency (230VAC, %/Typ.)	Max. Capacitive Load(μF)		
		Vo1/Io1	Vo2/ Io2	-Vo2/ -Io2		Vo1	Vo2	-Vo2
LO30-10C0512-12	31.2W	5V/3000mA	12V/1200mA	-12V/150mA	78	15000	1000	220

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC input	85	--	264	VAC
	DC input	100	--	370	VDC
Input frequency		47	--	63	Hz
Input current	115VAC	--	--	0.9	A
	230VAC	--	--	0.5	
Inrush current	115VAC	--	30	--	
	230VAC	--	50	--	
Recommended External Input Fuse		2A/250V, slow fusing			
Hot Plug		Unavailable			

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy	Primary output	--	--	±2	%
	Secondary output	--	--	±5	
Line Regulation	Full load	Primary output	±0.5	--	
		Secondary output	±1.5	--	
Load Regulation	10% -100% load	Primary output	±3	--	
		Secondary output	±5	--	
Ripple & Noise*	20MHz bandwidth (peak-peak value)	--	100	200	mV
Short Circuit Protection	5V output	Continuous, self-recovery			
Over-current Protection	5V output	≥110%Io self-recovery			
Over-voltage Protection	5V output	≤7.5VDC			
Min. Load		10	--	--	%
Hold-up Time	115VAC input	--	5	--	ms
	230VAC input	--	20	--	

Note: * Ripple and noise are measured by "parallel cable" method, please see AC-DC Converter Application Notes for specific operation.

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input-output	3000	--	--	VAC
	output (Vo1) – output (Vo2)	500	--	--	VDC
Operating Temperature	Test time: 1min	-25	--	+70	° C
Storage Temperature		-25	--	+85	
Storage Humidity		--	--	95	%RH
Switching Frequency		--	65	--	kHz
Safety Standard	Meets IEC60950/EN60950/UL60950				
Safety Class	CLASS II				
MTBF	MIL-HDBK-217F@25° C ≥ 300,000 h				

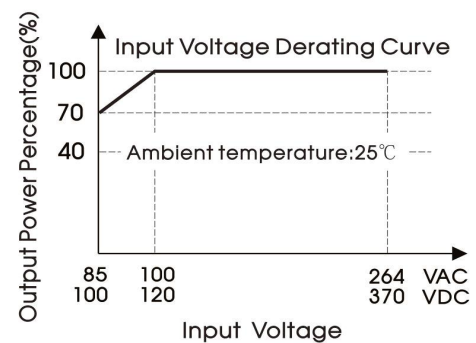
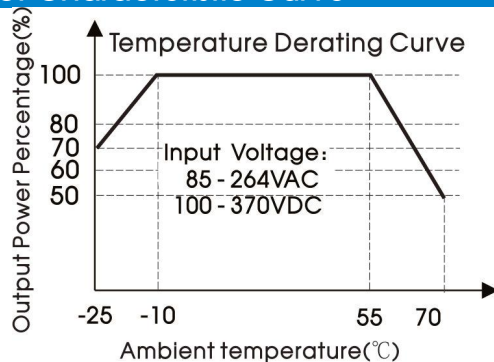
Physical Specifications

Dimension	97*50*28mm
Weight	100(Typ)
Cooling method	Free air convection

EMC Specifications

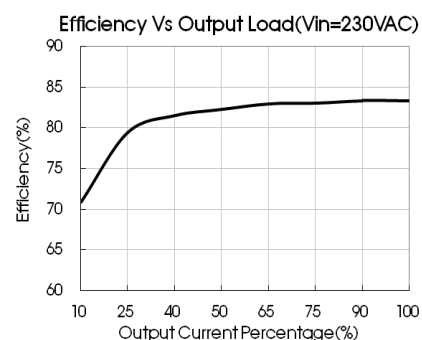
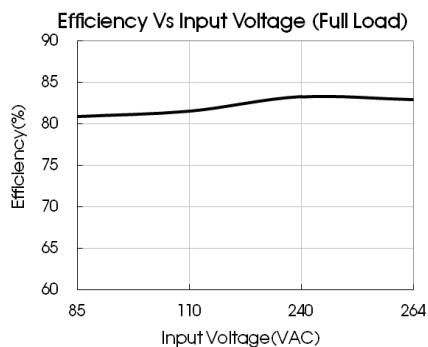
EMI	CE	CISPR32/EN55032	CLASS A	
	RE	CISPR32/EN55032	CLASS A	
EMS	ESD	IEC/EN61000-4-2	Contact ±4KV	Perf. Criteria B
	RS	IEC/EN61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4	±2KV	perf. Criteria B
	Surge	IEC/EN61000-4-5	line to line ±1KV	perf. Criteria B

Product Characteristic Curve



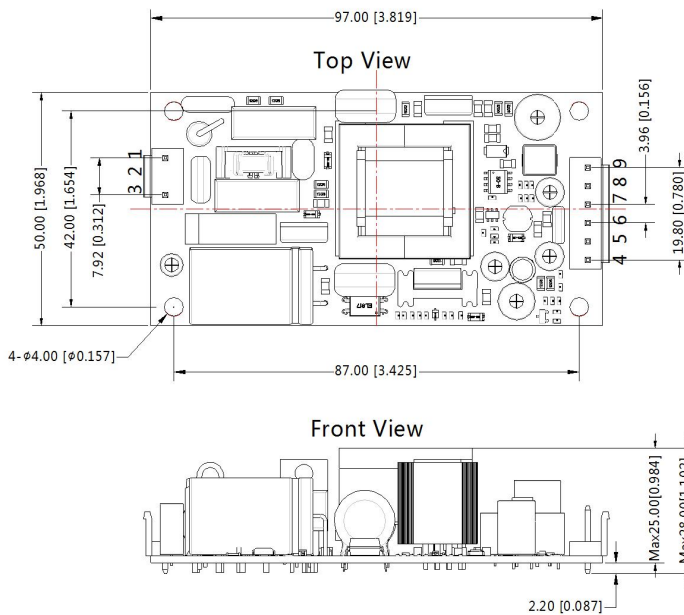
Note: ①When input 85-100VAC/100-120VDC, it need to be voltage derated on basis of temperature derating;

②This product is suitable for use in natural air cooling environments, if in a closed environment, please contact our company's FAE.



Dimensions and Recommended Layout

第三角投影



Pin-Out	
Pin	Function
1	AC(L)
2	No Pin
3	AC(N)
4	GND
5	+5V
6	NC
7	-12V
8	COM
9	+12V

NC: Pin to be isolated from circuit

Note:
Unit :mm[inch]
General tolerances:±1.00[±0.039]
The layout of the device is for reference only, please refer to the actual product

LO30-10C0512-12

Notes:

1. Packing information please refer to Product Packing Information which can be downloaded from www.mornsun-power.com. Packing bag number: 58220019(Open frame);
2. 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;
3. 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;
4. All index testing methods in this datasheet are based on our Company's corporate standards;
5. We can provide product customization service, please contact our technicians directly for specific information;
6. Products are related to laws and regulations: see "Features" and "EMC";
7. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

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