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修订					
版本	标记	处数	内容	日期	变更者
V0			N/A		
V1			增加警示语：使用中性粘结剂	2012.08.17	杨英东

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A

B

B

C

C

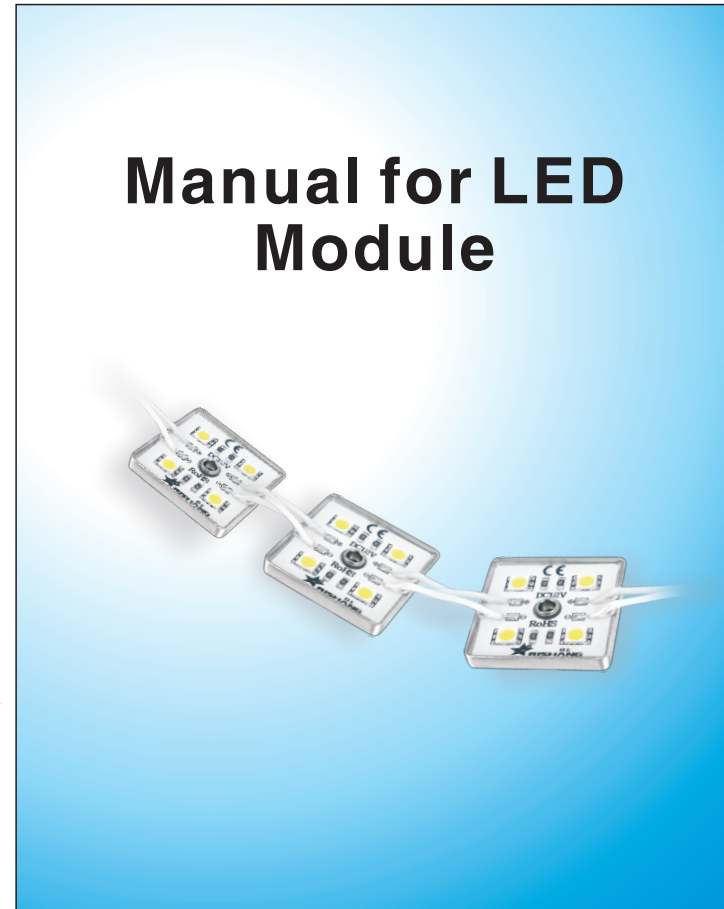
D

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285.00 mm

120.00 mm

折后正面



Manual for LED Module

Introduction

LED is a device which converts electrical energy to luminous energy. The light output of LED is up to 70% which is 10 times higher than incandescent lamp. LED module, perfect choice for signage backlighting!

Features

energy efficient and environment-friendly; small size and wide beam angle with excellent uniformity; high brightness with low attenuation; low voltage system.

Notes

- LED modules should be stored in dry and sealed environment and not be stored for too long time. Please open it before using it. Operating temperature: -40°C~+50°C, Storage temperature: -50°C~+60°C. Nonwaterproof modules should be used indoors with the relative humidity no higher than 70%. Waterproof modules can be used in outdoor light box and signage.
- SMD LED is sealed with silicon. Forbid pressure and scratch etc. on LED surface during using.
- LED Modules should work under the standard voltage (DC12V). Overvoltage may cause various break down.
- Please properly calculate the power consumption of LED Modules and choose appropriate power supply (the load power should be not more than 80% of the rated power of power supply).
- Please check the supply voltage and wire connections before power on.

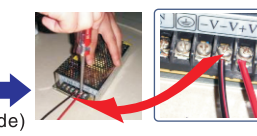
Installation Illustration and Notes

- Only the power supplies with short-circuit, over-voltage and overload protections should be used. Forbid using non- constant voltage power

supply such as transformer and so on. AC220V wire connections should be insulated for protection.

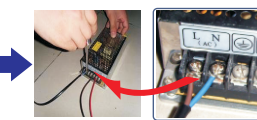
Low voltage DC12V Connection

Connect the output wires of power supply to the input of LED Modules (Red wire for anode; black wire for cathode)



AC110V-AC220V Connection

(Forbid operating with power on)



The diameters of red and black wires depend on the LED module quantity, the distance between power supply and module, the power of modules etc. Generally speaking, longer distance, higher power and more quantity need bigger diameter of primary wires. RV (single strand with more cores) wire is recommended to be primary wire because it has excellent flexibility for easy connection. If the power load per primary wire exceeds 100W, additional primary wire is needed.

- Please install the modules according to the corresponding installation density. (Please refer to " Manual for Signage Backlighting " for specific density). Note: Please don't use the modules of different carton numbers together.
 - Clean the installation surface.
 - Separate modules with a knife, remove the tape backing and stick the modules into places according to the corresponding density.
 - Connect the modules to the power supply and adjust the wire routing in individual letter stroke according to the actual wire routings, the load per chain should not exceed the maximum connectable quantity and the maximum connectable quantity can be 1.5 times more than the

95.00 mm

95.00 mm

stipulated quantity with the double-ended power up mode. (Note: Do not pull the wires with much strength to avoid damaging the modules.)
4) Please fasten the product with neutral silicon sealant in an open environment, and seal after solidifying. Prohibited fasten with acid or alkaline silicon sealant, neither nor sticky the material directly on the surface of LED.



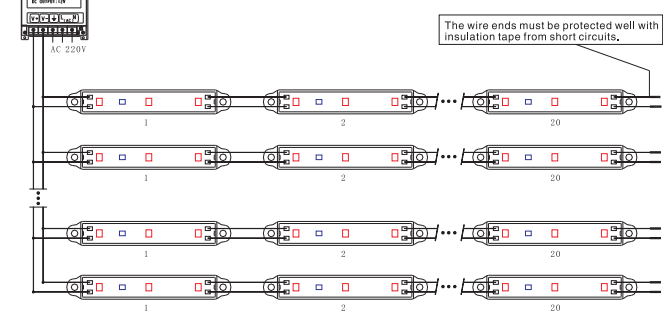
Installation Guide Solutions

1. Reference for Power and Wire

Diameter for 5 meter long primary wires		
Power (W)	Current(A)	Recommended Wire Diameters(mm ²)
12	1	0.75
24	2	1
48	4	1.5
72	6	2
100	9	2.5

If the load per primary wire exceeds 100W, please use additional wires.

Connection Diagram



2. Malfunction & Solution Table

Symptom	Possible causes	Solutions
Non LED works	1.No primary power for power supply.	Power on.
	2.Short circuit occurs at the input of power supply.No primary power for the power supply.The power supply is auto protected since the short or open circuit occurs at the output of the power supply.	Remove any short or open circuits and other malfunctions, and energize the fixture.
	3. The fuse of power supply is blown.	Replace the fuse.

Some LED module chains don't work	1. No primary power for some power supplies.	Check the power supply and remove malfunctions.
	2. Some LED module chains are wrongly connected to the power supply.	Connect the wires correctly.
	3. The polarities of some LED module chains are connected reversely.	
Brightness of the LED is dim or not even	1. The power supply is over loaded.	Use higher or more power supplies.
	2. The wire loss of the power supply is too much.	Use thicker supply wires or more supply wires or adjust the position of power supply. Make sure the input voltage of each LED module chain within the 90% of the rated voltage.
	3. Too many LED modules are connected.	Adjust LED module quantity for each chain to meet the maximum connectable quantity.
LEDs are blinking	Intermittent connections exist.	Find the intermittent connections and remove any malfunctions.
Individual LED does not work	LED is damaged by ESD.	Replace the LED.

3. Please ask a licensed electrician to connect the primary power. If you have any questions, please contact our engineering service.

备注:

- 材质: 60g 书纸
- 尺寸: 285x120mm
- 单位: mm
- 未标注尺寸公差: ±1mm
- 黑字双面印刷
- 来料从虚线处折好(风琴折)
- 须符合ROHS要求

		圳市日上光电有限公司					
		SHENZHEN RISHANG OPTO-ELECTRONICS CO., LTD			材质		
零件名称	说明书(模组英文通用)	设计	杨英东	日期	2012.4.13	表面处理	
零件编码	308-01-059	审核		日期		重量	g
图纸编号	PE-M613BA-BZ009	标准化		日期		比例	N/X
页数	共 1 张 第 1 张	批准		日期		单位	mm

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