

# **House of LED** Modules

NEBULA Seriles







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## **CRYSTAL HE SLIM LED MODULE**

## **True 1 inch solution**













- Using high efficiency LEDs, luminous efficiency can be up to 130LM/W.
- Beam angle 170°, can be used for 2.5CM thick light boxes and channel letters.
- DC 24V constant voltage, 50/30/20 PCS per string.
- UL, CE, RoHS certified.

Suitable for 2.5-10CM thick single-sided light boxes and channel letters used at both indoor and outdoor places such as bus stops, shopping malls, offices, airports.

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#### **Parameters**

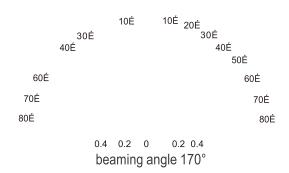
| Items                   | VJ01NS7          | Parameters       |                  |                  |  |
|-------------------------|------------------|------------------|------------------|------------------|--|
| Part Number             | VJ01NS7          | VJ01NS7          | VJ01NS7          | VJ01NS7          |  |
| Beaming Angle (°)       | 170°             | 6800-7300        |                  |                  |  |
| CRI (Ra)                | >70              | >70              | >70              | >70              |  |
| Luminous Flux (LM)      | 46               | 46               | 140              | 188              |  |
| Luminous Efficacy (LMW) | 150              | 150              | 150              | 150              |  |
| Voltage (V)             | DC24             | DC24             | DC24             | DC24             |  |
| Power (W)               | 0.36             | 0.72             | 1.08             | 1.44             |  |
| Driving Method          | Constant Voltage | Constant Voltage | Constant Voltage | Constant Voltage |  |
| Dimension (MM)          | 36*18*7.9        | 58*18*7.9        | 84*18*7.9        | 84*18*7.9        |  |
| Working Tem (°C)        | -25~+60          | -25~+60          | -25~+60          | -25~+60          |  |
| Storage Tem (°C)        | -25~+70          | -25~+70          | -25~+70          | -25~+70          |  |
| Protection Grade        | IP66             | IP66             | IP66             | IP66             |  |

#### **Dimension**

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### **Beaming Angle**



#### Reference Scheme

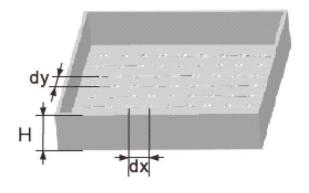
| Part Number         | Depth(MM) | On-Center Space mm(MM) | Density (PCS/M²) | Illuminance (Lux) | Power per (M²) |
|---------------------|-----------|------------------------|------------------|-------------------|----------------|
| VJ01NS7 Dz=40 Dz=50 | Dz=30     | Dx=50 Dy=50            | 400              | 95000-10500       | 144            |
|                     | Dz=40     | Dx=75 Dy=75            | 169              | 4500-5000         | 61             |
|                     | Dz=50     | Dx=100 Dy=75           | 130              | 3000-3500         | 47             |
|                     | Dz=60     | Dx=120 Dy=75           | 104              | 2200-2800         | 38             |

| Part Number | Depth(MM) | On-Center Space mm(MM) | Density (PCS/M²) | Illuminance (Lux) | Power per (M²) |
|-------------|-----------|------------------------|------------------|-------------------|----------------|
|             | Dz=40     | Dx=75 Dy=50            | 260              | 12000-13000       | 187            |
|             | Dz=50     | Dx=100 Dy=75           | 130              | 5800-6500         | 94             |
|             | Dz=60     | Dx=140 Dy=95           | 70               | 2800-3300         | 50             |
|             | Dz=70     | Dx=140 Dy=95           | 60               | 2300-2500         | 43             |

| Part Number                     | Depth(MM) | On-Center Space mm(MM) | Density (PCS/M²) | Illuminance (Lux) | Power per (M²) |
|---------------------------------|-----------|------------------------|------------------|-------------------|----------------|
| VJ03NS7 Dz=50 Dz=60 Dz=70 Dz=80 | Dz=50     | Dx=100 Dy=95           | 100              | 6300-6800         | 108            |
|                                 | Dz=60     | Dx=125 Dy=95           | 80               | 5300-5800         | 86             |
|                                 | Dz=70     | Dx=150 Dy=95           | 70               | 4200-4600         | 76             |
|                                 | Dz=80     | Dx=185 Dy=95           | 50               | 2200-2500         | 54             |

#### Remark:

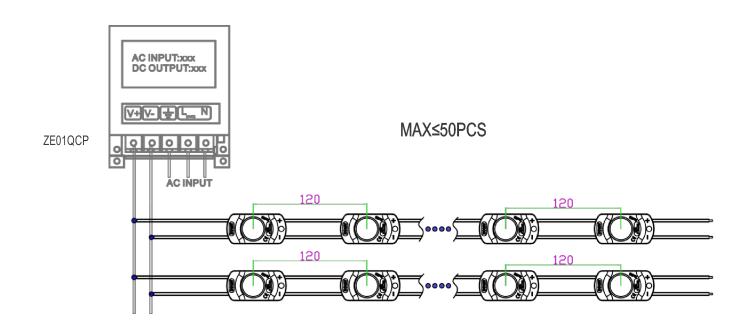
- 1. The transmittance of the advertising fabric was 56%.
- 2. The above data is for reference only.

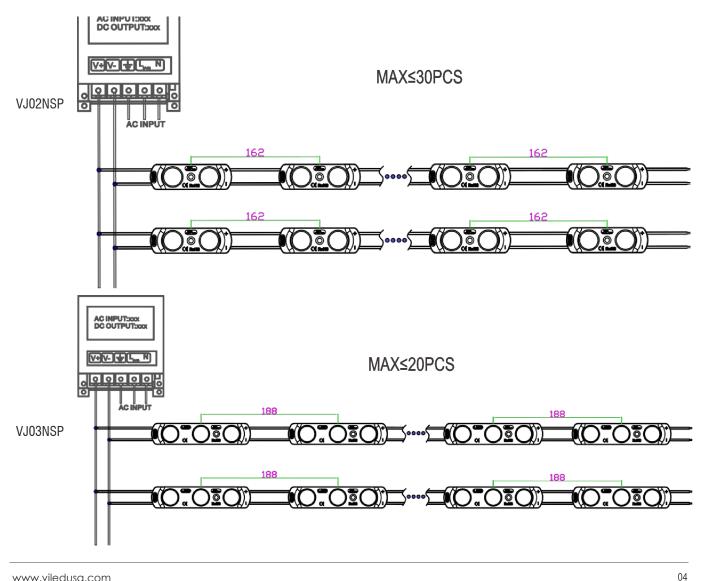


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#### Wire Connection

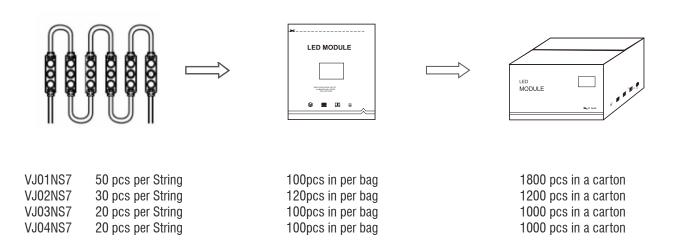




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#### **Packing**



#### **Packing Specification**

- Antistatic bag adopted
- Packing information

| Part Number           | VJ01NSP     | VJ01NSP      | VJ01NSP     |
|-----------------------|-------------|--------------|-------------|
| Carton Dimension(MM)  | 490*450*220 | 490*450*220  | 490*450*220 |
| Bags Per Carton (PCS) | 18          | 10           | 10          |
| Quantity Per (PCS)    | 1800        | 1200         | 1000        |
| Net Weight (kg)       | 11.7(1+10%) | 12.48(1+10%) | 13.5(1+10%) |
| Gross Weight(kg)      | 12.7(1+10%) | 13.48(1+10%) | 14.5(1+10%) |

Due to the packing manner difference, please adhere to the original products in case of discrepancy found between the picture and actual product

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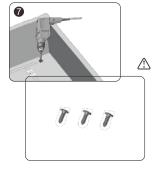
#### Self-provided tools & material



Dust brush, cutter, pencil, wire stripper, and drill



Wire Connector ( Standard)



Screw

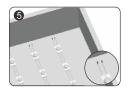


Power Supply

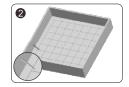
#### **Installation Guidance**



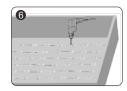
Clean inside the light box.



Strip the end wire for 10mm and cap with the wire connector. Waterproof and anti-corrosion must be done on the connectors.



· Determine the appropriate layout.



 Locate modules in the optimal position and secure with screws or neutral glass cement, which should be applied at the edge of the modules.

Note: Avoid breaking the module and wire when fixing with a dril.

• Drill a hole for connecting power cable. Fixation and protection for the cable must be done on the hole.

Note: Avold breaking the light box in drilling the hole.

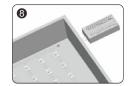
 Connect to the power cable and make sure that the polarity for connection is correct



· Remove the unneeded modules.

Note: Cut in the middle position of the wires between modules.

· Peel tape backing and stick modules into place.



A Note: Red wire is positive and black wire is negative.

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#### Instructions

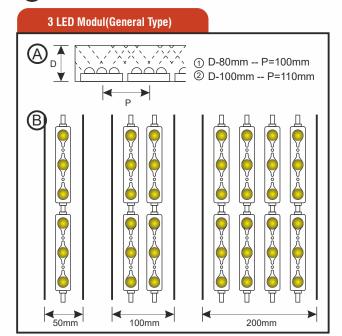
- Make sure the input voltage is sufficient 12V.
- 2. Disassembling or modifying the product is not allowed.
- 3. Installation with power on is not allowed.
- Any organic solvent chemical is not allowed.
   Acidic or alkaline adhesive is not allowed when install, neutral glass cement could be used for installation purpose, make it drying in 5. open environment for four hours.
- 6. Isolation and corrosion prevention on all wiring points and wire ends.
- 7. Make sure the power wire is thick enough and ensure the input voltage and connections are correct before power on.
- 8. This product should be used in a sign, do not expose it in opening site.
- 9. Installation and maintaining should be done by professional staff.
- 10. When connecting products, use standard daisy-chain connections. Do not exceed the recommended series connection (it is suggested to provide power from both ends when cascading 20 devices).
- 11. If the power cable for the extended module needs to be lengthened, use wire with a gauge of 18AWG (cross-sectional area of 0.75 square millimeters) or thicker to avoid overheating caused by excessive current, which can lead to adverse consequences.

#### Declaration

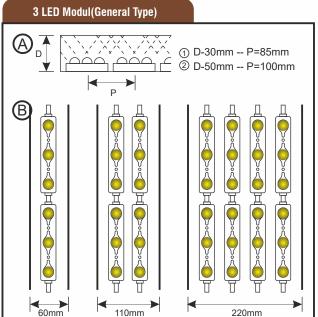
- 1. Warranty: 10years.
- 2. In order to ensure the safety, the broken wires need to be replaced by the manufacturer or the service agent, or by the staff with the similar qualification.
- 3. The given data in the specification was based on the laboratory testing, there may be discrepancy found in the actual products.
- 4. The given drawings in the specification are only for reference, there may be discrepancy found in the actual products.
- 5. The products are subject to change without prior notification.

Use recommended length for pitch between each module to achieve optimum lighting output while maintaining lowest unit cost, This may be some differences by optical transmission rate of the PC.

(A) Recommended Pitch(P) per Depth(D)

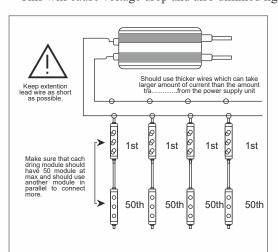


(B) Recommended Layout Density per Channel width



#### 02. Connection Guide with POWER SUPPLY

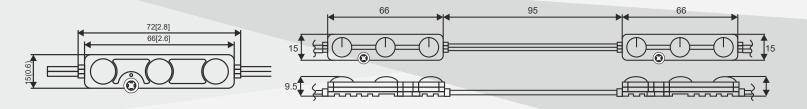
Maximum driver quantity per serial string module is limited. Using more quantity per string module will cause overloaded from SMPS which damages all connected products. This will cause voltage drop and also dimmed lighting output.



| SMPS(W)          | 100W  | 150W  | 200W  | 300W  |
|------------------|-------|-------|-------|-------|
| 1LED module      | 118EA | 177EA | 236EA | 354EA |
| 2LED MINI module | 118EA | 177EA | 236EA | 354EA |
| 3LED module      | 78EA  | 118EA | 157EA | 236EA |
| 4LED module      | 39EA  | 59EA  | 78EA  | 118EA |



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