

Product Technical Datasheet



RGB mini

24VDC:

M21AA00B

12VDC:

M21AA00A

Areas of application

- Signage and illuminated advertising.
- Back-lighting for medium light box, channel letter.
- Best for 75mm ~ 200mm (3~8inch) depth.

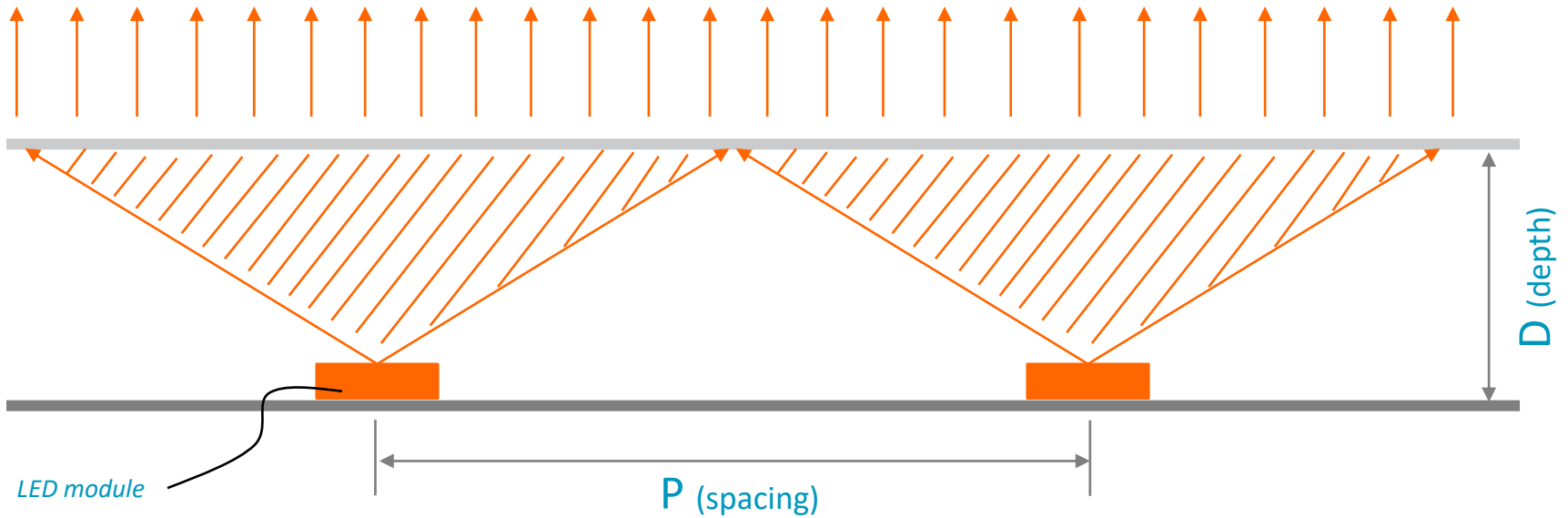
Product main benefits

- Optical lens design can get better uniformity performance in application.
- 0.72 W/module.
- 3 years warranty.
- IP66



EPISTAR

Optics Technology (optical light spot)



$$\text{optical performance proportion} = \frac{D(\text{depth})}{P(\text{spacing})} = 1:1.6$$

- The proportion of “P” and “D” can show the performance of lens optics design.
- The bigger proportion, the wider light spot.
- The proportion is for reference from lab, actual layout need based on real application.

Electrical and Photometrical data

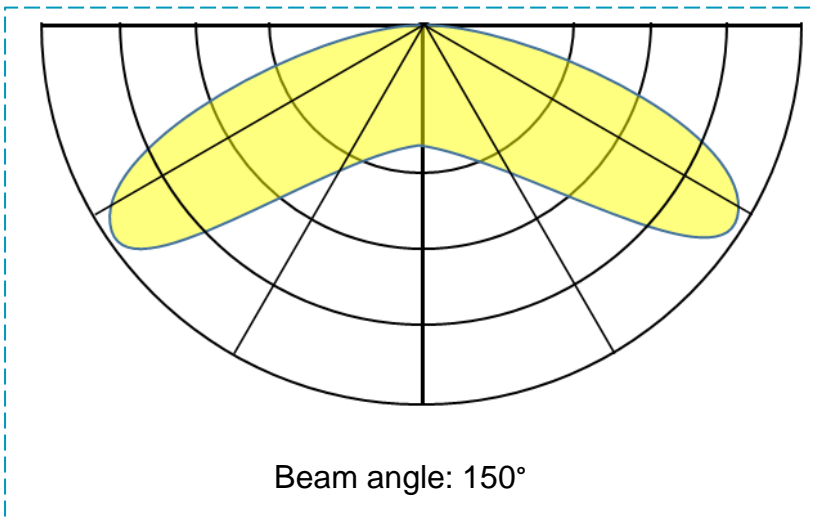
Part Numbers	Typical Voltage	Light color (designation)	Wavelength	Power	Typical Brightness	Additional Information (modules/chain)
M21AA00A M21AA00B	12VDC	Red channel	620-630nm	0.24 W/channel	3.5 lm	-
		Green channel	520-530nm	0.24 W/channel	20 lm	-
	24VDC	Blue channel	450-460nm	0.24 W/channel	3.5 lm	-
		RGB channels	-	0.72 W/module	27 lm/module	20 (12VDC) 30 (24VDC)

Remark:

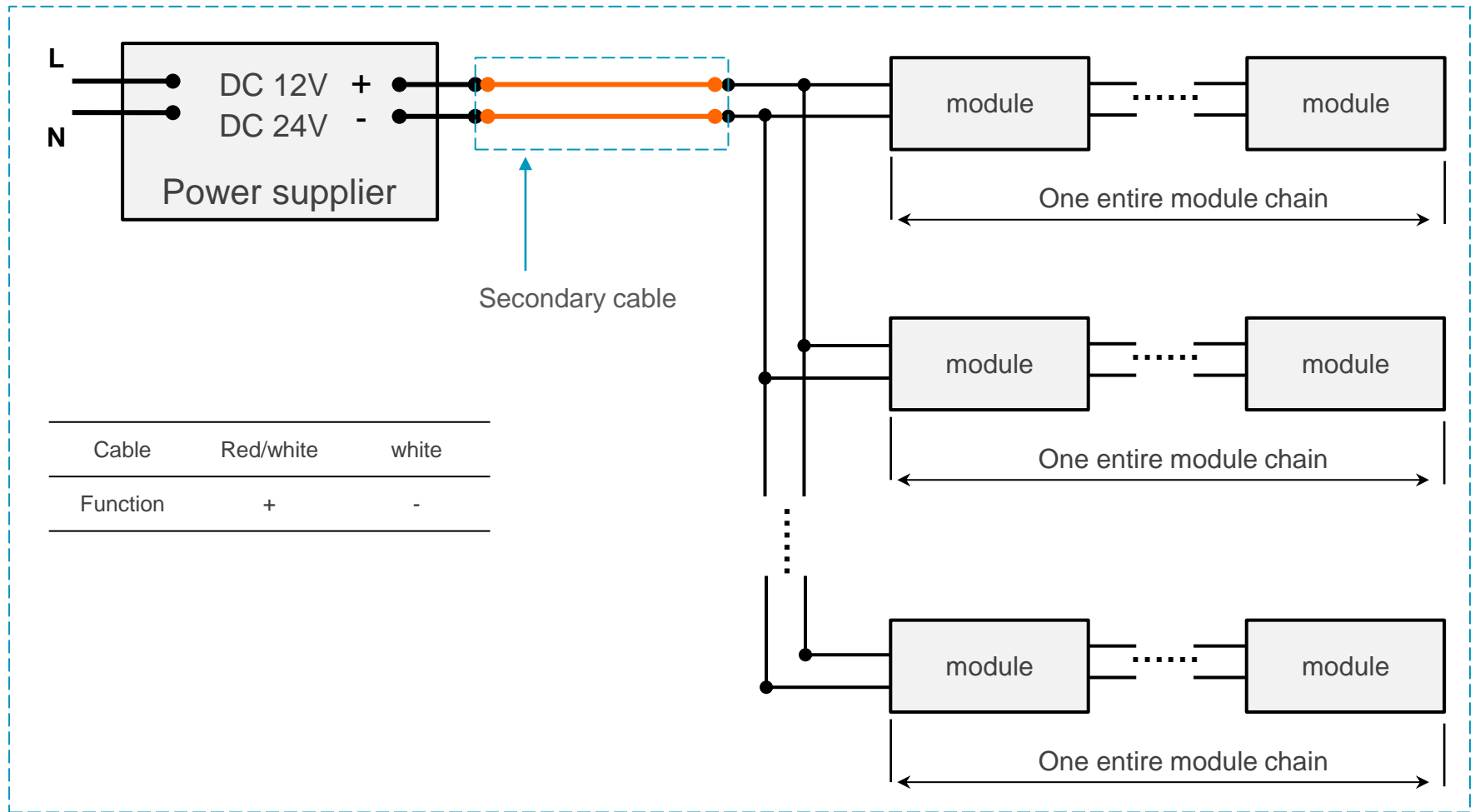
1. Ranking at $t_a = 25^\circ\text{C}$.
2. Constant voltage design.
3. Tolerance of measurements for power/lumen are $\pm 10\%$.

Application Conditions and light distribution

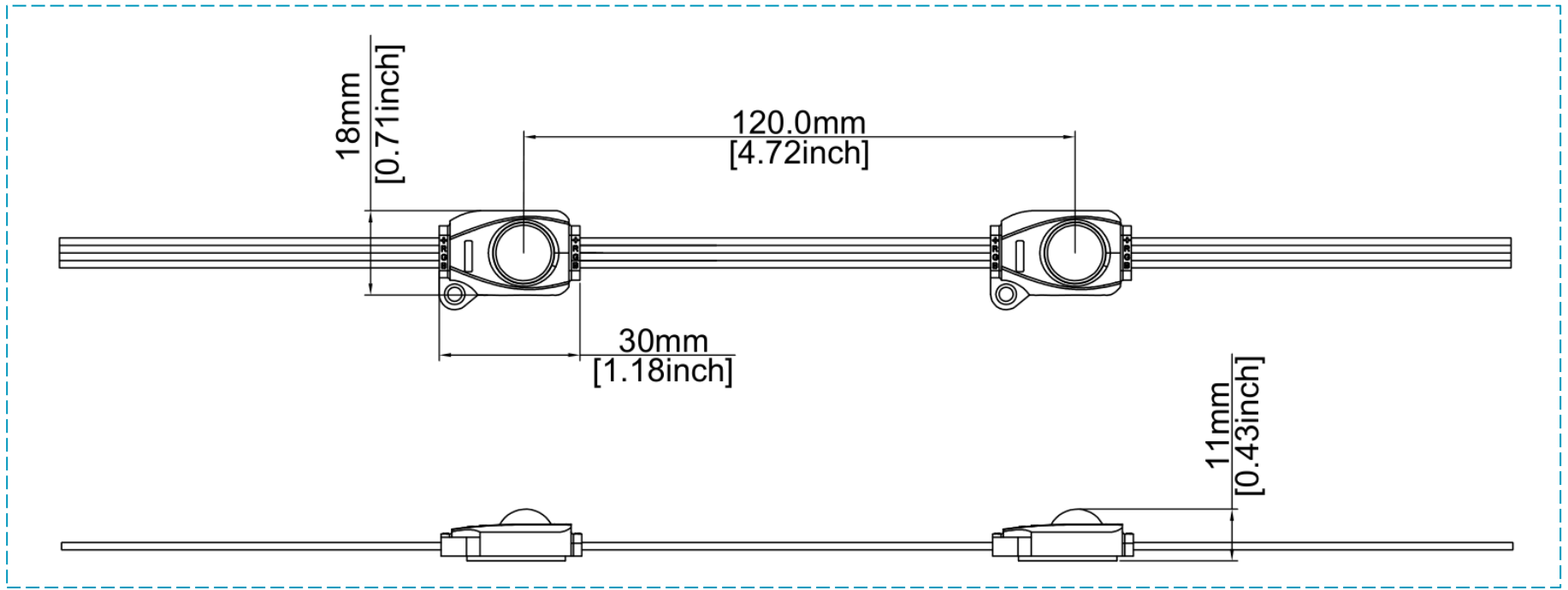
Operating Environment (t_a)	-25°C to +50°C
Storage Temperature Range (t_s)	-40°C to +85°C
IP Rating	IP66
Lifetime (L70B50)	3 years
t_c temperature	70°C
Dimming mode	Dimmable
Cutting Resolution	Cut on wire between every module



Wiring method



Drawing



Package and additional information

Products	Part Number	Package unit (modules/carton box)	Carton box Dimensions (length x width x height)
RGB mini	M21AA00A(B)		52 x 37 x 26 cm

Additional information:

- Installation of LED modules (with power supplies) needs to be made under consideration of all valid regulations and norms.
- Installation by qualified electrician only.
- Parallel connection is mandatory for safe electrical operation. Serial connection of LED modules is discouraged. Unbalanced voltage drop in serial connection can cause hazardous overload
- Electrical contact is achieved with the contact cables or the terminals of the module. Please refer to the technical data for maximum number of LED modules that can be operated on one control gear.
- To avoid mechanical damage, the LED modules have to be attached securely to the intended mounting surface. It is recommended to avoid heavy vibration.
- LED modules are dimmable by means of PWM (pulse width modulation).
- During installation, it is highly recommended to install modules with screws to ensure long-term stability. Other means of securing modules(sealant, vinyl, etc.) are also acceptable.