

xLED

xLED-22560 Passive Pin Fin Heatsink $\Phi 225\text{mm}$

Features VS Benefits

- * Mechanical compatibility with direct mounting of the SMD products to the LED cooler and thermal performance matching the lumen packages.
- * For flood light, street light and high bay designs from 9,000 to 23,000 lumen.
- * Thermal resistance range Rth 0.34°C/W.
- * Product size: Diameter 225mm - Standard height 60mm , Other widths on request.
- * Forged from highly conductive aluminium for optimal thermal performance (AL1070), aluminium 1070 thermal conductivity is 2.0 times higher than ADC12.
- * 2 standard colors - clear anodised - black anodised
- * Waterproof level designs from IP65 to IP67.
- * With the SMD products (3030 , 2835 , 5050.....): Bridgelux , Cree , Edison , Citizen , LG Innotek Lumileds , Luminus, Lumens , Nichia , Osram , Prolight Opto , Seoul , Samsung , Sharp.



The LED engine and radiator assembly directly Mounting Options

- * Below you find an overview of SMD products which standard fit on the xLED series coolers.
- * In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED coolers.

Waterproof connectors & Driver



Not only consider waterproofness of the lens, but also on outside connecting line. Mingfa Tech can provide compatible waterproof connector with xLED heat sink.

Features :

- The claws and seals excellent design, can hold cable firmly and have a wider cable range. Resistant to salt water, weak acid, alcohol, oil, grease and common solvency.
- 1、 Working temperature: Min -40°C to Max 120°C .
- 2、 Body material: Brass nickel plated .
- 3、 Cable range Dia: 3-6mm .
- 4、 Protection degree: IP68

Mingfa tech product number:

- 21000001-04 (M8)
- 21000002-04 (M10)

With the Drivers.

- MEAN WELL:
 - HBG-160 Series; HBG-240 Series;
- INVENTRONICS:
 - EUR-150Sxxx Series; EUR-200Sxxx Series; EUR-240Sxxx Series;

Order Information

Example: xLED-22560-B

Example: xLED-22560 - **1**

1 Anodising Color

B-Black

C-Clear

Z-Custom

Notes:

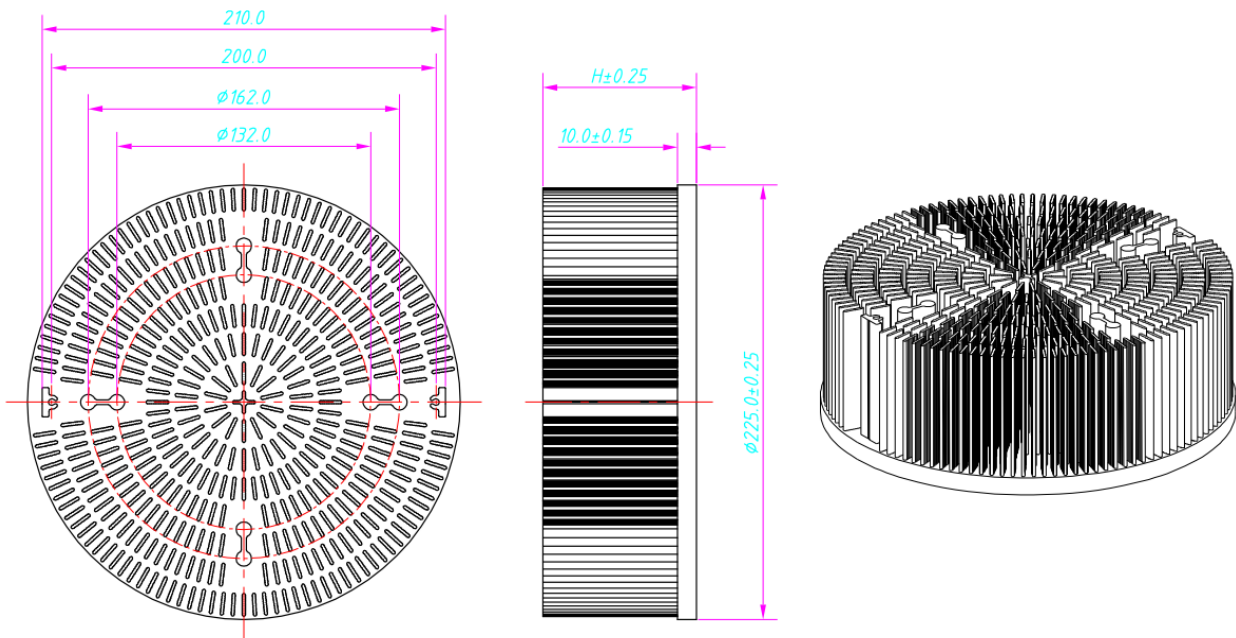
- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications



xLED

xLED-22560 Passive Pin Fin Heatsink Φ 225mm

Drawings & Dimensions



Product deta table

	<p>xLED</p>
Model No.	xLED-22560
Heatsink Size	Φ225xH60mm
Heatsink Material	AL1070
Finish	Black Anodized
Weight (Kg)	2.22
Dissipated power (Ths-amb,50°C)	150.0 (w)
Cooling surface area (mm²)	673851
Thermal Resistance (Rhs-amb)	0.34 (°C/W)

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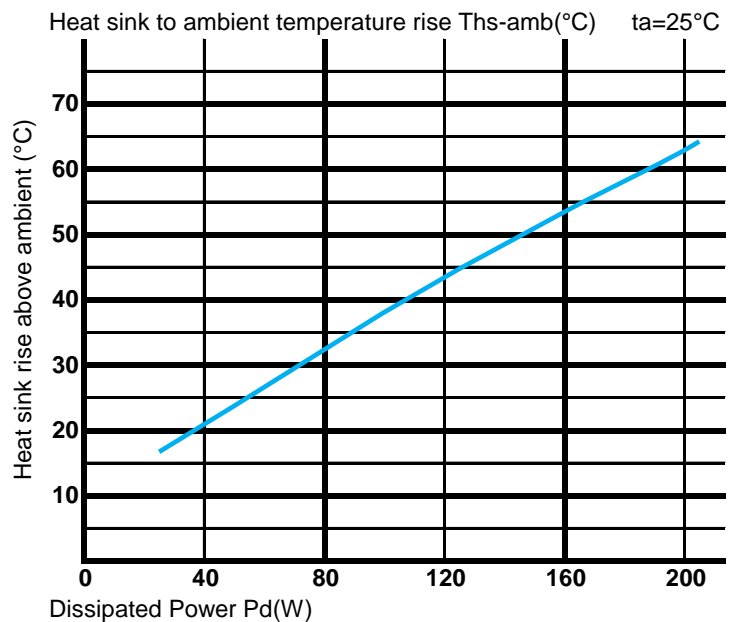
The thermal data table

* Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module.

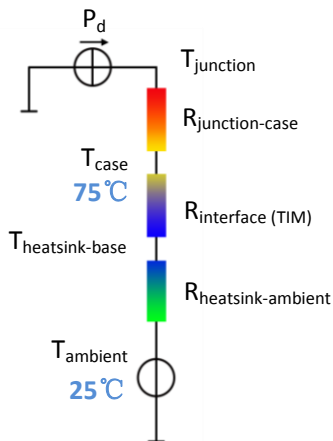
*To calculate the dissipated power please use the following formula: $P_d = P_e \times (1 - \eta_L)$.

Pd - Dissipated power ; Pe - Electrical power ; η_L = Light efficiency of the LED module;

Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance Rhs-amb ($^{\circ}$ C/W)	Heat sink to ambient temperature rise Ths-amb ($^{\circ}$ C)
		xLED-22560	
40.0		0.53	21.0
80.0		0.41	33.0
120.0		0.37	44.0
160.0		0.33	53.0
200.0		0.32	63.0



*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface). MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow. Geometric shapes are different, the thermal resistance is different.

$$\theta = (T_{hs} - T_a) / P_d$$

θ - Thermal Resistance [$^{\circ}C/W$]; T_{hs} - Heatsink temperature ; T_a - Ambient

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is $R_{junction-case}$, the thermal of the TIM outside the package is $R_{interface (TIM)}$ [$^{\circ}C/W$], the thermal resistance with heat sink is $R_{heatsink-ambient}$ [$^{\circ}C/W$], and the ambient temperature is $T_{ambient}$ [$^{\circ}C$].

*Thermal resistances outside the package $R_{interface (TIM)}$ and $R_{heatsink-ambient}$ can be into the thermal resistance $R_{case-ambient}$ at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot P_d + T_{ambient}$$