xLED

xLED-165100 Passive Pin Fin Heatsink Φ165mm

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 6,000 to 15,000 lumen.
* Thermal resistance range Rth 0.42°C/W.
* Product size: Diameter 165mm - Standard height 100mm , 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℃ to Max 120℃.
2、Body material:Brass nickel plated。
3、Cable range Dia:3~6mm。
4、Protection degree:IP68

Mingfa tech product number:
1、21000001-04 （M8）
2、21000002-04 （M10）

With the Drivers.
1、 MEAN WELL: HBG-100 Series.
2、 INVENTRONICS: EUR-096Sxxx Series.

Order Information

Example:xLED-165100-B

Example:xLED-165100 - 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

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Mingfa TECH

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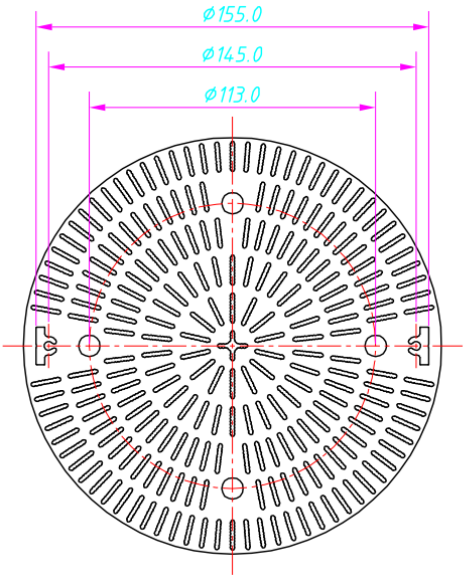
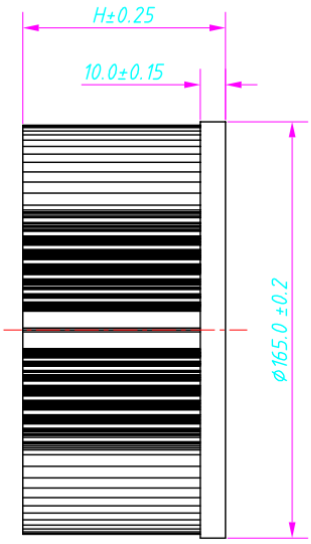
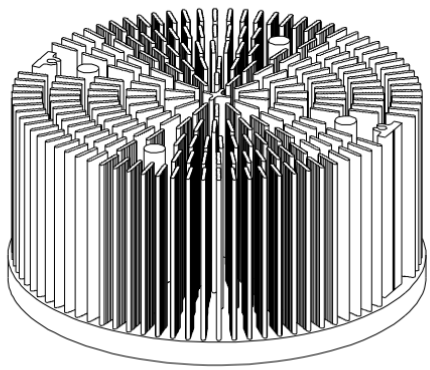
Drawings & Dimensions







Product deta table

	xLED
Model No.	xLED-165100
Heatsink Size	Φ165xH100mm
Heatsink Material	AL1070
Finish	Black Anodized
Weight (Kg)	1.7
Dissipated power (Ths-amb,50℃)	120.0 (W)
Cooling surface area (mm^2)	613892
Thermal Resistance (Rhs-amb)	0.42 (°C/W)

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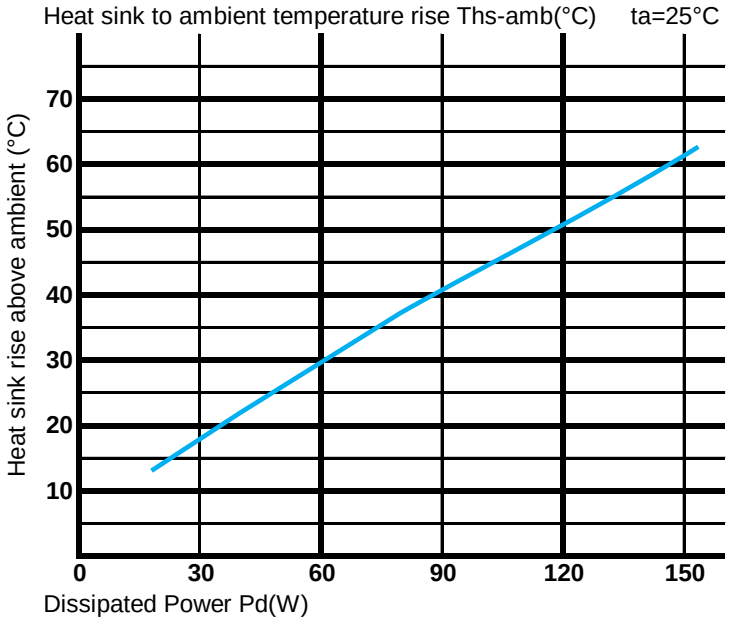
The thermal data table

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

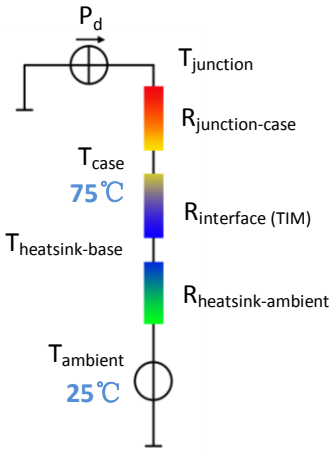
*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light effciency of the LED module;

Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		xLED-165100	
Dissipated Power Pd(W)	30.0	0.60	18.0
	60.0	0.48	29.0
	90.0	0.44	40.0
	120.0	0.42	50.0
	150.0	0.41	61.0



*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).
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.
Formula: θ=(Ths−Ta)/Pd
θ - Thermal Resistance [°C/W] ; Ths - Heatsink temperature ; Ta - Ambient temperature

*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 resistance of the TIM outside the package is $R_{interface\ (TIM)}$ [°C/W], the thermal resistance with the heat sink is $R_{heatsink-ambient}$ [°C/W], and the ambient temperature is $T_{ambient}$ [°C].

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

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

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