xLED

xLED-LUM-7050 Pin Fin Heat Sink Φ70mm for LumiLEDs

Features VS Benefits

* The xLED-LUM-7050 LumiLEDs Pin Fin LED Heat Sinks are specifically designed for luminaires using the LumiLEDs LED engines.
* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
* For spotlight and downlight designs from 1,000 to 2,600 lumen.
* Thermal resistance range Rth 3.13°C/W.
* Modular design with mounting holes foreseen for direct mounting of LumiLEDs COB series.
* Diameter 70mm - standard height 50mm Other heights on request.
* Forged from highly conductive aluminum.

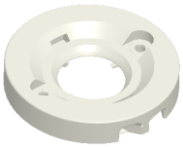
Zhaga LED engine and radiator assembly is a unified future international standardization

* Below you find an overview of LumiLEDs COB's and LED modules which standard fit on the Pin Fin LED Heat Sinks.
* 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 Pin Fin LED Heat Sink.

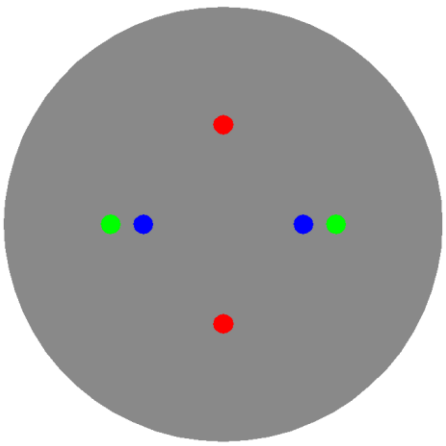
LUMILEDS

BJB

TE connectivity



LEDiL



LumiLEDs LED Modules directly Mounting Options

LumiLEDs COB series.

LUXEON CoB 1205HD: L2C5-xxxx1205E1100;
LUXEON CoB 1204HD: L2C5-xxxx1204E0900

With the Zhaga Book 3 holders for the green indicator marks.
TE Connectivity Holder: 2213382-1;
Without the holders for the blue indicator marks.
Direct mounting with machine screws M3x6.5mm.

LumiLEDs COB series.

LUXEON CoB 1208: L2C5-xxxx1208E1500;
LUXEON CoB 1205: L2C5-xxxx1205E1300;
LUXEON CoB 1204: L2C5-xxxx1204E1300;

With the Zhaga Book 3 holders for the green indicator marks.
TE Connectivity Holder: 2213130-1;
BJB Holder:47.319.2011.50;
Without the holders for the red indicator marks.
Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:
Olivia series: FN14637-S; FN14828-M;

LuXEon CX Plus CoB series.

LUXEON CoB L08: L2C4-xxxx-L08E1400;
LUXEON CoB L05: L2C4-xxxx-L05E1200;
LUXEON CoB L04: L2C5-xxxx-L04E1200;

With the Zhaga Book 3 holders for the green indicator marks.
TE Connectivity Holder: 2213401-1;
BJB Holder:47.319.2131.50;
Direct mounting with machine screws M3x6.5mm.

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Mingfa TECH

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Mounting Options and Drawings & Dimensions

Example:xLED-LUM-7050-B-1,2

Example:xLED-LUM-70 1 - 2 - 3

1 **Height (mm)**

2 **Anodising Color**

B-Black

C-Clear

Z-Custom

3 **Mounting Options - see graphics for details Combinations available**

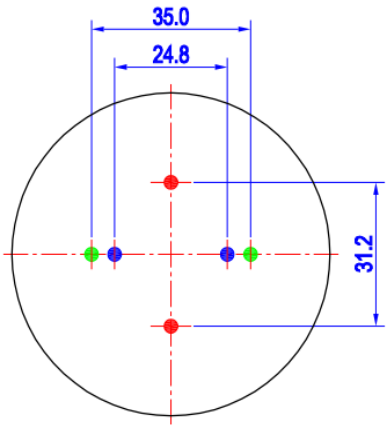
Ex.order code - 12

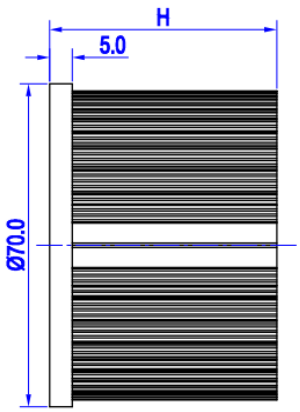
means option 1 and 2 combined

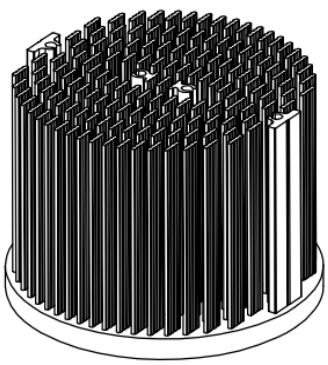
Notes:

- 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 without prior notice.

MOUNTING OPTION	Module type	Holder NO.	LEDiL products		THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
			Stella Series	Olivia series			
1	LUXEON 1204HD; LUXEON 1205HD;	/	/	FN14637-S; FN14828-M;	M3	6.5mm	24.8mm/ 2-@180°
2	LUXEON 1204; LUXEON 1205; LUXEON 1208;	/			M3	6.5mm	31.2mm/ 2-@180°
3	LUXEON 1204; LUXEON 1205; LUXEON 1208;	BJB Holder 47.319.2011.50			M3	6.5mm	35.0mm/ 2-@180° (Zhaga Book 3)
		TE Holder 2213130-1					
	LUXEON 1204HD; LUXEON 1205HD;	TE Holder 2213382-1		/			
	LUXEON L04; LUXEON L05; LUXEON L08;	BJB Holder 47.319.2131.50					
		TE Holder 2213401-1					







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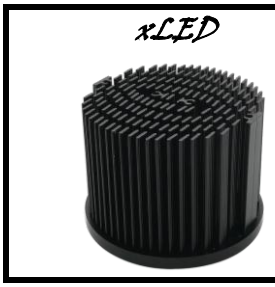
The product deta table



Model No.	**xLED-LUM-7050**
Heatsink Size	**Φ70xH50mm**
Heatsink Material	**AL1070**
Finish	**Black Anodized**
Weight (g)	**150.0**
Dissipated power (Ths-amb,50℃)	**16.0 (W)**
Cooling surface area (mm^2)	**91577**
Thermal Resistance (Rhs-amb)	**3.13 (°C/W)**

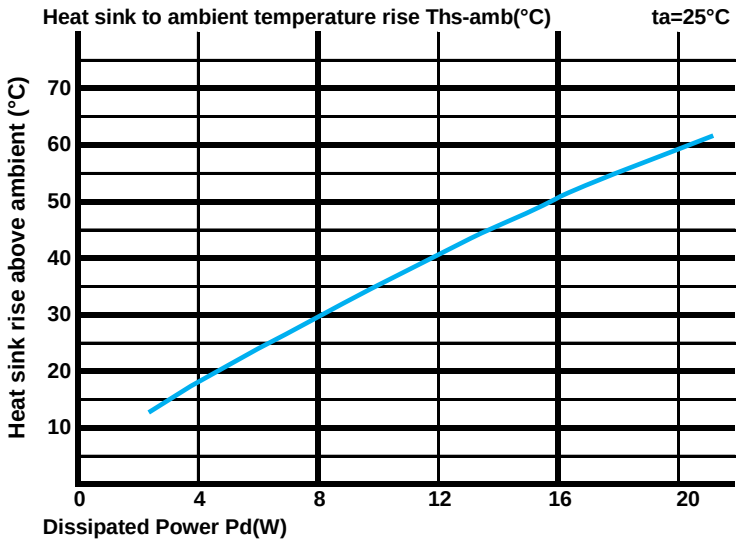
The thermal data table

* 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;

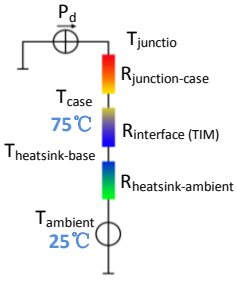
Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		xLED-LUM-7050	
Dissipated Power Pd(W)	4.0	4.25	17.0
	8.0	3.63	29.0
	12.0	3.33	40.0
	16.0	3.13	50.0
	20.0	2.95	59.0



*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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