

## xLED

### xLED-LUN-7030 Pin Fin LED Heat Sink $\Phi$ 70mm for Luminus

#### Features VS Benefits

- \* The xLED-LUN-7030 Luminus Pin Fin LED Heat Sinks are specifically designed for luminaires using the Luminus 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 900 to 2,200 lumen.
- \* Thermal resistance range Rth 3.85°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Luminus COB series.
- \* Diameter 70mm - standard height 30mm, 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 Luminus 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.



#### Luminus LED Modules directly Mounting Options

##### Luminus COB series.

- CXM-11-AC;
- CIM/CLM/CXM-14;
- With the Zhaga Book 3 holders for the green indicator marks.
- TE Connectivity Holder: 2213254-1;
- BJB Holder: 47.319.2021.50;
- Without the holders for the red indicator marks.
- Direct mounting with machine screws M3x6.5mm.

##### With the LEDiL products:

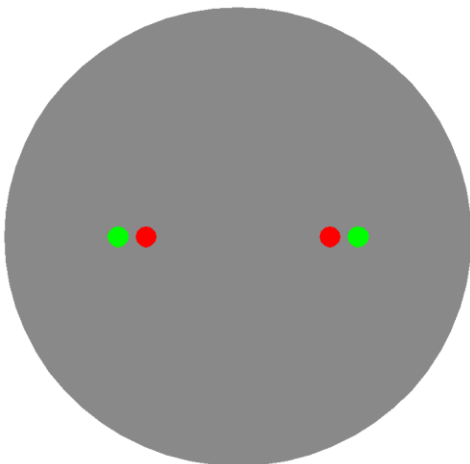
- Lena series: CN12xxx;
- Lenina series: CN12xxx; C12xxx;

##### Luminus COB series.

- CXM-18;
- With the Zhaga Book 3 holders for the green indicator marks.
- TE Connectivity Holder: 2213258-1;
- BJB Holder: 47.319.2280.50;
- Direct mounting with machine screws M3x6.5mm.

##### With the LEDiL products:

- Lena series: CN12xxx;



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**Mounting Options and Drawings & Dimensions**

Example: xLED-LUN-7030-B-1,2

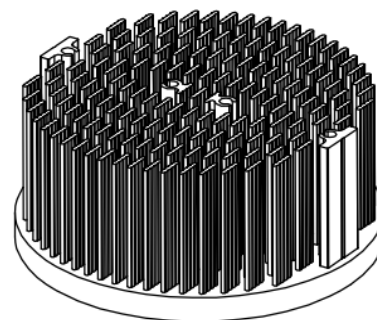
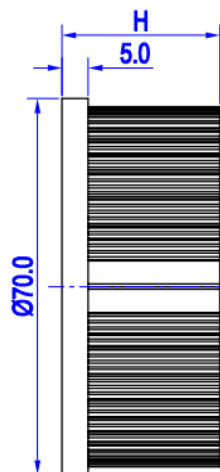
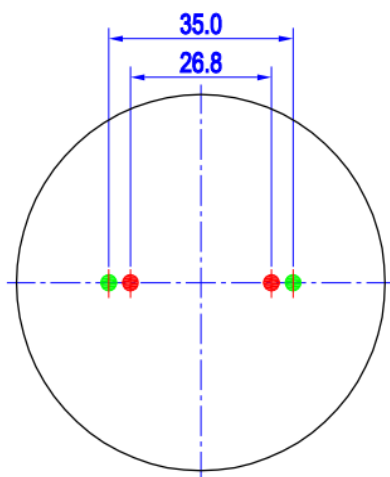
Example: xLED-LUN-70 **1** - **2** - **3**

- 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
			Lenina Series	Lena series			
1	CXM-11; CIM/CLM/CXM-14	/	CN12xxx; C12xxx;	CN12xxx;	M3	6.5mm	26.8mm/ 2-@180°
2		BJB Holder 47.319.2021.50 TE Holder 2213254-1			/	M3	6.5mm
	CXM-18;	BJB Holder 47.319.2280.50 TE Holder 2213258-1					



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### xLED-LUN-7030 Pin Fin LED Heat Sink $\Phi$ 70mm for Luminus

#### The product data table

	Model No.	xLED-LUN-7030
	Heatsink Size	$\Phi$ 70xH30mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	106.0
	Dissipated power (T <sub>hs-amb</sub> ,50°C)	13.0 (W)
	Cooling surface area (mm <sup>2</sup> )	54786
	Thermal Resistance (R <sub>hs-amb</sub> )	3.85 (°C/W)

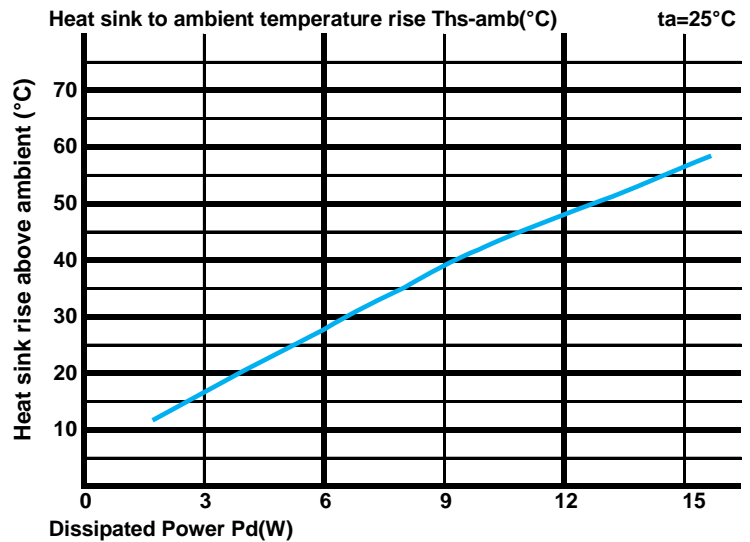
#### The thermal data table

\* 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 efficiency of the LED module;

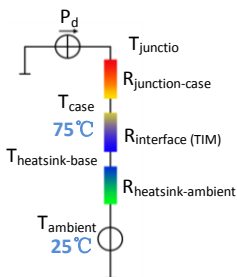
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		xLED-LUN-7030	
3.0		5.33	16.0
6.0		4.50	27.0
9.0		4.33	39.0
12.0		3.92	47.0
15.0		3.73	56.0



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

$\theta$  - Thermal Resistance [°C/W] ; T<sub>hs</sub> - Heatsink temperature ; T<sub>a</sub> - 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<sub>junction-case</sub>, the thermal resistance of the TIM outside the package is R<sub>interface (TIM)</sub> [°C/W], the thermal resistance with the heat sink is R<sub>heatsink-ambient</sub> [°C/W], and the ambient temperature is T<sub>ambient</sub> [°C].

\*Thermal resistances outside the package R<sub>interface (TIM)</sub> and R<sub>heatsink-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

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