



for LED

**xLED**

**xLED-XIT-8030 Pin Fin LED Heat Sink  $\Phi$ 80mm for Xicato**

**Features VS Benefits**

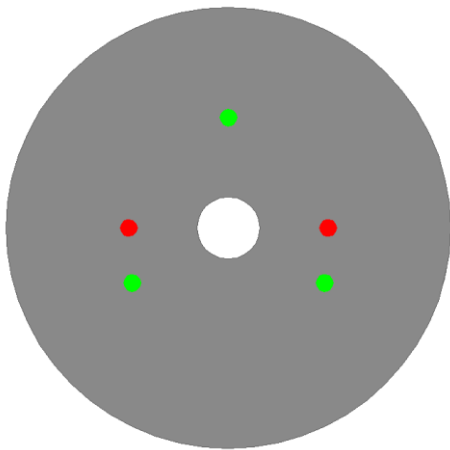
- \* The xLED-XIT-8030 Xicato Pin Fin LED Heat Sinks are specifically designed for luminaires using the Xicato LED engines.
- \* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- \* For spotlight and downlight designs 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 Xicato XSA/ XIM/ XTM modules.
- \* Diameter 80.0mm - standard height 30.0mm, 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 Seoul 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.

**XICATO**



**Xicato LED Modules directly Mounting Options**

Xicato XSM LED modules name :

- XSM8027-xxxx ; XSM9530-xxxx ;
- XSM8030-xxxx ; XSM9540-xxxx ;
- XSM8040-xxxx ; XSMV830-xxxx ;
- XSM9527-xxxx ;

Direct mounting with 3 screws M3 x 12mm;  
Green indicator marks.

Xicato XIM LED modules name :

- XIM198027-xxx ; XIM198040-xxx ; XIM09-V9xxxxxx ;
- XIM198030-xxx ; XIM19V830-xxx ;
- XIM198035-xxx ; XIM0980 xxxxxx ;

Direct mounting with 3 screws M3 x 20mm;  
Green indicator marks.

Xicato XTM LED modules:

- XTM19-8027-xxx ; XTM19-8040-xxx ; XTM0995 xxxxxx ;
- XTM19-8030-xxx ; XTM19-V830-xxx ;
- XTM19-8035-xxx ; XTM09-V9xxxxxx ;

Direct mounting with 3 screws M3 x 10mm;  
Green indicator marks.

Direct mounting by Zhaga mounting holes with 2 screws M3 x 8mm;  
Red indicator marks.

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## Mounting Options and Drawings & Dimensions

Example: xLED-XIT-8030-M3-B-1

Example: xLED-XIT-8030-M3- **1** - **2**

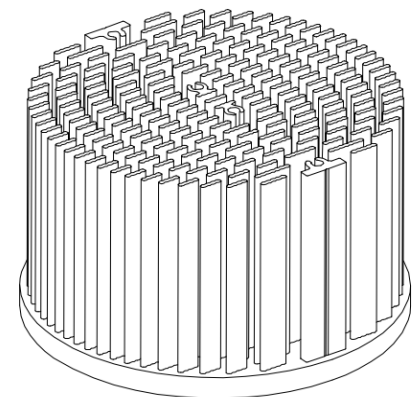
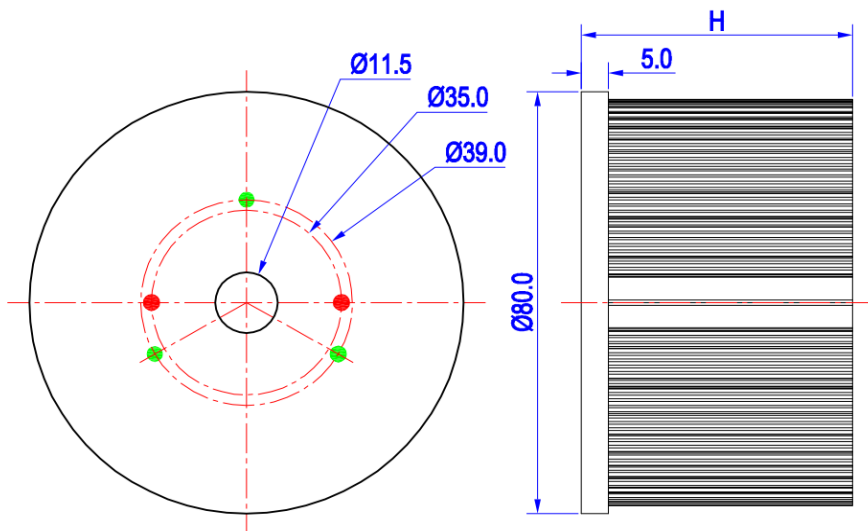
- 1** Anodising Color  
 B-Black  
 C-Clear  
 Z-Custom

- 2** 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	PART NUMBER	THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
N	xLED-XIT-8030-M3-#-N	M3	6.5mm	39.0mm/ 3-@120°
1	xLED-XIT-8030-M3-#-1	M3	6.5mm	35.0mm/ 2-@180° (Zhaga Book 3)
2	xLED-XIT-8030-M3-#-2	M3	$\Phi$ 11.5mm	Through-Hole



## xLED

### xLED-XIT-8030 Pin Fin LED Heat Sink $\Phi 80\text{mm}$ for Xicato

#### The product data table

	<b>Model No.</b>	xLED-XIT-8030
	<b>Heatsink Size</b>	$\Phi 80 \times H30\text{mm}$
	<b>Heatsink Material</b>	AL1070
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	140.0
	<b>Dissipated power (T<sub>hs-amb</sub>,50°C)</b>	16.0 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	72123
	<b>Thermal Resistance (R<sub>hs-amb</sub>)</b>	3.13 (°C/W)

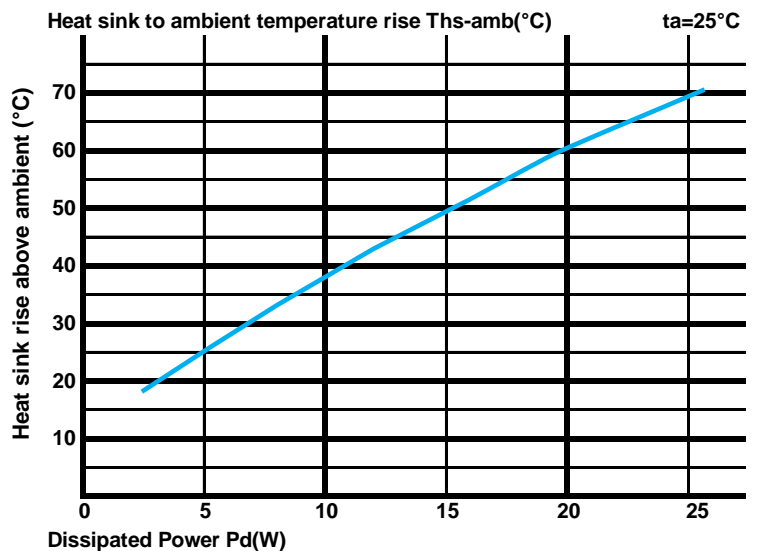
#### The thermal data table

\* 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:  $P_d = P_e \times (1 - \eta_L)$ .

Pd - Dissipated power ; Pe - Electrical power ;  $\eta_L$  = Light efficiency of the LED module;

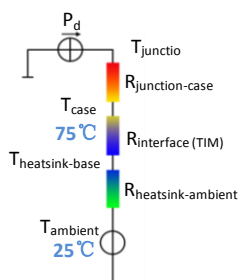
Dissipated Power Pd(W)	Pd = Pe x (1- $\eta_L$ )	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		xLED-XIT-8030	
5.0		5.00	25.0
10.0		3.80	38.0
15.0		3.27	49.0
20.0		3.00	60.0
25.0		2.76	69.0



\*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>amb-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>amb-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>amb-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

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