xLED

xLED-OSR-7030 Pin Fin Heat Sink Φ70mm for Osram

Features VS Benefits

* The xLED-OSR-7030 Osram Pin Fin LED Heat Sinks are specifically designed for
  luminaires using the Osram 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 Osram LED engines.
* Diameter 70.0mm - 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 Osram 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.

Osram LED Modules directly Mounting Options

Osram SOLERIQ® S 13 COB LED modules name:

GW KAGGxx.xx;	GW KAGLxx.xx;
GW KAGHxx.xx;	GW KAGMxx.xx;
GW KAGJxx.xx;	

With the Zhaga Book 3 Holders:
BJB holder:47.319.2021.50;
TE LED Holder:2213254-1;
Direct mounting with machine screws M3x6.5mm, green indicator marks.

Osram SOLERIQ® S 9 COB LED modules name:

GW KAFGxx.xx;
GW KAFHxx.xx;
GW KAFJxx.xx;

With the Zhaga Book 11 Holders:
BJB holder:47.319.6060.50;
TE LED Holder:2213678-5;
Direct mounting with machine screws M3x6.5mm, Red indicator marks.
With the LEDiL products:
Lenins series: CN14xxx;   CN13xxx;   CN12xxx;
Ronda series: FN15xxx-xx;

Osram PrevaLED Core Z5, Z6, Z7 L15 H1, AC G2 and AC PRO LED modules

|	
PL-CORE-Z5 -2000-xxx;	PL-CORE-G7 2000-xxx L15 H1;
PL-CORE-Z5 -3000-xxx;	PL-CORE-G7 3000-xxx L15 H1;
PL-CORE-Z6 -2000-xxx;	PL-CORE AC PRO -2000-xxx;
PL-CORE-Z6 -3000-xxx;	PL-CORE AC -2000-xxx;

With the Zhaga Book 3 standard:
Direct mounting with machine screws M3x6.5mm, green indicator marks.

Osram PrevaLED Core Z6 Mini LED modules name:

PL-CORE-Z6-MINI -2000-xxx;

With the Zhaga Book 11 standard:
Direct mounting with machine screws M3x6.5mm, Red indicator marks.
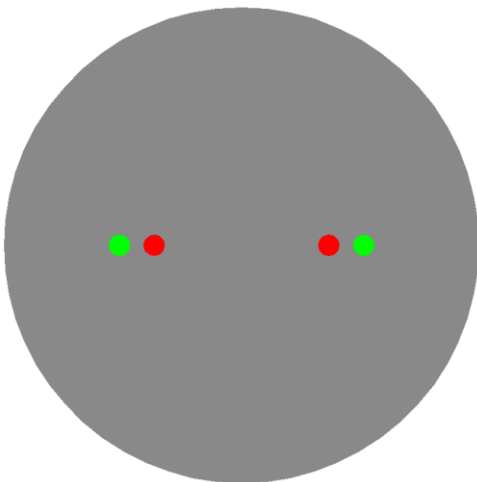
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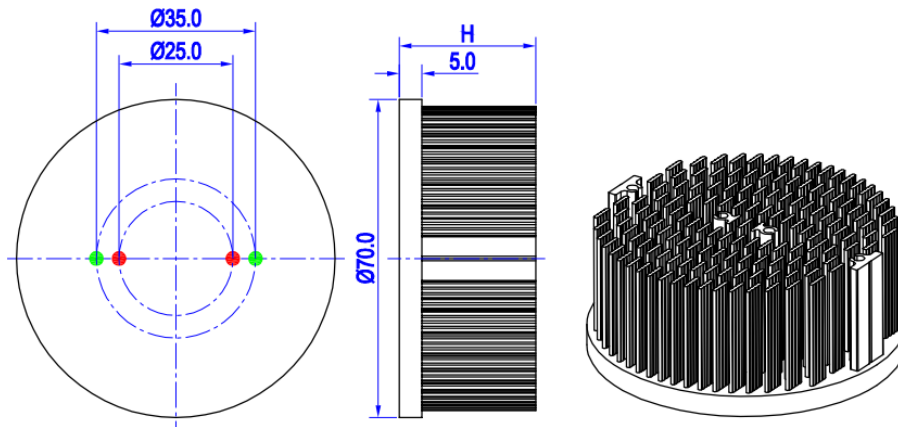## Mounting Options and Drawings & Dimensions

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

Example:xLED-OSR-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	Ronda series			
N	/	None	None	None	None	None	None
1	SOLERIQ® S 9	BJB Holder 47.319.6060.50	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
		TE Holder 2213678-5					
	Z6 Mini	/					
2	Z5; Z6; Z7 L15 H1; AC G2 AC PRO;	/			M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	SOLERIQ® S 13	BJB Holder 47.319.2021.50	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx			
		TE Holder 2213254-1					

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Mingfa Tech

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The product deta table

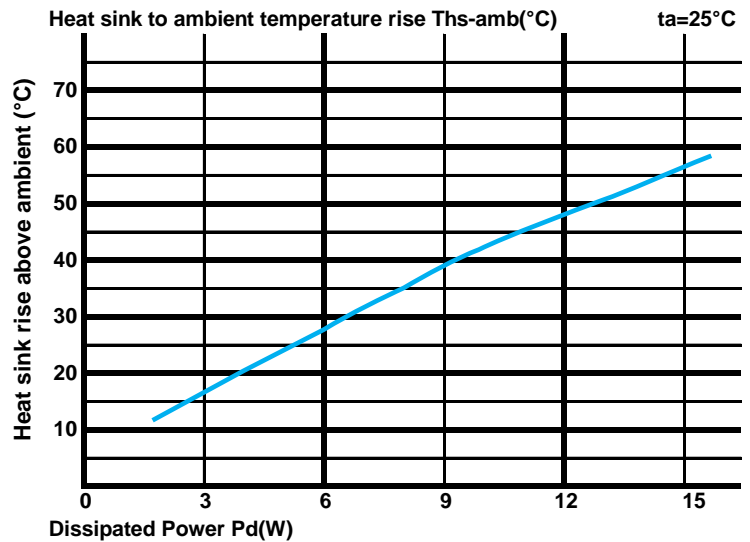| Model No.	xLED-OSR-7030
Heatsink Size	Φ70xH30mm
Heatsink Material	AL1070
Finish	Black Anodized
Weight (g)	106.0
Dissipated power (Ths-amb,50℃)	13.0 (W)
Cooling surface area (mm²)	54786
Thermal Resistance (Rhs-amb)	3.85 (°C/W)

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: $Pd = Pe \times (1-\eta L)$.

　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-ORS-7030	
Dissipated Power Pd(W)	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

Heat sink to ambient temperature rise Ths-amb(°C)　　　ta=25°C

*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.
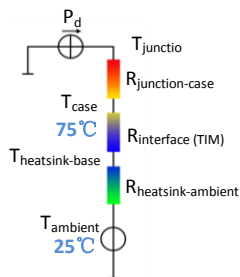
*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow. Geometric shapes are different, the thermal resistance is different. Formula: $\theta = (Ths - Ta)/Pd$

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:

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