



for

LED



GooLED

**GooLED-OSR-7830 Pin Fin Heat Sink  $\Phi$ 78mm for Osram**

**Features VS Benefits**

- \* The GooLED-OSR-7830 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 1,000 to 2,700 lumen.
- \* Thermal resistance range  $R_{th}$  3.03°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Osram LED engines.
- \* Diameter 78.0mm - 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**

Opto Semiconductors



**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 and AC PRO LED modules name:**

- 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 PRO -3000-xxx;

With the Zhaga Book 3 standard:

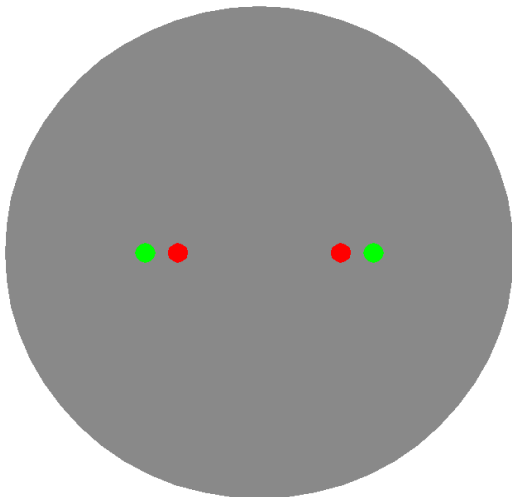
Direct mounting with machine screws M3x6.5mm, green indicator marks.

**Osram PrevaLED Core Z6 Mini LED modules name:**

- PL-CORE-Z6-MINI -2000-xxx;
- PL-CORE-Z6-MINI -3000-xxx;

With the Zhaga Book 11 standard:

Direct mounting with machine screws M3x6.5mm, Red indicator marks.



#### Mounting Options and Drawings & Dimensions

Example:GooLED-OSR-7830-B-1,2

Example:GooLED-OSR-78 1 - 2 - 3

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

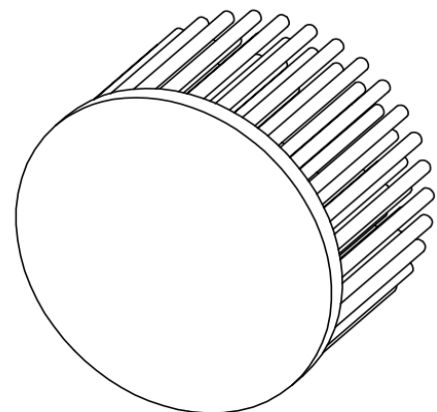
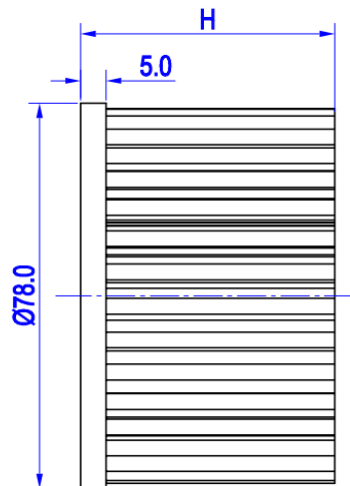
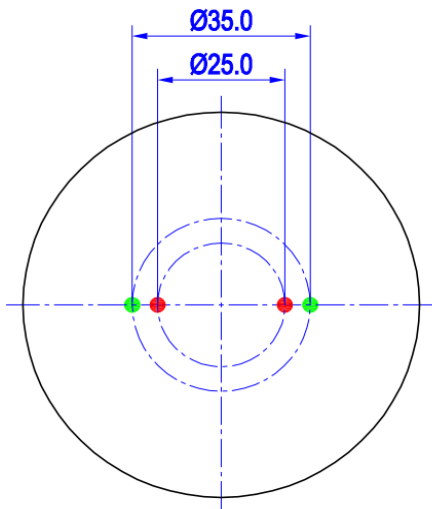
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means option 1 and 2 combined

#### 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 TE Holder 2213678-5	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
	Z6 Mini	/	/	/			
2	Z5; Z6; Z7 L15 H1; AC PRO;	/	/	/	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	SOLERIQ® S 13	BJB Holder 47.319.2021.50 TE Holder 2213254-1	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx			



## GooLED

### GooLED-OSR-7830 Pin Fin Heat Sink $\Phi$ 78mm for Osram

#### The product data table

	Model No.	GooLED-OSR-7830
	Heatsink Size	$\Phi$ 78xH30mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	138.0
	Dissipated power (T <sub>hs-amb</sub> ,50°C)	16.5 (W)
	Cooling surface area (mm <sup>2</sup> )	46643
	Thermal Resistance (R <sub>hs-amb</sub> )	3.03 (°C/W)

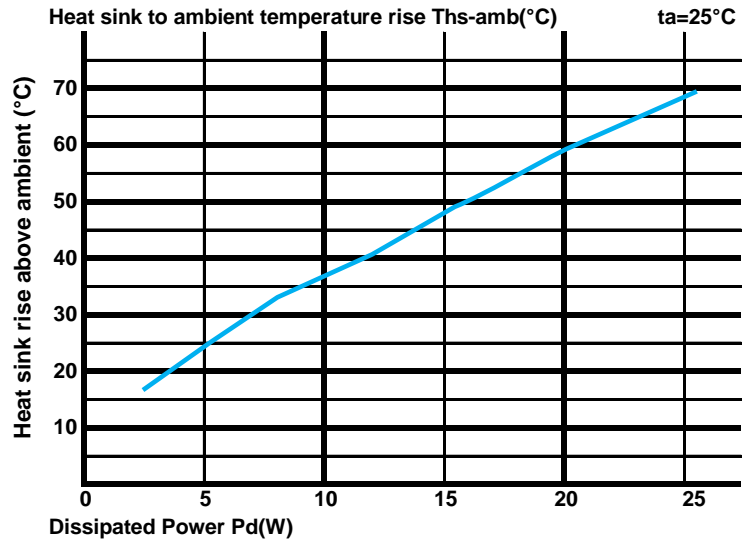
#### The thermal data table

\* 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)
		GooLED-OSR-7830	
5.0		4.80	24.0
10.0		3.60	36.0
15.0		3.13	47.0
20.0		2.95	59.0
25.0		2.72	68.0



\*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:

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