

GooLED

GooLED-SEO-11080 Pin Fin Heat Sink Φ 110mm for Seoul

Features VS Benefits

- * The GooLED-SEO-11080 Seoul Pin Fin LED Heat Sinks are specifically designed for luminaires using the Seoul 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 2,500 to 7,000 lumen.
- * Thermal resistance range R_{th} 1.14°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Seoul COB series and AC Modules.
- * Diameter 110mm - standard height 80mm, 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.



Seoul LED Modules directly Mounting Options

Seoul COB Series, Size 28x28mm.

- | | |
|------------|-----------|
| SDW04F1C; | SDW84F1C; |
| SDW05F1C; | SDW85F1C; |
| SDW06F1C; | SDW86F1C; |
| SAW822xxx; | SDW94F1C; |
| SAW922xxx; | |

With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2030.50; AAG.STUCCHI: 8102-G2
 Without the holders for the blue indicator marks.
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:
 Stella Series: FN14xxx-xx; FN15xxx-xx;
 Stella Series mounting hole for the pink indicator marks

Seoul COB Series, Size 19x19mm.

- | | |
|-----------|-----------|
| SDW02F1C; | SDW82F1C; |
| SDW03F1C; | SDW83F1C; |
| SDW92F1C; | |

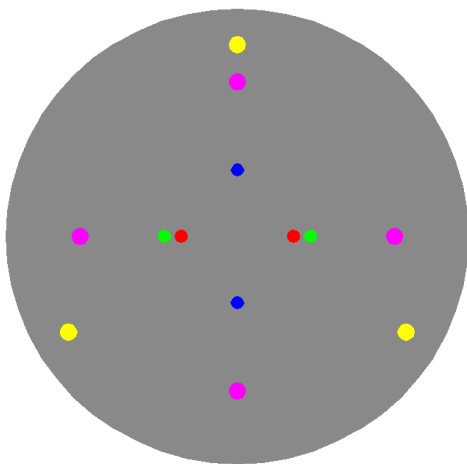
With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2021.50; AAG.STUCCHI: 8101-G2
 Without the holders for the red indicator marks.
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:
 Stella Series: FN14xxx-xx; FN15xxx-xx;
 Stella Series mounting hole for the pink indicator marks
 Ronda series: FN15xxx-xx;

AC LED Modules, Size Φ 100mm.

- | | |
|----------------|----------------|
| SMJF-2G17W4PD; | SMJD-2D16W4P8; |
| SMJF-2G17W4PE; | SMJD-3D16W4P3; |
| SMJD-2D16W4P3; | SMJD-3D16W4P8; |

Direct mounting with 3 screws M3x6.5mm.
 Yellow indicator marks.





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Mounting Options and Drawings & Dimensions

Example:GooLED-SEO-11080-B-1,2

Example:GooLED-SEO-110 **1** - **2** - **3**

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

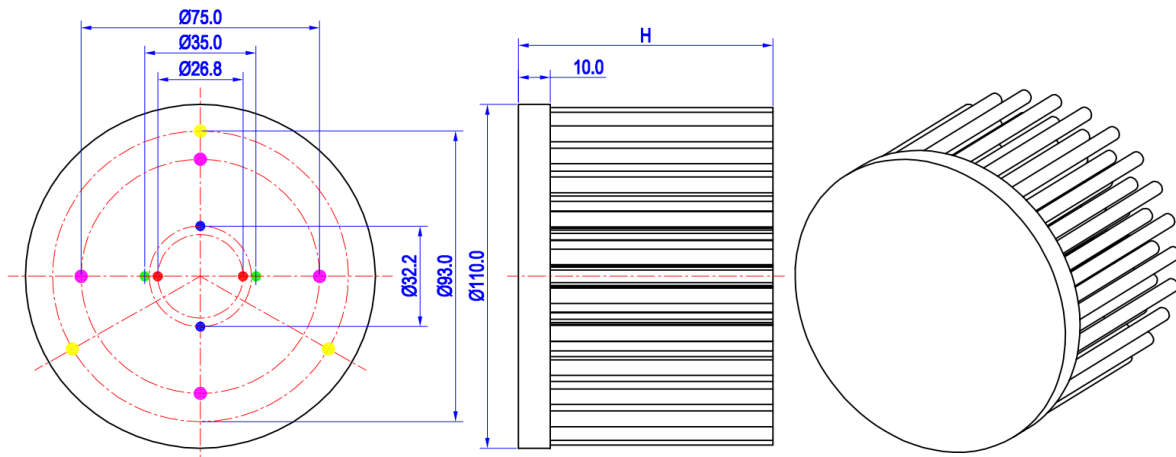
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means option 1 and 2 combined

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
			Stella Series	Ronda series			
1	COB Size 19x19mm	/	FN14xxx-xx; FN15xxx-xx;	FN15xxx-xx;	M3	6.5mm	26.8mm/ 2-@180°
2	COB Size 28x28mm	/		/	M3	6.5mm	32.2mm/ 2-@180°
3		BJB Holder 47.319.2030.50		/	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
		AAG.STUCCHI 8102-G2		/			
	COB Size 19x19mm	BJB Holder 47.319.2021.50	FN15xxx-xx;				
		AAG.STUCCHI 8101-G2					
4	LEDiL Lens	/	Stella Series	/	M4	8.5mm	75.0mm/ 4-@90°
5	AC Module	/	/	/	M3	6.5mm	93.0mm/ 3-@120°



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The product data table

	Model No.	GooLED-SEO-11080
	Heatsink Size	Φ 110xH80mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	617.0
	Dissipated power (T_{hs-amb},50°C)	44.0 (W)
	Cooling surface area (mm²)	129119
	Thermal Resistance (R_{hs-amb})	1.14 (°C/W)

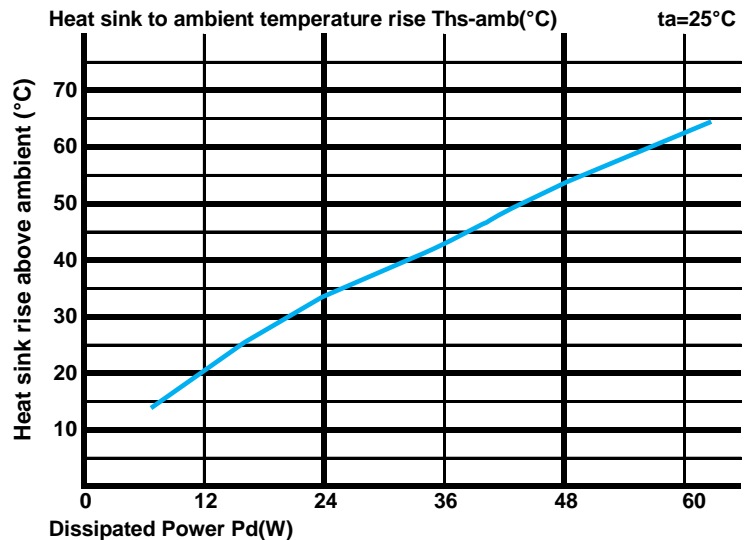
The thermal data table

* 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;

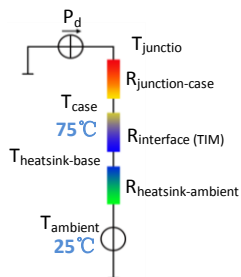
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise T _{hs-amb} (°C)
		GooLED-SEO-11080	
12.0		1.67	20.0
24.0		1.38	33.0
36.0		1.17	42.0
48.0		1.10	53.0
60.0		1.03	62.0



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

θ - Thermal Resistance [°C/W]; T_{hs} - Heatsink temperature; T_a - 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:

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