

xLED

xLED-SEO-8050 Pin Fin Heat Sink Φ 80mm for Seoul

Features VS Benefits

- * The xLED-SEO-8050 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 1,100 to 3,400 lumen.
- * Thermal resistance range R_{th} 2.38°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Seoul COB series and AC Modules.
- * Diameter 80.0mm - standard height 50.0mm, 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.



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.

Seoul COB Series, Size 19x19mm.

SDW02F1C;	SDW82F1C;
SDW03F1C;	SDW83F1C;
SDW92F1C;	

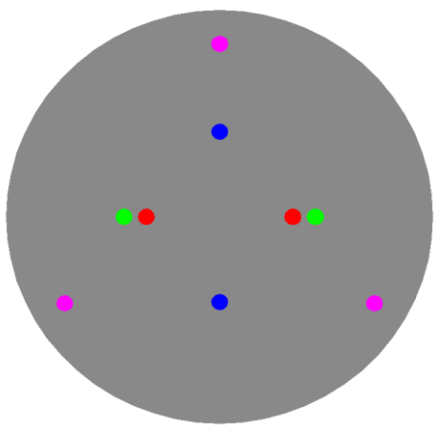
With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2021.50; AAG.STUCCHI: 8101-G2
 Without the holders for the red indicator marks.
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:
 Olivia series: FN14637-S; FN14828-M;
 Ronda series: FN15xxx-xx;

AC LED Modules, Size Φ 70mm.

SMJD-2C16W4PD;	SMJD-2D16W4PD;
SMJD-2C16W4PE;	SMJD-2D16W4PE;
SMJD-2D12W4PD;	SMJD-3D12W4xx;
SMJD-2D12W4PE;	SMJD-3D16W4xx;

Direct mounting with 3 screws M2.5x6.5mm.
 Pink indicator marks.



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Mounting Options and Drawings & Dimensions

Example: xLED-SEO-8050-B-1,2

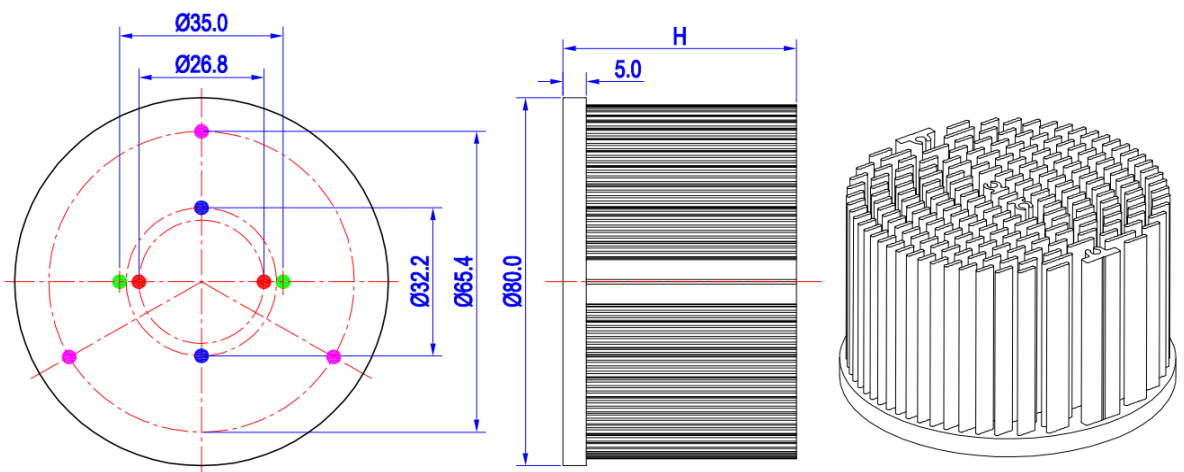
Example: xLED-SEO-80 **1** - **2** - **3**

- 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
			Olivia series	Ronda series			
1	COB Size 19x19mm	/	FN14637-S; FN14828-M;	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 AAG.STUCCHI 8102-G2		/	/	M3	6.5mm
	COB Size 19x19mm	BJB Holder 47.319.2021.50 AAG.STUCCHI 8101-G2	FN14637-S; FN14828-M;	FN15xxx-xx;	M3	6.5mm	
4	AC Module	/	/	/	M3	6.5mm	65.4mm/ 3-@120°



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The product data table

	Model No.	xLED-SEO-8050
	Heatsink Size	Φ 80xH50mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	197.0
	Dissipated power (Ths-amb,50°C)	21.0 (W)
	Cooling surface area (mm ²)	120774
	Thermal Resistance (Rhs-amb)	2.38 (°C/W)

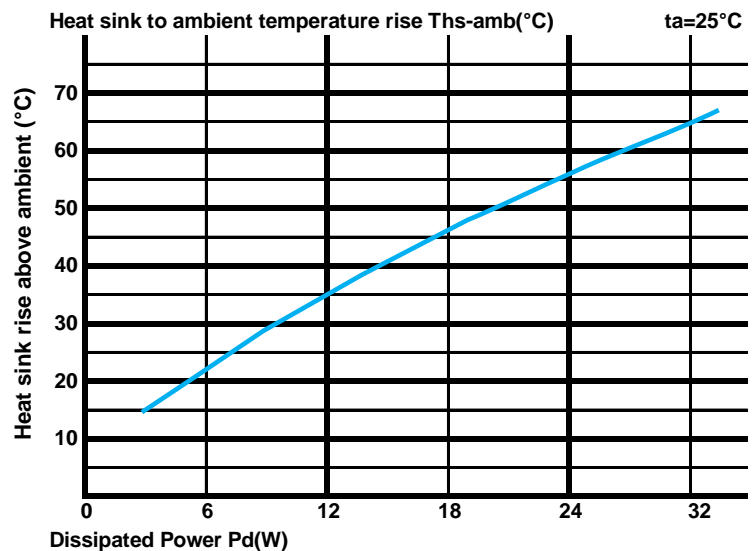
The thermal data table

* 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;

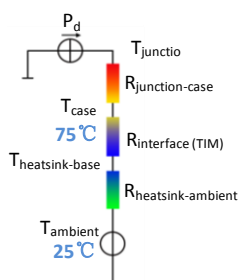
Dissipated Power Pd(W)	Heat sink to ambient thermal resistance Rhs-amb (°C/W)		Heat sink to ambient temperature rise Ths-amb (°C)	
	xLED-SEO-8050			
6.0	3.50	21.0		
12.0	2.92	35.0		
18.0	2.56	46.0		
24.0	2.29	55.0		
32.0	2.00	64.0		



*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: $\theta = (Ths - Ta) / Pd$

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:

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