

xLED

xLED-SEO-7030 Pin Fin Heat Sink Φ 70mm for Seoul

Features VS Benefits

- * The xLED-SEO-7030 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 900 to 2,200 lumen.
- * Thermal resistance range R_{th} 3.85°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Seoul COB series and AC Modules.
- * 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 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;	

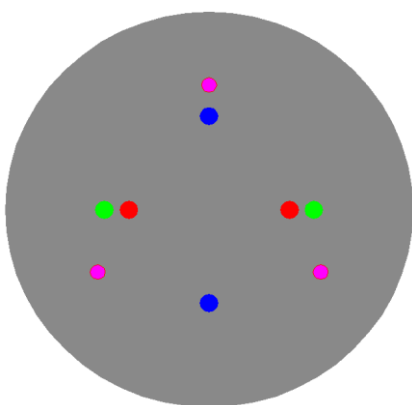
With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2021.50; AAG.STUCCHI: 8101-G2
 Without the holders for the red indicator marks.
 Direct mounting with machine screws M3x6.5mm.

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

AC LED Modules, Size Φ 46mm.

SMJE-2D08W 4PD;	SMJD-3D08W 4PD;
SMJE-2D08W 4PE;	SMJD-3D08W 4PE;
SMJE-2D12W 4PD;	SMJD-3D12W 4PD;
SMJE-2D12W 4PE;	SMJD-3D12W 4PE;

Direct mounting with 3 screws M2x6.5mm.
 Pink indicator marks.



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Mounting Options and Drawings & Dimensions

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

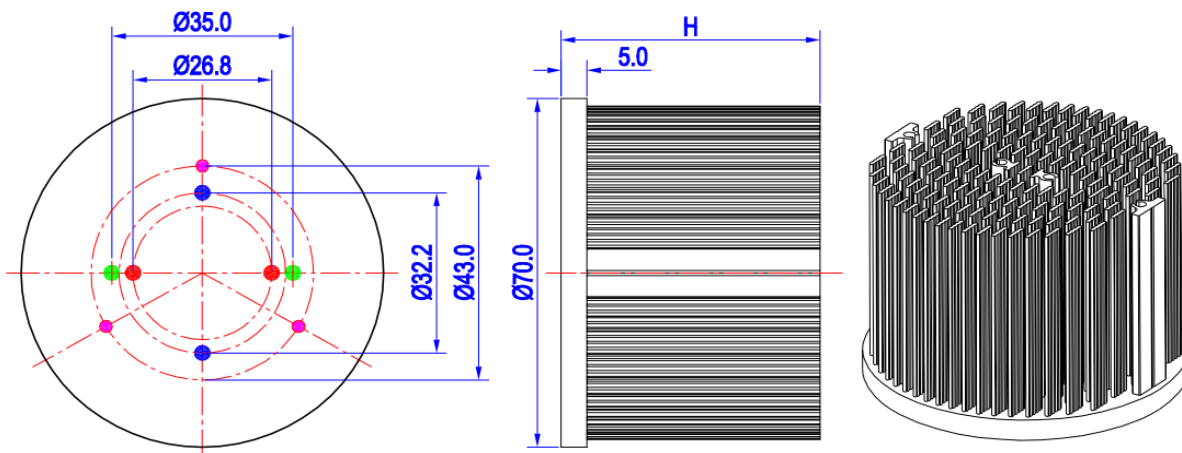
Example: xLED-SEO-70 **1** - **2** - **3**

- 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
			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	/	/	/	M2	6.5mm	43.0mm/ 3-@120°



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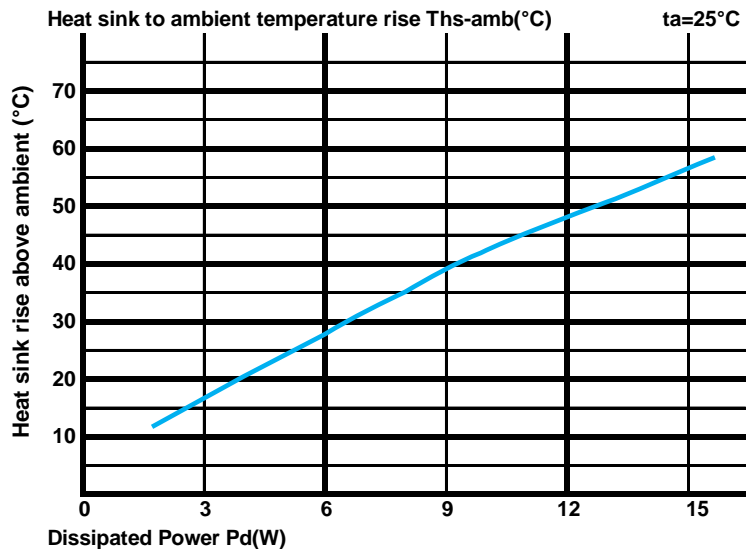
The product data table

	Model No.	xLED-SEO-7030
	Heatsink Size	Φ 70xH30mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	106.0
	Dissipated power (Ths-amb,50°C)	13.0 (W)
	Cooling surface area (mm ²)	54786
	Thermal Resistance (Rhs-amb)	3.85 (°C/W)

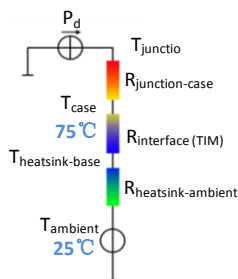
The thermal data table

- * 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: $P_d = P_e \times (1 - \eta_L)$.
- Pd - Dissipated power ; Pe - Electrical power ; η_L = Light efficiency of the LED module;

Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		xLED-SEO-7030	
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



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