



xLED

xLED-PRO-7030 Pin Fin LED Heat Sink Φ 70mm for Prolight Opto

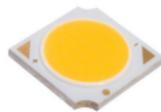
Features VS Benefits

- * The xLED-PRO-7030 Prolight Opto Pin Fin LED Heat Sinks are specifically designed for luminaires using the Prolight Opto 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 Prolight Opto COB series.
- * 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 Prolight Opto 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.



A.A.G.
STUCCHI
Ideas are made of light



Prolight Opto LED Modules directly Mounting Options

Prolight Opto COB G-II and COB Series:

PACL-78xxx-xxxx; PACL-115xxx-xxxx;
PACL-86xxx-xxxx; PACG-110xxx-xxxx;

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.

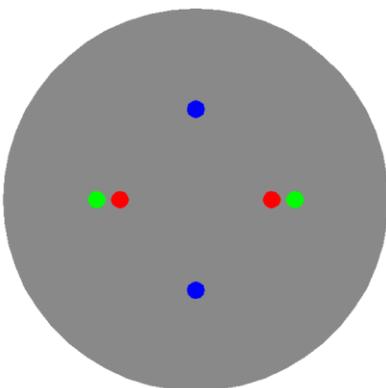
Prolight Opto LED Modules directly Mounting Options

Prolight Opto COB G-II and COB Series:

PACK-35xxx-xxxx; PACF-40xxx-xxxx;
PACK-42xxx-xxxx; PACF-35xxx-xxxx;
PACK-57xxx-xxxx;

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
Ronda series: FN15xxx-xx;



xLED

xLED-PRO-7030 Pin Fin LED Heat Sink Φ 70mm for Prolight Opto

Mounting Options and Drawings & Dimensions

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

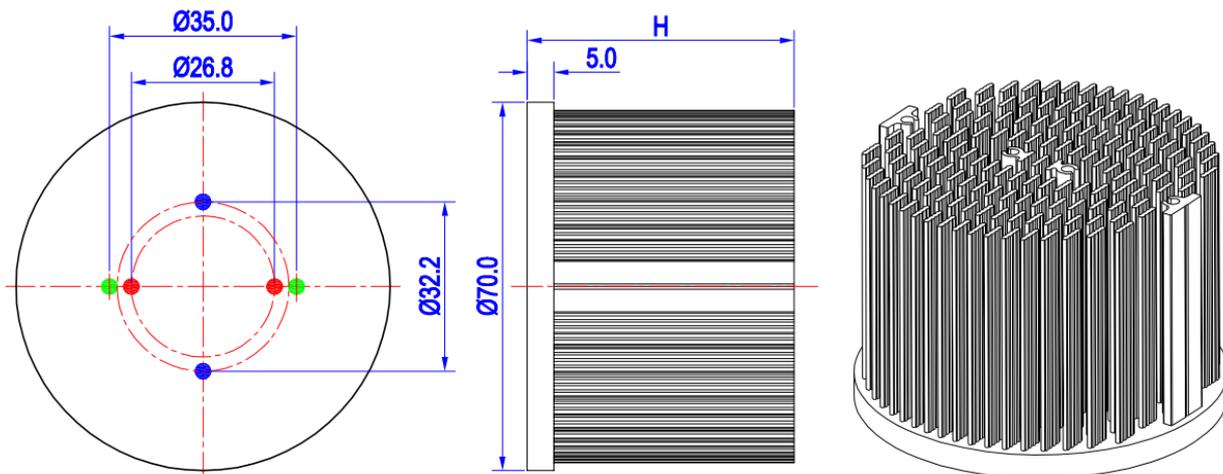
Example: xLED-PRO-70 **1** - **2** - **3**

- 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 series (19.0°*19.0)	/	FN14637-S	FN15xxx-xx;	M3	6.5mm	26.8mm/ 2-@180°
2	COB series (28.0°*28.0)	/	/	/	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	FN14637-S	FN15xxx-xx;				
3	COB series (19.0°*19.0)	BJB Holder 47.319.2021.50	FN14637-S	FN15xxx-xx;	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
		AAG.STUCCHI 8101-G2					



xLED

xLED-PRO-7030 Pin Fin LED Heat Sink $\Phi 70\text{mm}$ for Prolight Opto

The product data table

	Model No.	xLED-PRO-7030
	Heatsink Size	$\Phi 70 \times H 30\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	106.0
	Dissipated power (Ths-amb,50°C)	13.0 (W)
	Cooling surface area (mm²)	54786
	Thermal Resistance (Rhs-amb)	3.85 (°C/W)

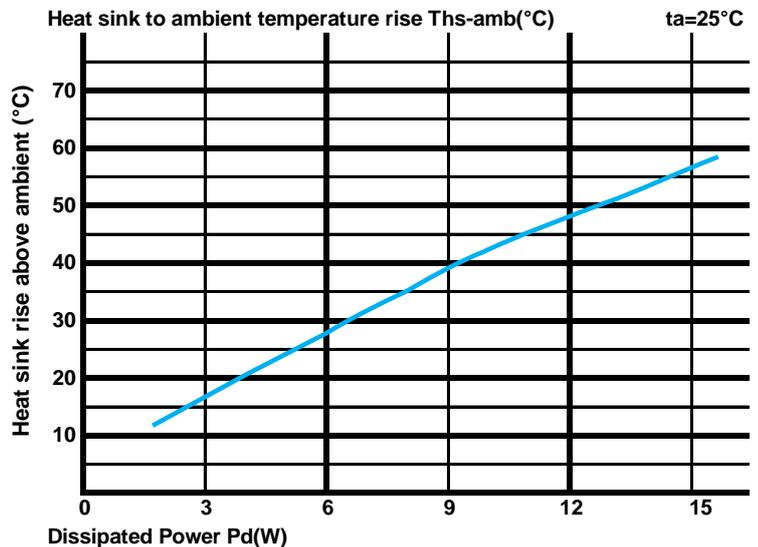
The thermal data table

* 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: $P_d = P_e \times (1 - \eta_L)$.

Pd - Dissipated power ; Pe - Electrical power ; η_L = Light efficiency of the LED module;

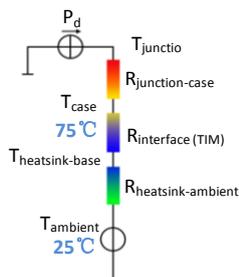
Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		xLED-PRO-7030	
3.0		5.33	16.0
6.0		4.50	27.0
9.0		4.33	39.0
12.0		3.92	47.0
15.0		3.73	56.0



*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 $R_{\text{junction-case}}$, the thermal resistance of the TIM outside the package is $R_{\text{interface (TIM)}}$ [°C/W], the thermal resistance with the heat sink is $R_{\text{heatsink-ambient}}$ [°C/W], and the ambient temperature is T_{ambient} [°C].

*Thermal resistances outside the package $R_{\text{interface (TIM)}}$ and $R_{\text{heatsink-ambient}}$ can be integrated into the thermal resistance $R_{\text{case-ambient}}$ at this point. Thus, the following formula is also used:

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