



LED

GooLED

GooLED-LG-6850 Pin Fin Heat Sink Φ 68mm for LG Innotech

Features VS Benefits

- * The GooLED-LG-6850 LG Innotech Pin Fin LED Heat Sinks are specifically designed for luminaires using the LG Innotech 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 2,600 lumen.
- * Thermal resistance range R_{th} 3.23°C/W.
- * Modular design with mounting holes foreseen for direct mounting of LG Innotech COB series.
- * Diameter 68.0mm - 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 LG Innotech 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.



LG Innotech LED Modules directly Mounting Options

LG Innotech 7W&10W COB series.

LEMWM19480xxxxxx;
LEMWM19490xxxxxx;
LEMWM19680xxxxxx;
LEMWM19690xxxxxx;

With the Zhaga Book 3 holders for the green indicator marks.
TE Connectivity Holder: 2213382-1;
Without the holders for the blue indicator marks.
Direct mounting with machine screws M3x6.5mm.

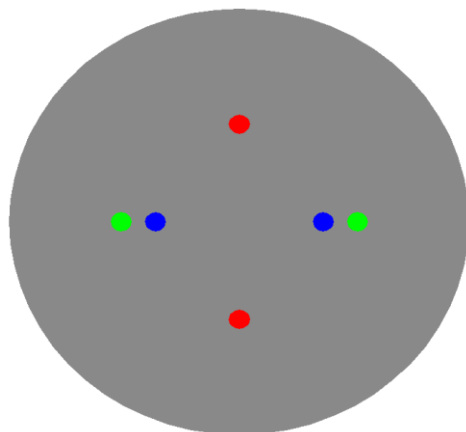
LG Innotech 16W&21W COB series.

LEMWM24780xxxxxx;
LEMWM24790xxxxxx;
LEMWM24980xxxxxx;
LEMWM24990xxxxxx;

With the Zhaga Book 3 holders for the green indicator marks.
TE Connectivity Holder: 2213130-1;
BJB Holder:47.319.2011.50;
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;



Mounting Options and Drawings & Dimensions

Example:GooLED-LG-6850-B-1,2

Example:GooLED-LG-68 **1** - **2** - **3**

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

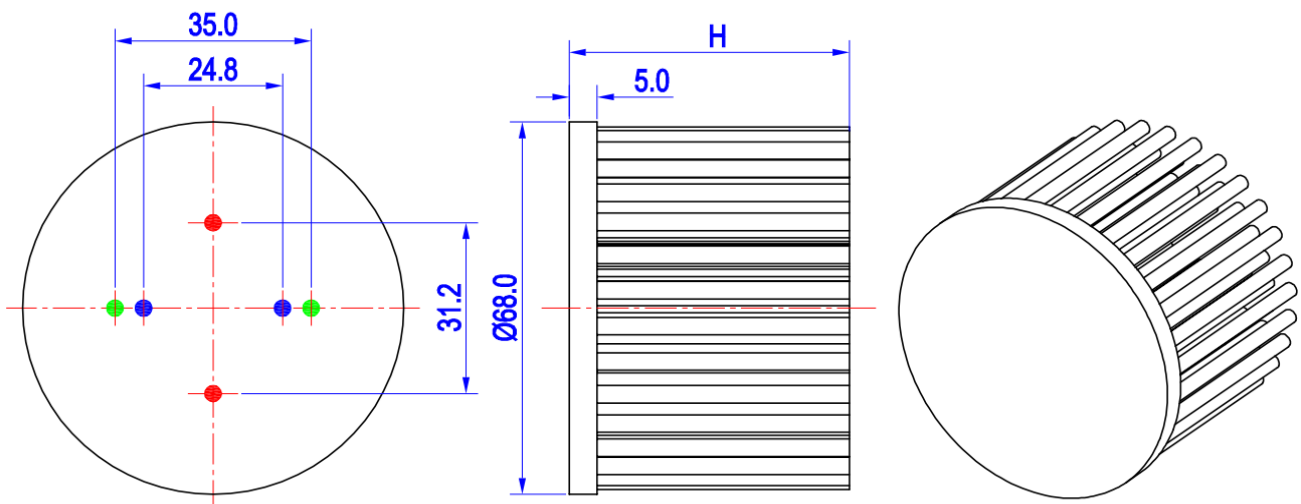
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means option 1 and 2 combined

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	Olivia series			
1	7W&10W COB	/	/	FN14637-S; FN14828-M;	M3	6.5mm	24.8mm/ 2-@180°
2		/			M3	6.5mm	31.2mm/ 2-@180°
3	16W&21W COB	BJB Holder 47.319.2011.50				M3	6.5mm
	7W&10W COB	TE Holder 2213130-1					
		TE Holder 2213382-1					



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GooLED-LG-6850 Pin Fin Heat Sink $\Phi 68\text{mm}$ for LG Innotek

The product data table

	Model No.	GooLED-LG-6850
	Heatsink Size	$\Phi 68 \times H 50\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	153.0
	Dissipated power (T_{hs-amb}, 50°C)	15.5 (W)
	Cooling surface area (mm²)	59562
	Thermal Resistance (R_{hs-amb})	3.23 (°C/W)

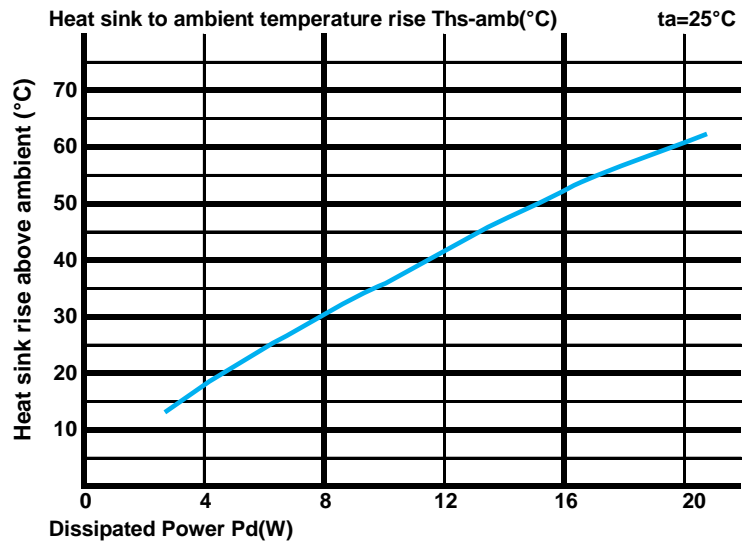
The thermal data table

* 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;

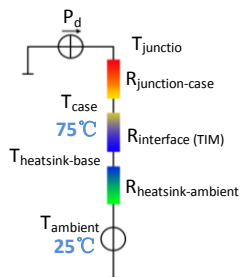
Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise T _{hs-amb} (°C)
		GooLED-LG-6850	
4.0		4.25	17.0
8.0		3.75	30.0
12.0		3.42	41.0
16.0		3.25	52.0
20.0		3.00	60.0



*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:

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