



for

LED



*GooLED*

**GooLED-TRI-5850 Pin Fin Heat Sink  $\Phi$ 58mm for Tridonic**

**Features VS Benefits**

- \* The GooLED-TRI-5850 Tridonic Pin Fin LED Heat Sinks are specifically designed for luminaires using the Tridonic 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 800 to 2,100 lumen.
- \* Thermal resistance range Rth 3.85°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Tridonic SLE series modules.
- \* Diameter 58.0mm - 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 Tridonic 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.



**Tridonic LED Modules directly Mounting Options.**

**Modules SLE EXCITE, FOOD, ART, FASHION Series.**  
**Modules SLE ADVANCED, G6 ADV Series.**

SLE G6 19mm 5000lm-xxx; | SLE G6 23mm 6000lm-xxx;

With the Zhaga Book 3 holders for the blue indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

**Modules SLE EXCITE, FASHION, TINGE series.**  
**Modules SLE ADVANCED, G5 XD ADV and G6 ADV Series.**  
**Modules SLE ESSENCE, G6 SNC Series.**

SLE G6 15mm 3000lm-xxx; | SLE G6 17mm 4000lm-xxx;

With the Zhaga Book 3 holders for the blue 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.

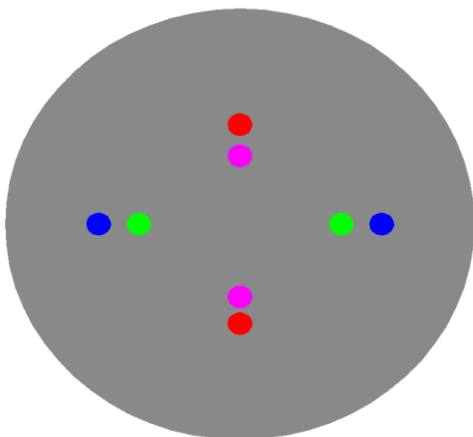
With the LEDiL products:  
 Olivia series: FN14637-S; FN14828-M;  
 Ronda series: FN15xxx-xx;

**Modules SLE EXCITE, FASHION, TINGE series.**  
**Modules SLE ADVANCED, G6 ADV Series.**

SLE G6 10mm 1200lm-xxx;

With the Zhaga Book 11 holders for the green indicator marks.  
 BJB Holder:47.319.6020.50;  
 Without the holders for the pink indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:  
 Ronda series: FN15xxx-xx;





# LED

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### Mounting Options and Drawings & Dimensions

Example:GooLED-TRI-5850-B-1,2

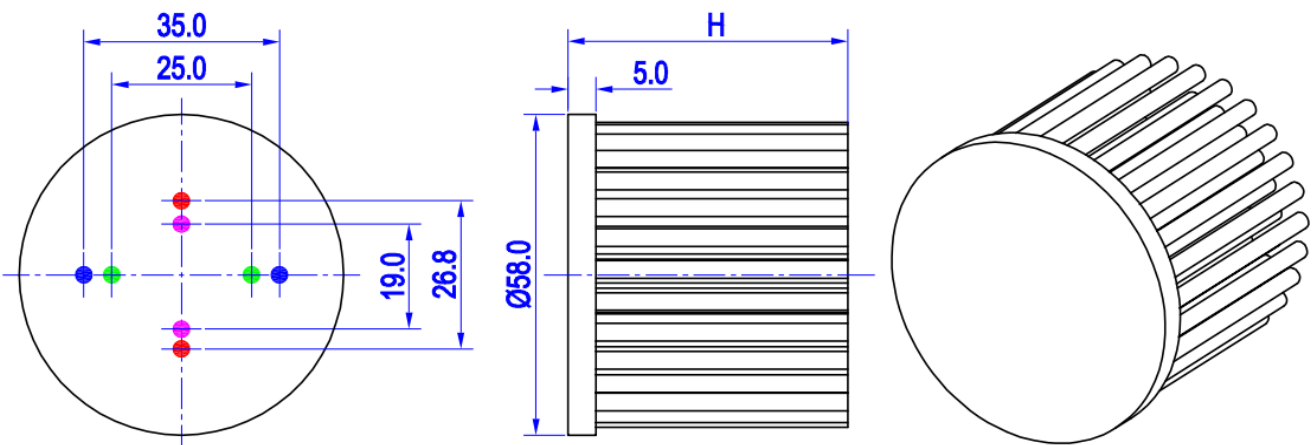
Example:GooLED-TRI-58 **1** - **2** - **3**

- 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	SLE G6 10mm;	/	/		M3	6.5mm	19.0mm/ 2-@180°
2		BJB Holder 47.319.6020.50			M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
3	SLE G6 15mm; SLE G6 17mm;	/	FN14637-S; FN14828-M;	FN15xxx-xx;	M3	6.5mm	26.8mm/ 2-@180°
4		BJB Holder 47.319.2021.50 AAG.STUCCHI 8101-G2			M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)



## GooLED

### GooLED-TRI-5850 Pin Fin Heat Sink $\Phi$ 58mm for Tridonic

#### The product data table

	<b>Model No.</b>	GooLED-TRI-5850
	<b>Heatsink Size</b>	$\Phi$ 58xH50mm
	<b>Heatsink Material</b>	AL1070
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	108.0
	<b>Dissipated power (Ths-amb,50°C)</b>	13.0 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	36775
	<b>Thermal Resistance (Rhs-amb)</b>	3.85 (°C/W)

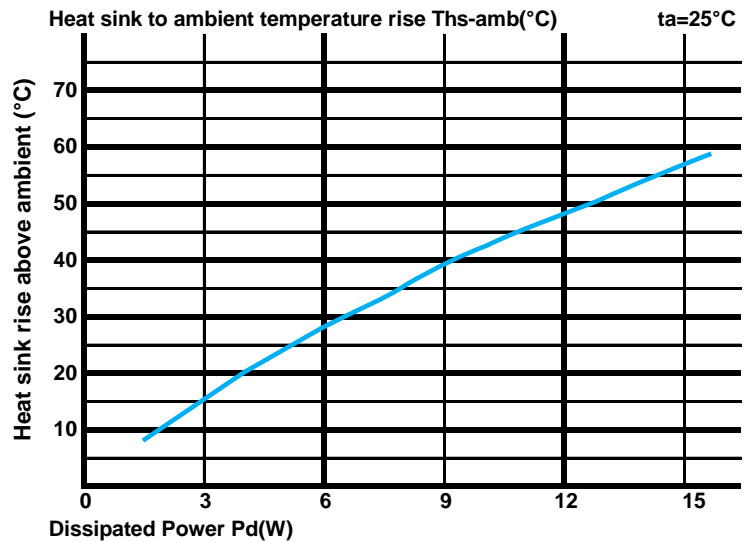
#### The thermal data table

\* 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 ;  $\eta_L$  = Light efficiency of the LED module;

Dissipated Power Pd(W)	Pd = Pe x (1- $\eta_L$ )	Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		GooLED-TRI-5850	
3.0		5.00	15.0
6.0		4.67	28.0
9.0		4.33	39.0
12.0		4.00	48.0
15.0		3.80	57.0



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

$\theta$  - 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  $R_{interface}$  [°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:

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