



for

LED



GooLED

GooLED-BRI-6860 Pin Fin LED Heat Sink Φ 68mm for Bridgelux

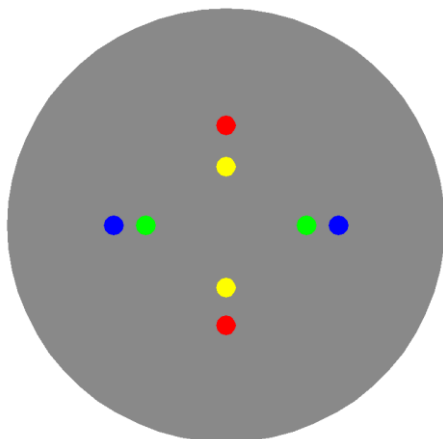
Features VS Benefits

- * The GooLED-BRI-6860 Bridgelux Pin Fin LED Heat Sinks are specifically designed for luminaires using the Bridgelux 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 1,000 to 2,800 lumen.
- * Thermal resistance range R_{th} 2.94°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Bridgelux V Series™, Vero® SE Series, Vero® Series, H Series™ and Vesta™ Series LED engines.
- * Diameter 68mm - standard height 60mm 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 Bridgelux 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.



Bridgelux LED Modules directly Mounting Options

Bridgelux V13,V15, LED Array Series:

- BXRE-20xxxxxx-x-xx; BXRE-40xxxxxx-x-xx;
- BXRE-27xxxxxx-x-xx; BXRE-50xxxxxx-x-xx;
- BXRE-30xxxxxx-x-xx; BXRE-57xxxxxx-x-xx;
- BXRE-35xxxxxx-x-xx; BXRE-65xxxxxx-x-xx;

With the Zhaga Book 3 Holders:

BJB holder:47.319.2025.50; 47.319.2030.50;

Direct mounting with machine screws M3x6.5mm, Blue indicator marks.

With the LEDiL products:

Olivia series: FN14637-S;

Ronda series: FN15xxx-xx;

Bridgelux Vero® Series Vero 10, Vero 13 LED Array and Vero® SE Series

Vero 10 SE, Vero 13 SE LED Array

- BXRC-27xxxxxx-x-xx; BXRC-50xxxxxx-x-xx;
- BXRC-30xxxxxx-x-xx; BXRC-57xxxxxx-x-xx;
- BXRC-35xxxxxx-x-xx; BXRC-65xxxxxx-x-xx;
- BXRC-40xxxxxx-x-xx;

With the Bridgelux Holder:

Direct mounting with machine screws M3x6.5mm.

Vero 10 for the yellow indicator mark, Vero 13 for the red indicator mark.

With the LEDiL products:

Olivia series: FN14637-S; FN14828-M;

Ronda series: FN15xxx-xx;

Bridgelux® H Series™ H6, H9 LED Array:

- BXRH-27xxxxxx-x-xx; BXRH-35xxxxxx-x-xx;
- BXRH-30xxxxxx-x-xx; BXRH-40xxxxxx-x-xx;

With the Zhaga Book 11 Holders:

BJB holder:47.319.6120.50; 47.319.6104.50;

Direct mounting with machine screws M3x6.5mm, Green indicator marks.

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

Bridgelux® Vesta™ Series Dim-To-Warm 9mm Array

BXRV-DR-1830H-1000-x-13;

With the Zhaga Book 11 Holders:

BJB holder:47.319.6180.50;

Direct mounting with machine screws M3x6.5mm, Green indicator marks.

Tel:+86-769-39023131

Fax:+86-(020)28819702 ext:22122

Email:sales@mingfatech.com

Http://www.heatsinkled.com

Http://www.mingfatech.com



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Mounting Options and Drawings & Dimensions

Example:GooLED-BRI-6860-B-1,2

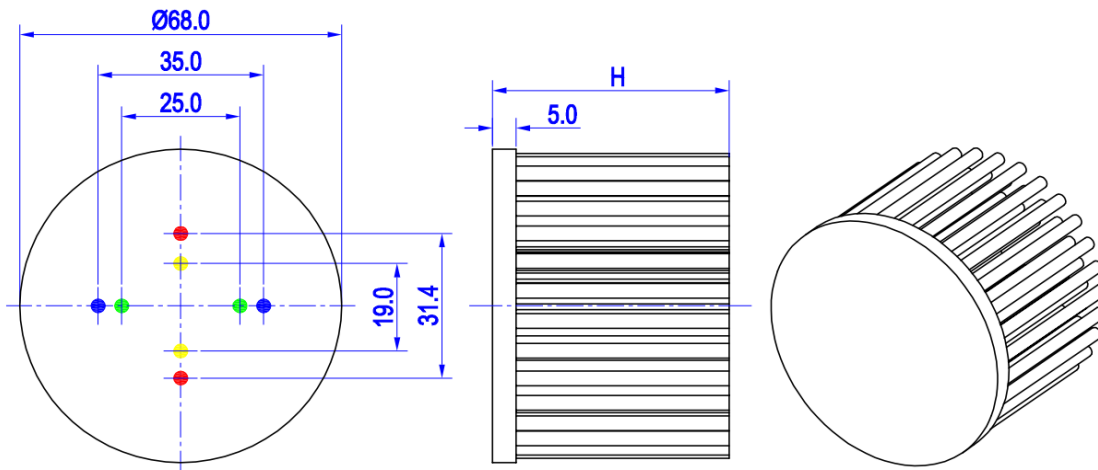
Example:GooLED-BRI-68 **1** - **2** - **3**

- 1** Height (mm)
- 2** Anodising Color
 - B-Black
 - C-Clear
 - Z-Custom
- 3** Mounting Options - see graphics for details Combinations available
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 | Vero 10 Vero SE 10 | Bridgelux | / | / | M3 | 6.5mm | 19.0mm/ 2-@180° |
| 2 | Vesta™ Series 9mm | BJB Holder 47.319.6180.50 | / | / | M3 | 6.5mm | 25.0mm/ 2-@180° (Zhaga book 11) |
| | H6 | BJB Holder 47.319.6120.50 | / | / | | | |
| | H9 | BJB Holder 47.319.6104.50 | / | FN15xxx-xx; | | | |
| 3 | Vero 13 Vero SE 13 | Bridgelux | FN14637-S; FN14828-M; | FN15xxx-xx; | M3 | 6.5mm | 31.4mm/ 2-@180° |
| 4 | V15 | BJB Holder 47.319.2224.50 | FN14637-S | / | M3 | 6.5mm | 35.0mm/ 2-@180° (Zhaga book3) |
| | V13 | BJB Holder 47.319.2025.50 | | FN15xxx-xx; | | | |
| | | | | | | | |



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GooLED-BRI-6860 Pin Fin LED Heat Sink $\Phi 68\text{mm}$ for Bridgelux

The product data table

| | | |
|--|---|-------------------------------|
| | Model No. | GooLED-BRI-6860 |
| | Heatsink Size | $\Phi 68 \times H60\text{mm}$ |
| | Heatsink Material | AL1070 |
| | Finish | Black Anodized |
| | Weight (g) | 176.0 |
| | Dissipated power (T_{hs-amb},50°C) | 17.0 (W) |
| | Cooling surface area (mm²) | 70017 |
| | Thermal Resistance (R_{hs-amb}) | 2.94 (°C/W) |

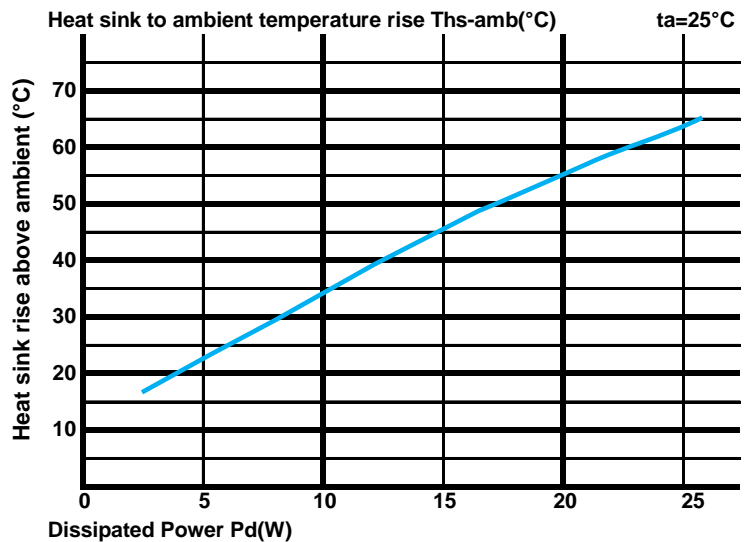
The thermal data table

* 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;

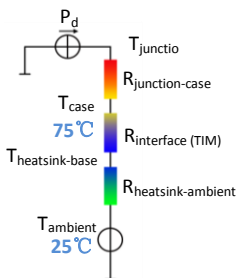
| Dissipated Power Pd(W) | Pd = Pe x (1- η_L) | Heat sink to ambient thermal resistance R _{hs-amb} (°C/W) | Heat sink to ambient temperature rise T _{hs-amb} (°C) |
|------------------------|--------------------------|--|--|
| | | GooLED-BRI-6860 | |
| 5.0 | | 4.60 | 23.0 |
| 10.0 | | 3.40 | 34.0 |
| 15.0 | | 3.00 | 45.0 |
| 20.0 | | 2.75 | 55.0 |
| 25.0 | | 1.84 | 46.0 |



*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:

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