



**EtraLED**

**EtraLED-BRI-13020 Bridgelux Modular Passive Star LED Heat Sink  $\Phi$ 130mm**

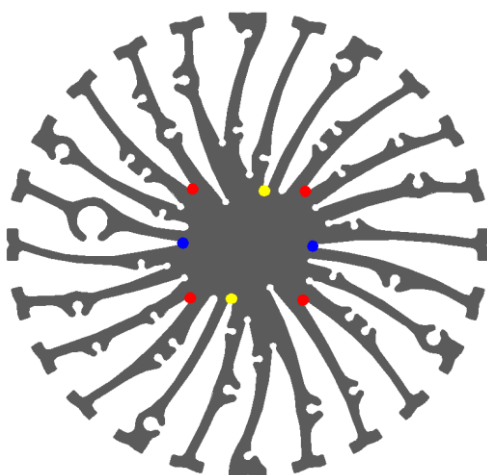
**Features VS Benefits**

- \* The EtraLED-BRI-13020 Bridgelux modular passive star LED heat sink 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 2,100 to 5,400 lumen.
- \* Thermal resistance range Rth 1.39°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 130.0mm - standard height 20.0mm, Other heights on request.
- \* Extruded 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 srar 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 srar LED heat sinks.



**Bridgelux LED Modules directly Mounting Options**

**Bridgelux V18, V22 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:47.319.2224.50; 47.319.2030.50;

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

**Bridgelux Vero® Series Vero 18, Vero 29 LED Array and Vero® SE Series**

**Vero 18 SE, Vero 29 SE LED Array**

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

With the Bridgelux Holder:

Direct mounting with machine screws M3x6.5mm.

Vero 18 for the yellow indicator mark, Vero 29 for the red indicator mark.

**Bridgelux® H Series™ H12, H15 LED Array:**

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

With the Zhaga Book 3 Holders:

BJB holder:47.319.2131.50; 47.319.2021.50;

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

**EtraLED**

**EtraLED-BRI-13020 Bridgelux Modular Passive Star LED Heat Sink  $\Phi$ 130mm**

**Mounting Options and Drawings & Dimensions**

Example: EtraLED-BRI-13020-B-1,2

Example: EtraLED-BRI-130 **1** - **2** - **3**

**1** Height (mm)

**2** Anodising Color

B-Black

C-Clear

Z-Custom

**3** Mounting Options - see graphics for details Combinations available

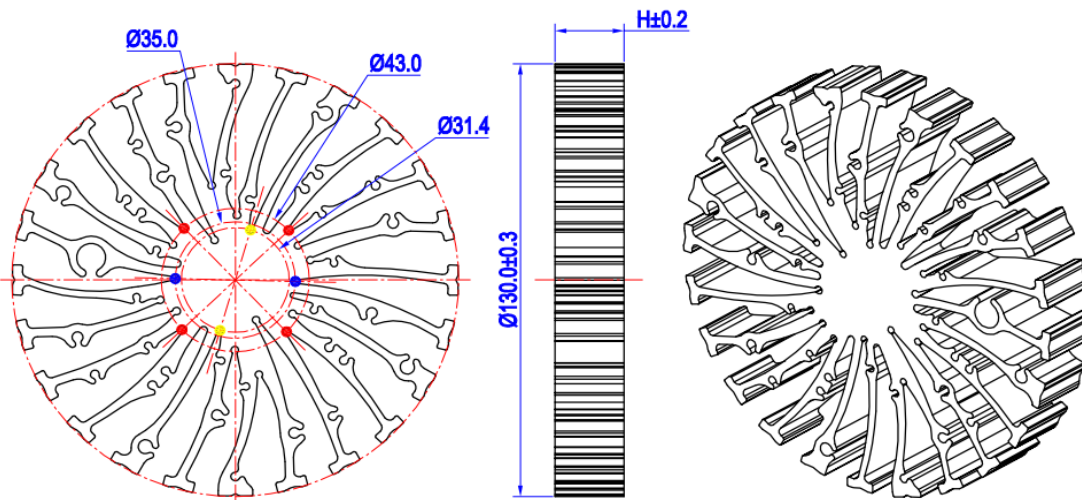
Ex.order code - 12

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.	THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
1	Vero 18 Vero SE 18	Bridgelux	M3	6.5mm	31.4mm/ 2-@180°
2	H12	BJB Holder 47.319.2131.50	M3	6.5mm	35.0mm/ 2-@180°
	H15	BJB Holder 47.319.2021.50			
	V18	BJB Holder 47.319.2224.50			
	V22	BJB Holder 47.319.2030.50			
3	Vero 29 Vero SE 29	Bridgelux	M3	6.5mm	43.0mm/ 4-@90°



# EtraLED

## EtraLED-BRI-13020 Bridgelux Modular Passive Star LED Heat Sink $\Phi$ 130mm

### The product data table

	<b>Model No.</b>	EtraLED-BRI-13020
	<b>Heatsink Size</b>	$\Phi$ 130xH20mm
	<b>Heatsink Material</b>	AL6063-T5
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	274.0
	<b>Dissipated power (T<sub>hs-amb</sub>,50°C)</b>	36.0 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	40076
	<b>Thermal Resistance (R<sub>hs-amb</sub>)</b>	1.39 (°C/W)

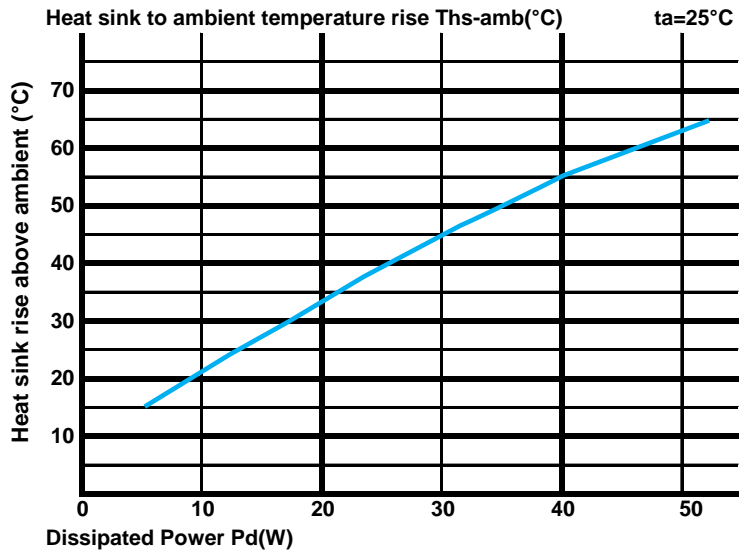
### The thermal data table

\* 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: Pd = Pe x (1-ηL).

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

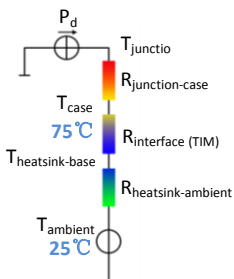
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		EtraLED-BRI-13020	
10.0		2.10	21.0
20.0		1.65	33.0
30.0		1.50	45.0
40.0		1.35	54.0
50.0		1.26	63.0



\*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:  $\theta = (T_{hs} - T_a) / P_d$

$\theta$  - Thermal Resistance [°C/W]; T<sub>hs</sub> - Heatsink temperature ; T<sub>a</sub> - 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<sub>junction-case</sub>, the thermal resistance of the TIM outside the package is R<sub>interface (TIM)</sub> [°C/W], the thermal resistance with the heat sink is R<sub>heatsink-ambient</sub> [°C/W], and the ambient temperature is T<sub>ambient</sub> [°C].

\*Thermal resistances outside the package R<sub>interface (TIM)</sub> and R<sub>heatsink-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

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