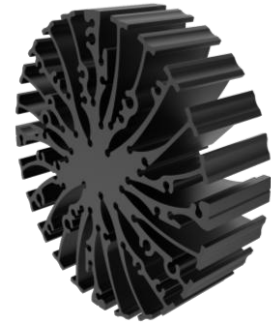


**EtraLED**

**EtraLED-LUME-9620 Lumens Modular Passive Star LED Heat Sink  $\Phi$ 96mm**

**Features VS Benefits**

- \* The EtraLED-LUME-9620 Lumens Pin Fin LED Heat Sinks are specifically designed for luminaires using the Lumens 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 1400 to 3,600 lumen.
- \* Thermal resistance range  $R_{th}$  2.08°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Lumens Ergon COB series, and AC-ALL series LED engines.
- \* Diameter 96.0mm - standard height 20.0mm 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 Lumens 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.

**LUMENS**



**Lumens LED Modules directly Mounting Options**

**Lumens Ergon COB\_HO, COB\_HO+, COB\_HE Series :**

- ERC1812xxxxHO; ERC1812xxxxHE;
- ERC1820xxxxHO; ERC1820xxxxHE;

With the Zhaga Book 3 holders for the red indicator marks.  
 (Ideal Holder:50-2101CR);  
 (BJB holder:47.319.2131.50);  
 Without the holders for the green indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

**Lumens Ergon COB\_HO, COB\_HO+, COB\_HE Series :**

- ERC1507xxxxHO; ERC1507xxxxHO+;
- ERC1512xxxxHO; ERC1512xxxxHO+;
- ERC1507xxxxHE;

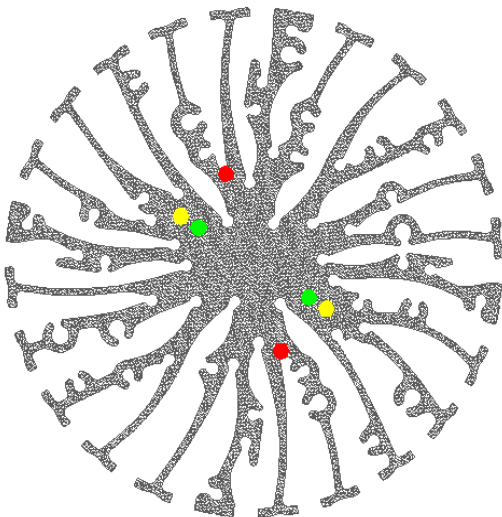
With the Zhaga Book 11 holders for the green indicator marks.  
 IDEAL Holder:50-2001CR;  
 BJB Holder:47.319.6104.50;  
 Without the holders for the blue indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

**Lumens AC-ALL Series :**

- EDC/38C/8W/xxx/120V/B; EDC/38C/8W/xxx/230V/A;
- EDC/47C/10W/xxx/120V/B; EDC/47C/10W/xxx/230V/A;
- EDC/47C/12W/xxx/120V/B; EDC/47C/12W/xxx/230V/A;
- EDC/47C/15W/xxx/120V/B; EDC/47C/15W/xxx/230V/A;

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

Please refer to the [www.lumensleds.com](http://www.lumensleds.com) data provided on the manual.



**EtraLED**

**EtraLED-LUME-9620 Lumens Modular Passive Star LED Heat Sink Ø96mm**

**Mounting Options and Drawings & Dimensions**

Example: EtraLED-LUME-9620-B-1,2

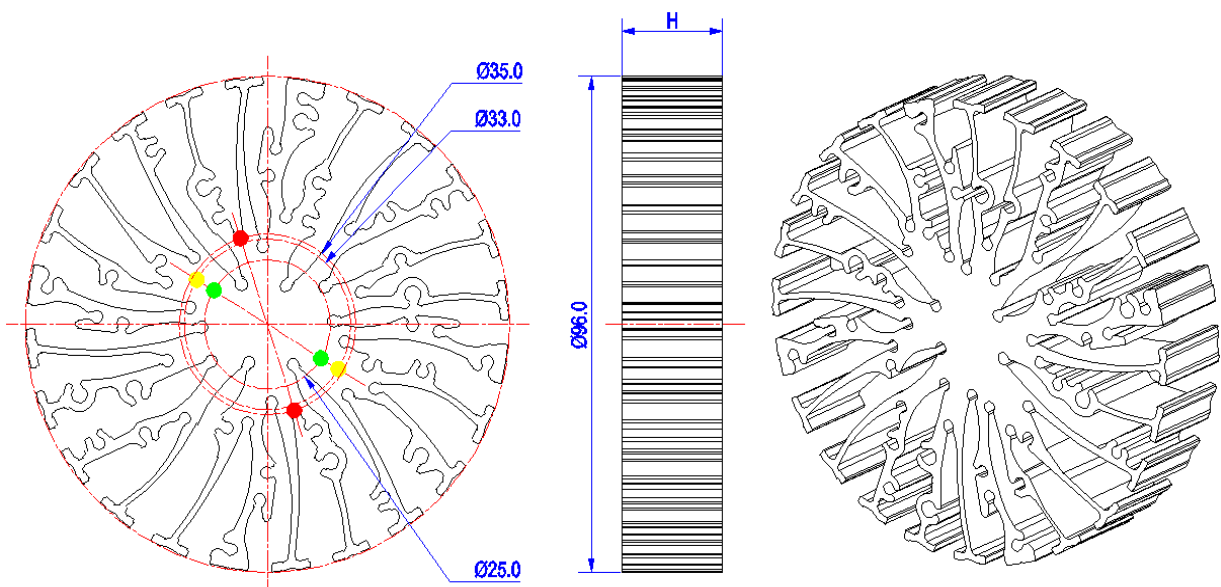
Example: EtraLED-LUME-96 **1** - **2** - **3**

- 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	Ergon COB (15.85x15.85)	/	M3	6.5mm	22.0mm/ 2-@180°
2	Ergon COB (17.85x17.85)	/	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
	Ergon COB (15.85x15.85)	BJB Holder 47.319.6104.50 Ideal Holder 50-2001CR			
3	AC-ALL Series	Lumens	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	Ergon COB (17.85x17.85)	BJB Holder 47.319.2131.50 Ideal Holder 50-2101CR			



**EtraLED**

**EtraLED-LUME-9620 Lumens Modular Passive Star LED Heat Sink Φ96mm**

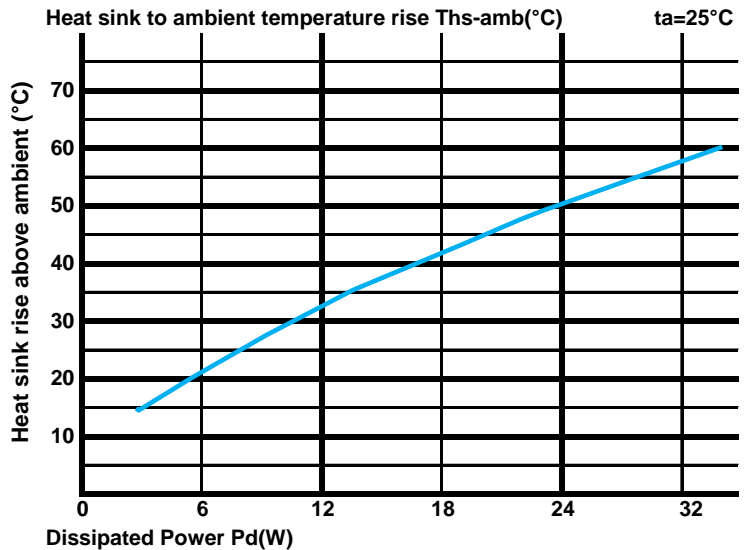
**The product data table**

	<b>Model No.</b>	EtraLED-LUME-9620
	<b>Heatsink Size</b>	Φ96xH20mm
	<b>Heatsink Material</b>	AL6063-T5
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	144.0
	<b>Dissipated power (T<sub>hs-amb</sub>,50°C)</b>	24.0 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	50647
	<b>Thermal Resistance (R<sub>hs-amb</sub>)</b>	2.08 (°C/W)

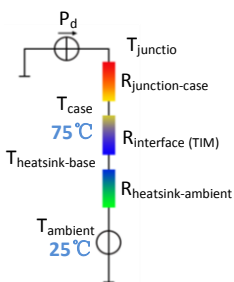
**The thermal data table**

\* 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-LUME-9620	
6.0		3.33	20.0
12.0		2.67	32.0
18.0		2.28	41.0
24.0		2.08	50.0
32.0		1.81	58.0



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