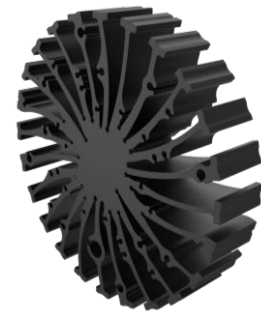


EtraLED

EtraLED-GE-13020 GE Modular Passive Star Heat Sink Φ 130mm

Features VS Benefits

- * The EtraLED-GE-13020 GE Lighting Modular Passive Star LED Heat Sinks are specifically designed luminaires using the GE Lighting 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 2100 to 5,400 lumen.
- * Thermal resistance range R_{th} 1.39°C/W.
- * Modular design with mounting holes foreseen for direct mounting of GE lighting Infusion™ LED engines.
- * Diameter 130.0mm - standard height 20mm 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 GE 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.



GE Lighting



GE lighting LED engines for which Zhaga book5 LED Modules holders are available.

For the GE lighting Infusion™ M LED modules.

Infusion™ M3000

- M3000/827/W/G4;
- M3000/830/W/G4;
- M3000/835/W/G4;
- M3000/840/W/G4;
- M3000/930/W/G4;

Infusion™ M4500

- M4500/827/W/G4;
- M4500/830/W/G4;
- M4500/835/W/G4;
- M4500/840/W/G4;
- M4500/930/W/G4;

For the GE lighting Infusion™ DLM LED modules.

Infusion™ DLMM3000

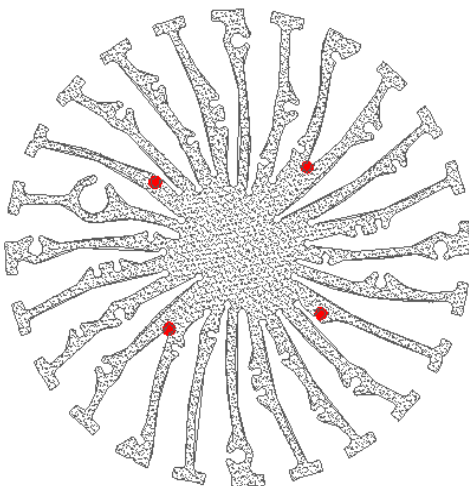
- DLM3000/927;
- DLM3000/930;
- DLM3000/935;
- DLM3000/940;

Infusion™ DLM4000

- DLM4000/927;
- DLM4000/930;
- DLM4000/935;
- DLM4000/940;

Please refer to the "<http://www.gelighting.com/LightingWeb/emea/>" data provided on the manual.

Zhaga Book5 Green indicator marks:
Direct mounting with machine screws M3.5x6.5mm;





for

LED



EtraLED

EtraLED-GE-13020 GE Modular Passive Star Heat Sink Φ 130mm

Mounting Options and Drawings & Dimensions

Example: EtraLED-GE-13020-B-1

Example: EtraLED-GE-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

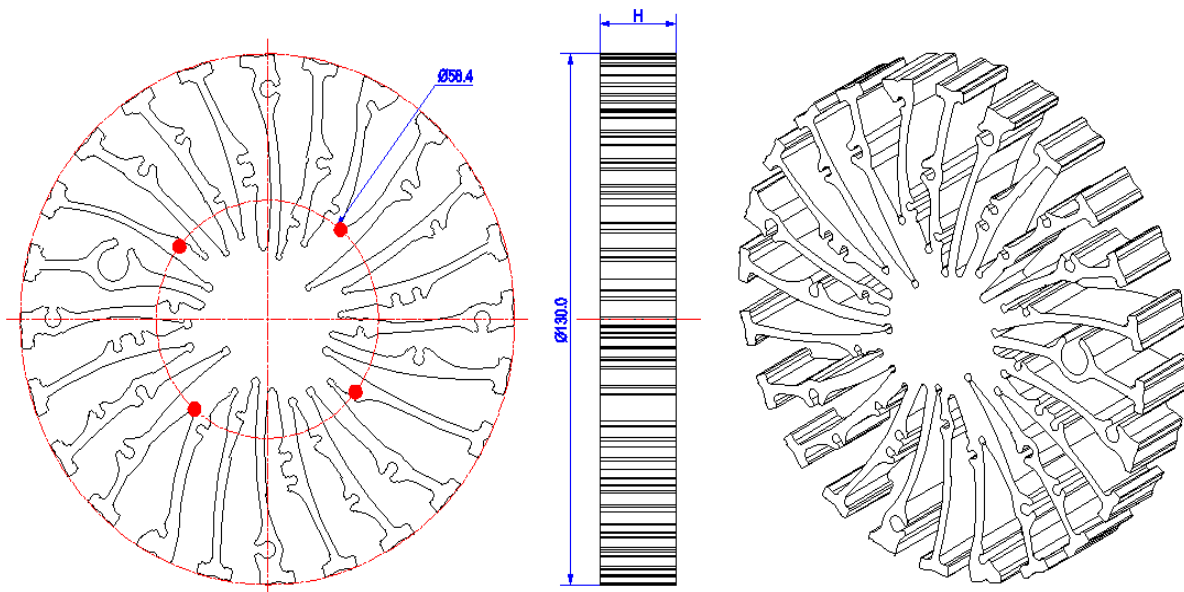


GE Lighting

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	Infusion™ M Infusion™ DLM	GE Lighting	M3.5	6.5mm	Φ 58.4mm/ 4-M3.5 (Zhaga book5)





for

LED



EtraLED

EtraLED-GE-13020 GE Modular Passive Star Heat Sink Φ 130mm

The product data table

	Model No.	EtraLED-GE-13020
	Heatsink Size	Φ 130xH20mm
	Heatsink Material	AL6063-T5
	Finish	Black Anodized
	Weight (g)	274.0
	Dissipated power (Ths-amb,50°C)	36.0 (W)
	Cooling surface area (mm²)	40076
	Thermal Resistance (Rhs-amb)	1.39 (°C/W)

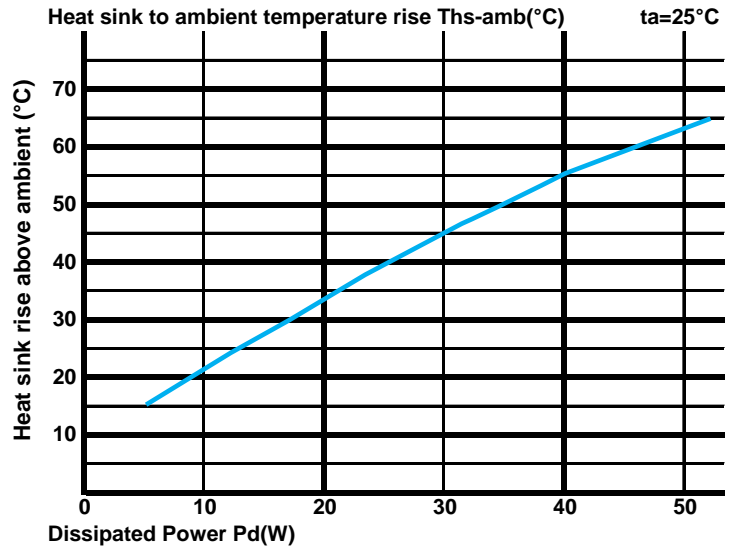
The thermal data table

* 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;

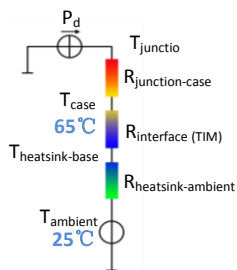
Dissipated Power Pd(W)	Heat sink to ambient thermal resistance Rhs-amb (°C/W)	
	EtraLED-GE-13020	
10.0	2.10	21.0
20.0	1.65	33.0
30.0	1.50	45.0
40.0	1.35	54.0
50.0	1.26	63.0



*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

Geometric shapes are different, the thermal resistance is different. Formula: $\theta = (Ths - Ta) / Pd$

θ - Thermal Resistance [°C/W]; Ths - Heatsink temperature ; Ta - Ambient

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is Rjunction-case, the thermal resistance of the TIM outside the package is Rinterface (TIM) [°C/W], the thermal resistance with the heat sink is Rheatsink-ambient [°C/W], and the ambient temperature is Tambient [°C].

*Thermal resistances outside the package Rinterface (TIM) and Rheatsink-ambient can be integrated into the thermal resistance Rcase-ambient at this point. Thus, the following formula is also used:

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

