



for

LED



xLED

xLED-EDI-7030 Pin Fin LED Heat Sink Φ 70mm for Edison

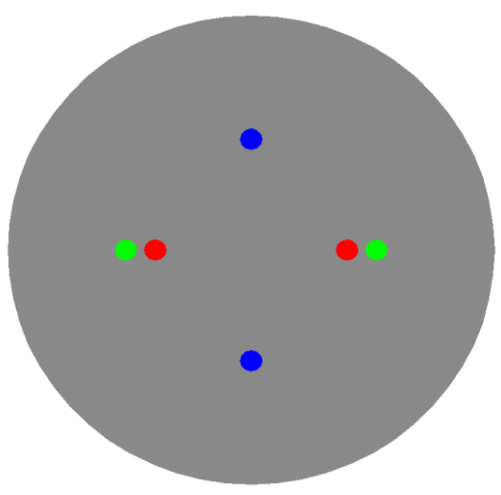
Features VS Benefits

- * The xLED-EDI-7030 Edison Pin Fin LED Heat Sinks are specifically designed for luminaires using the Edison 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 900 to 2,200 lumen.
- * Thermal resistance range Rth 3.85°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Edison COB series.
- * Diameter 70.0mm - standard height 30.0mm 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 Edison 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.



Edison LED Modules directly Mounting Options

Edison Opto_EdiPower® V, III HC, III HE/ CR170/ CR190, III SL Series :

- 2PHE33xxxxP35202; 2PHC40xxxxP35001;
- 2PHE36xxxxP35202; 2PHE40xxxxP35001;
- 2PHE55xxxxP35202; 2PHE27xxxxP35001;
- 2PHE60xxxxP35202; 2PSL40xxxxP16010;

With the Zhaga Book 3 holders for the green indicator marks.

BJB holder: 47.319.2030.50;

AAG.STUCCHI: 8102-G2

Without the holders for the blue indicator marks.

Direct mounting with machine screws M3x6.5mm.

Edison LED Modules directly Mounting Options

Edison Opto_EdiPower® V, III HC, III HE/ CR170/ CR190, III SL Series :

- 2PHE15xxxxP34202; 2PHC20xxxxP34001; 2PSL30xxxxP13010;
- 2PHE18xxxxP34202; 2PHC30xxxxP34001;
- 2PHE24xxxxP34202; 2PHE20xxxxP34001;
- 2PHE30xxxxP34202; 2PHE30xxxxP34001;

With the Zhaga Book 3 holders for the green 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.





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Mounting Options and Drawings & Dimensions

Example: xLED-EDI-7030-B-1,2

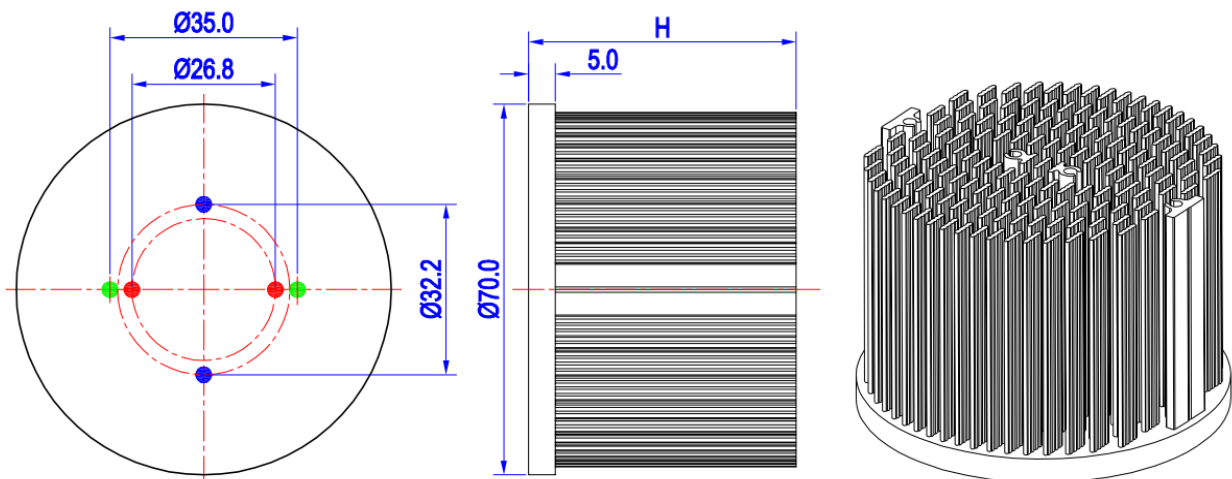
Example: xLED-EDI-70 **1** - **2** - **3**

- 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 | 15~30W COB | / | M3 | 6.5mm | 26.8mm/ 2-@180° |
| 2 | | / | M3 | 6.5mm | 32.2mm/ 2-@180° |
| 3 | 27W, 33~40W COB | BJB Holder 47.319.2030.50 | M3 | 6.5mm | 35.0mm/ 2-@180° (Zhaga book 3) |
| | | AAG.STUCCHI 8102-G2 | | | |
| | 15~30W COB | BJB Holder 47.319.2021.50 | | | |
| | | AAG.STUCCHI 8101-G2 | | | |



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The product data table

| | | |
|--|-----------------------------------------|-----------------|
| | Model No. | xLED-EDI-7030 |
| | Heatsink Size | Φ 70xH30mm |
| | Heatsink Material | AL1070 |
| | Finish | Black Anodized |
| | Weight (g) | 106.0 |
| | Dissipated power (Ths-amb,50°C) | 13.0 (W) |
| | Cooling surface area (mm ²) | 54786 |
| | Thermal Resistance (Rhs-amb) | 3.85 (°C/W) |

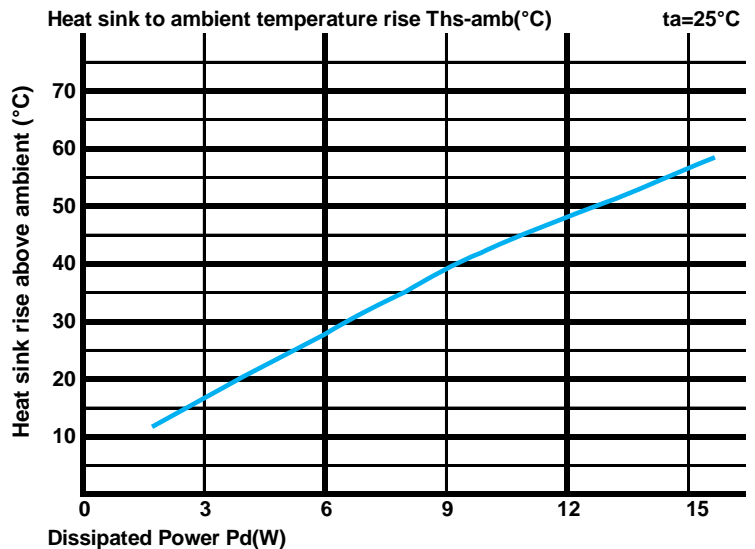
The thermal data table

* 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: Pd = Pe x (1-ηL).

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

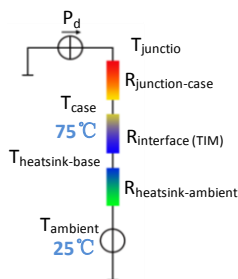
| Dissipated Power Pd(W) | Pd = Pe x (1-ηL) | Heat sink to ambient thermal resistance Rhs-amb (°C/W) | Heat sink to ambient temperature rise Ths-amb (°C) |
|------------------------|------------------|--------------------------------------------------------|----------------------------------------------------|
| | | xLED-EDI-7030 | |
| 3.0 | | 5.33 | 16.0 |
| 6.0 | | 4.50 | 27.0 |
| 9.0 | | 4.33 | 39.0 |
| 12.0 | | 3.92 | 47.0 |
| 15.0 | | 3.73 | 56.0 |



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

θ - 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 $R_{interface (TIM)}$ [°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:

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