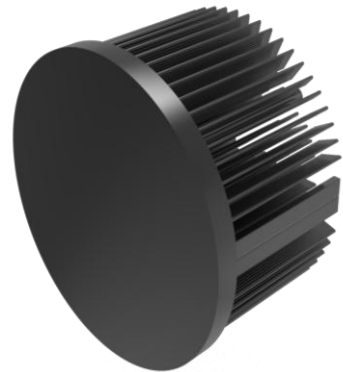


xLED

xLED-13080 Pin Fin LED Heat Sink Φ 130mm

Features VS Benefits

- * Mechanical compatibility with direct mounting of the LED modules to the LED cooler and thermal performance matching the lumen packages.
 - * For spotlight and downlight designs from 3,500 to 9,200 lumen.
 - * Thermal resistance range Rth 0.83°C/W.
 - * Modular design with mounting holes foreseen for direct mounting of a wide range of LED modules and COBs.
 - * Diameter 130.0mm - Standard height 80.0mm , Other heights on request.
 - * Forged from highly conductive aluminum.
- 2 standard colors - clear anodized - black anodized.
- Zhaga Book 3 Spot Light Modules: Bridgelux ,Cree ,Citizen ,Edison ,GE lighting,
 LG Innotek ,Lumileds ,Lumens ,Luminus ,Nichia ,Osram ,Philips ,Prolight Opto,
 Samsung ,Seoul ,Tridonic ,Vossloh-Schwabe ,Xicato.



- 01) Bridelux: Vero 18/22 Vero SE 18/29 LED engines;
- 02) Cree: XLamp CXA 25xx, XLamp CXB 25xx, CXA 30xx, XLamp CXB 30xx LED en;
- 03) Citizen: CLU036, CLU038, CLU721, CLU711, CLU046, CLU048, CLU731 LED engines;
- 04) Edison: EdiLex III COB LED engines;
- 05) GE lighting: Infusion™ LED engines;
- 06) LG Innotek: 32W, 42W, 56W LED engines;
- 07) LumiLEDs: LUXEON 1211, LUXEON 1216, LUXEON 1812, LUXEON 1825 LED eng
- 08) Lumens: Ergon-COB-2530, 2540, 3050, 3070 LED engines;
- 09) Luminus: CXM-18, CLM-22, CXM-22 LED engines;
- 10) Nichia: NFCWL036B, NFCLL036B, NFCWL060B, NFCLL060B LED engines;
- 11) Osram: SOLERIQ® S 19, Core series LED engines;
- 12) Philips: Fortimo SLM LED engines;
- 16) Prolight Opto: PABS, PABA, PACB, PANA LED engines;
- 13) Samsung: LC026B, LC033B, LC040B, LC040D, LC060D, LC080D LED engines;
- 14) Seoul Semiconductor: Acrich MJT COBs, DC COB LED engines;
- 15) Tridonic: SLE G6 19mm, SLE G6 23mm LED engines;
- 17) Vossloh-Schwabe: LUGA Shop and LUGA C LED engines;
- 18) Xicato: XSM, XIM,XTM LED engines;

Product number

Example:xLED-13080-B

Example:xLED-13080 -

- Anodising Color
- B-Black
- C-Clear
- Z-Custom

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.



xLED

xLED-13080 Pin Fin LED Heat Sink Φ 130mm

The Product data table

| | | |
|--|--|------------------|
| | Model No. | xLED-13080 |
| | Heatsink Size | Φ 130xH80mm |
| | Heatsink Material | AL1070 |
| | Finish | Black Anodized |
| | Weight (g) | 825.0 |
| | Dissipated power (T _{hs-amb} ,50°C) | 60.0 (W) |
| | Cooling surface area (mm ²) | 284892 |
| | Thermal Resistance (R _{hs-amb}) | 0.83 (°C/W) |

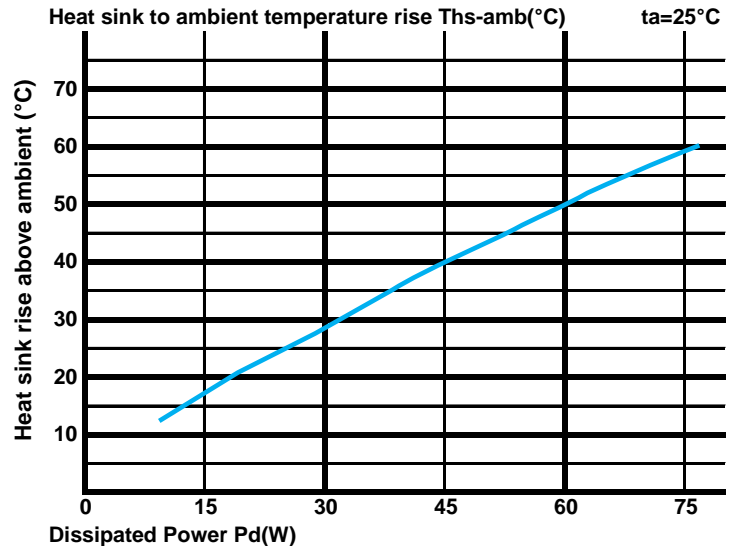
The thermal data table

* 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;

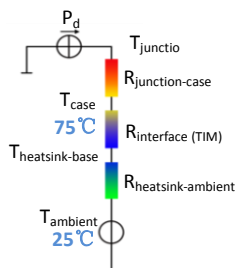
| Dissipated Power Pd(W) | Pd = Pe x (1-ηL) | Heat sink to ambient thermal resistance R _{hs-amb} (°C/W) | Heat sink to ambient temperature rise T _{hs-amb} (°C) |
|------------------------|------------------|--|--|
| | | xLED-13080 | |
| 15.0 | | 1.13 | 17.0 |
| 30.0 | | 0.93 | 28.0 |
| 45.0 | | 0.89 | 40.0 |
| 60.0 | | 0.83 | 50.0 |
| 75.0 | | 0.77 | 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 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

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the shell is R_{junction-case}, the thermal resistance of the TIM outside the package is R_{interface (TIM)} [°C/W], the thermal resistance with 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:

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