



for

LED



xLED

xLED-8030 Pin Fin Heat Sink Φ 80mm

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 1,000 to 2,600 lumen.
- * Thermal resistance range Rth 3.13°C/W.
- * Modular design with mounting holes foreseen for direct mounting of a wide range of LED modules and COB's:
- * Diameter 80.0mm - Standard height 30.0mm , Other heights on request.
- * Forged from highly conductive aluminum.
- * 2 standard colors - clear anodised - black anodised.
- * 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.



- 1) Bridelux: Vero 18/22 Vero SE 18/29 LED engines;
- 2) Cree: XLamp CXA 25xx, XLamp CXB 25xx, CXA 30xx, XLamp CXB 30xx LED en;
- 3) Citizen: CLU036, CLU038, CLU721, CLU711, CLU046, CLU048, CLU731 LED engines;
- 4) Edison: EdiLex III COB LED engines;
- 5) GE lighting: Infusion™ LED engines;
- 6) LG Innotek: 32W, 42W, 56W LED engines;
- 7) Lumileds: LUXEON 1211, LUXEON 1216, LUXEON 1812, LUXEON 1825 LED eng
- 8) Lumens: Ergon-COB-2530, 2540, 3050, 3070 LED engines;
- 9) 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;



Order Information

Example: xLED-8030-B

Example: xLED-8030-

- 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-8030 Pin Fin Heat Sink $\Phi 80\text{mm}$

The product data table

	Model No.	xLED-8030
	Heatsink Size	$\Phi 80 \times H30\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	140.0
	Dissipated power (T _{hs-amb} ,50°C)	16.0 (W)
	Cooling surface area (mm ²)	72123
	Thermal Resistance (R _{hs-amb})	3.13 (°C/W)

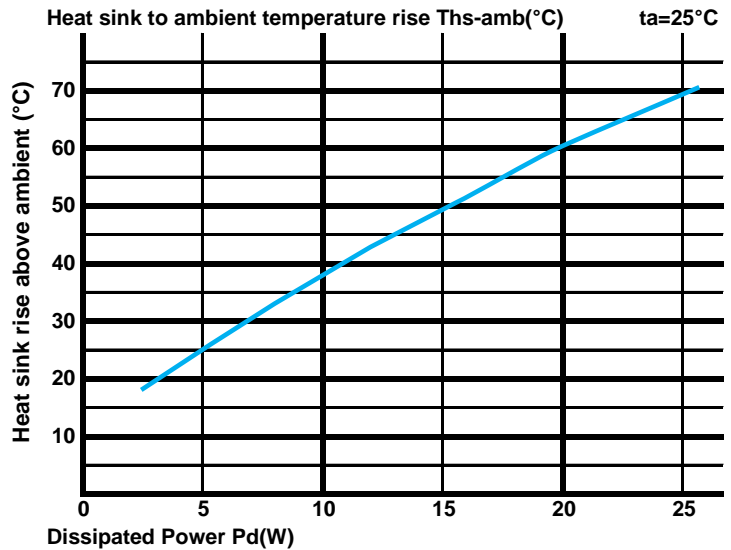
The thermal data table

* 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: $P_d = P_e \times (1 - \eta_L)$.

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

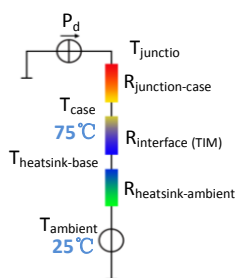
Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise T _{hs-amb} (°C)
		xLED-8030	
5.0		5.00	25.0
10.0		3.80	38.0
15.0		3.27	49.0
20.0		3.00	60.0
25.0		2.76	69.0



*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:

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