



# LED

## xLED

### xLED-VOS-4568 Pin Fin LED Heat Sink $\phi$ 45mm for Vossloh-Schwabe

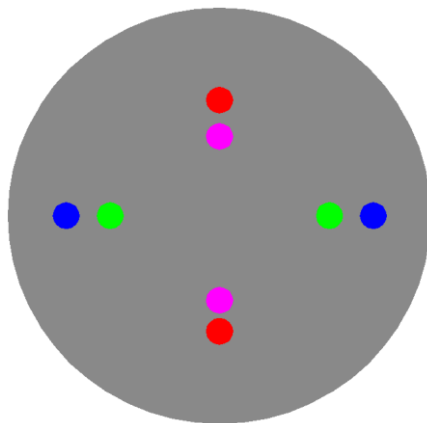
#### Features VS Benefits

- \* The xLED-VOS-4568 Vossloh-Schwabe Pin Fin LED Heat Sinks are specifically designed for luminaires using the Vossloh-Schwabe 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 300 to 1,400 lumen.
- \* Thermal resistance range Rth 4.76°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Vossloh-Schwabe COB series.
- \* Diameter 45.0mm - standard height 68.0mm 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 Vossloh-Schwabe 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.



#### Vossloh-Schwabe LED Modules directly Mounting Options

Vossloh-Schwabe LUGA Shop Gen. 5/ Gen.6 COB Series (13.5\*13.5): :

- DMS124\*\*\*H;
- DMS123\*\*\*G;

With the Zhaga Book 11 holders for the green indicator marks.

BJB holder: 47.319.6294.50;

AAG.STUCCHI: 8100-G2

Without the holders for the pink indicator marks.

Direct mounting with machine screws M3x6.5mm.

#### Vossloh-Schwabe LUGA Shop Gen. 5/ Gen.6 COB Series (19.0\*19.0):

- DMS124\*\*\*G; DMS125\*\*\*H;
- DMS125\*\*\*G; DMS126\*\*\*H;
- DMS126\*\*\*G; DMS128\*\*\*H;
- DMS128\*\*\*G;

#### Vossloh-Schwabe LUGA Shop TW COB Series:

- TW1914;

With the Zhaga Book 3 holders for the blue 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-VOS-4568-B-1,2

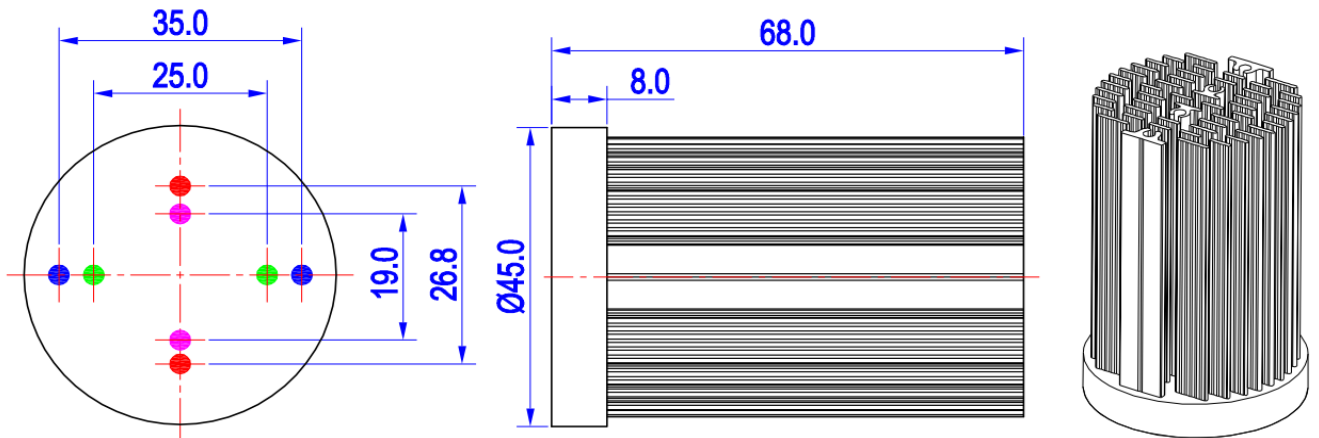
Example: xLED-VOS-45 **1** - **2** - **3**

- 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	COB series (13.5*13.5)	/	M3	6.5mm	19.0mm/ 2-@180°
2		BJB Holder 47.319.6294.50 AAG.STUCCHI 8100-G2	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
3	COB series (19.0*19.0)	/	M3	6.5mm	26.8mm/ 2-@180°
4		BJB Holder 47.319.2021.50 AAG.STUCCHI 8101-G2			35.0mm/ 2-@180° (Zhaga book 3)



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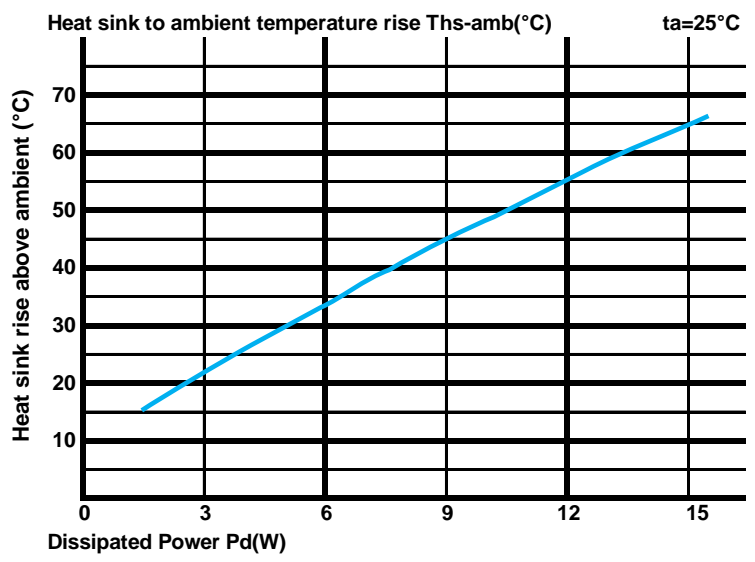
The product data table

	Model No.	xLED-VOS-4568
	Heatsink Size	$\Phi$ 45xH68mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	90.0
	Dissipated power (Ths-amb,50°C)	10.5 (W)
	Cooling surface area (mm <sup>2</sup> )	49775
	Thermal Resistance (Rhs-amb)	4.76 (°C/W)

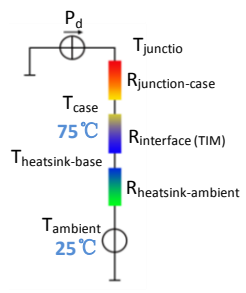
The thermal data table

\* 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)		Heat sink to ambient temperature rise Ths-amb (°C)	
	xLED-VOS-4568			
3.0	7.00	21.0		
6.0	5.50	33.0		
9.0	5.00	45.0		
12.0	4.58	55.0		
15.0	4.27	64.0		



\*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:  $\theta = (Ths - Ta) / Pd$   
 $\theta$  - 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<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 Tambient [°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:  
 $T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot Pd + T_{ambient}$