

Mastering LED Cooling

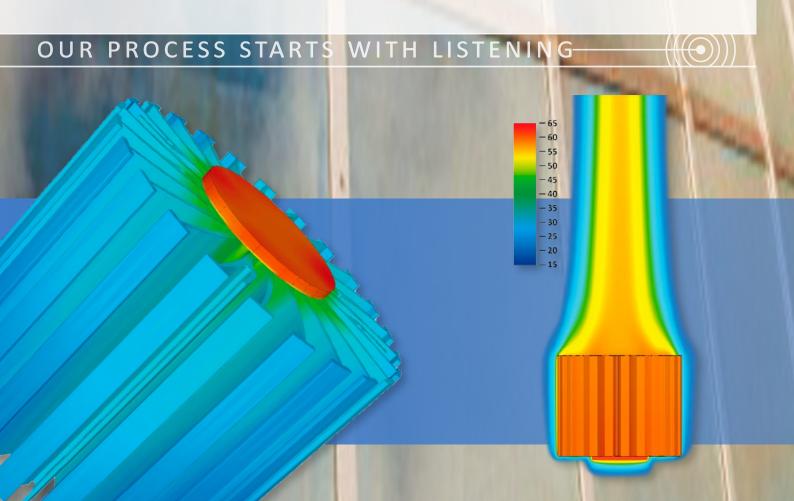
With the evolution of LED lighting over the last years, the demand for professional thermal solutions has grown exponentially. And now that we no longer remain in the realm of low power LED's, thermal management becomes a critical factor within LED fixtures. To that end, MechaTronix has developed several series of pin-fin and star heat sinks, manufactured through die casting, forging or extrusion. This has resulted in a comprehensive range of more than 400 off-the-shelf available LED coolers, for passive or active heat dissipation.

After initial reservations concerning active LED coolers, specialists have found that there really is no better option, when closing in on the 8000 lumen mark. Admittedly, the fan's lifespan becomes somewhat of a focal point in the application of an active LED cooler, but given that the lifespan of the LED engine itself dramatically decreases at high temperatures, the lifespan of the fan looks rather favourable all of a sudden.

MechaTronix' ground breaking ModuLED coolers and its actively cooled sibling IceLED have garnered a lot of attention and positive reviews in the LED market. ModuLED and IceLED are just precursors of a complete range of dedicated and highly effective LED coolers for professional deployment in spotlights, downlights, high bays and a further score of architectural and utility LED applications.

Both ModuLED and IceLED, as well as their upcoming descendants are Zhaga-ready and have a matrix of mounting holes that allows for very easy attachment of a great number of various Xicato LED modules. Simply apply a thermal interface of your choice, put the LED engine in place and fasten with self-tapping screws and you are good to go! No drilling, customisation or special mounting brackets are needed.

Thanks to an extremely thorough thermal verification of all heat sink lines, MechaTronix provides total thermal disclosure for each model, coupled with all Xicato LED engines. All thermal data is available in the product specifications, that come with every MechaTronix heat sink. In this way, engineers save time and effort during the design stage of their LED fixture and will significantly shorten their time to market.



XICATO LED COOLING

For Xicato XOB Chip on Board LED light source - Off the shelf Passive and active LED cooling

LPF3550-ZHC



Xicato LED Pin Fin cooler ø35mm - h50mm - Rth 7.41°C/W Cooling performance 700 - 1,300 lm

LPF4768-ZHP



Xicato LED Pin Fin cooler Ø47mm - h68mm - Rth 3.9°C/W Cooling performance 1,300 - 2,500 lm

▼ XOB06 ▼ XOB09		Direct mount	Zhaga holder	Xicato XOB LED
			✓	XOB06
VOR14	XOB14		✓	
M VORTA			✓	XOB14

LPF6050-ZHC



Xicato LED Pin Fin cooler ø60mm - h50mm - Rth 4.0°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	Zhaga holder	Xicato XOB LED
~	✓	XOB06
✓	✓	XOB09
	✓	XOB14

LPF6768-ZHP



Xicato LED Pin Fin cooler ø67mm - h68mm - Rth 2.1°C/W Cooling performance 2,300 - 4,600 lm

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	XOB09
	XOB14
✓	XOB23

LPF8050-ZHC



Xicato LED Pin Fin cooler ø80mm - h50mm - Rth 2.34°C/W Cooling performance 2,000 - 4,000 lm

Direct mount	Zhaga holder	Xicato XOB LED
V		XOB09 XOB14 XOB23

LPF8668-ZHC



Xicato LED Pin Fin cooler Ø86mm - h68mm - Rth 1.46°C/W Cooling performance 3,300 - 6,500 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	✓	XOB14
✓	✓	XOB23

LPF11180-ZHE



Xicato LED Pin Fin cooler ø111mm - h80mm - Rth 1.07°C/W Cooling performance 4,800 - 9,600 lm

Direct mount	Zhaga holder	Xicato XOB LED
	✓	XOB23

CoolStar® 4740 (XSA-550)



Xicato Designer LED Star cooler Ø47mm - h40mm - Rth 5°C/W Cooling performance 1,000 - 2,000 lm

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Direct mount	Zhaga holder	Xicato XOB LED	
✓	✓	хово6	
✓	✓	XOB09	
	✓	XOB14	

CoolStar® 4760 (XSA-551)



Xicato Designer LED Star cooler Ø47mm - h60mm - Rth 4.17°C/W Cooling performance 1,200 - 2,400 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	V	XOB06 XOB09 XOB14
	✓	XOB14

CoolStar® 6730 (XSA-552)



Xicato Designer LED Star cooler Ø67mm - h30mm - Rth 3.13°C/W Cooling performance 1,600 - 3,100 lm



Direct mount	Zhaga holder	Xicato XOB LED
✓	✓	XOB09
✓	✓	XOB14

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CoolStar® 6760 (XSA-553)

Xicato Designer LED Star cooler ø67mm - h60mm - Rth 2.27°C/W Cooling performance 2,100 - 4,200 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	✓	XOB09
✓	✓	XOB14
	✓	XOB23



CoolStar® 8630 (XSA-554)

Xicato Designer LED Star cooler Ø86mm - h30mm - Rth 2.08°C/W Cooling performance 2,300 - 4,600 lm

r	Direct nount	Zhaga holder	Xicato XOB LED
	✓	✓	XOB09
	✓	✓	XOB14
		✓	XOB23



CoolStar® 8660 (XSA-555)

Xicato Designer LED Star cooler Ø86mm - h60mm - Rth 1.56°C/W Cooling performance 3,100 - 6,100 lm

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▼ XOB14 ▼ XOB23

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ModuLED Pico 4750

Xicato Modular LED Star cooler Ø47mm - h50mm - Rth 5.3°C/W Cooling performance 900 - 1,800 lm

Direct mount	Zhaga holder	Xicato XOB LED
V	V	XOB06 XOB09 XOB14
✓	✓	XOB14



ModuLED Pico 4780

Xicato Modular LED Star cooler Ø47mm - h80mm - Rth 4.2°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	✓	XOB06
✓	✓	XOB09
✓	✓	XOB14



ModuLED Nano 7050

Xicato Modular LED Star cooler Ø70mm - h50mm - Rth 2.2°C/W Cooling performance 2,200 - 4,300 lm

Direct mount	Zhaga holder	Xicato XOB LED
▽	V	XOB09
V	✓	XOB14 XOB23



ModuLED Nano 7080

Xicato Modular LED Star cooler Ø70mm - h80mm - Rth 1.8°C/W Cooling performance 2,700 - 5,300 lm

Direct mount	Zhaga holder	Xicato XOB LED
V	▽	XOB14 XOB23



ModuLED Micro 8630

Xicato Modular LED Star cooler Ø86mm - h30mm - Rth 1.8°C/W Cooling performance 2,700 - 5,300 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	> >	XOB14 XOB23



ModuLED Micro 8650

Xicato Modular LED Star cooler Ø86mm - h50mm - Rth 1.5°C/W Cooling performance 3,200 - 6,400 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	V	XOB14 XOB23



ModuLED Micro 8680

Xicato Modular LED Star cooler Ø86mm - h80mm - Rth 1.2°C/W Cooling performance 4,000 - 8,000 lm

Direct mount	Zhaga holder	Xicato XOB LED
	✓	XOB23

XICATO LED COOLING

For Xicato XOB Chip on Board LED light source - Off the shelf Passive and active LED cooling

ModuLED 9950



Xicato Modular LED Star cooler ø99mm - h50mm - Rth 1.34°C/W Cooling performance 3,600 - 7,200 lm

	Cooling performance 3,000 7,200 iiii		
Direct mount	Zhaga holder	Xicato XOB LED	
▽	V	XOB14 XOB23	

ModuLED 9980



Xicato Modular LED Star cooler ø99mm - h80mm - Rth 1.02°C/W Cooling performance 4,700 - 9,400 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	V	XOB23

ModuLED Mega 13420 Xicato Modular LED Star cooler



Xicato Modular LED Star cooler Ø134mm - h20mm - Rth 1.32°C/W Cooling performance 3,700 - 7,300 lm

	cooling performance 3,700 7,300 im		
Direct mount	Zhaga holder	Xicato XOB LED	
✓	✓	XOB14 XOB23	

ModuLED Mega 13450-HBG



Xicato High Bay LED cooler with driver connection system Ø134mm - h50mm - Rth 0.88°C/W Cooling performance 5,500 - 11,000 lm

Direct mount	Zhaga holder	Xicato XOB LED
✓	✓	XOB23

ModuLED Mega 134100-HBG



Xicato High Bay LED cooler with driver connection system Ø134mm - h100mm - Rth 0.67°C/W Cooling performance 7,200 - 14,300 lm

Direct mount	LED holder	Xicato XOB LED
V	✓	XOB32

ModuLED Giga 15220



Xicato Modular LED Star cooler ø152mm - h20mm - Rth 1.13°C/W Cooling performance 4,300 - 8,500 lm

Direct mount	Zhaga holder	Xicato XOB LED
V	✓	XOB23

ModuLED Giga 15250



Xicato Modular LED Star cooler ø152mm - h50mm - Rth 0.7°C/W Cooling performance 6.800 - 13.500 lm

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Direct mount	Zhaga holder	Xicato XOB LED	
V	✓	XOB23	

ModuLED Giga 152100-HBG



Xicato High Bay LED cooler with direct mounting holes for Mean Well HBG series driver ø152mm - h100mm - Rth 0.52°C/W Cooling performance 9,000 - 18,000 lm

Direct mount	LED holder	Xicato XOB LED
V	✓	XOB32

IceLED 450



Xicato Modular Active LED cooler Ø99mm - h45mm - Rth 0.58°C/W Cooling performance 3.500 - 10.500 lm

Coo	Cooling performance 3,500 - 10,500 lm		
Direct	Zhaga holder	Xicato XOB LED	
✓		XOB32	

