

# Mastering LED Cooling

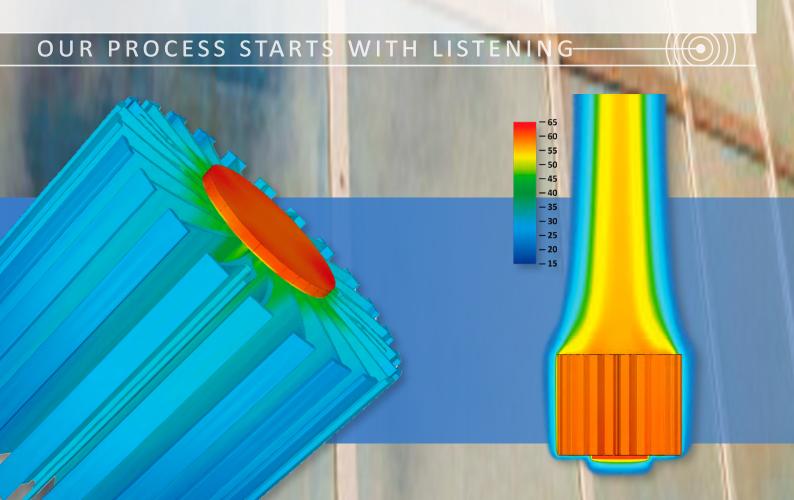
With the evolution of LED lighting over the last years, the demand for professional thermal solutions has grown exponentially. And now that we no longer remain in the realm of low power LED's, thermal management becomes a critical factor within LED fixtures. To that end, MechaTronix has developed several 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.



For Xicato XIM, XTM and XCA LED modules - Off the shelf Passive LED cooling

## (center cable hole) XSA-218



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

Direct mount	With holder	Xicato LED modules
✓		XIM

# (side cable hole) XSA-217



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

Direct mount	With holder	Xicato LED modules
<b>₹</b>	✓	XIM XTM XCA (with Xiacto XSA-401)

# **XSA-60**



Xicato LED Pin Fin cooler Ø50mm - h30mm - Rth 6.9°C/W Cooling performance 700 - 1,400 lm

Cool	erformance 700 - 1,400 lm	
Direct mount	With holder	Xicato LED modules
✓		XIM

# XSA-61



Xicato LED Pin Fin cooler Ø50mm - h50mm - Rth 5.1°C/W Cooling performance 900 - 1,800 lm

Direct mount	With holder	Xicato LED modules
✓		XIM

# **XSA-62**



Xicato LED Pin Fin cooler Ø60mm - h50mm - Rth 4.0°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	With holder	Xicato LED modules
✓		XIM

# **XSA-63**



Xicato LED Pin Fin cooler Ø70mm - h30mm - Rth 4.1°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	With holder	Xicato LED modules
<b>V</b>		XIM

# **XSA-64**



Xicato LED Pin Fin cooler Ø70mm - h50mm - Rth 3.0°C/W Cooling performance 1,500 - 3,000 lm

Direct	With holder	Xicato LED modules
<b>✓</b>		XIM

# **XSA-65**



Xicato LED Pin Fin cooler Ø70mm - h60mm - Rth 2.5°C/W Cooling performance 1,900 - 3,800 lm

Direct mount	With holder	Xicato LED modules
<b>✓</b>		XIM

## **XSA-66**



Xicato LED Pin Fin cooler Ø80mm - h30mm - Rth 3.3°C/W Cooling performance 1,500 - 2,900 lm

Direct mount	With holder	Xicato LED modules
<b>✓</b>		XIM

#### **XSA-67**



Xicato LED Pin Fin cooler Ø80mm - h50mm - Rth 2.34°C/W Cooling performance 2,000 - 4,000 lm

Direct nount	With holder	Xicato LED modules
<b>✓</b>		XIM

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## XSA-219

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

Direct mount	With holder	Xicato LED modules
▼		XIM



## **XSA-96**

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

	Direct mount	With holder	Xicato LED modules
	<b>V</b>		XIM



## **XSA-37**

Xicato LED Star cooler Ø49mm - h35mm - Rth 6.9°C/W Cooling performance 700 - 1.400 lm

Direct mount	With holder	Xicato LED modules					
<b>▼</b>		XIM					



## **XSA-39**

Xicato LED Star cooler ø70mm - h40mm - Rth 3.11°C/W Cooling performance 1,600 - 3,100 lm

Direct mount	With holder	Xicato LED modules
<b>V</b>		XIM



# **XSA-38**

Xicato LED Star cooler Ø70mm - h70mm - Rth 2.47°C/W Cooling performance 2,000 - 4,000 lm

Direct mount	With holder	Xicato LED modules
✓		XIM



# **XSA-54**

Xicato LED Star cooler ø120mm - h87mm - Rth 1.0°C/W Cooling performance 4,800 - 9,600 lm

▼ XIM	



#### XSA-550 (CoolStar® 4740)

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

Direct mount	With holder	Xicato LED modules
<b>✓</b>	V	XIM XTM XCA (with Xiacto XSA-401)



## **XSA-551** (CoolStar® 4760)

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

Direct mount	With holder	Xicato LED modules
<b>₹</b>	<b>~</b>	XIM XTM XCA (with Xiacto XSA-401)



# XSA-552 (CoolStar® 6730)

Xicato Designer LED Star cooler ø67mm - h30mm - Rth 3.13°C/W Cooling performance 1,600 - 3,100 lm

Direct With holder Xicato LED modules		Xicato LED modules
<b>▽</b>	✓	XIM XTM XCA (with Xiacto XSA-401)



#### **XSA-553** (CoolStar® 6760)

Xicato Designer LED Star cooler Ø67mm - h60mm - Rth 2.27°C/W Cooling performance 2,100 - 4,200 lm

Direct mount	With holder	Xicato LED modules
<b>▽</b>	V	XIM XTM XCA (with Xiacto XSA-401)

For Xicato XIM, XTM and XCA LED modules - Off the shelf Passive LED cooling



## XSA-554 (CoolStar® 8630)

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

Direct mount	With holder	Xicato LED modules
<b>√</b>	✓	XIM XTM XCA (with Xiacto XSA-401)



## XSA-555 (CoolStar® 8660)

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

Direct mount	With holder	Xicato LED modules
<	V	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-298

Xicato Modular LED Star cooler Ø47mm - h30mm - Rth 7.04°C/W Cooling performance 650 - 1,300 lm

Direct mount	With holder	Xicato LED modules	
<b>✓</b>		XIM XTM XCA (with Xiacto XSA-401)	



#### XSA-215

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

Direct With mount holder		Xicato LED modules				
<b>✓</b>	<b></b> ✓	XIM XTM XCA (with Xiacto XSA-401)				



#### XSA-216

Xicato Modular LED Star cooler ø47mm - h80mm - Rth 4.2°C/W Cooling performance 1,200 - 2,400 lm

Direct mount	With holder	Xicato LED modules
<b>V</b>	▼	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-299

Xicato Modular LED Star cooler Ø70mm - h30mm - Rth 3.07°C/W Cooling performance 1,500 - 3,000 lm

Direc	t With nt holder	Xicato LED modules
<b>V</b>		XIM XTM XCA (with Xiacto XSA-401)



## **XSA-212**

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

Direct mount	With holder	Xicato LED modules
<b>▽</b>	V	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-213

Xicato Modular LED Star cooler ø70mm - h80mm - Rth 1.8°C/W Cooling performance 2,700 - 5,300 lm

Direct mount	With holder	Xicato LED modules
<b>∀</b>	V	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-300

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

Direct   With holder   Xicato LED modules		
<b>▽</b>	V	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-301

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

Direct   With mount   holder		Xicato LED modules
<b>▽</b>	V	XIM XTM XCA (with Xiacto XSA-401)

For Xicato XIM, XTM and XCA LED modules - Off the shelf Passive LED cooling



# XSA-302

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

Direct mount	With holder	Xicato LED modules
<b>₹</b>	<b>V</b>	XIM XTM XCA (with Xiacto XSA-401)



## **XSA-97**

Xicato Modular LED Star cooler Ø99mm - h50mm - Rth 1.34°C/W Cooling performance 3,600 - 7,200 lm

Direct mount	With holder	Xicato LED modules
<b>✓</b>	<b>Z</b>	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-98

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

Direct mount	With holder	Xicato LED modules
<b>▼</b>	<b>~</b>	XIM XTM XCA (with Xiacto XSA-401)



# XSA-305

Xicato Modular LED Star cooler ø111mm - h80mm - Rth 1.0°C/W Cooling performance 4,900 - 9,800 lm

Direct mount	With holder	Xicato LED modules
<b>▽</b>	<b>V</b>	XIM XTM XCA (with Xiacto XSA-401)



#### XSA-303

Xicato Modular LED Star cooler ø134mm - h30mm - Rth 1.2°C/W Cooling performance 4,000 - 8,000 lm

Direct mount	With holder	Xicato LED modules
<b>▽</b>	▼	XIM XTM XCA (with Xiacto XSA-401)

