

Mastering LED Cooling

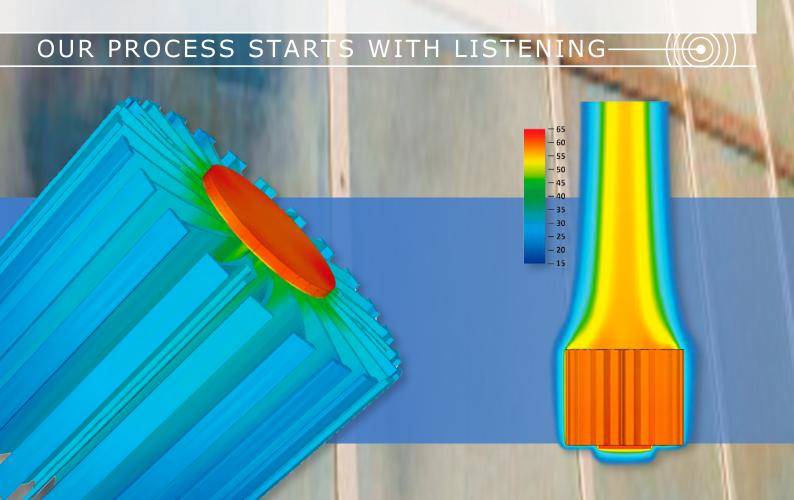
With the evolution of LED lighting over the last years, the demand for professional thermal solutions has grown exponentially. And now that we no longer remain in the realm of low power LED's, thermal management becomes a critical factor within LED fixtures. To that end, MechaTronix has developed several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



SHARP LED COOLING

INTERMO 3000lm, 4000lm, 5000lm LED Modules Mini Zenigata 4-10W, 10-15W, 15-24W, Tiger Zenigata, Mega Zenigata 15-25W, 25-40W, 35-50W, 50-80w COB

LPF3550-ZHC





Direct mount	Zhaga holder	Sharp LED COB
	V	Mini Zenigata 4 - 10

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LPF4768-ZHP

Sharp LED LED Pin Fin cooler ø47mm - h68mm - Rth 3.9°C/W Cooling performance 1,300 - 2,500 lm

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t nt	Zhaga holder	Sharp LED COB
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Mini Zenigata 4 - 24W

Mega Zenigata 15 - 25W

LPF6050-ZHC

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



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Direct	7haga	Chama LED CO	-
mount	bolder	Sharp LED CO	t

Mini Zenigata 4 - 24W Mega Zenigata 15 - 25W

LPF6768-ZHP

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



mount	holder	Sharp LED COB
✓		INTERMO 3000 lm, 4000 l

Mini Zenigata 4 - 24W Tiger Zenigata 25W

Mega Zenigata 15 - 50W

LPF8050-ZHC



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

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Sharp LED COB

INTERMO 3000 lm, 4000 lm

Tiger Zenigata 25W

Mega Zenigata 15 - 50W



LPF8668-ZHC

Sharp LED Pin Fin cooler ø86mm - h68mm - Rth 1.46°C/W Cooling performance 3,300 - 6,500 lm

Direct mount	Zhaga holder	Sharp LED COB
▼	V	INTERMO 3000 lm, 4000 lm, 5000 lm Tiger Zenigata 25W Mega Zenigata 15 - 80W

LPF11180-ZHE



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

Direct	Zhaga	Sharp	I FD	COR
mount	holder	Jugi b	LLD	COD

INTERMO 3000 lm, 4000 lm, 5000 lm

Tiger Zenigata 25W Mega Zenigata 15 - 80W

CoolStar® White 4740

Sharp Designer LED Star cooler ø47mm - h40mm - Rth 5°C/W Cooling performance 1,000 - 2,000 lm



Direct | Zhaga mount | holder Sharp LED COB

Mini Zenigata 4 - 15W

CoolStar® White 4760

Sharp DesignerLED Star cooler ø47mm - h60mm - Rth 4.17°C/W Cooling performance 1,200 - 2,400 lm

	Direct mount	Zha:

Sharp LED COB

Mini Zenigata 4 - 24W Mega Zenigata 15 - 25W



CoolStar® White 6730

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



Direct Zhaga mount holder **Sharp LED COB**

Mega Zenigata 15 - 25W

CoolStar® White 6760

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

Direct	Zhaga holder	c
mount	holder	3

harp LED COB

Mega Zenigata 15 - 40W



CoolStar® White 8630

Sharp Designer LED Star cooler ø86mm - h30mm - Rth 2.08°C/W Cooling performance 2,300 - 4,600 lm

Sharp LED COB

Direct Zhaga mount holder ✓

INTERMO 3000 lm, 4000 lm Mega Zenigata 15 - 50W



CoolStar® White 8660

Sharp Designer LED Star cooler ø86mm - h60mm - Rth 1.56°C/W Cooling performance 3,100 - 6,100 lm



Sharp LED COB

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INTERMO 3000 lm Mega Zenigata 15 - 50W



ModuLED Pico 4750

Sharp Modular LED Star cooler ø47mm - h50mm - Rth 5.3°C/W Cooling performance 900 - 1,800 lm



Direct Zhaga mount holder Sharp LED COB

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Mega Zenigata 15 - 25W Mini Zenigata 4 - 24W



ModuLED Pico 4780

Sharp Modular LED Star cooler ø47mm - h80mm - Rth 4.2°C/W Cooling performance 1,200 - 2,300 lm



Direct Zhaga holder Sharp LED COB

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Mega Zenigata 15 - 25W Mini Zenigata 4 - 24W



ModuLED Nano 7050

Sharp Modular LED Star cooler ø70mm - h50mm - Rth 2.2°C/W Cooling performance 2,200 - 4,300 lm



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unt	holder	onar p LLD COL	-

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INTERMO 3000 lm, 4000 lm Mini Zenigata 4 - 24W

Tiger Zenigata 25W Mega Zenigata 15 - 50W

ModuLED Nano 7080

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



Direct	Zhaga	Sharp LED COB
mount	holder	Sharp LLD COD

V

INTERMO 3000 lm, 4000 lm Mini Zenigata 4 - 24W Tiger Zenigata 25W

Mega Zenigata 15 - 50W



ModuLED Micro 8630

Sharp Modular LED Star cooler ø86mm - h30mm - Rth 1.8°C/W Cooling performance 2,700 - 5,300 lm

Sharp LED COB

V

INTERMO 3000 lm, 4000 lm Mini Zenigata 4 - 24W Tiger Zenigata 25W Mega Zenigata 15 - 50W





Sharp Modular LED Star cooler ø86mm - h50mm - Rth 1.5°C/W Cooling performance 3,200 - 6,400 lm

Sharp LED COB

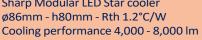
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INTERMO 3000 lm, 4000 lm, 5000 lm Mini Zenigata 10 - 24W Tiger Zenigata 25W

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Mega Zenigata 15 - 80W

Sharp Modular LED Star cooler



ModuLED Micro 8680



Sharp LED COB INTERMO, 3000 lm, 4000 lm, 5000 lm ✓

Mini Zenigata 10 - 24W Tiger Zenigata 25W

✓ Mega Zenigata 15 - 80W

ModuLED Xtra 9950



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

Sharp LED COB

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INTERMO 3000 lm, 4000 lm, 5000 lm

Mini Zenigata 15 - 24W Tiger Zenigata 25W Mega Zenigata 15 - 80W

ModuLED Xtra 9980

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



Direct Zhaga mount holder Sharp LED COB

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INTERMO 3000 lm, 4000 lm, 5000 lm

Mini Zenigata 15 - 24W Tiger Zenigata 25W Mega Zenigata 15 - 80W

ModuLED Mega 13420



Sharp Modular LED Star cooler ø134mm - h20mm - Rth 1.32°C/W Cooling performance 3,700 - 7,300 lm

Sharp LED COB

✓

INTERMO 3000 lm, 4000 lm, 5000 lm

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Tiger Zenigata 25W Mega Zenigata 25 - 80W



ModuLED Mega 13450-HBG

Sharp High Bay LED cooler with direct mounting holes for Mean Well HBG series driver

ø134mm - h50mm - Rth 0.88°C/W Cooling performance 5,500 - 11,000 lm

Direct mount	Zhaga holder	Sharp LED COB
V		INTERMO 3000 lm, 4000 lm, 5000 ln Tiger Zenigata 25W Mega Zenigata 25 - 80W



ModuLED Mega 134100-HBG

Sharp High Bay LED cooler with direct mounting holes for Mean Well HBG series driver

ø134mm - h100mm - Rth 0.67°C/W Cooling performance 7,200 - 14,300 lm

Direct mount	Zhaga holder	Sharp LED COB
✓	V	INTERMO 3000 lm, 4000 lm, 5000 lm Mega Zenigata 25 - 80W



ModuLED Giga 15220

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

Direct mount	Zhaga holder	Sharp LED COB
~	V	INTERMO 3000 lm, 4000 lm, 5000 lm Tiger Zenigata 25W Mega Zenigata 25 - 80W



ModuLED Giga 15250

Sharp 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	Sharp LED COB
	▽	INTERMO 3000 lm, 4000 lm, 5000 lm Tiger Zenigata 25W Mega Zenigata 25 - 80W



ModuLED Giga 152100-HBG

Sharp 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 Zhaga holder Sharp LED COB		Sharp LED COB
V	☑	INTERMO 5000 lm Mega Zenigata 50 - 80W



ModuLED Giga 152150-HBG

Sharp High Bay LED cooler with direct mounting holes for Mean Well HBG

series driver ø152mm - h150mm - Rth 0.46°C/W Cooling performance 10,500 - 21,000 lm		
Direct Zhaga holder Sharp LED COB		Sharp LED COB
	V	Mega Zenigata 50 - 80W



IceLED Xtra 550

Sharp Modular Active LED cooler ø99mm - h55mm - Rth 0.46°C/W Cooling performance 10,500 - 21,000 lm

Direct mount	Zhaga holder	Sharp LED COB
✓		INTERMO 3000 lm, 4000 lm, 5000 lm
	✓	Tiger Zenigata 25W
	✓	Mega Zenigata 25 - 80W



IceLED Xtra Ultra

Sharp Modular Active LED cooler ø99mm - h75mm - Rth 0.25°C/W Cooling performance 19.000 - 38.000 lm

Direct mount	Zhaga holder	Sharp LED COB	
▼	V	INTERMO 5000 lm Mega Zenigata 50 - 80W	



IceLED Ultra VS

Sharp Modular Active LED cooler ø99mm - h75mm - Rth 0.26°C/W Cooling performance 14 500 - 29 000 lm

Cooling performance 14,500 - 29,000 im		
Direct mount	Zhaga holder	Sharp LED COB
✓		INTERMO 5000 lm
	✓	Mega Zenigata 50 - 80W

