LED System Cooling Solutions

Product Guide

Innovation, Speed, Customer Satisfaction
With the evolution of LED lighting applications, a well-designed thermal management becomes one of the necessities when developing LED lighting system. Cooler Master's highly experienced R&D team designed series of cooling solutions especially for LED devices used in street lights or brake single lights for vehicles. As a certified partner of Osram, we have confidence to satisfy all client requirements, makes your LED devices more reliable, longer life expectancy and optimal Performance.
ED-E0-C052015000-S006

Application: Embedded light
Heat sink: Sunflower-liked aluminum extrusion
Dimension: 52mm(Diameter) x 15mm(H)
Maximum LED power: 6.8W
Weight: 43.7g
Fastener: Screw / Clip
Convection: Natural convection

Performance:
Ta = 30 ‘C (Ambient temperature)
Tb = 83.4 ‘C (Metal substrate temperature)
Rtha = 9.1 ‘C/W (Thermal resistance)

ED-E0-C052030000-S010

Application: Embedded light
Heat sink: Sunflower-liked aluminum extrusion
Dimension: 52mm(Diameter) x 15mm(H)
Maximum LED power: 10W
Weight: 65.2g
Fastener: Screw / Clip
Convection: Natural convection

Performance:
Ta = 30 ‘C (Ambient temperature)
Tb = 85 ‘C (Metal substrate temperature)
Rtha = 5.5 ‘C/W (Thermal resistance)
**ED-SP-C052080000-S009**

Application: Embedded light  
Heat sink: AL stacked fin + 6mm heat pipe x1  
Dimension: 52mm(Diameter) x 80mm(H)  
Maximum LED power: 9W  
Weight: 122.6g  
Fastener: Screw  
Convection: Natural convection  

Performance:  
Ta = 30 °C (Ambient temperature)  
Tb = 83.4 °C (Metal substrate temperature)  
Rth,ba = 5.95 °C/W (Thermal resistance)

**MR-16**

**ED-E0-C052053000-S006**

Application: Embedded light  
Heat sink: Aluminum extrusion  
Dimension: 52mm(Diameter) x 53mm(H)  
Maximum LED power: 6W  
Weight: 50.6g  
Fastener: Screw  
Convection: Natural convection  

Performance:  
Ta = 30 °C (Ambient temperature)  
Tb = 85 °C (Metal substrate temperature)  
Rth,ba = 9.2 °C/W (Thermal resistance)
Application: Down Light
Heat sink: AL stacked fin + 6mm heat pipe x1
Dimension: 102mm(L) x 80mm(W) x 74mm(H)
Maximum LED power: 18W
Weight: 300g
Fastener: N/A
Convection: Natural convection

Performance:
Ta = 30 °C (Ambient temperature)
Tb = 85 °C (Metal substrate temperature)
Rth,ba = 3.1 °C/W (Thermal resistance)
Outdoor Lighting

Street Light

Wall Wash Light
SL-E0-R500300055-M070

Application: Street light
Heat sink: Aluminum extrusion
Dimension: 500mm(L) x300mm(W) x55mm(H)
Maximum LED power: 70W
Weight: 5.1kg
Fastener: Screw
Convection: Natural convection

Performance:
Ta = 40 °C (Ambient temperature)
Tb = 85 °C (Metal substrate temperature)
Rth,ba = 0.64 °C/W (Thermal resistance)

SL-EP-R50027255-M100

Application: Street light
Heat sink: AL extrusion + 6mm heat pipe x4
Dimension: 500mm(L) x272mm(W) x55mm(H)
Maximum LED power: 100W
Weight: 6.5Kg
Fastener: Screw
Convection: Natural convection

Performance:
Ta = 40 °C (Ambient temperature)
Tb = 85 °C (Metal substrate temperature)
Rth,ba = 0.42 °C/W (Thermal resistance)
WL-E0-R39015050-M108

Application: Wall wash lamp
Heat sink: Aluminum extrusion
Dimension: 390mm(L) x 150mm(W) x 50mm(H)
Maximum LED power: 108W
Weight: 4.5kg
Fastener: Screw
Convection: Natural convection

Performance:
Ta = 30 °C (Ambient temperature)
Tb = 71.75 °C (Metal substrate temperature)
Rth,ba = 0.39 °C/W (Thermal resistance)

WL-E0-R218058050-M064

Application: Wall wash lamp
Heat sink: Aluminum extrusion
Dimension: 218mm(L) x 58mm(W) x 50mm(H)
Maximum LED power: 64W
Weight: 1.78kg
Fastener: N/A
Convection: Natural convection

Performance:
Ta = 30 °C (Ambient temperature)
Tb = 85 °C (Metal substrate temperature)
Rth,ba = 0.86 °C/W (Thermal resistance)
Light Engine

Sunflower

Stacked-Heatpipe
**Light Engine**

**Sunflower**

**LE-EP-C052035000-S010**

- Application: Light Engine
- Heat sink: AL stacked fin + 6mm heat pipe x1
- Dimension: 35mm(Diameter) x 104mm(H)
- Maximum LED power: 12W
- Weight: 110g
- Fastener: N/A
- Convection: Natural convection

**Performance:**
- $T_a = 30{ }^\circ C$ (Ambient temperature)
- $T_b = 85{ }^\circ C$ (Metal substrate temperature)
- $R_{th,ba} = 4.6{ }^\circ C/W$ (Thermal resistance)

**Stacked-Heatpipe**

**LE-SP-C035143000-S010**

- Application: Light Engine
- Heat sink: AL stacked fin + 6mm heat pipe x1
- Dimension: 35mm(Diameter) x 143mm(H)
- Maximum LED power: 12W
- Weight: 65g
- Fastener: N/A
- Convection: Natural convection

**Performance:**
- $T_a = 30{ }^\circ C$ (Ambient temperature)
- $T_b = 85{ }^\circ C$ (Metal substrate temperature)
- $R_{th,ba} = 4.6{ }^\circ C/W$ (Thermal resistance)
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