

CoolBlock® HC-01-3x11 Rectangle Pin Fin LED Cooler

Features & Benefits

- The CoolBlock® HC-01-3x11 rectangle Pin Fin LED cooler is specifically designed for luminaires using the 3x11 platform. With the Ledil Florence-IP lens and gasket this cooler becomes the ideal platform for IP67 high power density designs.
- The LED board can either accommodate 33 high power LEDs in 3 strings of 11 LEDs, or a group of 4 power LEDs per lens cavity so a total of 132 LEDs can be mixed to any spectrum required.
- For horticulture lighting and street light design:
10,000 to 20,000 lumen - 250 to 300 $\mu\text{mol/s}$ passive cooled
20,000 to 60,000 lumen - 600 to 1,800 $\mu\text{mol/s}$ active cooled
- Reference design with Cezos GrowEmity 3x11 K177, 120 kit 4-channel horticulture LED engine. LED sources Osram Opto Semiconductors Oslon hyper red/far red/deep blue/white
- Thermal resistance R_{th} 0.47°C/W passive cooled, up to 0.13°C/W active cooled (3 fans solution)
- Star-shaped pins for enhanced rigidity and cooling surface
- Simple extension by using CoolConnect® Inter-01 double headed bridge screw
- W98mm - L340mm - H61.5mm
- With CoolConnect® Gland becomes IP67 waterproof cable feed-through



Order Information



Example : CoolBlock® HC-01-3x11-B

CoolBlock® HC-01-3x11- **1**

1 Electro-coating Color

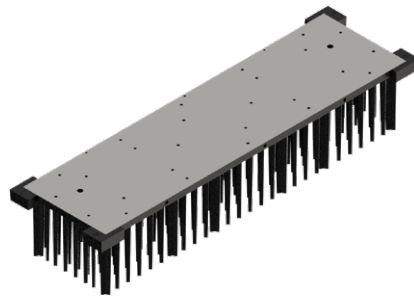
B - Black

Z - custom (specify)

Recommended screw force 6lb/in
Screws are available from MechaTronix

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Product Details



Model n°

CoolBlock® HC-01-3x11

Dimension (mm) ^{*1}	W98mm - L340mm - H61.5mm
Volume (mm ³)	346507
Cooling Surface (mm ²)	252007
Weight (gr)	936
Thermal Resistance (°C/W) ^{*2}	0.47 passive / up to 0.13 active
Power Pd (W) ^{*3}	106 passive / up to 385 active
Heat Sink Material	ADC12
Surface finishing	Black electro-coating

^{*1} 3D files are available in ParaSolid, STP and IGS on request

^{*2} The thermal resistance Rth is determined with a calibrated heat source of 30mm x 30mm central placed on the heat sink, Tamb 40° and an open environment. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The thermal resistance of a LED cooler is not a fix value and will vary with the applied dissipated power Pd

^{*3} Dissipated power Pd. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The maximal dissipated power needs to be verified in function of required case temperature Tc or junction temperature Tj and related to the estimated ambient temperature where the light fixture will be placed
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: $Pd = Pe \times (1 - \eta_L)$

Pd - Dissipated power

Pe - Electrical power

η_L = Light efficiency of the LED module

Notes:

- MechaTronix reserves the right to change products or specifications without prior notice.
- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MechaTronix.