

# FrigoDynamics® HB HPK-Fin™ 230 Hybrid Heat Exchanger for LED Light Engines



The HB HPK-Fin™ solutions are Hybrid Heat Exchangers allowing high levels of power dissipation with zero power consumption. The unit has a unique, patented design utilizing the chimney effect thus maximizing performance.

Ideal for high end installations at athletic facilities, airport ramps, daylight mining areas, container terminals, sport fields, ports or similar outdoor facilities. Surface finish with aggressive media resistant coating for outdoor applications available.

- No lifetime issues – **EC** protection against aggressive media exposure
- Passive operation, no CO2 emissions
- Zero noise levels
- Compact and low weight
- No operating cost
- Works in any orientation
- Easy installation



Part Number	Description	Specifics
<b>HB09xx-HPK03-230AN</b>	Hybrid HX	Anodized, plated
<b>HB09xx-HPK03-230EC</b>	Hybrid HX	Electrodeposited Coating (DEKRA, NL certified)

Criteria	Value	Conditions
<b>Thermal Resistance (Tc)</b>	~ 0.35 K/W <sup>1,2</sup>	Measured between LED Module case temp - ambient
<b>Thermal Resistance (Hs)</b>	~ 0.25 K/W <sup>1</sup>	Measured between LED mounting base and ambient
<b>Design power</b>	~ 220W <sup>3</sup>	Electrical Load (assuming 65% Pth)
<b>Storage Temperature</b>	-40°C to 100°C	Air temperature surrounding the unit
<b>Surface Finish AN</b>	Black	Anodized - indoor usage
<b>Surface Finish EC</b>	Black	Electrodeposited Coating - indoor and outdoor- usage
<b>Weight</b>	~ 940g (~2.07 lbs)	Complete unit
<b>Regulatory Compliance</b>	RoHS	No further compliance necessary for passive devices
<b>HS/Customs/ Taric Code</b>	<a href="#">8419 5080</a>	Heat-Exchange (HX) unit (other)

<sup>1</sup> Thermal resistance is measured in free air without airflow obstructions and in a vertical operating orientation.

<sup>2</sup> This value is impacted by the thermal interface material used, especially with smaller heat sources.

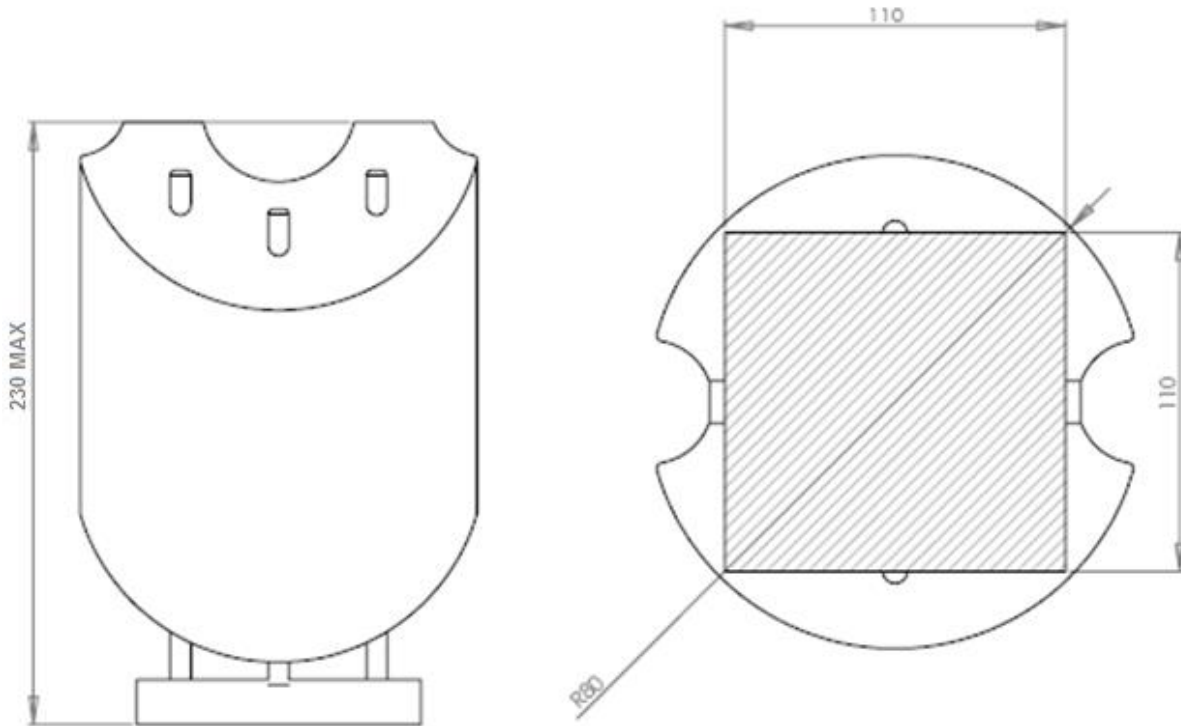
<sup>3</sup> Design power is based on ~ 50 K temperature difference (ΔT) between maximum Tc (Ts) on LED module and ambient temperature.

Please [contact](#) us, should you have specific requirements not covered in this data sheet.

**Disclaimer**

Customers are responsible for testing products for their unique applications. Any information furnished by FrigoDynamics is believed to be accurate and reliable. However, since every potential application and the environment our solutions operate in cannot be anticipated, FrigoDynamics does not guarantee suitability in all circumstances. Thermal performance may vary depending on the enclosure, the operating orientation and natural airflow. FrigoDynamics shall not be liable for incidental or consequential damages of any kind.

## Dimensions (~ mm)



## Product Guide

Part Number	Description	Specifics
<b>HB0900-HPK03-230xx</b>	no pattern	
<b>HB0916-HPK03-230xx</b>	LED pattern , wire through holes	Bridgelux VERO™ 29, Citizen CLU058
<b>HB0920-HPK03-230xx</b>	LED pattern , wire through holes	Bridgelux VERO™ 18/29
<b>HB0925-HPK03-230xx</b>	LED pattern , wire through holes	Citizen CLL048/CLU58
<b>HB0926-HPK03-230xx</b>	LED pattern , wire, Corners 4x M3/ 8-8	Citizen CLU58, Ledil Stella
<b>HB0930-HPK03-230xx</b>	LED pattern , wire, Corners 4x M3/ 8-8	Bridgelux VERO™ 29, Ledil Stella

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