

FrigoDynamics® HB HPK-Fin™ 170 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
HB09xx-HPK03-170AN	Hybrid HX	Anodized, plated
HB09xx-HPK03-170EC	Hybrid HX	Electrodeposited Coating (DEKRA, NL certified)

Criteria	Value	Conditions
Thermal Resistance (Tc)	~ 0.52 K/W ^{1,2}	Measured between LED Module case temp - ambient
Thermal Resistance (Hs)	~ 0.42 K/W ¹	Measured between LED mounting base and ambient
Design power	~ 150W ³	Electrical Load (assuming 65% Pth)
Storage Temperature	-40°C to 100°C	Air temperature surrounding the unit
Surface Finish AN	Black	Anodized - indoor usage
Surface Finish EC	Black	Electrodeposited Coating - indoor and outdoor- usage
Weight	~ 750g (~1.65 lbs)	Complete unit
Regulatory Compliance	RoHS	No further compliance necessary for passive devices
HS/Customs/ Taric Code	8419 5080	Heat-Exchange (HX) unit (other)

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

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

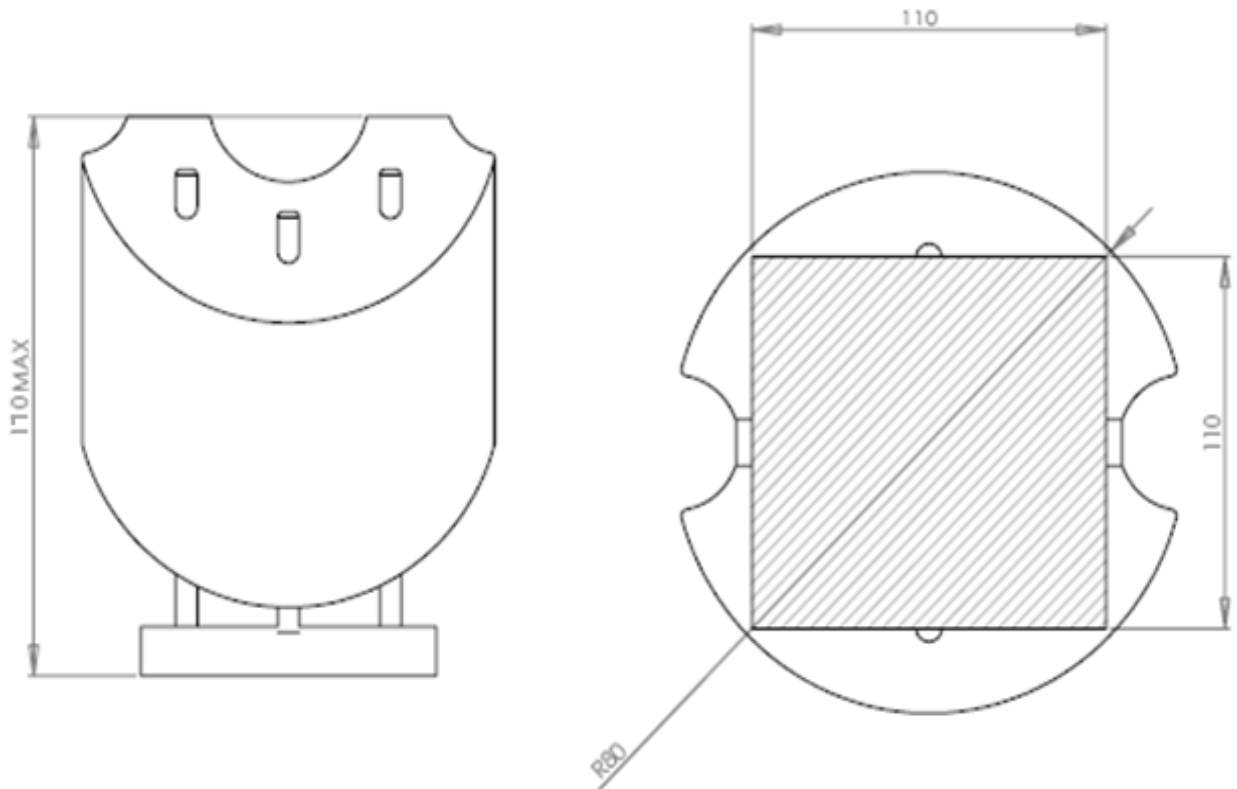
³ Design power is based on ~ 50 K temperature difference (ΔT) between maximum Tc (Ts) on LED module and ambient temperature.

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
HB0900-HPK03-170xx	no pattern	
HB0916-HPK03-170xx	LED pattern , wire through holes	Bridgelux VERO™ 29, Citizen CLU058
HB0920-HPK03-170xx	LED pattern , wire through holes	Bridgelux VERO™ 18/29
HB0925-HPK03-170xx	LED pattern , wire through holes	Citizen CLL048/CLU58
HB0926-HPK03-170xx	LED pattern , wire, Corners 4x M3/ 8-8	Citizen CLU58, Ledil Stella
HB0930-HPK03-170xx	LED pattern , wire, Corners 4x M3/ 8-8	Bridgelux VERO™ 29, Ledil Stella

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

HPK-Fin™ Hybrid Heat Exchangers are registered German Utility Models and DBGM protected. International patents are granted. To copy, counterfeit and/or imitate the solutions is forbidden by law and considered an indictable offence according §§ 24 and 25 GebrMG.

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