

Featuring Powdered Iron Alloy Core Technology and Soft Saturation, New IHDM Edge-Wound Inductors Deliver Stable Inductance and Saturation at Temps to +180 °C for Applications Up to 128 A DC, Provide Low DCR to Reduce Power Losses and Increase Efficiency

Product Benefits:

- Offered in the 1107 case size
- Soft saturation current to 456 A
- Feature powdered iron alloy core technology
- Operating temperature range from -55 °C to +180 °C
- Edge-wound coil provides low DCR down to 0.25 mΩ
- Operating voltage up to 350 V, with higher voltages available
- Stripped and tinned terminals for through-hole mounting (standard)
- Available with a selection of two core materials for optimized performance, depending on the application
- Hot-dipped tin plating reduces the risk of whisker growth
- RoHS-compliant, halogen-free, and [Vishay Green](#)



Market Applications:

- DC/DC converters, inverters, differential mode chokes, and filters for motor and switching noise suppression in industrial, medical, and military systems

The News:

Vishay Intertechnology introduced two new IHDM edge-wound, through-hole inductors in the 1107 case for commercial applications with soft saturation up to 456 A. Featuring a powdered iron alloy core technology, the Vishay Custom Magnetics IHDM-1107BBEV-20 and IHDM-1107BBEV-30 provide stable inductance and saturation over a demanding operating temperature range from -55 °C to +180 °C with low power losses and excellent heat dissipation.

- Low DCR minimizes losses and improves rated current performance for increased efficiency
- Compared to competing ferrite-based solutions, the inductors offer 30 % higher rated current and 30 % higher saturation current levels that are stable at continuous operating temperatures to +180 °C
- Soft saturation provides a predictable inductance decrease with increasing current, independent of temperature
- Vishay can customize the devices' mounting method, and performance, upon request
 - Options include bare copper, surface-mount, and press fit



The Key Specifications:

Part number	IHDM-1107BBEV-20	IHDM-1107BBEV-30
Inductance (μH)	0.47 to 7.5	0.68 to 12.0
DCR typ. ($\text{m}\Omega$)	0.25 to 2.17	
DCR max. ($\text{m}\Omega$)	0.30 to 2.60	
Heat rating current typ. (A) ⁽¹⁾	31 to 128	35 to 125
Saturation current typ. (A)	96 to 343 ⁽²⁾ / 118 to 422 ⁽³⁾	49 to 202 ⁽²⁾ / 61 to 248 ⁽³⁾
SRF typ. (MHz)	29 to 217	21 to 181

⁽¹⁾ DC current (A) that will cause an approximate ΔT of 40 °C

⁽²⁾ DC current (A) that will cause L_0 to drop approximately 20 %

⁽³⁾ DC current (A) that will cause L_0 to drop approximately 30 %

Availability:

Samples and production quantities of the new inductors are available now, with lead times of 12 weeks.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?34574> (IHDM-1107BB-X0)

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