

Featuring Powdered Iron Alloy Core Technology, New Automotive Grade IHDM Edge-Wound, Through-Hole Inductors Offer Stable Inductance and Saturation at Temps to +180 °C, Provide Low DCR to Reduce Power Losses and Increase Efficiency

Product Benefits:

- Offered in the 1107 case size
- Soft saturation current to 422 A
- · Feature powdered iron alloy core technology
- Operating temperature range from -40 °C to +180 °C
- Edge-wound coil provides low DCR down to 0.22 m Ω
- High isolation voltage rating up to 350 V
- AEC-Q200 qualified
- Available with a selection of two core materials for optimized performance, depending on the application
- Stripped and tinned terminals for through-hole mounting (standard)
- Hot-dipped tin plating reduces the risk of whisker growth
- RoHS-compliant, halogen-free, and Vishay Green



Market Applications:

 DC/DC converters, inverters, on-board chargers (OBC), domain control units (DCU), and filters for motor and switching noise suppression in internal combustion (ICE), hybrid (HEV), and full-electric (EV) vehicles

The News:

Vishay Intertechnology introduces two new IHDM Automotive Grade edge-wound, through-hole inductors in the 1107 case size with soft saturation current to 422 A. Featuring a powdered iron alloy core technology, the Vishay Inductors Division's IHDM-1107BBEV-2A and IHDM-1107BBEV-3A provide stable inductance and saturation over a demanding operating temperature range from -40 °C to +180 °C with low power losses and excellent heat dissipation.

- The devices' low DCR minimizes losses and improves rated current performance for increased efficiency
- Compared to competing ferrite-based solutions, the IHDM-1107BBEV-2A and IHDM-1107BBEV-3A offer 30 % higher rated current and 30 % higher saturation current levels at +125 °C
- The inductors' soft saturation provides a predictable inductance decrease with increasing current, independent
 of temperature
- Vishay can customize the devices' performance including inductance, DCR, rated current, and voltage rating
 — upon request
 - Customizable mounting options include bare copper, surface-mount, and pressfit

The Key Specifications:



NEW PRODUCT INFORMATION Product Group: Vishay Inductors Division, Inductors / August 2025

Part number	IHDM-1107BBEV-2A	IHDM-1107BBEV-3A
Inductance (µH)	0.47 to 7.5	0.68 to 12.0
DCR typ. (mΩ)	0.22 to 2.11	
DCR max. (mΩ)	0.27 to 2.20	
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 can an approximate ΔT of 40 °C

Availability:

Samples and production quantities of the IHDM-1107BBEV-2A and IHDM-1107BBEV-3A are available now, with lead times of 14 weeks.

To access the product datasheet on the Vishay Website, go to http://www.vishay.com/ppg?34659 (IHDM-1107BB-xA)

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 $^{^{(2)}}$ DC current (A) that will cause L_0 to drop approximately 20 %

⁽³⁾ DC current (A) that will cause L₀ to drop approximately 30 %