



## Bourns Releases High Clearance/Creepage Distance Isolation Power Transformer

### Model HCTSM150102HLF

Riverside, California - October 13, 2025 – Bourns Inductive Components Product Line is introducing the [Model HCTSM150102HLF](#) High Clearance/Creepage Distance Isolation Power Transformer. The high voltage isolation transformer is driven by 3.3 - 5 V input and delivers 3.3 -15 V up to 175 mA output, and can be configured in a variety of turns ratios if needed.

The transformer is designed to support isolated interface power for CAN, RS-485, RS-422, RS-232, SPI, I<sup>2</sup>C, lower power LANs in a range of applications such as Industry 4.0 and any application that requires isolation from potentially hazardous voltages (e.g., from a high voltage battery especially inside 1500 V Energy Storage Systems).

The Model HCTSM150102HLF is built with a ferrite toroid core for high coupling factor and efficiency. It is compliant to the UL class F insulation requirement, up to 150 °C operating temperature. The reinforced isolation, 15 mm minimum clearance/creepage distance, and 7.64 kV @ 2 seconds withstanding voltage provide an elevated degree of isolation from high voltage hazards.

The transformers are designed for isolation power supplies using Texas Instruments SN6501 and SN6505B, and are compliant with IEC 60664-1 and IEC 62368-1.

#### Characteristics:

Model	L (μH)	Size (mm)	Working Voltage (V)	Creepage Distance (mm)	Clearance Distance (mm)
HCTSM150102HLF-E	80 Min.	21.3 x 15.0 x 10.1	1500 VDC	15.0 Min.	15.0 Min.

Please visit the Bourns website at [www.bourns.com](http://www.bourns.com) for additional product details and contact [Bourns Customer Service/Inside Sales](#) if you have any questions.

#### Features

- Working voltage up to 1500 VDC
- Hi-Pot: 7640 VDC, 1 mA, 2 s
- Clearance distance >15 mm
- Creepage distance >15 mm
- Reinforced class F insulation, up to 150 °C
- Overvoltage category II, pollution degree 2, up to 4 km above sea level
- Complies with IEC 60664-1, IEC/UL 62368-1
- RoHS compliant\*

#### Applications

- ESS and high voltage/current meter
- RS-485/ RS-232 isolation
- CAN interface digital input modules

#### Additional Information



DATA SHEET



PRODUCT SELECTOR



TECHNICAL LIBRARY



INVENTORY



SAMPLES



CONTACT

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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