BOURNS®

NEW PRODUCT RELEASE

MAGNETICS



Bourns Releases New AEC-Q200 Compliant, Automotive Grade High Clearance/Creepage Distance Isolation Power Transformer

Model HCTSM100308BAL

Riverside, California - February 23, 2026 – Bourns Magnetics Product Line is pleased to introduce the new Model HCTSM100308BAL High Clearance/Creepage Distance Isolation Power Transformer. This high voltage isolation transformer is driven by 3.3 – 5 VDC input, delivers 8 – 12 VDC, up to 125 mA output and, if required, can be configured in a variety of turns ratios.

The Model HCTSM100308BAL is designed to support isolated interface power for CAN, RS-485, RS-422, RS-232, SPI, I^2C and 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 in a 1000 V battery pack or energy storage system).

This power transformer offers a working voltage of up to 1000 V_{rms} and Hi-Pot isolation voltage up to 4000 VDC, with an extended operating temperature range from -40 °C to +125 °C.

The Model HCTSM100308BAL is built with a ferrite toroid core for a high coupling factor and efficiency. The reinforced isolation, 10 mm min. clearance/creepage distance, and 4 kV @ 60 second withstanding voltage provide an elevated degree of isolation from high voltage hazards. The transformer is designed for isolation power supplies using Texas Instruments' Model SN6501 and SN6505B, and is compliant with IEC/UL 60950-1 and IEC/UL 62368-1 requirements.

Model	Primary Inductance (µH)	Size (mm)	Working voltage (V_{rms})	Creepage distance (mm)	Clearance distance (mm)	Operating Temperature (°C)
HCTSM100308BAL	300 min.	15.7 x 10.8 x 7.5	1,000	10 min.	10 min.	-40 to +125

Please visit the Bourns website at www.bourns.com for additional product details and contact Bourns Customer Service/Inside Sales if you have any questions.

Features

- Working voltage up to 1000 V_{rms}
- Hi-Pot: 4000 VDC, 1 mA, 60 s or 4400 VDC, 1 mA, 2 s
- Reinforced insulation
- Clearance/creepage distance >10 mm
- Overvoltage Category II, Pollution Degree 2, up to 2 km above sea level
- Complies with IEC/UL 60950-1, 62368-1
- AEC-Q200 compliant
- RoHS compliant*
- AUTOMOTIVE GRADE

Applications

- Battery Management Systems (BMS)
- Energy Storage Systems (ESS)
- CAN interface digital input modules
- RS-485 and RS-232 isolation
- Designed for isolation power supplies using TI SN6501 & SN6505B

Additional Information

DATA SHEET | PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

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

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Americas: Tel +1-951 781-5500 americus@bourns.com

EMEA: Tel +36 88 885 877 eurocus@bourns.com

Asia-Pacific: Tel +886-2 256 241 17 asiacus@bourns.com

Mexico: Tel +52 614 478 0400 mexicus@bourns.com