BOURNS®

NEW PRODUCT RELEASE

MAGNETICS



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

Model HCTSM110102HAL and HCTSM110304HAL

Riverside, California - February 25, 2026 – Bourns Magnetics Product Line is pleased to introduce the Model HCTSM110102HAL and HCTSM110304HAL High Clearance/Creepage Distance Isolation Power Transformers. These high voltage isolation transformers are driven by 3.3 – 5 V input, deliver 4.3 – 10 V, up to 250 mA output and, if required, can be configured in a variety of turns ratios.

The Model HCTSM110102HAL and HCTSM110304HAL transformers are designed to support isolated interface power for CAN, RS-485, RS-422, RS-232, SPI, I²C 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 1,200 V energy storage system).

These new power transformers offer a working voltage of up to 1,200 VDC and Hi-Pot isolation voltage up to 5,000 VAC with an extended operating temperature range from -40 °C to +125 °C.

These transformers are built with a ferrite toroid core for a high coupling factor and efficiency. The reinforced isolation, 11 mm min. clearance/creepage distance, and 5 kV @ 60 second withstanding voltage provide an elevated degree of isolation from high voltage hazards. The transformers are designed for isolation power supplies using Texas Instruments' Model SN6501 and SN6505B and are compliant with IEC/UL 60664-1 and IEC/UL 62368-1 requirements.

Model	Primary Inductance (µH)	Size (mm)	Working voltage (VDC)	Creepage distance (mm)	Clearance distance (mm)	Operating Temperature (°C)
HCTSM110102HAL	80 min.	19.6 x 13.5 x 9.6	1,200	11 min.	11 min.	-40 to +125
HCTSM110304HAL	80 min.	19.6 x 13.5 x 9.6	1,200	11 min.	11 min.	

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 1200 VDC
- Hi-Pot: 5000 VAC, 1 mA, 60 s
- Reinforced insulation
- Clearance/creepage distance >11 mm
- Overvoltage Category II, Pollution Degree 2, up to 4 km above sea level
- IEC 60664-1, IEC/UL 62368-1
- AEC-Q200 compliant
- RoHS compliant*
- AUTOMOTIVE GRADE

Applications

- Battery Management Systems (BMS)
- Energy Storage Systems (ESS)
- High voltage/high current DC meters
- 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