Mechanics, energy

CONTACTLESS ROTATING TRANSFORMER

Innovative rotating transformer for electric energy transmission by electromagnetic induction

Technological benefits

Power and signal transmission without frictional contact

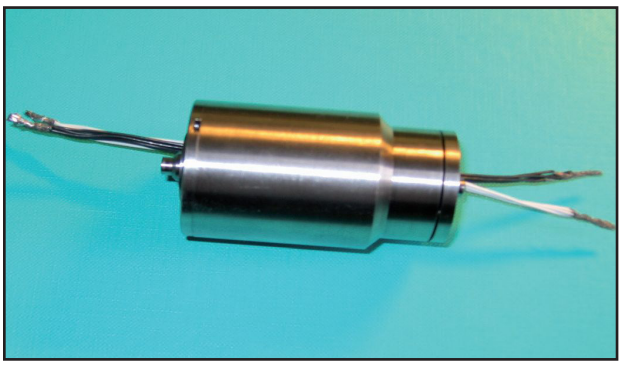
Magnetic means for power
Capacitive means for signal transmission
No arc risk
Few tests required for validation

High yield

Reduction of series inductance and loss, better primary/secondary coupling than conventional rotating transformers
Measured yield of 93% minimum with converter structure included
High-frequency operation providing good compactness

Minimised wear

Much longer lifetime, limited only by bearings
High rotation speed available compared to contact solutions
Does not emit particles



Rotating transformer

Commercial benefits

A sound investment

Reduced qualification costs
Long lifetime, wear limited to bearings

Ideal solution for high rotation speeds

Invention overview

High-performance rotating transformer transmitting electrical power between two contactless rotating parts, by magnetic means.
Replaces conventional friction brush collectors.

TRL : 4 (2010)

Patented invention, available under license

Potential applications

Contactless electrical connectors with power transmission

B0470

For more information

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