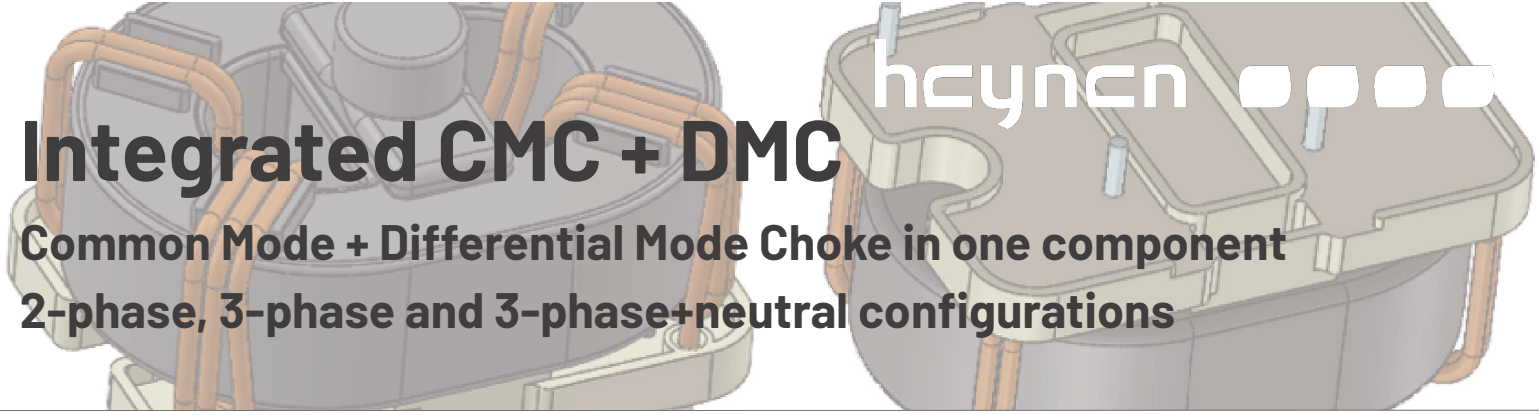


Integrated CMC + DMC

Common Mode + Differential Mode Choke in one component

2-phase, 3-phase and 3-phase+neutral configurations

When it makes sense?

- Space-constrained system.
- Need of cost optimization.
- Need of high attenuation for EMC filtering.

Concept

- Integrated magnetic component combining:
  - Common Mode (CM) inductance
  - Differential Mode (DM) inductance
- DM inductance is obtained from the controlled leakage inductance of the CMC, avoiding the need for a separate DM choke.
- Use of nano-crystalline magnetic material.

Potential benefits

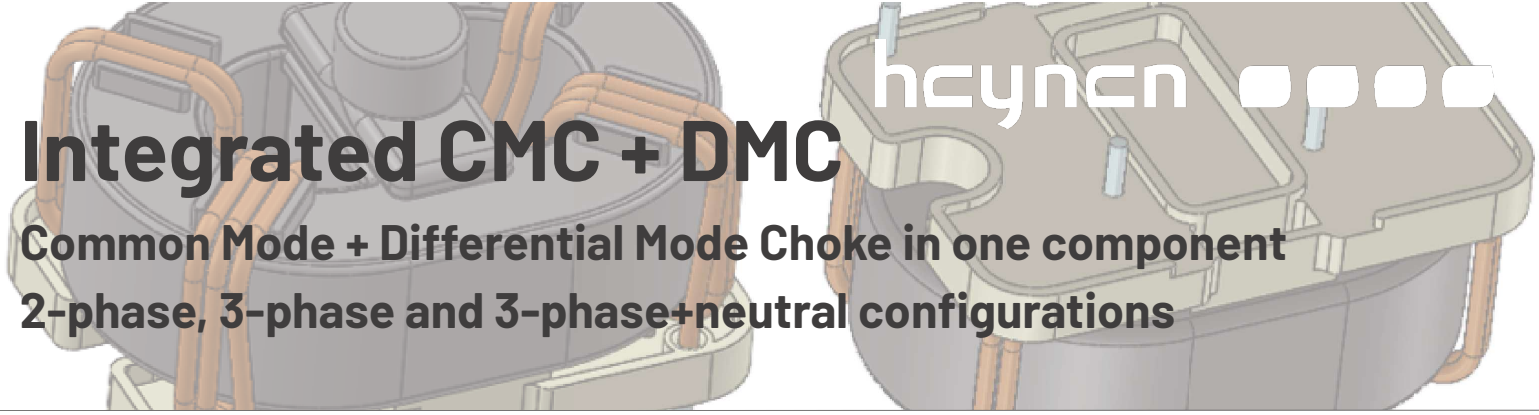
- Size & cost reduction up to 25%
- Higher power density



Do you like this solution?
Please contact Heynen for distribution in BENELUX.

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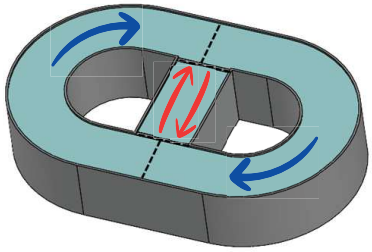
Magnetic principle

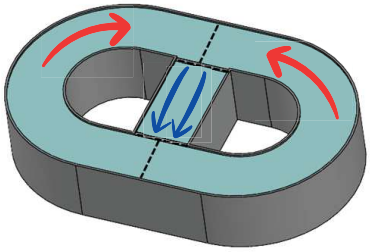
CM current:

- Summed in toroidal core
- Cancelled in magnetic insert

DM current:

- Partially cancelled in toroidal core
- Summed in magnetic insert





Leakage inductance controlled through core geometry and magnetic gap.

Typical working range

- DM inductance range: Up to 30uH @ 100kHz
- CM inductance range: Up to 5mH @ 100kHz
- Rated currrent: 20-150 Amp
- Rated power: 5kW - 150kW
- CM current range: Up to 3 Amps without saturation
- Working voltage: Up to 1000V

All specified values cannot be ensured at the same time.
Contact us for a specific proposal.

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