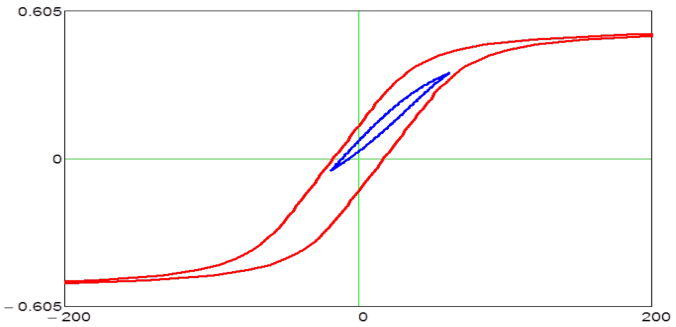
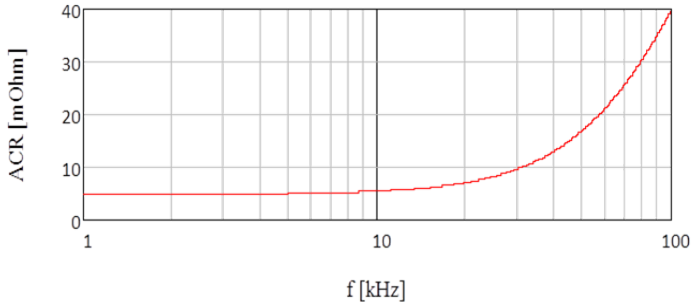
ALGORITHM MODELS

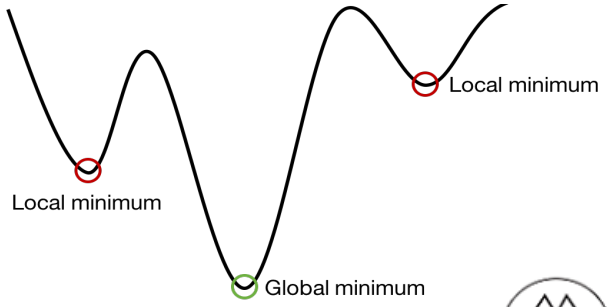
1. Hysteresis



2. HF winding resistance



3. Genetic optimization algorithm



MAGMENT

MAGMENT focuses on development, design and contract manufacture of magnetizable concretes used for innovative, competitive and customer-oriented electromagnetic solutions, such as inductive components in collaboration with INCOPA GmbH.
Founded in 2015, based on a large experience and know-how in the fields of magnetic materials and their applications, with a focus on quality and cost.

THE MAGMENT MATERIAL

Concrete never had magnetic properties until now. By just replacing gravel and sand for coarse and fine magnetic fillers from recycled ferrites, we merge the worlds of concrete and magnetism in this competitive flowable material.

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MAGMATH

Online design software for custom magnetics

www.magment.de
www.inductive-components.de

LAUNCHING DATES

Beta	Public Beta	Scheduled Release
May 15th 2017	June 1st 2017	June 15th 2017

PCIM EUROPE

CWIEME BERLIN

MAGMATH optimization software designs cost-optimized MAGMENT inductors by a proprietary advanced algorithm based on the following models:

1.

Dynamic hysteresis modeling to accurately describe inductance and core loss under DC-bias. The major loop is taken as a differential equation's particular solution to predict any minor loop.

2.

Calculation of the overall AC resistance of multi-wire conductors considering skin and proximity effects between single strands and bundles.

3.

Minimization of a multivariable cost function using a genetic algorithm to find the global optimum design. This approach allows to freely vary the numerous design parameters without starting values.