EDR MEDESO ™

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WattsUp Power

CUSTOMER STORY

Integrated design of flywheel energy storage systems

Read about how EDRMedeso's customer, WattsUp Power, employs state-of-the-art simulation solutions from Ansys to accelerate innovation process in the company.

What are the challenges faced during product development?

The product we are developing is a fly-wheel energy storage solution, a complex product that contains multiple components that need to be design interlinked and synergetic, to offer the most efficient solution.

What are the benefits of simulation for you?

Simulation helps us speed the development process and the most important advantage is that it gives us the possibility to design interlinked systems instead of individual components. Our product has a high level of integration and that is why the dependencies between the components are fundamental to the system performance.

Being able to simulate gives us the opportunity to evaluate new designs fast and to assess many design iterations that would not be possible when only relying on analytical calculations or machine testing. In this way we are accelerating the innovation process inside our company.

Which Ansys products do you use?

We are using Ansys Electronics Desktop, Ansys Fluent, Ansys Mechanical, and SpaceClaim.

WattsUp Power

WattsUp Power designs, develops, and distributes advanced high-quality energy storage systems for domestic consumers and industrial customers, both with varying needs for energy storage and power distribution requirements.

EDRMedeso

EDRMedeso is the leading supplier in Northern Europe of engineering software - Digital Labs & Cloud Computing. We work with some of the key players in the fields of simulation and computer-aided engineering. We are Ansy's only Elite Channel Partner covering the Nordics and UK.
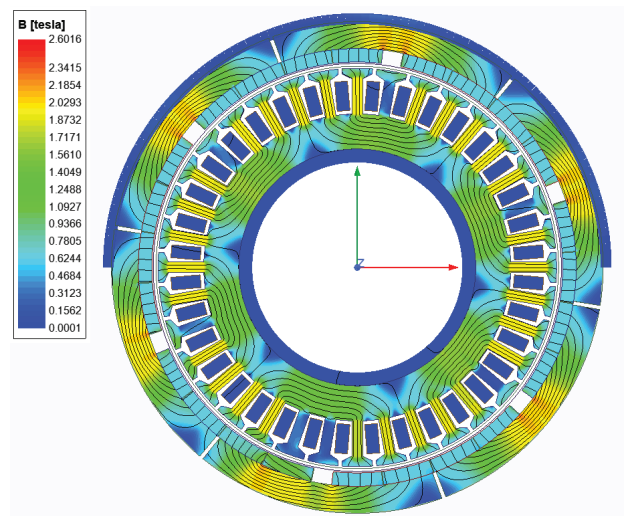
Flux density distribution in motor / generator of the latest generation flywheel (simulated by Ansys Maxwell

We are doing the initial design of the individual components and structures using Ansys Electronics Desktop and Ansys Mechanical. Then the thermal system integration and performance is evaluated using Ansys Fluent and the design parameters and geometries are linked using SpaceClaim.
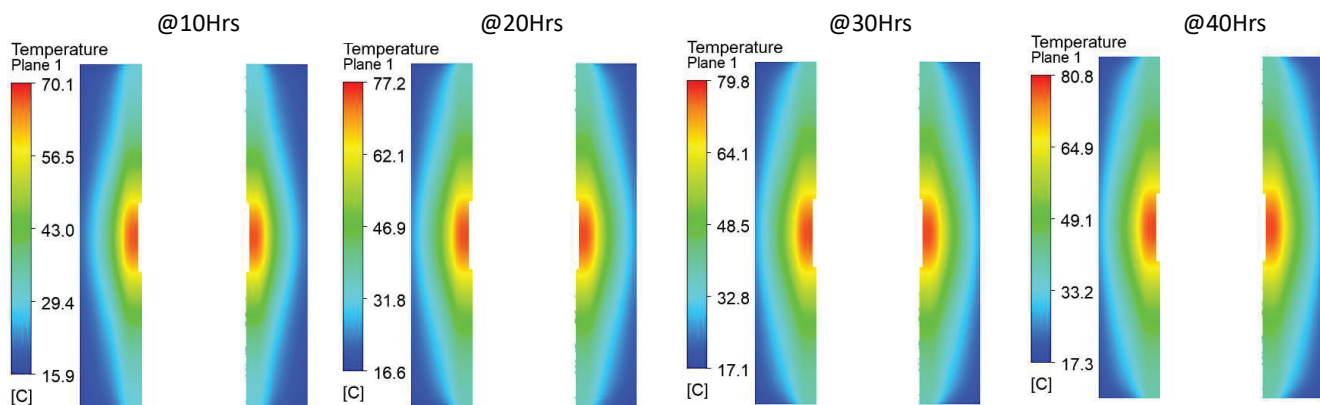
Temperature distribution in rotor of the latest generation flywheel (simulated by Ansys Fluent)

Can you share your company's vision about simulation-based product development?

We would like to build and simulate fully parametrized component models that could allow us to find the most optimal design in the least amount of time and then integrate the design into the system evaluation to get the best performance of the final product. Test and validation will help us further tunning the unknows of the simulation models in order to get the performance of the models as close as possible to the tested products.

Want to know more about our solutions related to
Electrification - visit our website.

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