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ProFluxx GmbH

Electrical Cooling Solutions Ltd

A Partnership of Electrical Machine Design Specialists

Two complementary specialist companies working together to provide state-of-the art complete designs for electrical machines

Located in Germany and UK, we are two complimentary electrical machines design companies, combining to provide electrical machine design services.

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Page 2/4 – Our Offerings

We offer full electrical machine design, from the concept stage to a full set of technical drawings and manufacturing documents

We also offer modifications and improvements to existing electrical machine product ranges

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We are experienced in:

- Synchronous machines
- Induction machines, including Doubly Fed Induction Generators (DFIG)
- Permanent Magnet machines

Specific design expertise include:

- High Efficiency designs improvements: up to 98.2% (10MW)
- Thermal management improvements solutions for increased power density, reduced costs and increased product lifetime
- Design optimisation for technical specifications: cost, weight and manufacturability
- Robust vibration proven designs: up to 30 year lifetime
- Modular approach
- Validation plans & test data evaluation for mechanical, electrical and thermal performance
- Root cause analysis – failure investigation

Our highly skilled engineers work closely with customers to deliver designs according to set specification

Page 3/4 – Our Experience

- **Why work with us?**

- A complete package: Electromagnetic Design, Mechanical Design, Thermal Design & Manufacturing engineering
- Extensive application experience: Marine, stationary power plant, industrial, oil/gas offshore, hydro, wind
- Machine designs with world best efficiency (98.2% at 10MW)
- Robust designs withstanding high vibration levels – e.g. driven by gas / diesel engines for up to 30 year lifetime
- Modular approach, integrated product design and serial product knowledge: parts reduced by up to 75%
- Comprehensive validation program using in depth Multiphysics FEA simulations to prove detailed test data
- Advanced modelling software, customised for electrical machine analysis

- **Our experiences**

- Pool of specialists with more than 150 years of combined experience in Electrical Machine Design: Electromagnetic, Mechanical, Thermal & Manufacturing
- Extensive experience cutting across industry and academia
- Experience working with companies including Siemens, AvK, Electroputere, Cummins and University of Nottingham Electrical Machines Department
- R&D experiences of conventional and novel electrical machines, including simulation and implementation of novel thermal solutions
- 5 commercial products developed - from concept via prototype to serial production
 - Up to 20MW; 400V – 15kV
 - 500rpm – 1800rpm
 - Up to 80 tons
- International customer base

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Page 4/4 Contact Info

- For further information about how we can help you, please contact:

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