Application Brief

Infineon’s system solution for battery powered motor drives

Based on industry leading technology and the highest quality and manufacturing expertise, Infineon provides a variety of innovative power semiconductors which enable designers to develop highly reliable and efficient solutions for all kinds of battery powered drive applications.

Key enabling products are:
› Low voltage power MOSFETs – OptiMOS™ and StrongIRFET™
› Small Signal products
› High voltage power MOSFETs – CoolMOS™
› EiceDRIVER™ Compact and 100 V/200 V gate driver ICs
› Magnetic sensors and voltage regulators
› Microcontrollers – XMC™
› Motion control ICs – iMOTION™ IRMCK099
› Authentication IC ORIGA™

Infineon offers a comprehensive portfolio to address a broad range of battery powered motor control applications such as power tools, forklift, all kinds of light electric vehicles e.g. e-skateboards, e-scooter, pedelecs, low speed cars and many others.

Benefits of Infineon components
› Portfolio: complete portfolio out of one hand – enables scalability
› Reliability: increased lifetime due to Infineon’s reliability and quality
› Size and cost: smallest area required for highest power density and BOM cost reduction due to lowest R_{DS(on)}
› Time-to-market: complete eco-system: simulations, documentation and demoboard solution for high-end solutions available

Further information
› www.infineon.com/optimos
› www.infineon.com/xmc
› www.infineon.com/eicedriver
› www.infineon.com/sensors
› www.infineon.com/coolmos
› www.infineon.com/imotion
› www.infineon.com/baredie

www.infineon.com/motorcontrol
Infineon’s system solution for battery powered motor drives

Highest performance in your motor control

Typical battery powered 3-phase system

To shorten customer development cycle time and cost, we offer a complete portfolio of low voltage motor control application kits:

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<th>XMC1000 motor control application kit</th>
<th>XMC4000 motor control application kit</th>
<th>iMOTION™ modular application design Kit (MADK)</th>
<th>Evaluation board 5 kW TO-Leadless</th>
<th>40 V Medium Can ME/MF DirectFET™ 3-phase BLDC motor drive demo board</th>
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To explore our rich portfolio, visit our homepage: www.infineon.com/motorcontrol

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Additional information
For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings
Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.