

ELECTRIC MOTOR CONTROLLER

O40

The O40 is an ISO26262 ASIL-D capable and cybersecurity ISO21434 ready high-power-density traction inverter for 400V applications that delivers up to 40kW continuous power.



MAIN FEATURES

- 3 phase PMSM, ACIM and BLDC motors
- ASIL D certified triple core microcontroller @300Mhz
- Redundancy functions through a CPLD device for safety-critical applications
- Over current, over voltage and over temperature self-protection features
- Real time parameter calibration and monitoring
- PC based set up and programming tools available
- Application software enables sensors auto-calibration functions
- Customizable control algorithms for each application
- Torque, Speed, Id/Iq Control
- Position sensor types: Resolver, xMR, Encoder, BiSS and BLDC sensorless capability
- Current sensor: hall
- Temperature sensor: NTC 10k and PT1000. Accuracy with other sensors can be evaluated.
- 2x CAN Communication channels (ECU communication & calibration with DeveLinkSTUDIO tool)
- CAN database available (.dbc)

ELECTRICAL DATA

Nominal DC link voltage	48 - 400	VDC
Max Operational Voltage	400	VDC
First Over Voltage Protection	440	VDC
Max Current	170	Arms
Continuous Power @400V	40	kW
Switching Frequency	2 - 15	kHz
LV Supply	9 - 28	VDC

MECHANICAL DATA

Working Temperature	-40°C to 85°C
Cooling	Water-Glycol 50:50
Volume	1.8 l
Dimensions	270 x 160 x 40 mm
Mass	2 kg
Flow rate coolant	6 - 12 l/m
Compatible HV cables	25 mm ²

