

ELECTRIC MOTOR CONTROLLER

R300

The R300 is an ISO26262 ASIL-D capable and cybersecurity ISO21434 ready high-power-density traction inverter for 800V applications that delivers up to 300kW continuous power.



MAIN FEATURES

- 3 phase PMSM, ACIM and BLDC motors
- IGBT powerpack, up to 1200V/800A peak phase current. Available in SiC upon request.
- 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
- PC based set up and programming tool. Real time parameter calibration and monitoring
- 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 – 800	VDC
Max Operational Voltage	840	VDC
First Over Voltage Protection	845	VDC
Max Current	560	Arms
Continuous Power @800V	300	kW
Switching Frequency	2 - 8	kHz
LV Supply	9 - 28	VDC

MECHANICAL DATA

Working Temperature	-40°C to 85°C
Cooling	Water-Glycol 50:50
Dimensions	340 x 220 x 95 mm
Dimensions with connectors	380 x 220 x 95 mm
Mass	7 kg
Flow rate coolant	6 - 12 l/m
Compatible HV cables	70 and 90 mm ²

