

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

- Most compact and power dense IGBT inverter commercially available
- Sixth gen. IGBT powerpack, up to 1200V/800A peak phase current
- ASIL D certified triple core microcontroller @300Mhz
- Self-protection features: OVP, OCP, OTP.
- Speed and temperature derating.
- An interlock signal can be fed for additional safety.
- Best-in-class efficiency and reduced harmonics with VarioSwitch
- Reduced consumption with Deep Sleep and Wake-up
- Robust patented HV connection system and cost-effective connector to reduce integration cost.
- 2x CAN Communication channels (VCU communication & DeveLinkSTUDIO)
- DeveLinkSTUDIO real time SW interface tool free of charge. Calibrate and Integrate at no extra cost.
- Application software enables sensors auto-calibration functions
- Position sensor types: Resolver, XMR, Absolut Encoder, Incremental Encoder, BiSS
- Sensorless control available. Position sensor redundancy function embedded.
- Stall current: DPWM to deliver maximum current at 0rpm.
- Temperature sensor: NTC (10k) / PTC (PT1000, KTY81_210, KTY83_122, KTY84_130). Accuracy with other sensors can be evaluated.
- Current, Torque and Speed Control.

ELECTRICAL DATA

Nominal DC link voltage	48 – 800	VDC
First Over Voltage Protection	870	VDC
Max Current	560	Arms
Continuous Power @800V	300	kW
Switching Frequency	5 - 10	kHz
LV Supply	12 - 24	VDC

MECHANICAL DATA

Working Temperature	-40°C to 85°C
Cooling	Water-Glycol 50:50
Dimensions without connectors	340 x 215 x 89 mm
Mass	6,7 kg
Flow rate coolant	6 - 12 l/m
Compatible HV cables	70 / 50 / 35 mm ²
Ingress Protection	IP67*

*When connectors & cables assembled correctly

