

ELECTRIC MOTOR CONTROLLER

E160

The E160 is an ISO26262 compliant and cybersecurity ISO21434 ready inverter for 400V applications that can deliver 160kW continuous power



MAIN FEATURES

- Most compact and power dense IGBT inverter commercially available
- 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 - 450	VDC
First Over Voltage Protection	465	VDC
Max Current	630	Arms
Continuous Power @400V	160	kW
Switching Frequency	5 - 15	kHz
LV Supply	9 - 28	VDC

MECHANICAL DATA

Working Temperature	-40°C to 85°C
Refrigerant	Water-Glycol 50:50
Volume	4.1 l
Dimensions without connectors	297 x 207 x 66 mm
Mass	4,5 kg
Flow rate coolant	6 - 16 l/m
Compatible HV cables	25, 35, 50, 70 mm ²
Ingress Protection	IP67*

*When connectors & cables assembled correctly

