

INVERTER & MOTOR



Inverter modular construction in both, hardware and software.

Benefits

- One of the smallest inverter in the market.
- Low weight.
- Light and compact solution.
- Suitable for on Motor Mounting. Reducing connections length.
- Ruggedized housing construction, for close to wheel installation.
- Fast connectors and easy installation



Characteristics

- Suitable for SRM, PMSM and Induction Motors.
- Based on safety dual-core MCU.
- ISO 26262 ASIL C level compliant .
- AUTOSAR (Automotive Open System Architecture) standard software used.
- Full modular software for Powertrain and car integration with different features.
- Customizing possibility available for customers.

REFERENCE	FIA 320
Control for motor type	Switched Reluctance Motor and other motors
Operation modes	4 quadrants and different operation modes programable depending on customer needs
Control Model	Torque and speed control
Operating Voltage range	100 - 450 Vdc
Rated Output Current	For SR motors 220 Arms For PMSM motors 2x400 Arms
Peak Output Current (30 sec)	600 Arms
Continuous Power @ 400 Vdc	For SRM 44 kW V1: For PMSM 240 kW For Induction motors 240 kW V2: For PMSM 510 kW For Induction motors 510 kW
Peak Power @ 400 Vdc (20 sec)	For SRM 80 kW V1: For PMSM 320 kW For Induction motors 320 kW V2: For PMSM 640 kW For Induction motors 640 kW
Controlled speed range	0 - 8300 rpm
Switching Frequency	12 kHz
Motor position sensor	Resolver
Motor temperature sensor	PT100
Nominal coolant temperature	60°C
Coolant temperature range	-20°C to 80°C
Derating allowed above	80°C
Ambient Temperature - Full functional operating range	-40 to +70°C
Cooling system	50%-50% Ethylene Glycol based water solution
Coolant flow rate	8 l/min
Comm Interfaces	2 x CAN 2.0
Contain active discharge system	Yes < 60 Vdc @ 5 sec
EMC requirements	Depending on OEM final application
Integration with the motor	Yes Mechanical and Electrical
Weight	18.5 kg
Dimensions	286x305x193mm
Power density	V1: 19KW/litre V2: 38KW/litre