INRO

For a better tomorrow.

POWER ELECTRONICS

Drive controller TMCs

The Triple Motion Control safety (TMCs) is a 3-axis controller for asynchronous and synchronous reluctance motors consisting of three independently operating subsystems, each with its own output stage and controller. The CAN bus enables you to operate all types of mobile machinery with up to three drives, such as: traction, steering and pump drives or two traction drives and a hydraulic unit, efficiently, reliably and safely. By connecting two outputs in parallel, currents of up to 900 Aeff are possible for short periods.

Features:

- Rated battery voltage 80 V
- Input voltage range 56 V..104 V
- Highly efficient 3-axis power output stages with recuperation function (energy recovery)
- Phase current (eff) in short-time operation (S2) according to DIN EN 60034:
  - 2x 500 A - 5 min 2x 300 A - 60 min
  - 1x 600 A - 5 min 1x 350 A - 60 min
  - or in parallel operation of two axes
  - 1x 750 A - 5 min 1x 500 A - 60 min
  - 1x 600 A - 5 min 1x 350 A - 60 min
- Boost mode with 900 Aeff
- Suitable for the use of asynchronous, synchronous and synchronous reluctance motors
- Sensor technology for temperature-dependent phase current limitation for maximum utilization of the output stage
- Electronic charging and discharging circuit for the capacitor bank of the intermediate circuit
- Integrated electronic main contactor
- Dual-channel emergency stop shutdown, which ensures safe shutdown of the three-phase AC drives in accordance with Performance Level d category 3 as per EN ISO 13849-1
- Input voltage range for vehicle electrical system: 10 V..26 V
- Forced air cooling via integrated heat sink
- Various bus systems for communication such as CAN bus or MODBUS implemented
- Robust and sealed housing (IP 69K excl. fan) for harsh operating conditions
- Operating range - 40 °C to + 85 °C
- Dimensions 338 mm x 244 mm x 150 mm
- Weight 10 kg

More information:

INRO Elektrotechnik GmbH
Leiderer Straße 12
63811 Stockstadt [Germany]
+49 6027 2085-200
vertrieb@inro-et.de I inro-et.de/en