

SERVO INVERTER

For demanding drive tasks

TQ-Systems is supplementing its lineup of client-specific drive systems with the Robo Drive brand SDB-40-100, a universal servo inverter. It offers a CANopen interface.



The servo inverter comes with CANopen (Photo: TQ-Systems)

The SDB-40-100 is suitable for low voltage applications, with supply voltages ranging from 12 V_{DC} to maximum 100 V_{DC}, and outputs up to 3400 W of nominal power. The inverter measures 220 mm x 140 mm x 40 mm, weighs 1085 g, and comes with nominal currents of up to 40 A. The servo inverter operates at a cycle frequency of up to 100 kHz to achieve a high level of control quality. Moreover, the device is also able to sample currents up to 100 kHz.

To be able to process the resulting data volume in real time, a FPGA with high computing power is used to meet the requirements for dynamics in power control. This also makes it possible to operate motors with low inductivity while simultaneously minimizing ripple.

The control structure with different filter and pre-control options enables the product's use in demanding drive tasks. The servo inverter offers a CANopen interface, Ethercat, and the STO (Safe Torque Off) safety feature. The servo inverters can be operated with commonly used types of electric motors such as BLDC, AC, DC, stepper, and reluctance motors.

About Robo Drive

TQ-Systems develops and produces electric drive systems based on the [Robo Drive technology](#) and offers them as part of its TQ solution toolkit. The Robo Drive motors are suitable for applications that require high power density paired with precision and dynamics, says the company. Among other applications, they are used in robots, stabilized camera platforms, electric brake systems, steer-by-wire systems, and as a replacement for hydraulics in tool clamps.

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