10 mm

TMCM-140-42

**1Axis
Controller /Driver
Motor Mountable (NEMA17)
2A / 24V
Optional CANopen**

MAIN CHARACTERISTICS

INFO The TMCM-140-42-SE is an intelligent stepper motor controller and driver module to be mounted directly on a 42mm flange QMot stepper motor. This module converts the motor into a compact mechatronic device with bus oriented or stand-alone control. The chopSync™ feature allows high speed movement without resonance problems. The TMCM-140-42-SE comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL™). Using pre-defined TMCL™ high level commands like „move to position" or „constant rotation" a rapid and fast development of motion control applications is guaranteed. The TMCM-140-42-SE can be controlled via RS232, RS485, CAN or USB interface. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation are performed onboard. The TMCL™ program can be stored in the on board EEPROM for stand-alone operation. The firmware of the module can be updated via the serial interface. With the stallGuard™ feature it is possible to detect motor overload or motor stall. An optional firmware allows to control the module with the CANopen protocol.

ELECTRICAL DATA	· nom. 24V DC supply voltage (7V to 28.5V) · up to 2A RMS coil current
SUPPORTED MOTORS	· two-phase bipolar stepper motors with 1A to 2A coil current · mountable on QMot motors with flange size: 42mm/NEMA17
INTERFACE	· CAN 2.0b (up to 1Mbit/s) host, RS232 or RS485 interface and USB interface · 2 inputs for reference and stop switches · 2 general purpose inputs (24V compatible) · 2 open-collector outputs (open collector)
FEATURES	· chopSync™ for high speed movement · up to 16 times microstepping · memory for 2048 TMCL commands · motion profile calculation in hardware (RT) · on the fly alteration of motion parameters (e.g. position, velocity, acceleration) · dynamic current control
SOFTWARE	· stand-alone operation using TMCL or remote controlled operation · PC-based application development software TMCL-IDE included · optional CANopen firmware (CiA 301, 402)
OTHER	· pluggable JST connectors · RoHS compliant · size: 60 x 60 mm²
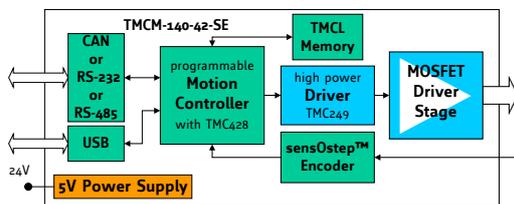
ORDER CODE	DESCRIPTION
TMCM-140-42-SE (-option)	1-axis controller / driver module 2A / 24V
TMCM-140-CABLE	cable loom including all necessary cables (single ended)
Related products:	*QMot motors QSH4218*
INTERFACE OPTIONS	
232	USB & RS-232 interface (TMCL™ firmware)
485	USB & RS-485 interface (TMCL™ firmware)
CAN	USB & CAN interface (TMCL™ firmware)
CANopen	USB & CAN interface (CANopen firmware)