PD-110-42

**42mm / NEMA17
Stepper Motor with
Controller / Driver
and Serial Interface**

10 mm

MAIN CHARACTERISTICS

INFO The PD-110-42 is a full mechatronic solution including a 42 mm flange motor. It joins a convenient controller electronic with a range of different motor torques. The PD-110-42 offers three motor torque options and can be controlled via RS-232, RS-485, CAN or IIC interface. The power supply, interface and the multi purpose I/Os can be connected with small JST connectors. The PD-110-42 comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL). Using predefined TMCL high level commands like „move to position" or „constant rotation" a rapid and fast development of motion control applications is guaranteed. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation are performed on board. 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.

ELECTRICAL DATA
· 7V to 34V supply voltage

MOTOR DATA
· total length: 53mm / 59mm / 69mm: max. torque 0.27Nm / 0.35Nm / 0.49Nm

· please also refer to the motor datasheet

INTERFACE
· RS-232, RS-485, I²C or CAN 2.0b host interface

· 2 inputs for reference and stop switches

· 1 general purpose input and 1 output

FEATURES
· up to 16 times microstepping

· memory for 2048 TMCL commands

· automatic ramp generation in hardware

· on the fly alteration of motion parameters (e.g. position, velocity, acceleration)

· stallGuard™ for sensorless motor stall detection

· dynamic current control

SOFTWARE
· stand-alone operation using TMCL or remote controlled operation

· PC-based application development software TMCL-IDE included

OTHER
· pluggable JST connectors / cables included

· RoHS compliant
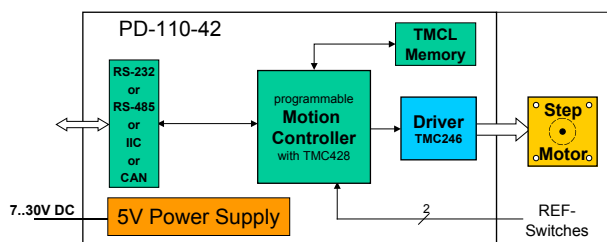
ORDER CODE	DESCRIPTION
PD1-110-42 (-option)	PANdrive 0.27Nm with QSH4218-35-10-027 motor
PD2-110-42 (-option)	PANdrive 0.35Nm with QSH4218-41-10-035 motor
PD3-110-42 (-option)	PANdrive 0.49Nm with QSH4218-51-10-049 motor
OPTIONS	
232	RS-232 interface
485	RS-485 interface
IIC	I²C interface
CAN	CAN interface