

10 mm

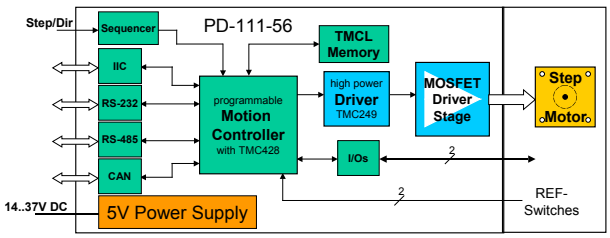
PD-111-56

**56mm / NEMA23
High Performance
Stepper Motor with
with Controller / Driver
and Serial Interface**

INFO

The PD-111-56 is a full mechatronic solution including a 56mm flange high torque motor. The low resistance of the motor coils and the supported high motor current allows highly dynamic operation. The driver electronics supports up-to 64 micro-steps. The PD-111-56 can be controlled via RS-232, IIC, RS-485 or CAN, interfaces. For connection of power supply and motor coils screw connectors are available. Communication interfaces and multi purpose I/Os can be connected via small JST connectors.

The PD-111-56 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. With the stallGuard™ feature it is possible to detect motor overload or motor stall.



MAIN CHARACTERISTICS

ELECTRICAL DATA
- 15V to 36V supply voltage
- 5A RMS nominal motor current (7A peak)

MOTOR DATA
- total length 85mm
- max. torque 0.78Nm
- up to 1200 RPM at 0,56Nm
- 5A RMS max. coil current

INTERFACE
- RS-232, RS-485 or CAN 2.0b, I2C
- two inputs for reference and stop switches
- 1 general purpose input and output

FEATURES
- high accuracy 64 times micro-stepping
- high current for highly dynamic drive
- EEPROM 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
- full step frequencies up to 20kHz
- 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
PD-111-56 (-option)	PANdrive 0.78 Nm with high speed motor
OPTIONS	
485	RS-232, I2C and RS-485 interface
CAN	RS-232, I2C and CAN interface