10 mm

PD-**109-57**
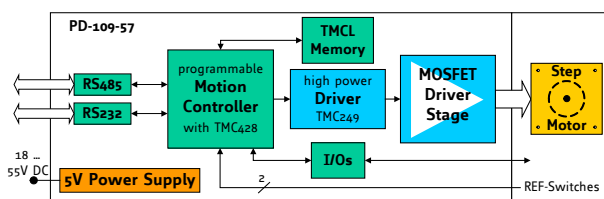
**57mm / NEMA23
Stepper Motor with
Controller / Driver
and Serial Interface**

INFO The PD-109-57 is a full mechatronic solution including a 57 mm flange motor (NEMA23). It combines a convenient controller electronic with a range of different motor types. The PD-109-57 offers three motor torque options and can be controlled via RS-232 or RS-485 interface. The power supply, interface and the multi purpose I/Os can be connected via two pluggable screw connectors. The PD-109-57 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 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.

MAIN CHARACTERISTICS

ELECTRICAL DATA
- 18V to 55V supply voltage
- 3A RMS nominal motor current (5A peak possible)

MOTOR DATA
- total length: 71 mm / 85 mm / 108 mm: max. torque 0.47Nm / 0.98Nm / 1.63Nm
- please also refer to the motor datasheet

INTERFACE
- RS232 and RS485 host interface
- 2 inputs for reference and stop switches
- 3 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
- optically isolated inputs
- dynamic current control

SOFTWARE
- stand-alone operation using TMCL or remote controlled operation
- PC-based application development software TMCL-IDE included

OTHER
- pluggable screw terminal connectors for all external signals
- RoHS compliant

ORDER CODE	DESCRIPTION
PD1-109-57 (-option)	PANdrive 0.47 Nm with motor QSH5718-41-30-047
PD2-109-57 (-option)	PANdrive 0.98 Nm with motor QSH5718-55-30-098
PD3-109-57 (-option)	PANdrive 1.63 Nm with motor QSH5718-79-30-163
OPTIONS	
RS	RS-232 and RS-485 interface