PD-**140**-**42**-SE

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

10 mm

INFO The PANdrive PD-140-42-SE is a mechatronic solution including a 42 mm flange motor, a controller board and a sensOstep™ encoder. It offers four motor torque options and can be controlled via CAN, RS-232, RS-485 or USB interface. Power supply, interface and multi purpose I/Os can be connected with small JST connectors. The chopSync™ feature allows high speed movement avoiding resonances. The PD-140-42-SE 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 onboard EEPROM for stand-alone operation. An optional firmware allows to control the PANdrive via CANopen.

MAIN CHARACTERISTICS

ELECTRICAL DATA
- 7V to 28.5V supply voltage

MOTOR DATA
- holding torque 0.22 / 0.36 / 0.44 / 0.70 Nm

INTERFACE
- CAN 2.0b (up to 1Mbit/s) host, RS232 or RS485 interface and USB interface
- two inputs for reference and stop switches
- two 24V compatible general purpose inputs and two open-collector outputs

FEATURES
- integrated sensOstep™ encoder for position identification and stall detection
- 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 / cables included
- RoHS compliant
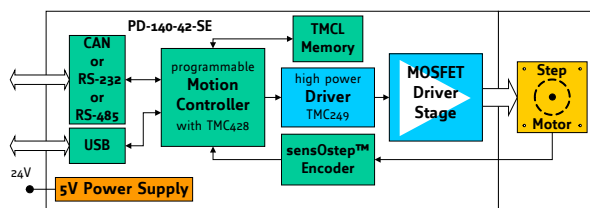
ORDER CODE	DESCRIPTION
PD1-140-42-SE (-option)	PANdrive 0.22 Nm, 48 mm length with QSH4218-34-20-022 motor
PD2-140-42-SE (-option)	PANdrive 0.36 Nm, 52 mm length with QSH4218-38-20-036 motor
PD3-140-42-SE (-option)	PANdrive 0.44 Nm, 61 mm length with QSH4218-47-20-044 motor
PD4-140-42-SE (-option)	PANdrive 0.70 Nm, 74 mm length with QSH4218-60-20-070 motor

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)