

# PD-163-42

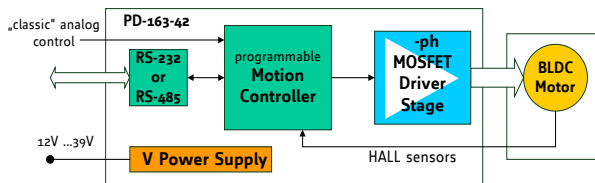
42mm / NEMA17  
 High Performance  
 BLDC Motor with  
 Controller / Driver  
 and Serial Interface

**INFO** The PD-163-42 is a full mechatronic solution including a 42 mm brushless DC motor (NEMA 17). It combines a convenient BLDC controller/driver electronic (TMCM-163-42) with a range of different motor types with internal HALL sensor.

The PD-163-42 offers two motor torque options and can be controlled via RS232 or RS485 interface. Power supply and motor coils are connected via flat connectors and communication interface and the multi-purpose I/Os can be connected via high density JST connectors. It integrates a PID-regulator for velocity control. In addition, the module supports positioning based on the motors hall sensor information.

### MAIN CHARACTERISTICS

- ELECTRICAL DATA**
  - 12V to 38V supply voltage
  - up to 12A coil current
- MOTOR DATA**
  - total length: 81 mm / 100 mm + module
  - rated torque 0.185 Nm / 0.25 Nm
  - max. peak torque 0.56 Nm / 0.75 Nm
  - nominal 4000 RPM at rated torque
  - number of poles: 8
  - please also refer to the motor datasheet
- INTERFACE**
  - RS-232 or RS-485 interface
- FEATURES**
  - on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
  - remote controlled using TMCL commands
  - high efficiency, low power dissipation electronics
  - integrated protection: overload / overtemperature
- SOFTWARE**
  - stand-alone operation (analog voltage) or remote controlled operation (TMCL)
  - PC-based demonstration software allows setting of all parameters
- OTHER**
  - pluggable connectors
  - RoHS compliant



ORDER CODE	DESCRIPTION
PD3-163-42 (-option)	PANdrive 0.185 Nm with BLDC motor
PD4-163-42 (-option)	PANdrive 0.250 Nm with BLDC motor
<b>OPTIONS</b>	
232	RS-232 interface
485	RS-485 interface