

# PD-1140

42mm | NEMA 17  
 Stepper Motor with  
 Controller / Driver  
 0.22 - 0.70Nm / 24V  
 sensOstep™ Encoder  
 Serial Interface

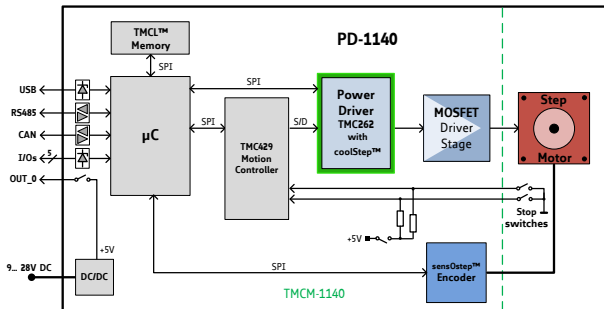
**INFO** The **PD42-1140** is a very compact and efficient mechatronic solution including a 42mm flange motor, a controller/driver board and a **sensOstep™** encoder. It can be controlled via RS485, USB, or CAN interface or alternatively operated in standalone mode. Power supply, interfaces, and multipurpose inputs and outputs can be connected with JST connectors.

With the advanced **stallGuard2™** feature the motor load can be detected with high resolution. The new outstanding **coolStep™** technology for sensorless load dependent current control allows energy efficient motor operation.

The PC based software development environment **TMCL-IDE** for the Trinamic Motion Control Language **TMCL™** can be downloaded free of charge from the **TRINAMIC** website. Predefined high level **TMCL** commands guarantee a rapid development of motion control applications.

MAIN CHARACTERISTICS

- ELECTRICAL DATA**
  - 9V to 28V DC supply voltage
- MOTOR DATA**
  - flange size 42mm | NEMA17
- INTERFACE**
  - RS485, USB, and CAN
  - inputs for ref. & stop switches
  - general purpose I/Os
- FEATURES**
  - up to 256 times microstepping
  - memory for 2048 **TMCL™** commands
  - **stallGuard2™** sensorless load detection
  - **coolStep™** sensorless load dependent current control
  - **microPlyer™** 16 to 256 times microstepping interpolation
  - integrated absolute **sensOstep™** encoder with 1024 pps.
  - automatic ramp generation in hardware
  - on the fly alteration of motion parameters
- SOFTWARE**
  - standalone operation using **TMCL** or remote controlled operation
  - PC-based (Windows) application development software **TMCL-IDE** downloadable
- OTHER**
  - pluggable JST connectors
  - RoHS compliant
  - size: 42 x 42 mm<sup>2</sup>



ORDER CODE	DESCRIPTION
PD42-1-1140	PANdrive 0.22Nm max.
PD42-2-1140	PANdrive 0.36Nm max.
PD42-3-1140	PANdrive 0.44Nm max.
PD42-4-1140	PANdrive 0.70Nm max.
PD-1140-CABLE	Cable loom including all necessary cables (single ended)