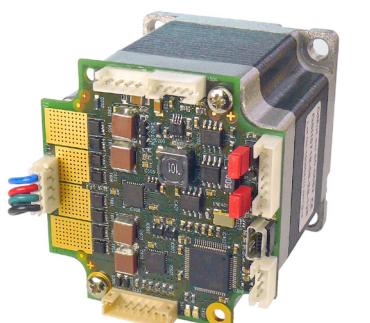


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## PD-1160

57/60mm | NEMA23/24  
Stepper Motor with  
Controller / Driver  
0.55 - 3.1Nm / 48V  
sens0step™ Encoder  
Serial Interface

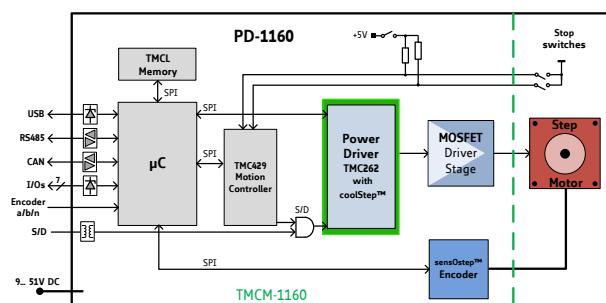
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**INFO** The PANdrive **PD57-1160** and **PD60-1160** family is a mechatronic solution including a 57mm or 60mm flange motor, a controller board and a **sens0step™** encoder. It can be controlled via serial interface or operated in standalone mode. Power supply, external encoder, interface and I/Os can be connected with JST connectors.

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



### MAIN CHARACTERISTICS

- ELECTRICAL DATA
  - Supply voltage 9V to 51V
- MOTOR DATA
  - flange size 57/60mm | NEMA23/24
- INTERFACE
  - USB, RS485, CAN
  - step&direction interface
  - inputs for ref. & stop switches
  - 4 general purpose I/Os
  - incremental a/b/n encoder interface
- 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 sens0step™ encoder with 1024 ppr.
  - 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
  - ready for CANopen
- OTHER
  - RoHS compliant
  - size 60 x 60mm<sup>2</sup>

| ORDER CODE           | DESCRIPTION  |
|----------------------|--|
| <b>PD57-1-1160</b>   | 0.55 Nm / QMot motor QSH5718-41-28-055                   |
| <b>PD57-2-1160</b>   | 1.01 Nm / QMot motor QSH5718-51-28-101                   |
| <b>PD60-3-1160</b>   | 2.10 Nm / QMot motor QSH6018-65-28-210                   |
| <b>PD60-4-1160</b>   | 3.10 Nm / QMot motor QSH6018-86-28-310                   |
| <b>PD-1160-CABLE</b> | Cable loom including all necessary cables (single ended) |

