

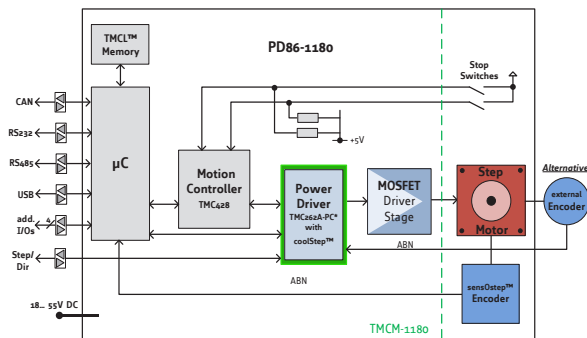
# PD86-1180

86mm / NEMA34  
Stepper Motor with  
Controller / Driver,  
Encoder and  
Serial Interface  
Optional CANopen

**INFO** The PANdrive PD86-1180 is a mechatronic solution including a 86mm flange motor, a controller board and a sensOstep™ encoder. It can be controlled via serial interface or operated in stand-alone mode. Power supply, external encoder, interface and multi purpose I/Os can be connected with JST connectors.

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

The PD86-1180 comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL™). Predefined high level TMCL™ commands guarantee a rapid development of motion control applications. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation are performed onboard. CANopen firmware will be available optionally.



## MAIN CHARACTERISTICS

- ELECTRICAL DATA**
  - 24 to 48V DC (nom.) supply voltage
- MOTOR DATA**
  - flange size 86mm/NEMA34
  - holding torque 7.0 Nm
- INTERFACE**
  - CAN, USB, RS232, RS485
  - step&direction interface
  - inputs for ref. & stop switches
  - general purpose I/Os
  - encoder interface (ABN)
- FEATURES**
  - stallGuard2™ sensorless high resolution load detection
  - coolStep™ sensorless load dependent current control
  - up to 256 times microstepping
  - microPlyer™ 16 to 256 times microstepping interpolation
  - memory for 2048 TMCL commands
  - motion profile calculation in hardware (RT)
  - on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
- SOFTWARE**
  - stand-alone operation using TMCL™ or remote controlled operation
  - PC-based application development software TMCL-IDE included
  - optional CANopen firmware (CiA 302, 402)
- OTHER**
  - pluggable JST connectors
  - RoHS compliant

| ORDER CODE                   | DESCRIPTION   |
|------------------------------|---|
| <b>PD86-3-1180 (-option)</b> | PANdrive 7.00 Nm, 118.5mm length with motor QSH8618-96-55-700 |
| <b>INTERFACE OPTIONS</b>     |   |
| <b>TMCL</b>                  | with TMCL™ firmware   |
| <b>CANopen</b>               | with CANopen firmware (under development)                     |