coolStep™

PD-1021

**28mm | NEMA 11
Stepper Motor with
Controller / Driver
0.06 - 0.12Nm / 24V
sensOstep™ Encoder
Serial Interface**

INFO The **PD28-1021** is a very compact and efficient mechatronic solution including a 28mm flange motor, a controller/driver board and a **sensOstep™** encoder. It can be controlled via serial RS485 interface or operated in standalone mode. Power supply, interface, and multipurpose inputs and outputs can be connected with one JST connector.

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 28mm	NEMA11
INTERFACE	· RS485
	· step&direction interface*
	· inputs for ref. & stop switches*
	· 2 digital inputs*
	· 2 general purpose I/Os
FEATURES	· up to 256 times microstepping
	· memory for 876 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: 28 x 28 mm²

* *alternate functions*
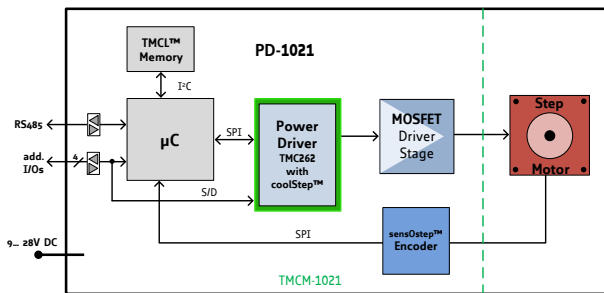
ORDER CODE	DESCRIPTION
PD28-1-1021	0.06 Nm / QMot motor QSH2818-32-07-006
PD28-3-1021	0.12 Nm / QMot motor QSH2818-51-07-012
PD-1021-CABLE	Cable loom including all neccessary cables (single ended)