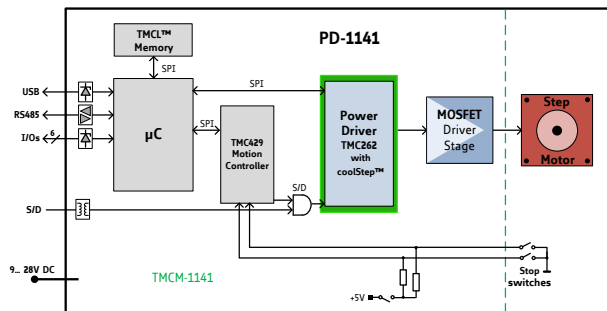coolStep™

PD-1141

42mm | NEMA 17
Stepper Motor with
Controller / Driver
0.27 - 0.49Nm / 24V
sensOstep™ Encoder
Serial Interface

INFO   The **PD42-1141** is a very compact and efficient mechatronic solution including a 42mm flange motor and a controller/driver board. It can be controlled via RS485, USB, or step/direction 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
	· step&direction interface
	· inputs for ref. & stop switches*
	· 3 general purpose digital inputs*
	· 1 analog input
	· 2 general purpose outputs
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
	· 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 mm²

* *alternate functions*

ORDER CODE	DESCRIPTION
PD42-1-1141	0.27Nm / QMot motor QSH4218-35-10-027
PD42-2-1141	0.35Nm / QMot motor QSH4218-41-10-035
PD42-3-1141	0.49Nm / QMot motor QSH4218-51-10-049
PD-1141-CABLE	Cable loom including all neccessary cables (single ended)