

INFO The TMCM-163 is a controller / driver module for general brush-

the QBL4208 BLDC motors.

TMCM-163

5V Power Supply

Motion

Controlle

"classic" analog control —

14..36V DC

less DC motor applications. It integrates velocity and torque control as well as a hall sensor based positioning mode. The position resolution depends on the motor, i.e. a standard 8 pole motor gives a motor axis resolution of 15 degrees. The module can be used in stand alone operation (analog voltage) or remote controlled (TMCL) via RS-232 or RS-485 interfaces (ordering option). Its small form factor (43 x 43 x 20 mm³) allows for mounting directly at the motor. The TMCM-163 fits perfectly to

TMCM-163

1-Axis Motor Mounted BLDC Controller / Driver 12A / 38V

MAIN CHARACTERISTICS

ELECTRICAL DATA	 up to 12A coil current (contact to cooling plane might be required using gap pad)
	• 14V to 38V motor supply voltage
	NEMA 17 mounting configuration
SUPPORTED MOTORS	 three phase BLDC motors with hall sensors from a few watts up to 360W
	• velocity up to 100,000 rpm (el. field)
INTERFACE	RS232 or RS485 host interface
	 analog and digital control inputs
FEATURES	 constant velocity drives, constant torque drives or positioning
	 on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
	 high efficiency, low power dissipation
	 integrated protection: overload / overtem- perature
SOFTWARE	 stand-alone operation (analog voltage) or remote controlled operation (TMCL)
	 PC-based demonstration software allows setting of all parameters
OTHER	 pluggable connectors for interface
	 flat connectors for motor and supply
	RoHS compliant

• size: 43 x 43 x 20 mm³ (two stacked PCBs)

ORDER CODE	DESCRIPTION	
TMCM-163 (-option) Vz	1-axis BLDC controller / driver module 12A / 38V	
TMCM-163-CABLE	Cable loom for TMCM-163	
Related products:	QMot QBL 4208	
OPTIONS		
232	RS-232 interface	
485	RS-485 interface	

BLDC

Moto

3-ph MOSFET

Driver

HALL sensors

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www.trinamic.com - for detailed information and datasheets