

The Yocto-Motor-DC device is a USB motor controller (ESC) for brushed DC motors. It can make your motor go forward, reverse or even brake. Applied power is controlled by pulse width modulation (PWM) with a resolution of 0.1%.

Power supply voltage range is 3 to 18V. Without any cooling but natural convection, it can withstand 10A continuous. With proper cooling, using a small fan for instance, it can withstand up 20A continuous. 30A short bursts are allowed.

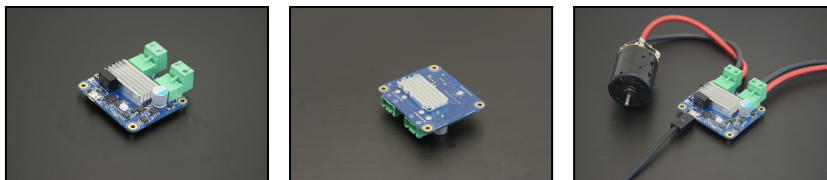
The Yocto-Motor-DC features integrated voltage, current, and temperature probes to easily monitor vital parameters with software. The configurable built-in safety system protects it against overheating, low power supply, and excessive currents. A red LED signals abnormal conditions.

It is also an insulated device: the power part is electrically insulated from the USB part. The driving PWM frequency can be configured from 250 Hz to 32 KHz. The device includes a configurable startup booster to help motors to start at low RPMs.

Specifications

Product ID	MOTORCTL
USB connector	micro-B
Width	50 mm
Length	58 mm
Weight	36 g
Max current (with ventilation)	20 A
Max Current (peak)	30 A
Max current (convection cooling)	10 A
Frequency	0.25 ... 32 KHz
Max working voltage	18 V
IEC protection class	class III
USB insulation, dielectric strength (1 min.)	0.5 kV
Normal operating temperature	5...40 °C
Extended operating temperature [‡]	-30...70 °C
RoHS compliance	RoHS III (2011/65/UE+2015/863)
USB Vendor ID	0x24E0
USB Device ID	0x0016
Harmonized tariff code	8542.3190
Made in	Switzerland

[‡] The extended temperature range is defined based on components specifications and has been tested during a limited duration (1h). When using the device in harsh environments for a long period of time, we strongly advise to run extensive tests before going to production.



For more information: www.yoctopuce.com/EN/products/yocto-motor-dc