

## Brushless 25 Click



PID: MIKROE-5644

**Brushless 25 Click** is a compact add-on board that controls brushless DC (three-phase BLDC) motors with any MCU. This board features the [MCT8316A](#), a high-speed sensorless trapezoidal control integrated FET BLDC driver from [Texas Instruments](#). It provides three individually controllable drivers intended to drive a three-phase BLDC motor, solenoids, or other loads. Each output driver channel consists of N-channel power MOSFETs (six of them in total) configured in a 1/2-H-bridge configuration. Besides, it has a wide operating voltage range from 4.5V to 35V, alongside several built-in protection circuits such as undervoltage, overvoltage, charge pump faults, overcurrent, and overtemperature. This Click board™ makes the perfect solution for driving three-phase brushless DC motors up to 8A peak output current rating.

Brushless 25 Click is supported by a [mikroSDK](#) compliant library, which includes functions that simplify software development. This [Click board™](#) comes as a fully tested product, ready to be used on a system equipped with the [mikroBUS™](#) socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
 ISO 14001: 2015 certification of environmental management system.  
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

## Specifications

Type	Brushless
Applications	Can be used for driving three-phase brushless DC motors, solenoids or other loads up to 8A output current rating
On-board modules	MCT8316A - high-speed sensorless trapezoidal control integrated FET BLDC driver from Texas Instruments
Key Features	Sensorless motor control algorithm, high output current, low power sleep mode, overcurrent detection and protection, fault diagnostic output, thermal warning and shutdown, PWM and analog motor control, brake function, direction spinning function, and more
Interface	I2C,SPI
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V,External

## Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

## Downloads

[Brushless 25 click example on Libstock](#)

[MCT8316A datasheet](#)

[MCP4146 datasheet](#)

[Brushless 25 click 2D and 3D files](#)

[Brushless 25 click schematic](#)

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