

# FMod-IPECMOT 48/10

Datasheet

Compact control device for DC brushed and 3 phases brushless (with hall sensors) motors, 15A repetitive (720W), 10A continuous (480W). 4 quadrants power stage and 32bit PID algorithms for position or speed control using the trapezoid trajectory profile.

The interface used is the famous and industrial Ethernet standard.

Simply connect this device to your local (or public) Ethernet network (via Cross cable, hubs or switches). It can be remotely controlled (up to several km).



## Dimensions

120 x 110 x 34 mm (LxBxH), with DIN rail connector

## Power supply

DC [15-48V], max 15A

## Configuration interface

Hardware: **Standard** Ethernet 10BaseT [RJ45]  
Protocols: TCP-IP & UDP + message encapsulation  
Software: Web Server on board, web pages with HTTP

## Motion control

Regulator: **32 bit PID with auto-tuning capability**  
Sampling rate: 20 - 2000 Hz (regulation frequency)  
Modes:  
- Brake Mode  
- Free Mode  
- Open Loop Mode  
- Speed Control Mode (with trajectory profile)  
- Position Control Mode (with trajectory profile)  
Homing (reference): 10 different homing modes  
Limits (end strokes): 2 independently powered inputs, configurable behaviour  
Extra feature: **EC motors' Hall sensors can be used as encoders.**

## PWM output

78 kHz or 39 kHz, 4 quadrants management, power-bridge with thermal protection.  
10A continuous, 15A max, motor output power.

## Current limitation

Onboard configuration possible (TCP-IP) between 0.1 and 15 A, thus preventing motor overheating and wear.

## Limits

2 mechanical, optical or hall sensors (5V) can be connected and configured for different purposes such as homing.

## Encoder

5V DC, incremental A+B (+Index) (max 500 kHz) quadrature encoder **with differential RS422 line driver.**

## Where to find more information

Please download the user's manual from the following address: [http://www.fiveco.ch/section\\_motion/support\\_motion\\_E.htm](http://www.fiveco.ch/section_motion/support_motion_E.htm)