

## RX Ecosystem Partner Solution

# PRIOMAX RX13T Fan Motor Control



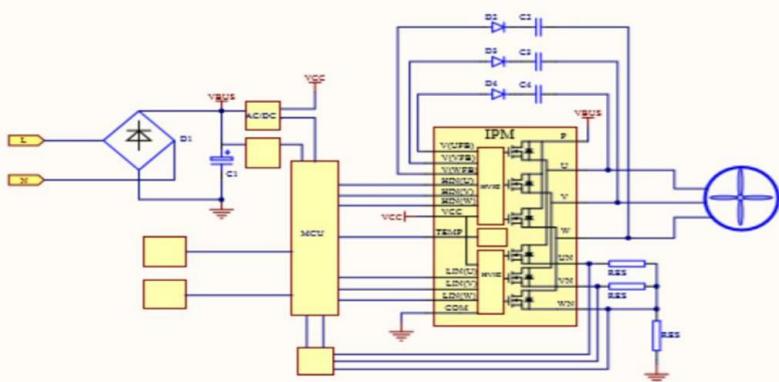
## Solution Summary

Priomax develops turn-key solution of Industrial EC Fan Motor Control based on Renesas [RX13T](#) MCUs. By using RX13T high performance core, flexible motor control timers and advanced analog features, the solution can drive permanent magnet brushless DC motors at maximum 12Krpm. Users can take the hardware design materials and firmware as reference, shorten R&D period and catch up to launch end products in the market. Also offering test demonstration units, functional customization services, DC motors, and permanent magnet motors.

## Features/Benefits

- Main Control Platform: RX13T R5F513TADFL
- Target Motor: 3-phase permanent magnet brushless DC motor
- Control Method: sensorless FOC
- Control Mode: constant speed, constant torque, constant power, constant air volume
- Voltage Level: 220Vac / 380Vac / DC 310V / DC 110V
- Power Range: 0.4~7.5KW, reserved power factor adjustment function
- Speed Range: 300~12000 rpm
- VSP/PWM Speed Regulation: support VSP(0~10V) signal speed regulation, compatible with OWM(0~100%, frequency 1-10K) speed regulation, signal isolation, safety assurance
- Technology Features: start control, high speed operation, electronic brake, brake stop etc.

## Diagrams/Graphics



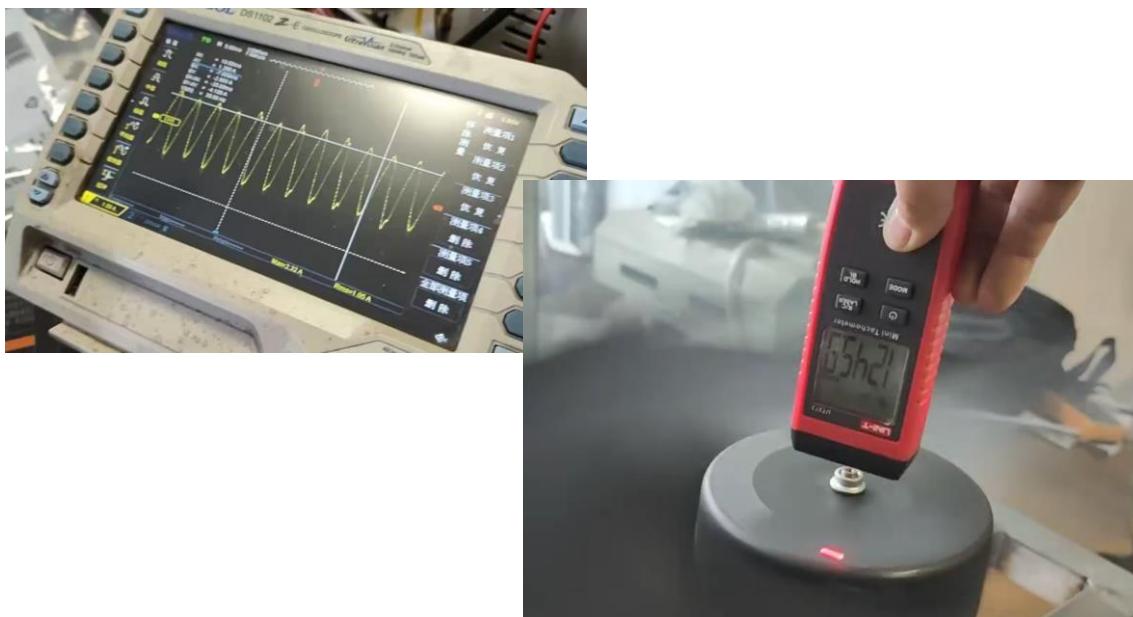
## Target Markets and Applications

- Industrial EC fan
- Various ventilation and cooling fans
- Industrial water pump

<http://en.priomaxtech.com/product-item-4.html>

2026.01

## Demonstration



- 500W permanent magnet brushless DC motors with fans
- Fan Size: 57 \* 57cm
- Speed Range: 300~12,000rpm
- Control Method: Senseless FOC



## Priomax Technology Co., Ltd

As a professional provider of brushless DC motor and permanent magnet synchronous motor control system solutions, the company offers solutions and technical support for motor, fan and pump motor drives. This includes customized chip solutions(IDM/Fabless) for specialized fan control, customized software and hardware solutions for EC/DC fans under 20KW, and component support(IDH). The company provides comprehensive services to manufacturers nationwide in the field of white goods, industrial fans, livestock fans, servo motors, and small motors for passenger cars. The company is actively expanding into the large-scale fan project market(Primarily livestock and industrial fans) and the AI white goods variable frequency fan market. Priomax continues to invest in R&D and is developing its own branded chip market.

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