

All-in-One Ceiling Fan Control Solution

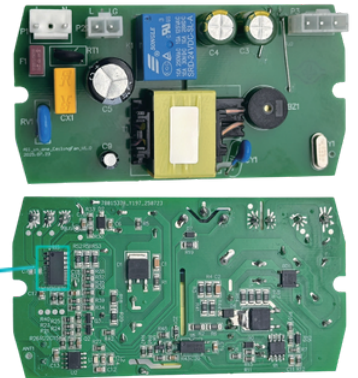
Built-in MCU, Driver, and MOSFET for Compact and Efficient System Design



► Demo Board Specifications

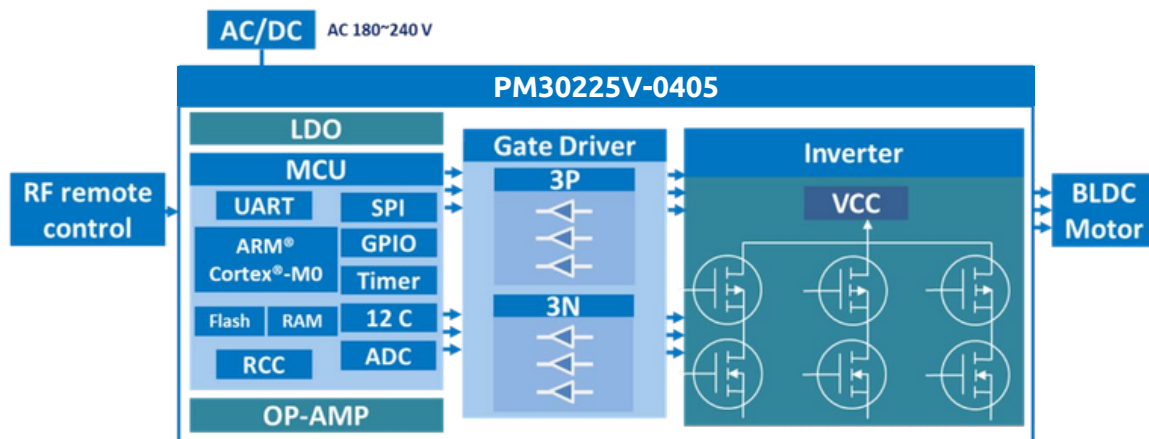
- 24 V motor control board with a 90–260 VAC input range
- Sinewave output with FOC control technology
- Speed control range: 30–360 RPM
- Supports RF433 remote control, buzzer, and lighting relay

PM30225V-0405



MCU	OPA	MOSFET	LDO	Algorithm	Shunt	Command	Protections
ARM® Cortex®-M0	2 rail-to-rail	3P+3N 70 mΩ	5 V	FOC Sensor-less	2 R	RF remote control	STP, OCP, OVP, UVP

► Block Diagram



► PM30225V-0405 Key Features

- ARM® Cortex®-M0 , 64 MHz
- Operating voltage: 6 V to 24 V
- Configure built-in pass-through prevention function
- Integrated PN architecture three-phase brush-less gate driver and MOSFET array
- 32 KB Flash, 4 KB SRAM
- 2 x UART, 1 x I²C, 1 x SPI
- 2 x 16-bit general-purpose timers (HTU)
- 1 x 12-bit, 1 MSPS ADC, supporting differential pair inputs
- Configure the built-in 500 ns time of dead-zone
- Configure the built-in LDO with 5 V/ 50 mA
- P+N MOSFET, R_{DS(on)} < 50 mΩ
- MCU Voltage : 2.4 V to 5.5 V
- 10 x GPIO, all of which can be used as external terminal inputs
- 1 x 16-bit advanced PWM timer (ATU)
- 2 x low-offset OPA
- Operating temperature: -40°C to +105°C

► Motor Product Roadmap

