

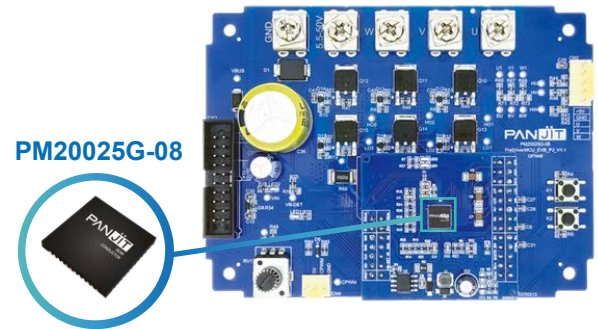
Pre-Driver IC Solution for Power Tools

36V Integration with 6 N-Channel MOSFETs for Compact, Efficient Motor Control

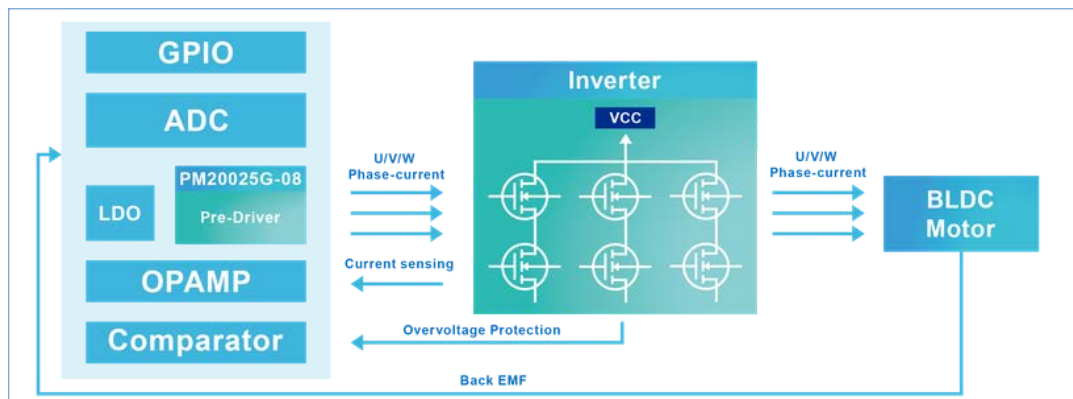


Features

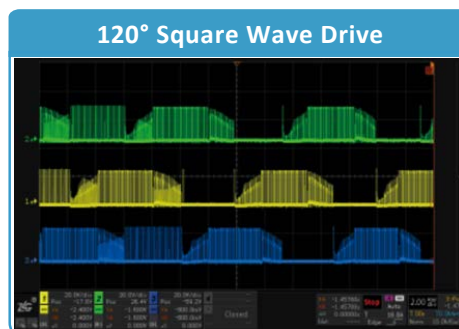
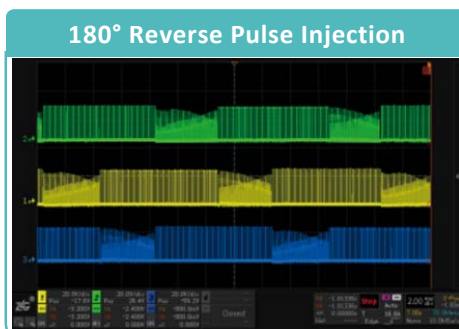
- Operation input voltage: 5.5-36 V
- Operation current: 0 to 20 A
- Speed control: 0 to 150,000 RPM
- Square-wave control without hall sensors
- OVP/OCP/ SCP/LPP



Block Diagram



Back Emf Data



- Start-up time: ≈ 15 electrical cycles
- Peak current: ≈ 20 A
- High speed in ACMP mode
- Low speed in ADC mode
- Smooth switching

— U
— V
— W



➤ PM20025G-08 Key Features

- ARM® Cortex®-M0 , 48 MHz
- 24-bit system tick timer
- Driver Operating voltage range : 5.5 V ~ 50 V
- Operating temperature: -40°C to +105°C
- 32 Kbyte Flash , 4 Kbyte SRAM
- External high-speed clock ((HSE): 4~32 MHz
- On-chip high-speed clock (HSI): 8/12/48 MHz
- On-chip low-speed clock (LSI): 40 kHz
- PLL Clock : 1~48 MHz
- External GPIO input clock : 5~30 MHz
- Supports up to 11 GPIO ports
- 5 channels with selectable request sources
- Supports triggering from various peripherals such as TIM, SPI, I²C, UART, ADC, etc.
- 2 x UART , 1 x I²C , 1 x high speed SPI
- 1 dedicated 16-bit advanced motor control timer (TIM1)
- 2 general-purpose timers
- 1 x 16-bit basic timer (TIM6)
- 12 V LDO Control Circuit
- 1 x 5 V LDO
- 1 x 12-bit dual-channel sample-and-hold SAR ADC (up to 10 external analog signal input channels)
- 4 voltage comparators
- 3 operational amplifiers

➤ Motor Product Roadmap

