



Search

Overview

Technical Forum

Quality

Order

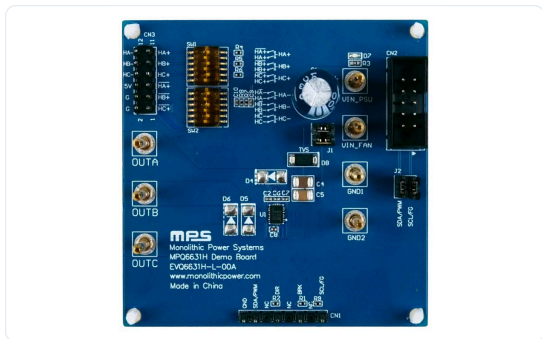
EVQ6631H-L-00A

EVQ6631H-L-00A

35V, 3A Peak Phase Current, 3-Phase BLDC Motor Driver Evaluation Board

New

[Datasheet](#)



Description

The EVQ6631H-L-00A is an evaluation board designed to demonstrate the capabilities of the MPQ6631H-AEC1, a 3-phase brushless DC (BLDC) motor driver with integrated power MOSFETs. The MPQ6631H-AEC1 drives a 3-phase BLDC motor with one external Hall sensor or three external Hall sensors. The peak phase current reaches up to 3A across the 3.6V to 35V input voltage (V_{IN}) range.

The MPQ6631H-AEC1 controls the motor speed through the pulse-width modulation (PWM) signal, or it controls the DC signal on the PWM/DC pin. The device provides closed-/open-loop control and a built-in, configurable speed curve function. The device also features a sinusoidal drive for maximum torque, as well as low speed ripple and noise across the full speed range.

The MPQ6631H-AEC1 has a rotational speed detector feature. The rotational speed detector (the FG/RD pin) is an open-drain output. FG/RD outputs a high or low voltage relative to the Hall sensor comparator's output. In addition to rotational speed detection, the direction is controlled via the DIR pin's input.

Protections include input over-voltage protection (OVP), under-voltage lockout (UVLO), locked-rotor protection, over-current protection (OCP), and thermal shutdown.

The MPQ6631H-AEC1 is available in a TQFN-26 (3mmx4mm) package with wettable flanks. It is available in AEC-Q100 Grade 1.

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Product Evaluated

MPQ6631HGLTE-AEC1

35V Input, 3A Peak Phase Current, 3-Phase BLDC Motor Driver, AEC-Q100 Qualified

New

Features & Benefits

3.6V to 35V Operating Input Voltage (V_{IN}) Range

Up to 3A of Peak Phase Current

Integrated 160mΩ High-Side MOSFETs (HS-FETs) and Low-Side MOSFETs (LS-FETs)

Sinusoidal Drive

Supports a 0V to 1.2V DC Input or 1kHz to 100kHz Pulse-Width Modulation (PWM) Input

Supports Triple-Hall or Single-Hall Inputs

Closed-/Open-Loop Speed Control

Direction/Brake Input

Power-Save Mode

0.5s/4.5s Lock Protection

Over-Current Protection (OCP)

Single-Pulse or Triple-Pulse FG Output per Electrical Cycle

FG Signal: Rotational Speed Indication

Soft Start (SS) for Low Noise and Current Overshoot

Available in a TQFN-26 (3mmx4mm) Package with Wettable Flanks

Available in AEC-Q100 Grade 1

Show less ^

Active Part Numbers:

EVQ6631H-L-00A