

Three Phase BLDC & PMSM Motor Kit with DRV8301 and Piccolo MCU **Status:** ACTIVE

DRV8301-HC-C2-KIT

- [Description/Features](#) [Technical Documents](#) [Support & Community](#) [Order Now](#)

Description

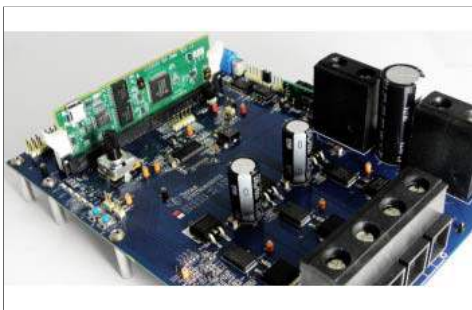
The DRV8301-HC-C2-KIT is a motor control evaluation kit for spinning three phase brushless DC and brushless AC (BLAC) - often referred to as permanent magnet synchronous (PMSM) - motors with examples of both sensorless Field Oriented / Vector Control (FOC) and TI's InstaSPIN-BLDC sensorless BLDC solution. The DRV8301-HC-C2-KIT is a high-performance, power-efficient, cost-effective platform that speeds development for quicker time to market. Applications include CPAP and pumps, E-bikes, E-scooters, medical pumps and drills, power tools, and robotics.

Features

- DRV8302 2.3A sink/1.7A source, three phase inverter with integrated buck converter for 1.5A external loads.
- C2000 Piccolo F28035 MCU controlCARD - preflashed with code to spin motors using GUI
- Isolated XDS100 Emulation
- CCStudio v4.x Integrated Development Environment
- Kit supports 60V and 82.5A full scale range
- All documentation, schematic, software and user's guides available for free through [controlSUITE](#).

What's Included

- NO Motor! - Instantly spin YOUR motor with InstaSPIN-BLDC
- NO wall power supply, use your own DRV8301 baseboard with controlCARD slot
- Piccolo Isolated F28035 controlCARD
- USB Cable
- USB Stick with GUI, CCStudio IDE, Quick Start Guide, and controlSUITE software (for all HW & SW source)



Three Phase BLDC & PMSM Motor Kit with DRV8301 and Piccolo MCU - DRV8301-HC-C2-KIT

Order Now

Part Number	Texas Instruments	Authorized Distributors	Status	Price (US\$)
DRV8301-HC-C2-KIT: Three Phase BLDC & PMSM Motor Kit with DRV8301 and Piccolo MCU	TI Store	Buy from distributor	ACTIVE	
Contact a Distributor - Select a location - Go				

Technical Documents

Application Notes (2)

Title	Abstract	Type	Size (KB)	Date	Views
InstaSPIN™ BLDC实验		PDF	1641	06 Dec 2011	1,650
InstaSPIN(tm) BLDC Lab		PDF	1434	15 Nov 2011	4,061

Related Products

TI Devices

Part Number	Name	Product Family
DRV8301	3-Phase Brushless Motor Pre-Driver with Dual Current Sense Amps and Buck Converter (PWM Ctrl w/ SPI)	Pre-Driver

Videos

Introduction to InstaSPIN™-BLDC

Dave Wilson
Team Lead, Motor Solutions Group



Introduction to InstaSPIN™-BLDC Motor Control Solution

Learn more about TI's newest motor control technology for low-cost BLDC applications. InstaSPIN-BLDC is a sensorless control technique based on the premise that "simple is better". In field tests with over 50 different motor types, InstaSPIN-BLDC was able to get each motor up and running in less

Posted: 21-Sep-2011

Duration: 32:14

Views: 2364

Tags: [motor control](#), [motor](#), [instaspin](#), [bldc](#), [brushless dc](#)



For more information go to www.ti.com/instaspin-bldc

Related Videos



Introduction to InstaSPIN™-BLDC Motor Control Solution

Support and Community

Blogs

Develop on the next generation MSP430 for single-phase metering applications

The MSP430F673x/F672x series is the first MSP430 SoC to target utility metering with a 24-bit Sigma-delta converter, industry's largest 320-segment LCD controller and battery backup system. Did we say industry's largest segmented LCD controller...

Posted to [Smart Grid Blog](#) on 25 Jan 2012

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Develop on the next generation MSP430 for single-phase metering applications

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Posted to [The Official MSP430 Blog](#) on 24 Jan 2012

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C3P-Ho-Ho-Ho: MSP430 powers a holiday sound and light show

Check out this post from our friends over at hackaday.com. It seems Zach, a Hackaday hobbyist and MSP430 fan, figured out a way to program an MSP430 to operate the lights on his Christmas tree in response to the notes of the "Star Wars Main Theme"...

Posted to [The Official MSP430 Blog](#) on 22 Dec 2011

[MSP430](#), [development tools](#), [msp430f2012](#)

Come and Get It -- DRV8302 Motor Pre-Driver Available Now!

Hi Everyone, As a follow up to our Sept. 9 new release announcing the industry's most highly integrated motor pre-drivers, I'm pleased to announce that samples of the DRV8302 are now available. The DRV8302 is H/W control version of the DRV8301...

Posted to [Motor Driver Announcements](#) on 21 Sep 2011

[DRV8312-C2-KIT](#), [DRV8412-C2-KIT](#), [drv8301-hc-c2-kit](#), [drv8302-hc-c2-kit](#), [Motor Drivers](#)

New motor pre-driver reduces board space 60% while driving up to 60-A FETs

Today we announced the DRV8301, the most highly integrated motor pre-driver available today, reducing board space as much as 60% compared to the next closest integrated solution. It can drive up to 60-A with external FETs, providing current scalability...

Posted to [Motor Driver Announcements](#) on 9 Sep 2011

[Motor Drivers](#), [DRV8312-C2-KIT](#), [DRV8412-C2-KIT](#), [drv8301-hc-c2-kit](#), [drv8302-hc-c2-kit](#)

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