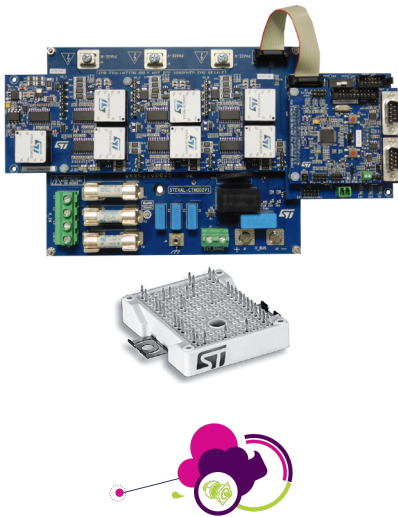


Industrial drive system kit based on ACEPACK™ 2 power module



Features

- [A2C35S12M3-F](#) ACEPACK™ 2 power module in converter inverter brake (CIB) topology
- Control stage based on [STM32F303](#) ARM® Cortex®-M3 MCU and compatible with ST MC library with ST-FOC algorithm (sensored and sensorless mode)
- In-rush current, thermal and overcurrent protection
- Brake function with external resistor
- On-board isolated current sensing of 2.1 kV_{RMS}
- Galvanically isolated driving stage with [STGAP1AS](#)
- Additional gate driving for dissipative brake section (external power resistor)
- Protections and sensing (overvoltage, overcurrent, overtemperature, current reading input)
- Input/output interface (analog/digital)

Description

The [STEVAL-HKI001V1](#) is an industrial drive evaluation system designed to demonstrate the capabilities of the [A2C35S12M3-F](#) IGBT power module for motor control applications.

It offers a solution for single- or three-phase main input with a converter inverter brake (CIB) topology able to handle a motor current up to 35 A (power module maximum current rating).

The hardware platform is a stackable solution consists of the power stage ([STEVAL-CTM002V1](#)), which contains the power module and current sensing circuitry, and the driving kit ([STEVAL-CTM001V1](#)) connected via external connectors.

The [STEVAL-CTM001V1](#) driving kit consists of a [STEVAL-CTM001V1C](#) control board based on the [STM32F303RBT7](#) microcontroller able to execute the field oriented control (FOC) algorithm to obtain the best performance in all motor control applications, and the [STEVAL-CTM001V1D](#) driving board based on the new galvanically isolated [STGAP1AS](#) gapDRIVE™, with suitable circuitry to drive the embedded IGBTs in the power module.

The control board has RS232 and CAN external interfaces to let you monitor and control your application on the evaluation system via PC.

Product summary	
Industrial drive system kit based on ACEPACK™ 2 power module	STEVAL-HKI001V1
35 A 1200 V converter inverter brake ACEPACK™ 2 IGBT power module	A2C35S12M3-F
Mainstream mixed signal MCUs ARM® Cortex®-M4 core with DSP and FPU	STM32F303RBT7
Automotive galvanically isolated single gate driver	STGAP1AS

Revision history

Table 1. Document revision history

Date	Version	Changes
06-Mar-2018	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Power Management IC Development Tools](#) category:

Click to view products by [STMicroelectronics](#) manufacturer:

Other Similar products are found below :

[EVAL-ADM1168LQEBZ](#) [EVB-EP5348UI](#) [MIC23451-AAAYFL EV](#) [MIC5281YMME EV](#) [DA9063-EVAL](#) [ADP122-3.3-EVALZ](#) [ADP130-0.8-EVALZ](#) [ADP130-1.2-EVALZ](#) [ADP130-1.5-EVALZ](#) [ADP130-1.8-EVALZ](#) [ADP1714-3.3-EVALZ](#) [ADP1715-3.3-EVALZ](#) [ADP1716-2.5-EVALZ](#) [ADP1740-1.5-EVALZ](#) [ADP1752-1.5-EVALZ](#) [ADP1828LC-EVALZ](#) [ADP1870-0.3-EVALZ](#) [ADP1871-0.6-EVALZ](#) [ADP1873-0.6-EVALZ](#) [ADP1874-0.3-EVALZ](#) [ADP1882-1.0-EVALZ](#) [ADP199CB-EVALZ](#) [ADP2102-1.25-EVALZ](#) [ADP2102-1.875EVALZ](#) [ADP2102-1.8-EVALZ](#) [ADP2102-2-EVALZ](#) [ADP2102-3-EVALZ](#) [ADP2102-4-EVALZ](#) [ADP2106-1.8-EVALZ](#) [ADP2147CB-110EVALZ](#) [AS3606-DB](#) [BQ24010EVM](#) [BQ24075TEVM](#) [BQ24155EVM](#) [BQ24157EVM-697](#) [BQ24160EVM-742](#) [BQ24296MEVM-655](#) [BQ25010EVM](#) [BQ3055EVM](#) [NCV891330PD50GEVB](#) [ISLUSBI2CKIT1Z](#) [LM2744EVAL](#) [LM2854EVAL](#) [LM3658SD-AEV/NOPB](#) [LM3658SDEV/NOPB](#) [LM3691TL-1.8EV/NOPB](#) [LM4510SDEV/NOPB](#) [LM5033SD-EVAL](#) [LP38512TS-1.8EV](#) [EVAL-ADM1186-1MBZ](#)