



MPC5643L 3-phase BLDC Development Kit

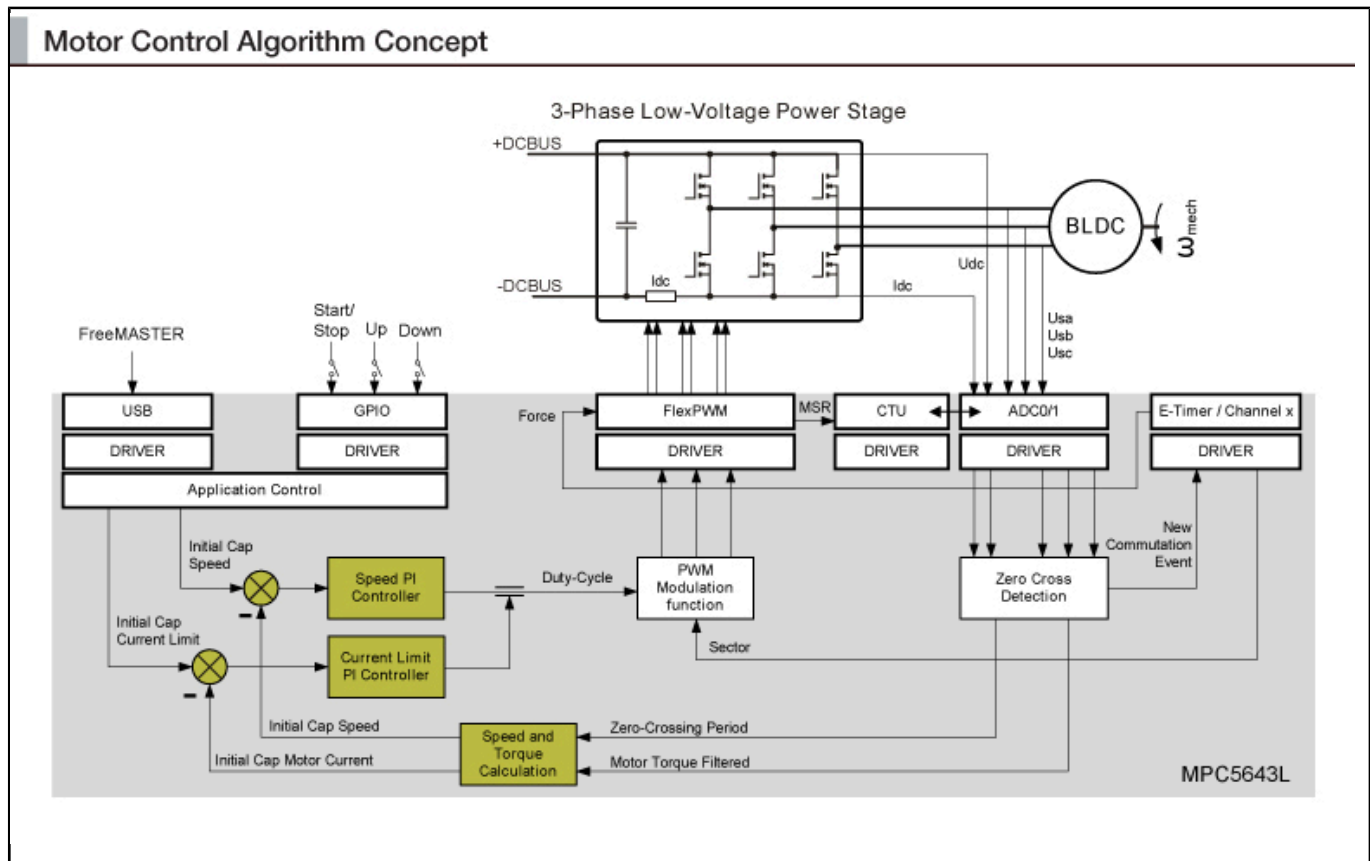
MTRCKTSBN5643L

Last Updated: Nov 27, 2023

The MTRCKTSBN5643L motor control development kit is ideal for sensorless applications requiring one BLDC motor, like HVAC or electric pumps. The kit is designed to enable rapid prototyping and evaluation of the motor control application without having to wait for the final hardware design. This kit includes a 32-bit NXP® [MPC5643L](#) based controller board and the 3-phase low-voltage power stage board.

An integral part of the automotive motor control development kit is the application software which provides a complete reference implementation of the BLDC motor control application and also takes advantage of the Automotive Math and Motor Control Library Set.

Single 3-phase Sensorless BLDC Development Kit Block Diagram



View additional information for [MPC5643L 3-phase BLDC Development Kit](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.