



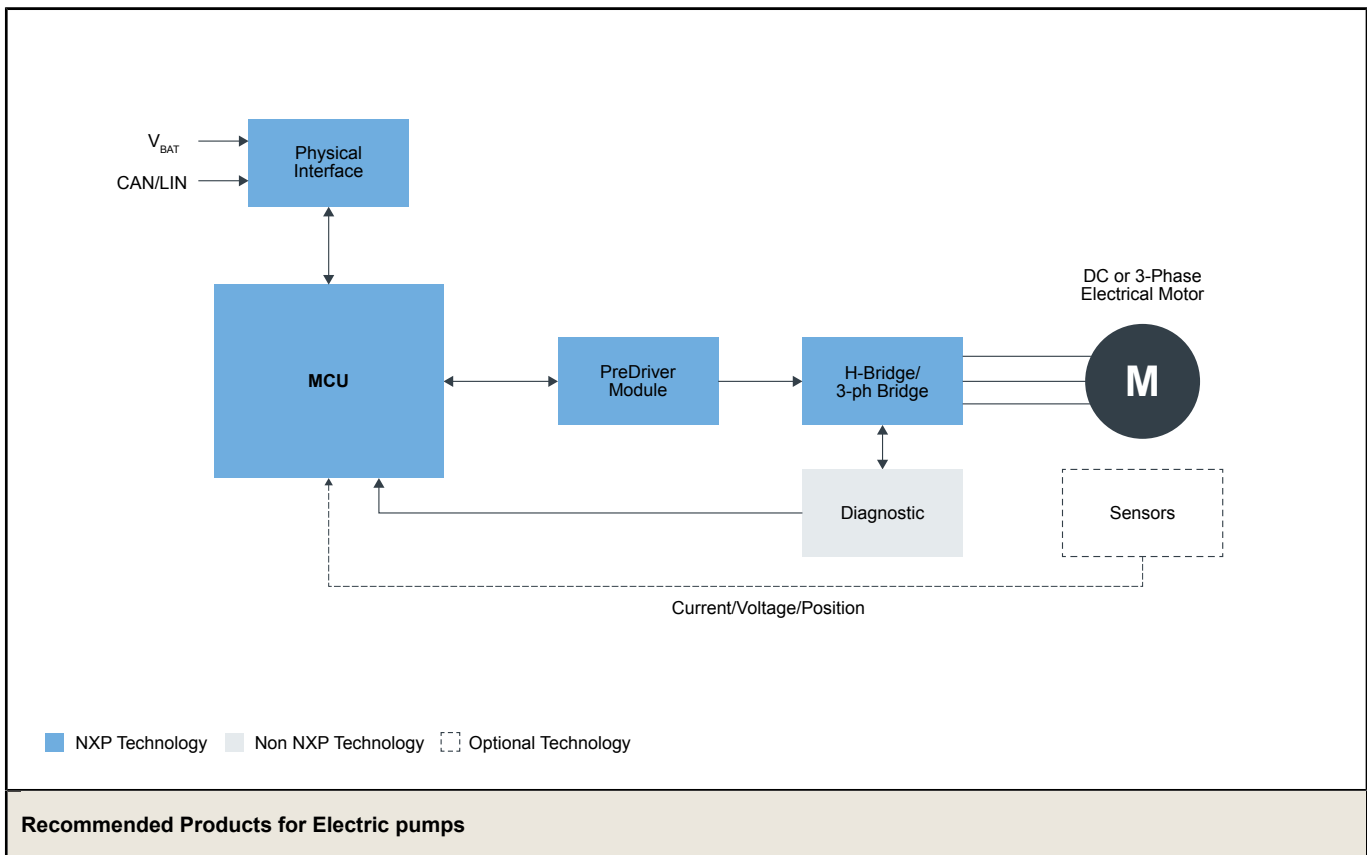
Electric Pumps

Last Updated: Nov 22, 2023

Electrical pumps are more flexible than mechanical pumps as they can be placed closer to what they are pumping when creating a vacuum to tap fuel, water, oil, or coolant from one place to another.

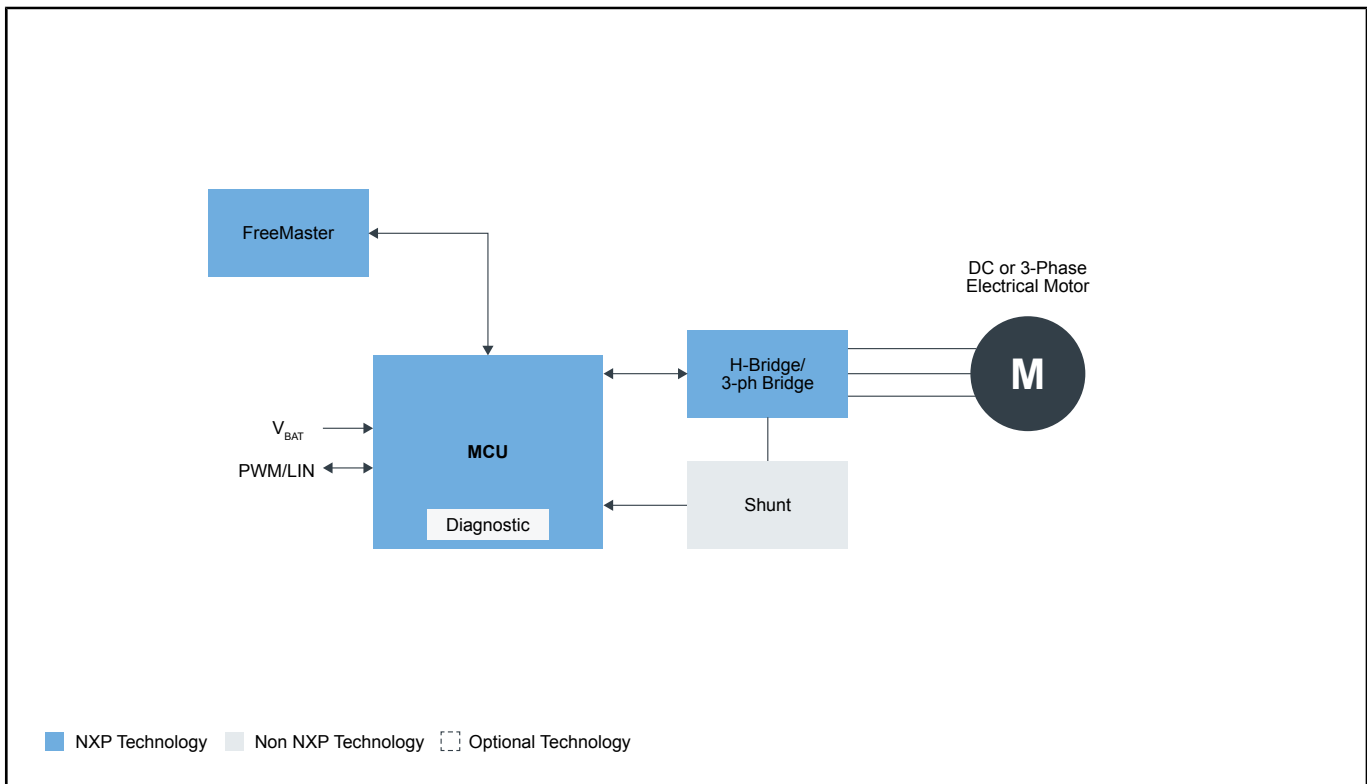
NXP solutions for electrical pumps can be used in a variety of engines, motors, plumbing, and cooling systems to help ensure economic liquid management and optimal temperatures for efficient engine operation. We assist in delivering more accurate continuous flow and pressure or when-required operation within automotive engine applications.

Electric pumps Block Diagram



MCU	<ul style="list-style-type: none"> • S32M2: S32M2 Integrated Solution for 12V Motor Control • S32K3: S32K3 Microcontrollers for Automotive General Purpose • S32K1: S32K1 Microcontrollers for Automotive General Purpose
Physical I/F	<ul style="list-style-type: none"> • FS23: Safety System Basis Chip (SBC) Family with Power Management, CAN and LIN • TJA1029: LIN 2.2A/SAE J2602 Transceiver with TXD Dominant Timeout • UJA113xHW: Buck/Boost High-Speed CAN/Dual LIN System Basis Chip Family • FS24: Safety Mini CAN FD SBC for Automotive Applications Fit for ASIL-B
Pre Driver Module	<ul style="list-style-type: none"> • MC33937: 3-Phase Field Effect Transistor Pre-Driver • MC33887: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 10 kHz
H-Bridge/ 3-ph Bridge	<ul style="list-style-type: none"> • MC33931: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 11 kHz • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz • HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver

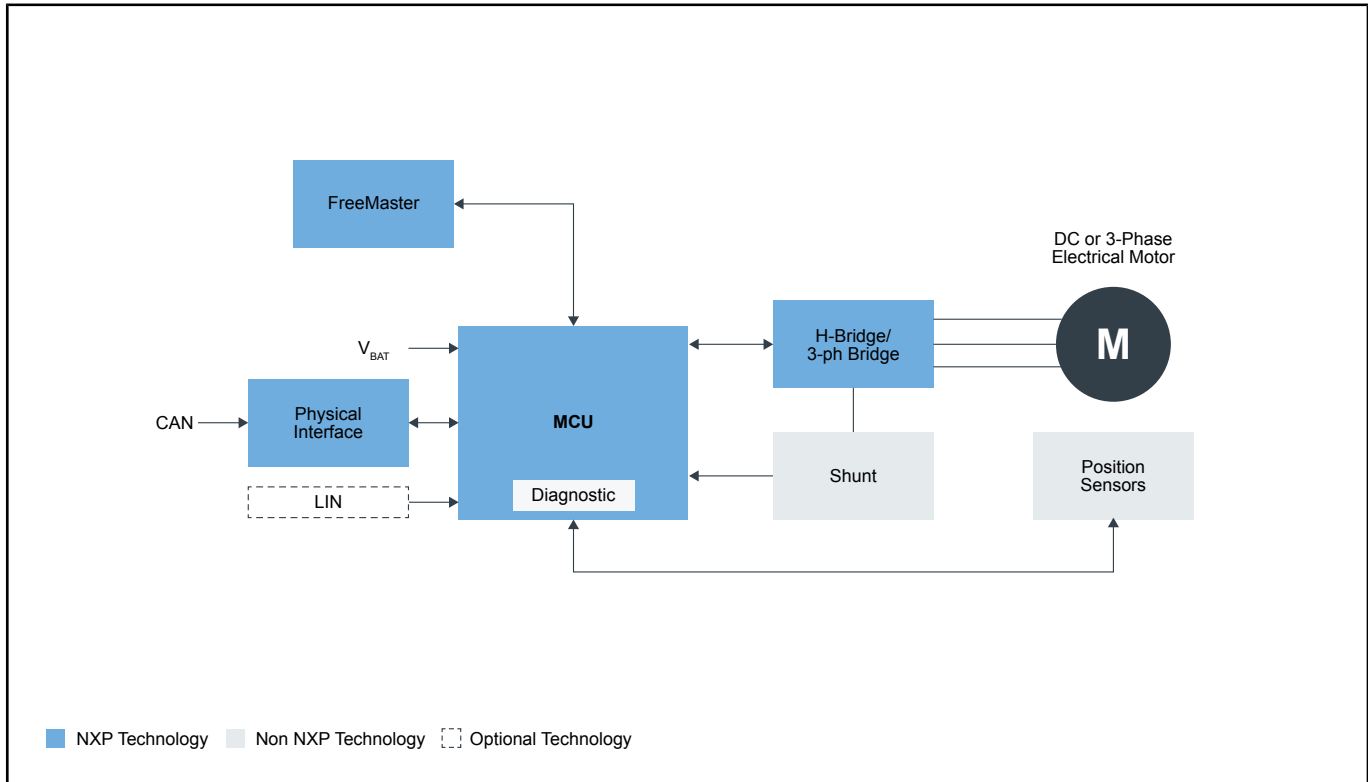
Water/Fuel pump Block Diagram



Recommended Products for Water/Fuel pump

MCU	<ul style="list-style-type: none"> • S12VR: S12VR Mixed-Signal MCU for Automotive and Industrial Relay Based Motor Control • S12ZVM: S12ZVM Mixed-Signal MCU for Automotive and Industrial Motor Control Applications
H-Bridge/ 3-ph Bridge	<ul style="list-style-type: none"> • MC33931: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 11 kHz • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz • HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver
FreeMaster	<ul style="list-style-type: none"> • FreeMASTER Run-Time Debugging Tool

Oil pump Block Diagram



Recommended Products for Oil pump

MCU	<ul style="list-style-type: none"> • S32K1: S32K1 Microcontrollers for Automotive General Purpose • S12VR: S12VR Mixed-Signal MCU for Automotive and Industrial Relay Based Motor Control • S12ZVM: S12ZVM Mixed-Signal MCU for Automotive and Industrial Motor Control Applications
Physical I/F	<ul style="list-style-type: none"> • FS23: Safety System Basis Chip (SBC) Family with Power Management, CAN and LIN • FS24: Safety Mini CAN FD SBC for Automotive Applications Fit for ASIL-B • TJA1021: ISO17987 LIN 2.1/SAE J2602 Transceiver • UJA113xHW: Buck/Boost High-Speed CAN/Dual LIN System Basis Chip Family
H-Bridge/ 3-ph Bridge	<ul style="list-style-type: none"> • MC33937: 3-Phase Field Effect Transistor Pre-Driver • GD3000: 3-Phase Brushless Motor Pre-Driver
FreeMaster	<ul style="list-style-type: none"> • FreeMASTER Run-Time Debugging Tool
H-Bridge/ 3-ph Bridge	<ul style="list-style-type: none"> • MC33931: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 11 kHz • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz • HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver

View our complete solution for [Electric Pumps](#).

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

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