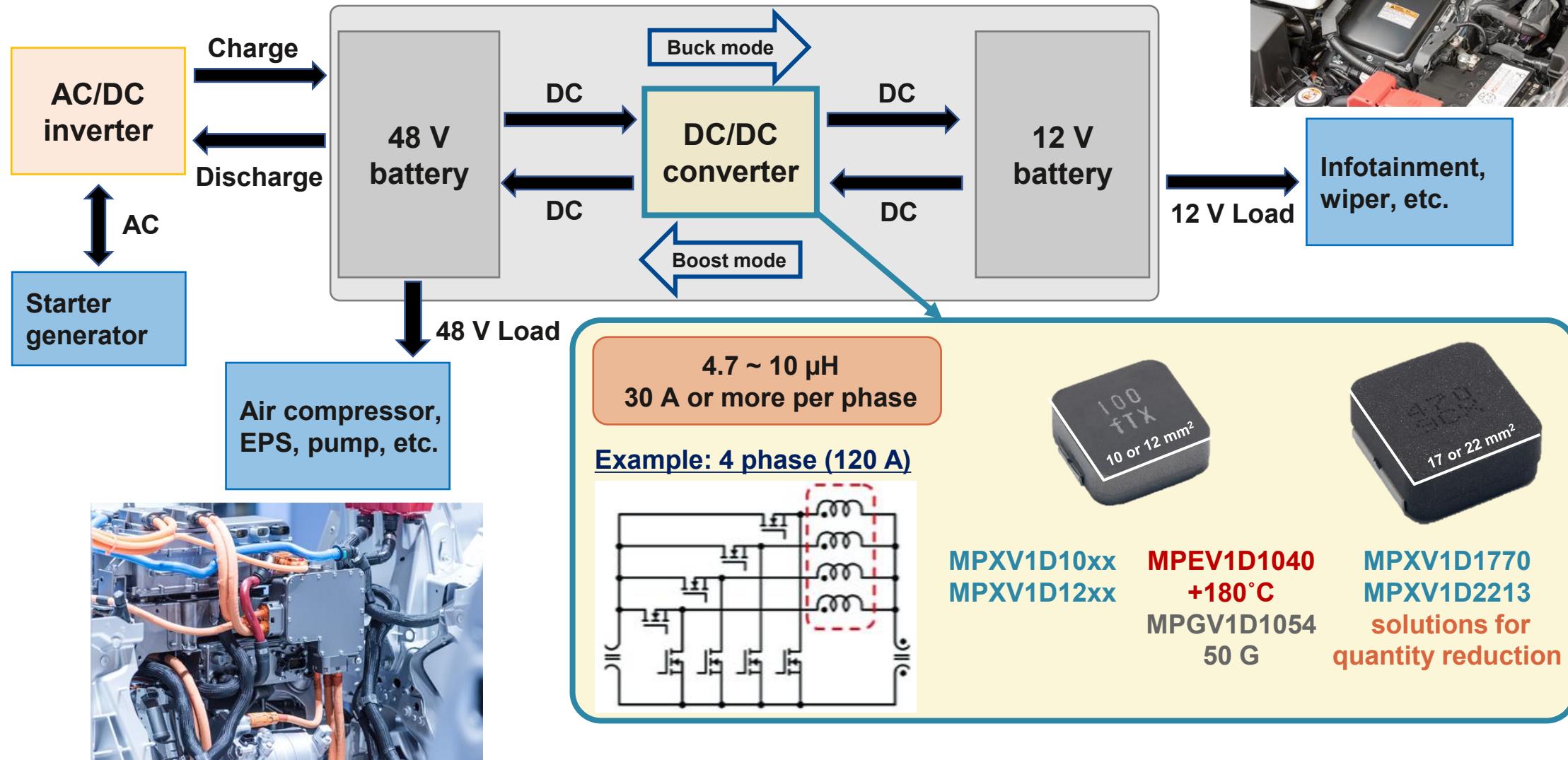


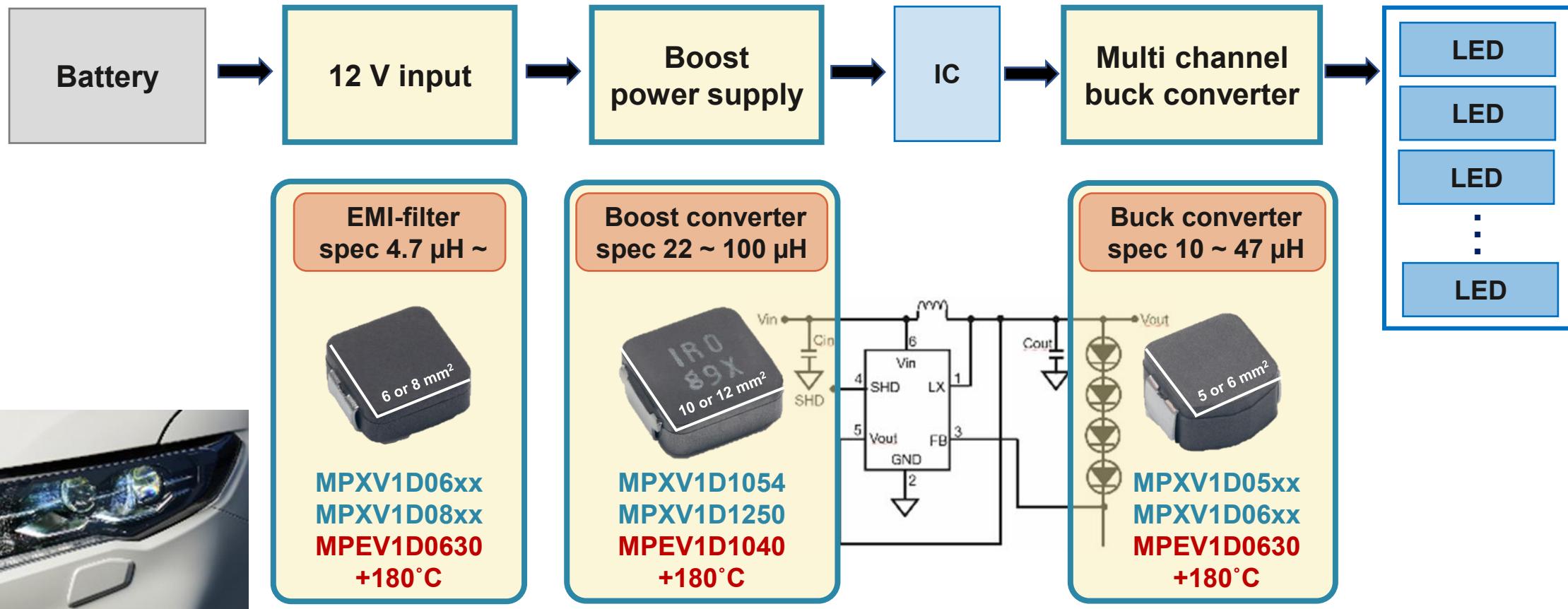
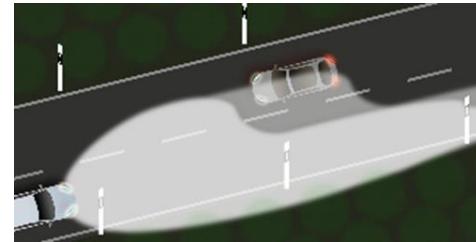
① Multi-Phase Bidirectional Buck-Boost Converter for 12 V / 48 V System

System image



② Adaptive Driving Beam (ADB) Headlamp System (LED Headlighting)

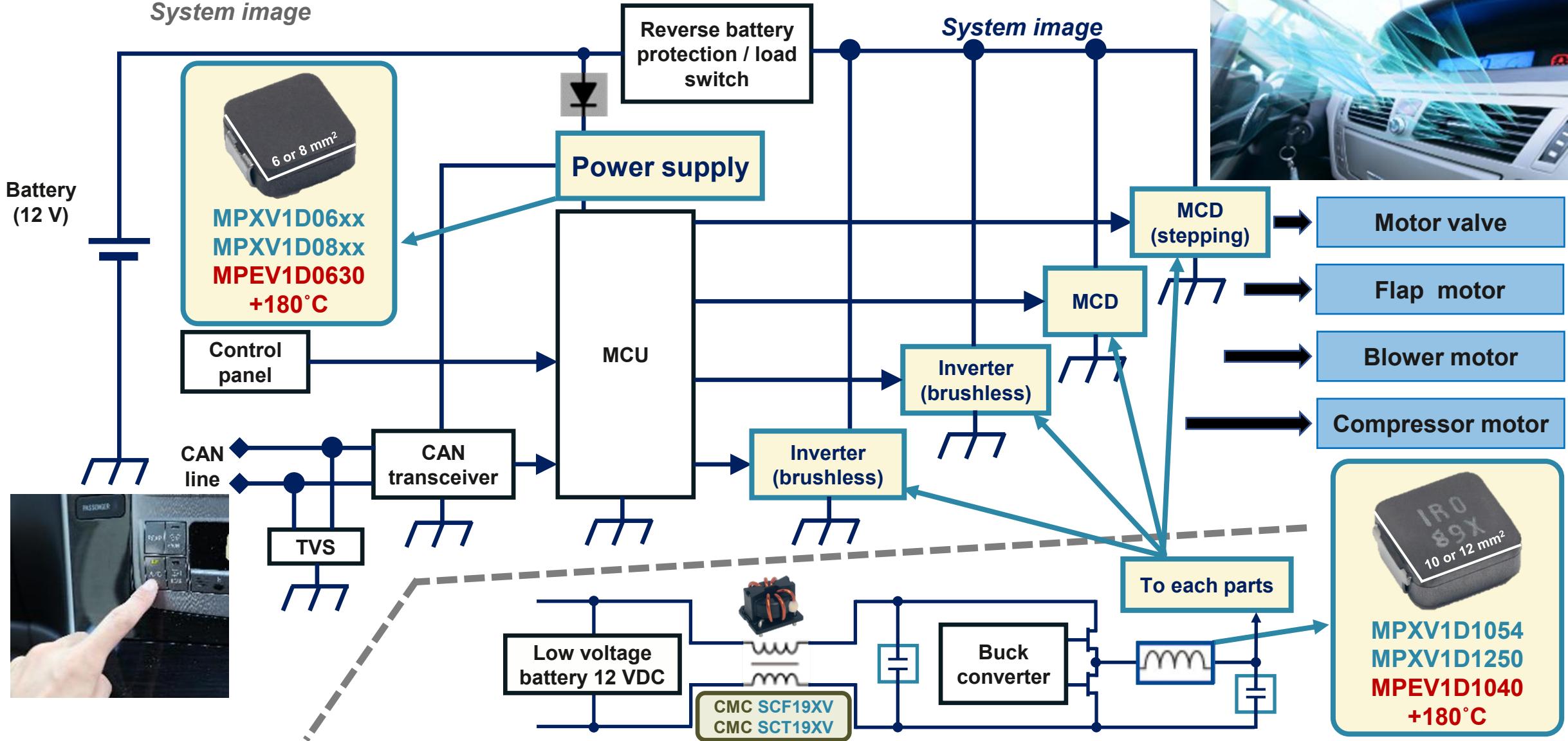
System image



③ Heating Ventilation and Air Conditioning (HVAC)

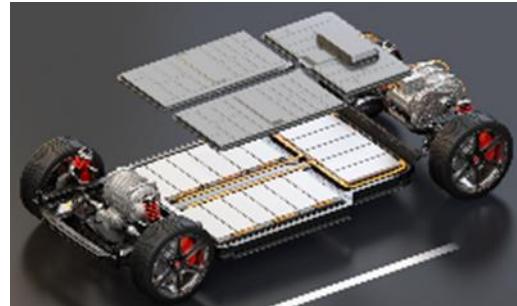
MCD: Motor control driver

System image

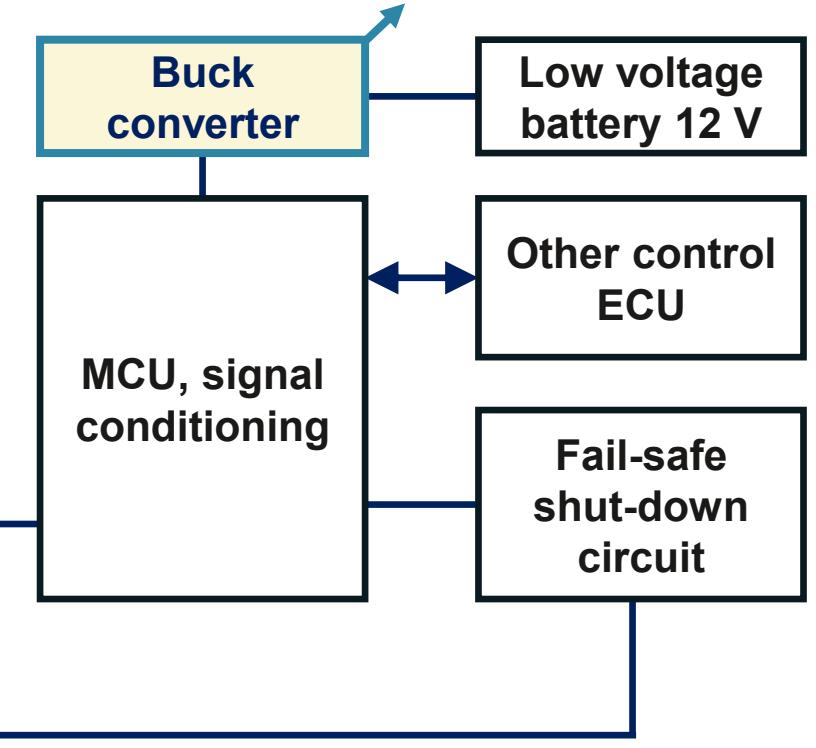
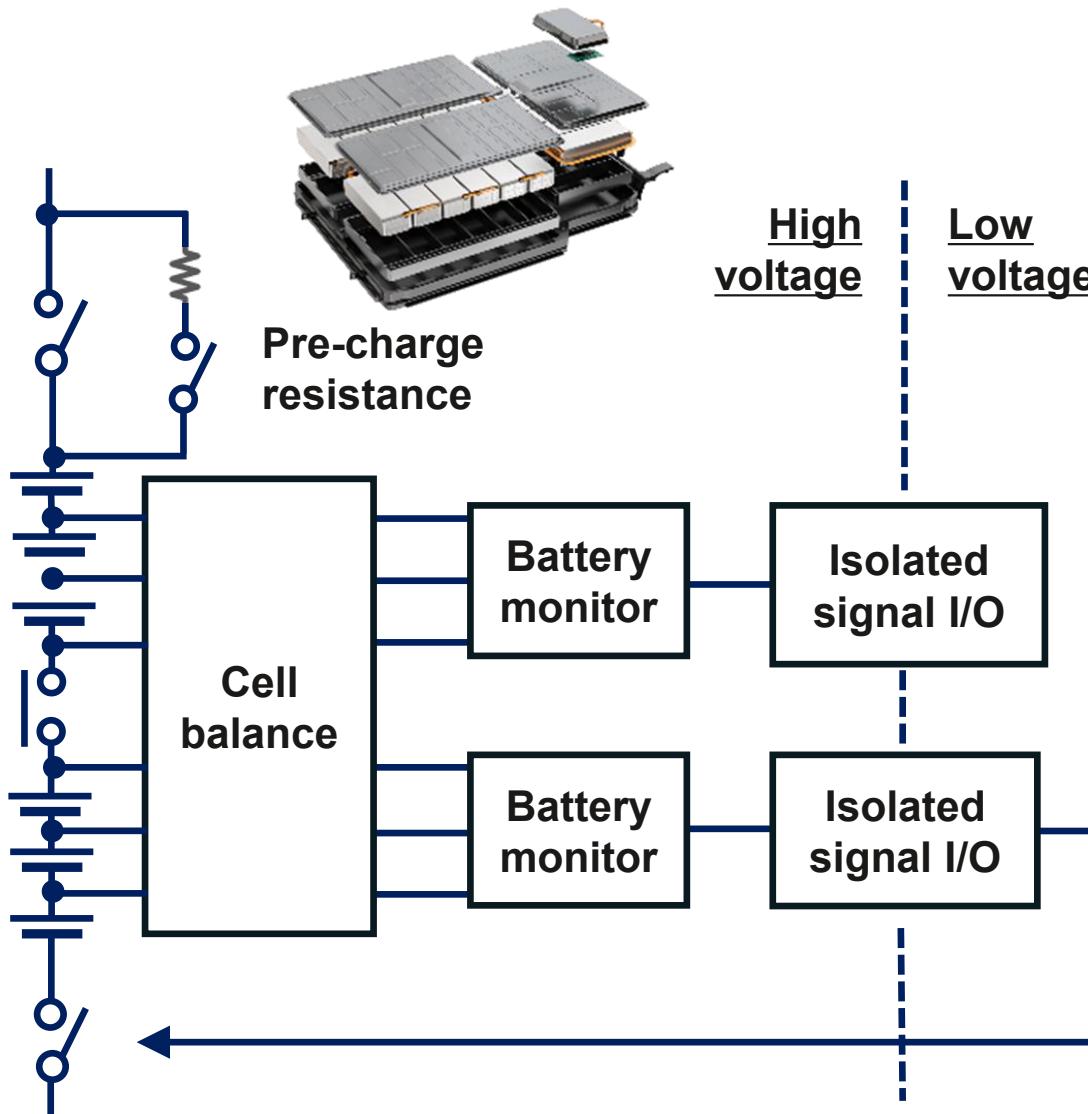
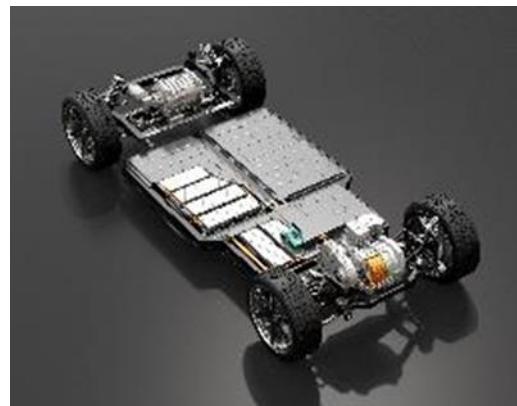


④ Battery Management System (BMS)

System image

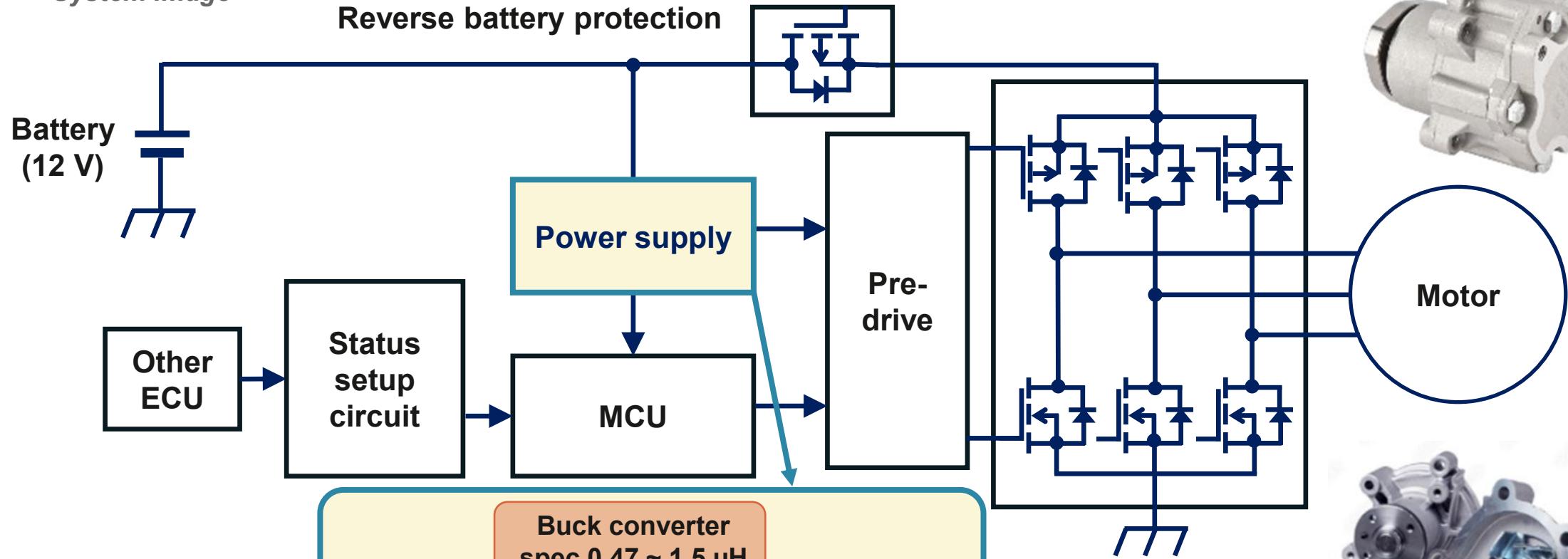


EV/HEV battery 200 ~ 800 V



⑤ Electric Oil Pump Water Pump

System image



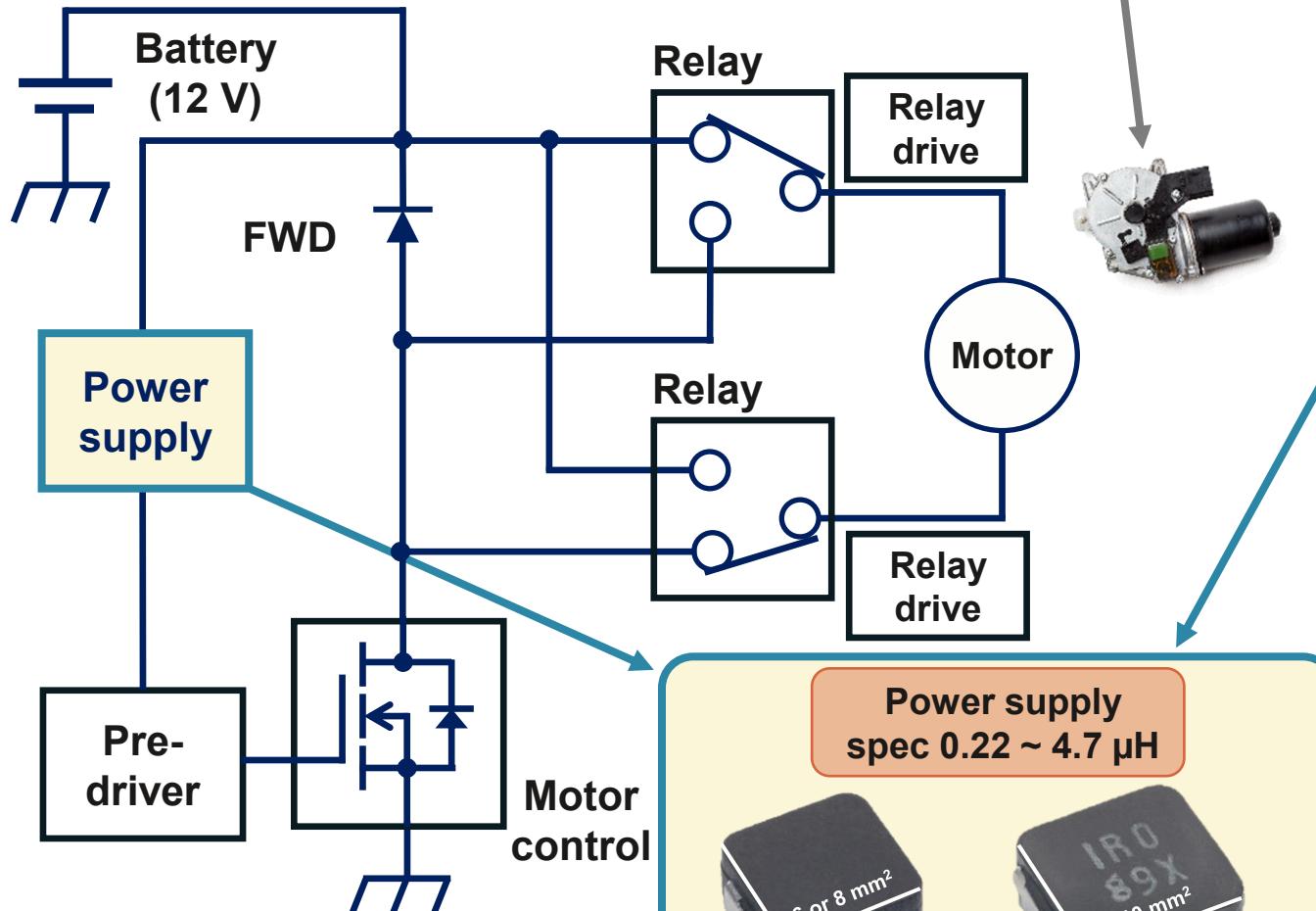
Input filter requires low DCR

- **MPCV series** recommended
- **Advantage: flat wire**

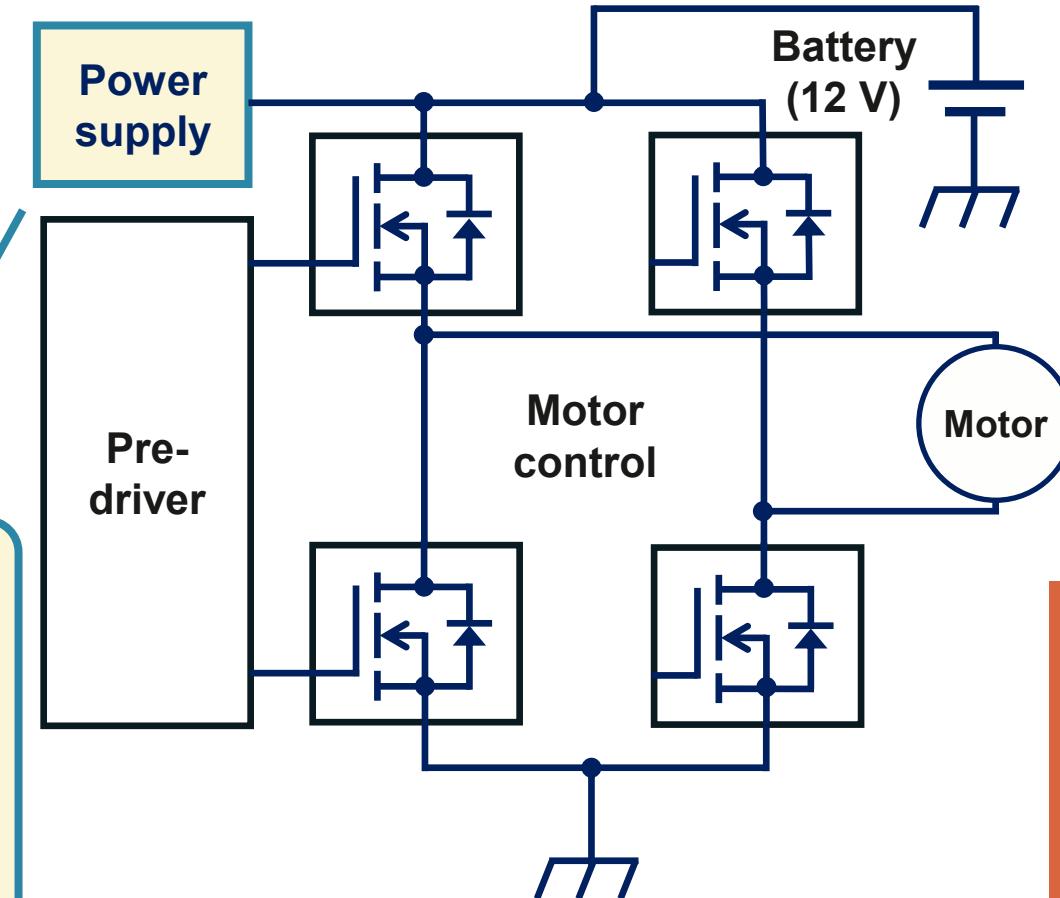
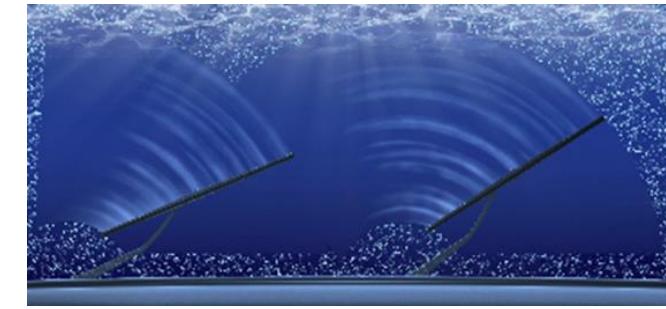


⑥ Wiper System

System image

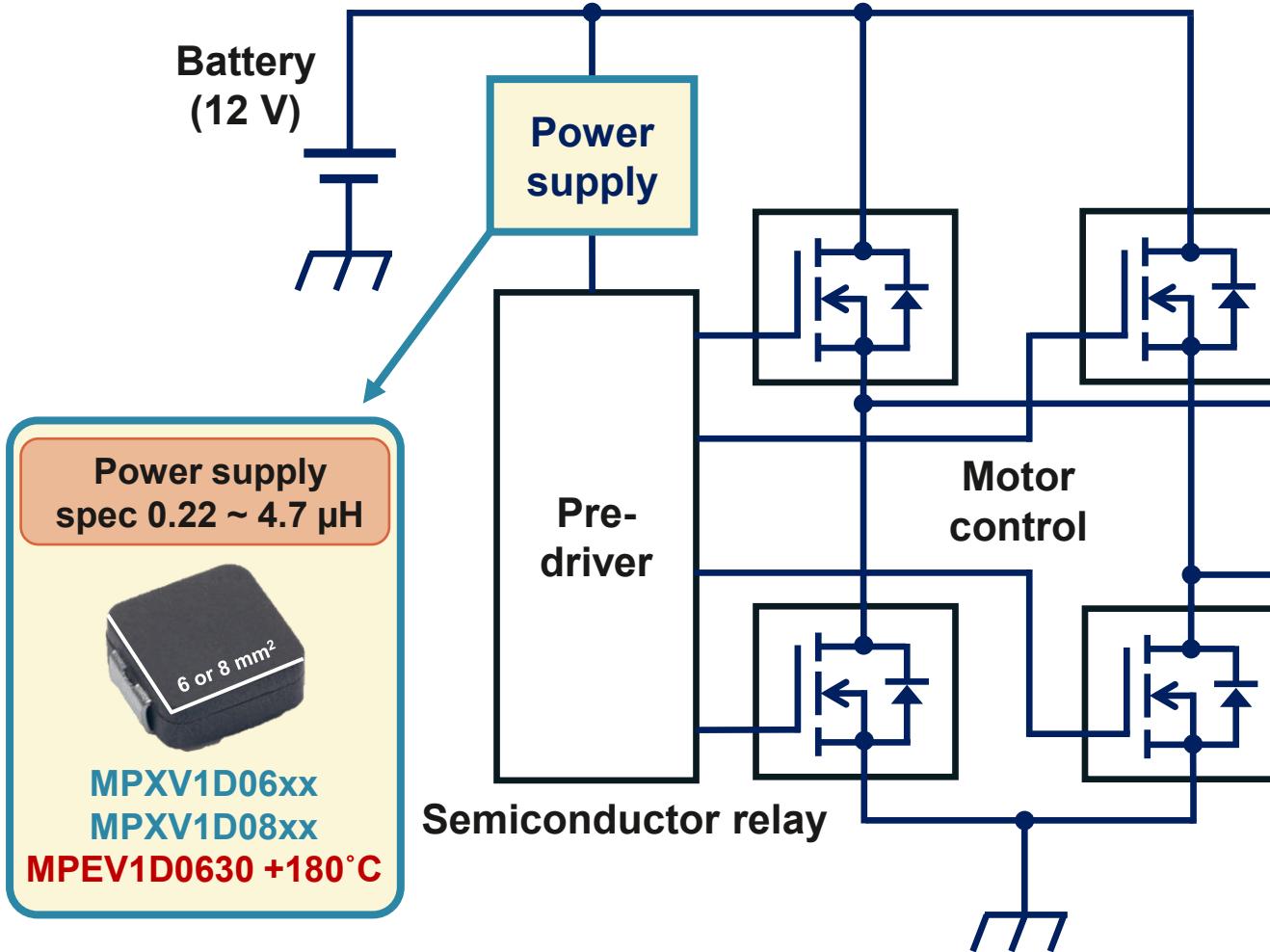


Solutions for replacing ferrite SMD inductors for downsizing



⑦ Electric Parking Brake (EPB)

System image



Disk brake caliper



Drum brake



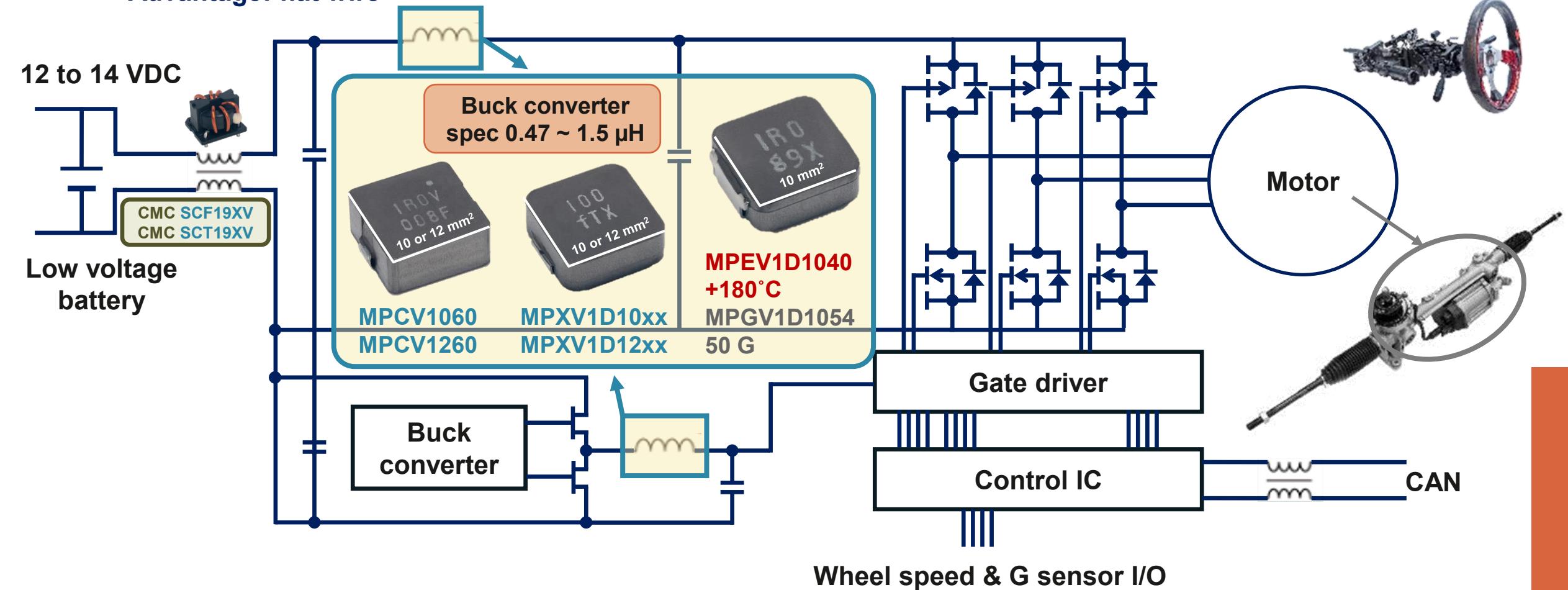
⑧ Electric Power Steering (EPS)

System image

Input filter requires low DCR

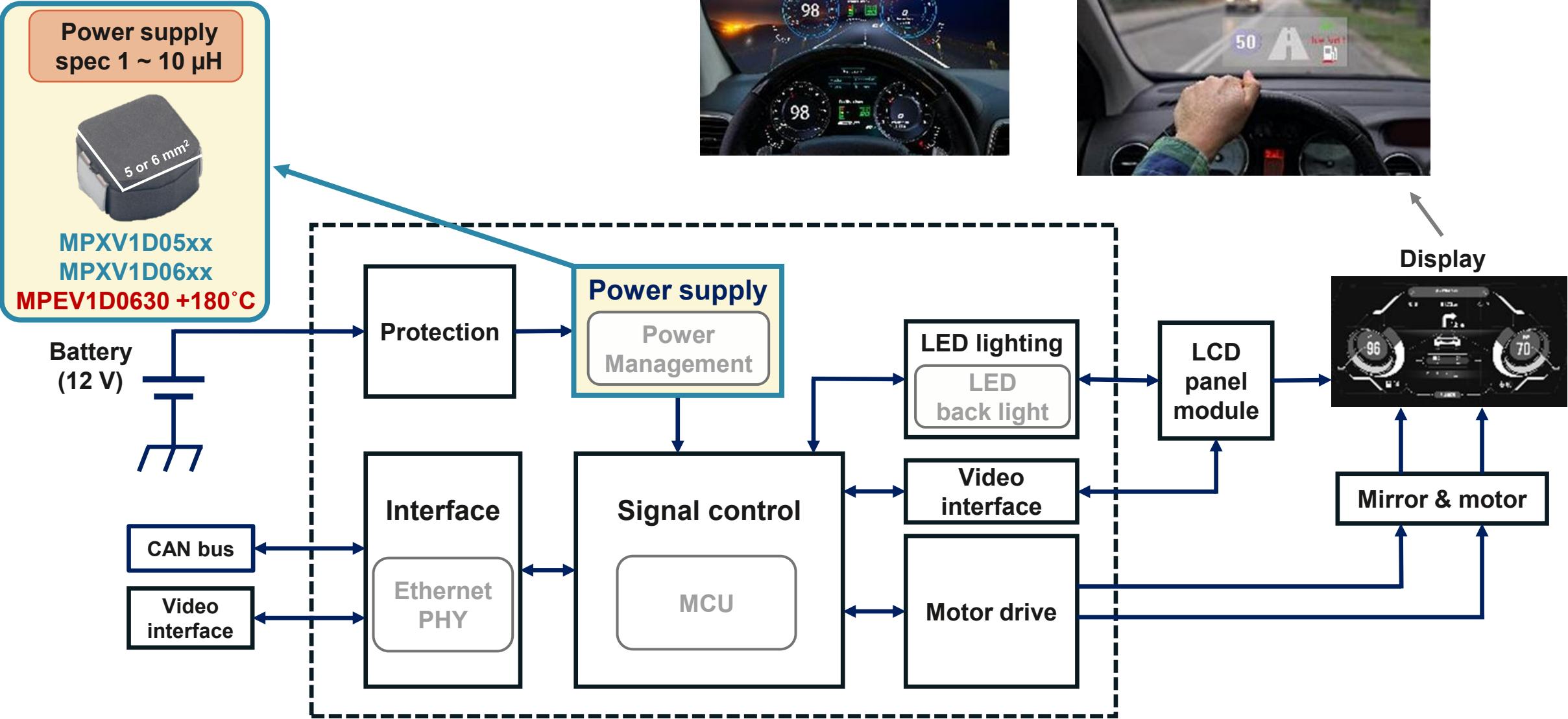
- **MPCV** series recommended
- Advantage: flat wire

Solutions for size reduction



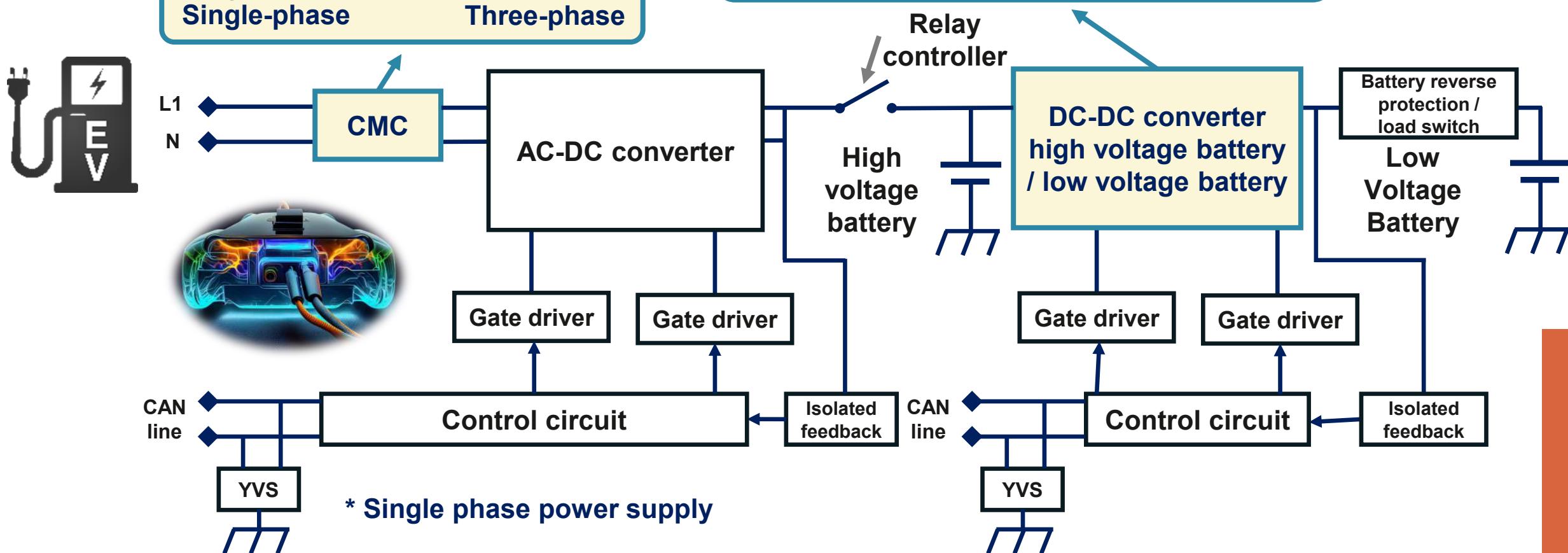
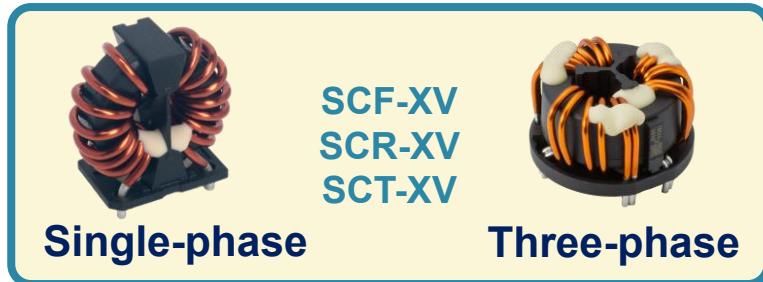
⑨ Head Up Display (HUD)

System image



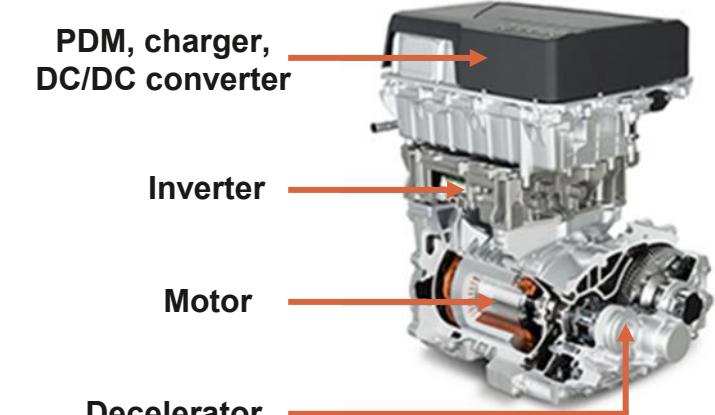
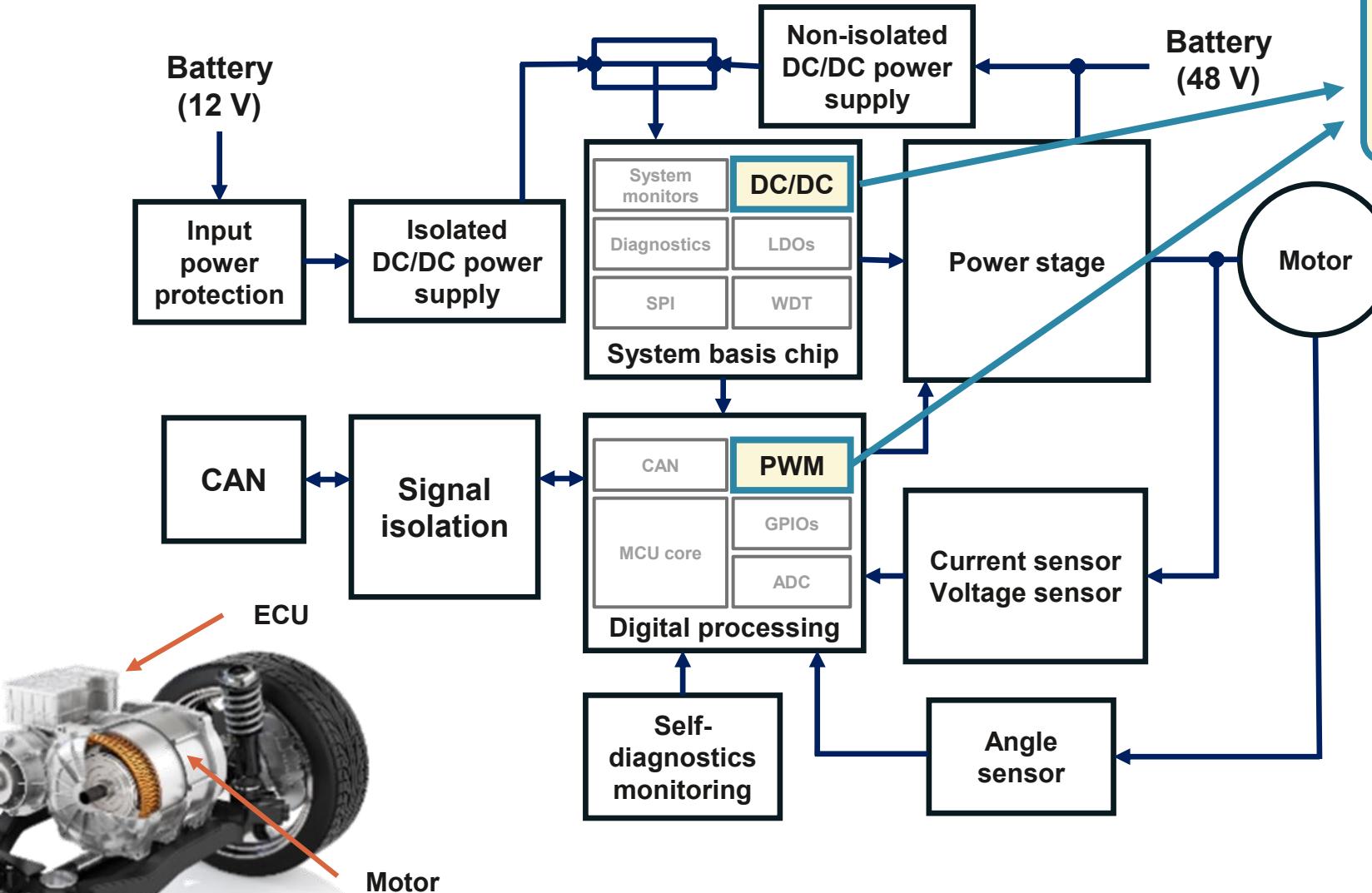
⑩ On-Board Charger (OBC)

System image



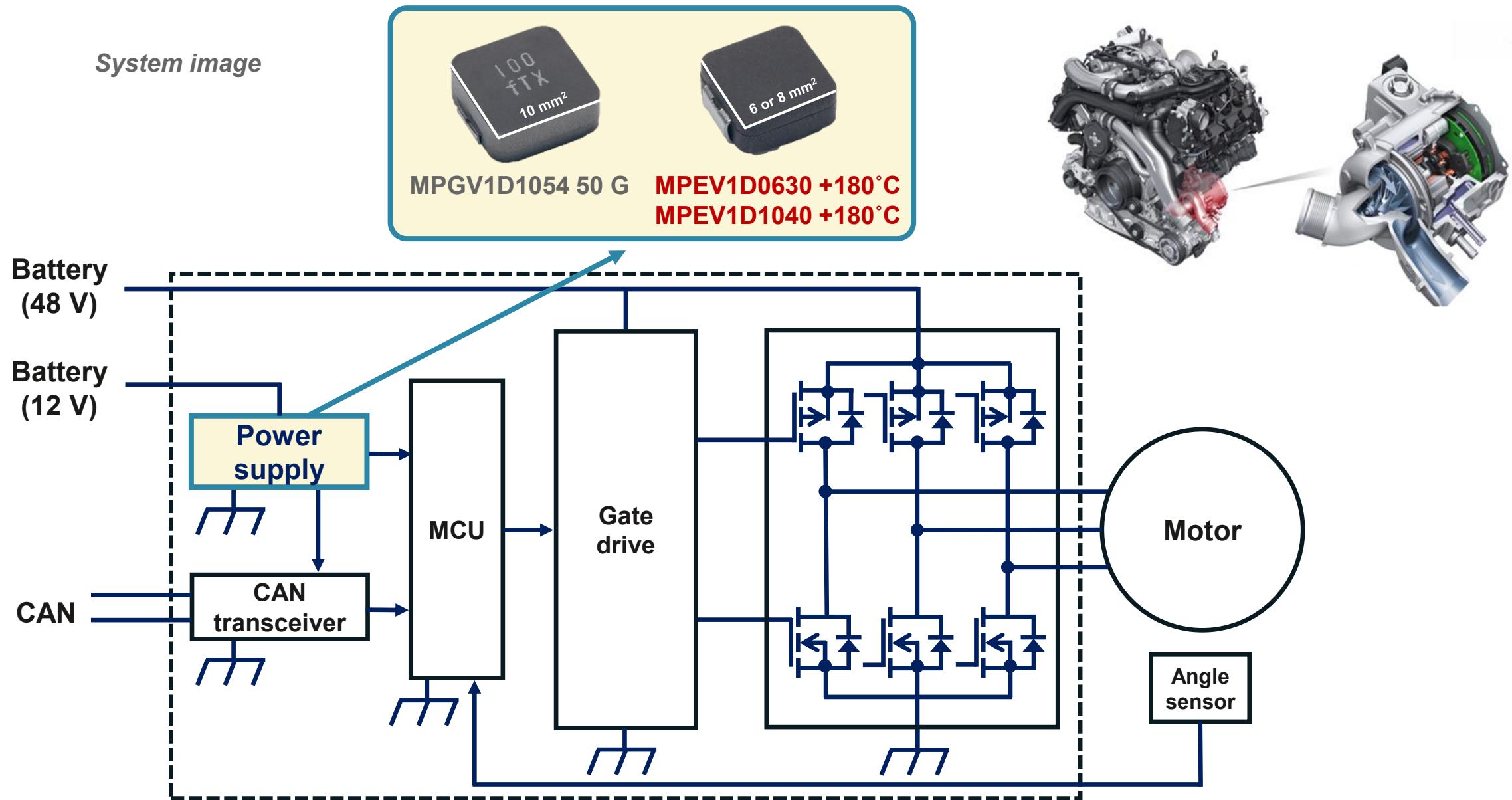
⑪ Hybrid Car Drive Motor

System image

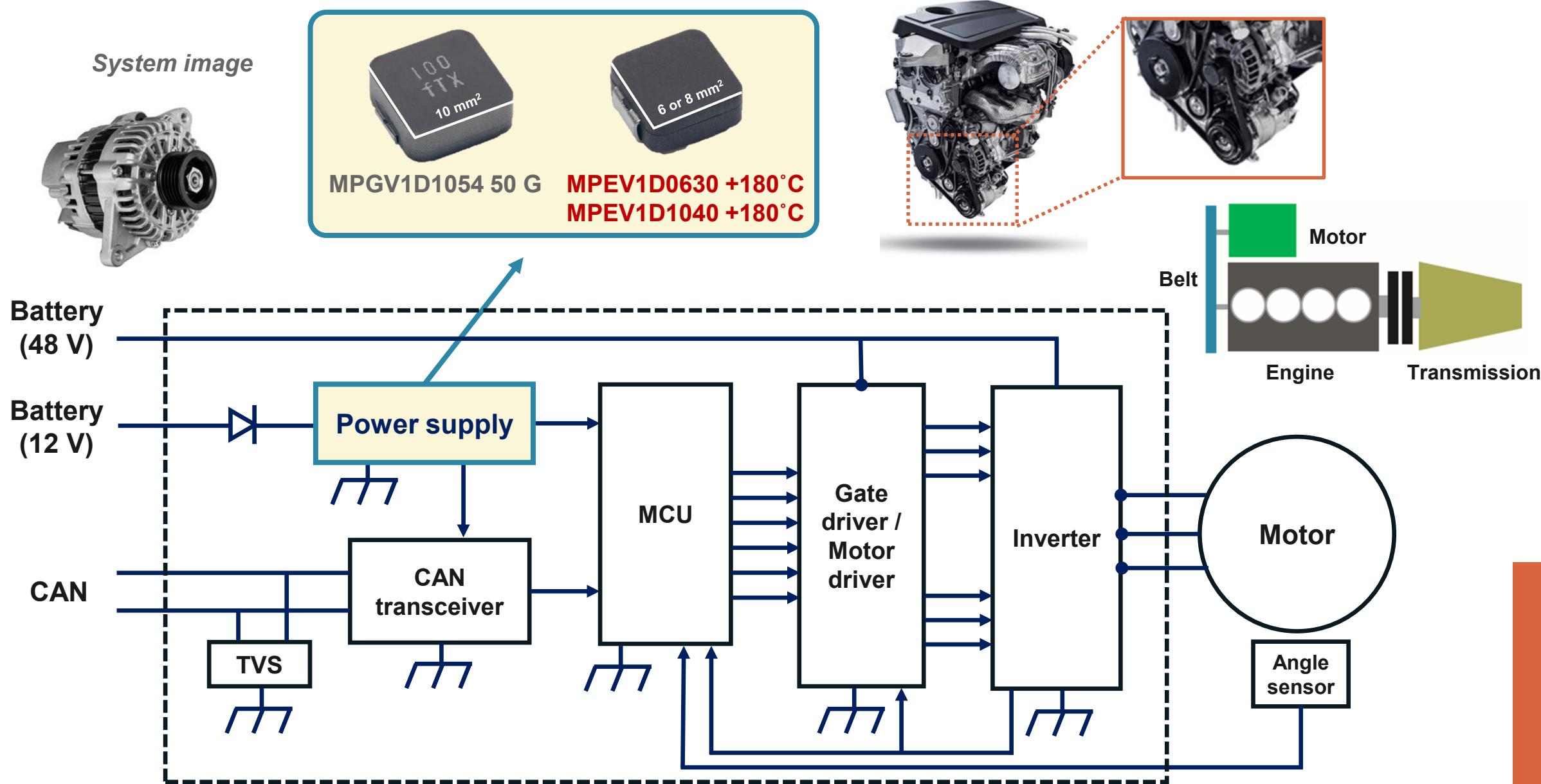


PDM : Power Delivery Module

⑫ Automotive Electric Turbocharger



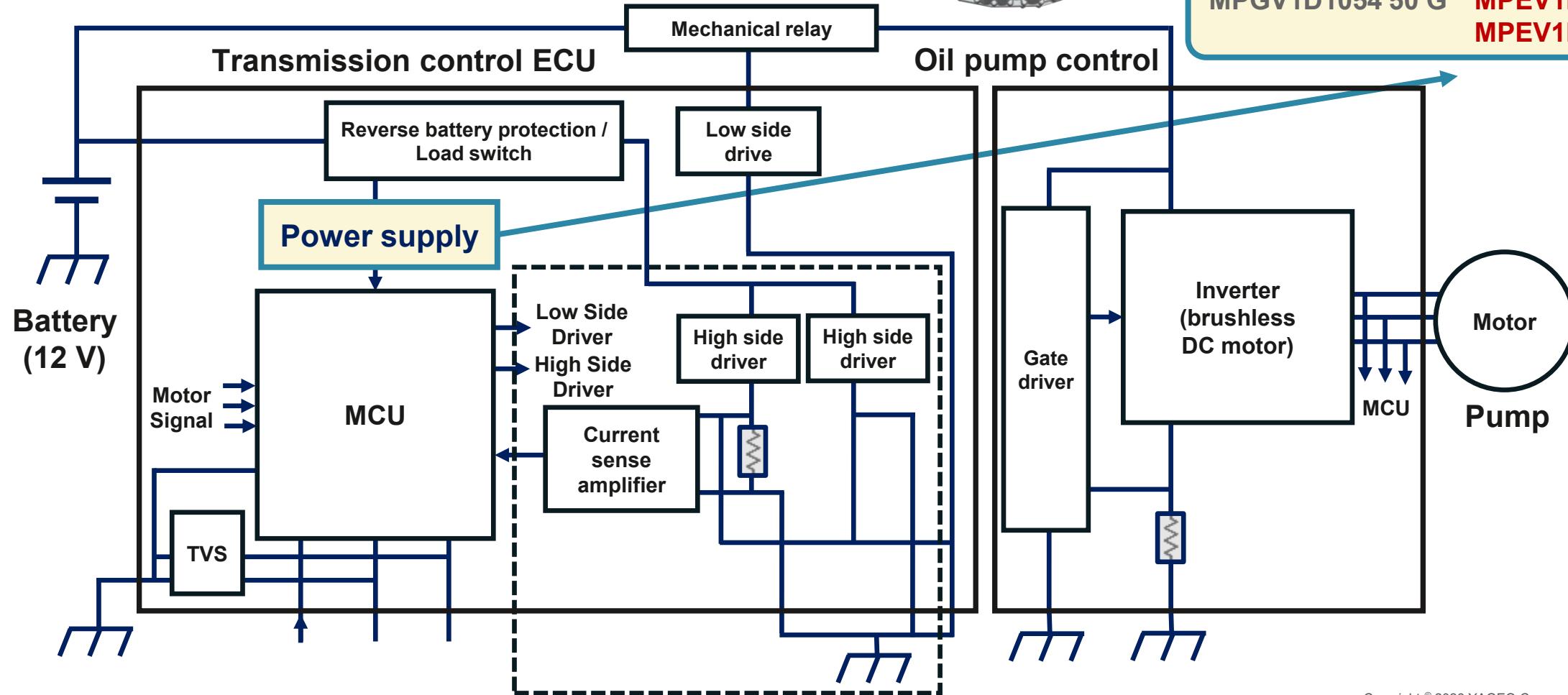
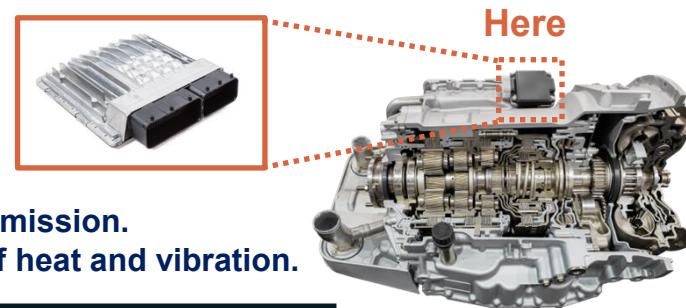
⑬ Belt-Driven Starter Generator (BSG)



⑯ Transmission Control Unit (TCU)

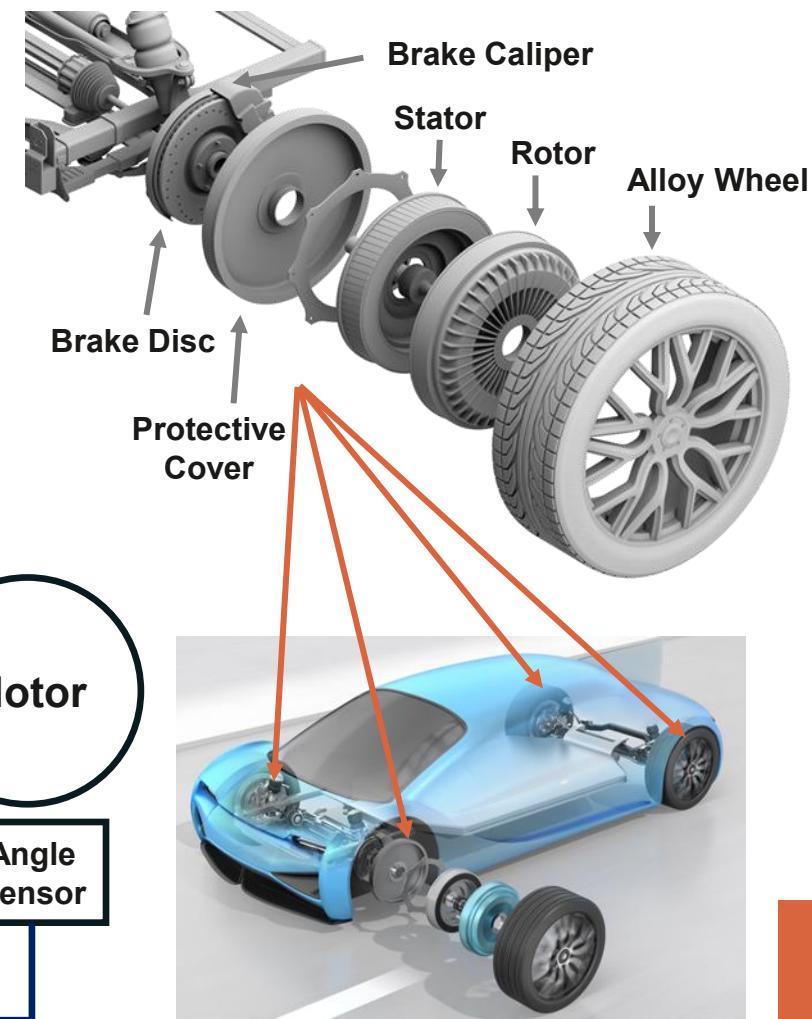
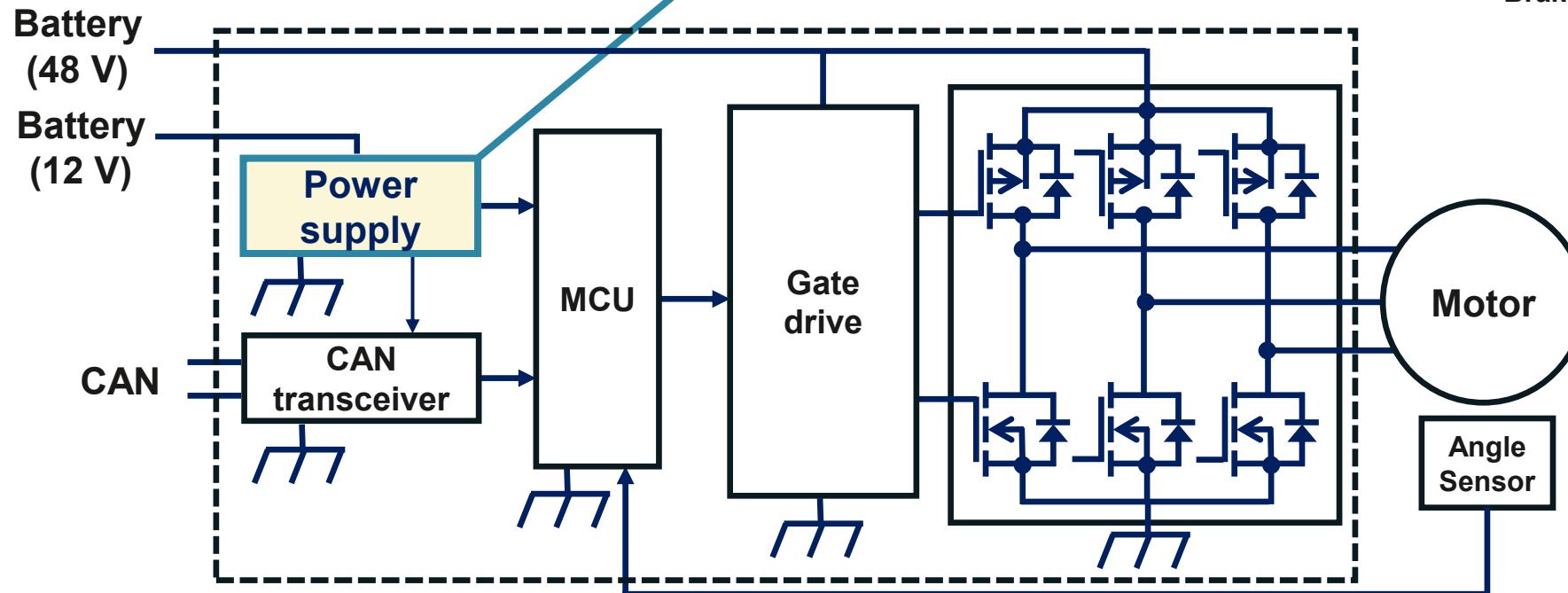
System image

The TCU is installed directly onto the transmission.
As a result, it must withstand high levels of heat and vibration.



15 In-Wheel Motor

System image



- Each of the four wheels will need its own motor and inverter.
- Every motor and inverter will include a circuit featuring an inductor.
- This setup demands strong heat and vibration resistance.
- Besides cars, potential applications include forklifts and electric motorcycles.