# https://www.denso.com/global/en/products-and-services/powertrain/hybrid/

## **Products of Power Supply**

Optimally controls the battery status to maximize its performance, thus realizing compact size and low cost.



**Electrical Powertrain** Control Unit



Lithium-Ion Battery Electronic Control Unit



Battery Monitoring Unit



Return to products lineup ^

## **Products of Substation**

Converts the HV-battery power to HV-AC or LV-DC. DENSO's original cooling and switching technologies improve fuel economy.





Return to products lineup ^

## **Electrical Powertrain Control Unit**



Controls the entire vehicle, including the engine operation, method for combining the engine and electric motor, as well as charge and discharge of the high voltage battery.

#### Features

- Various functional integration satisfying maker needs
- DENSO's manufacturing of high-quality powertrain ECU

Typical adopting maker/car type

Toyota HV

# **Lithium-Ion Battery Electronic Control Unit**



Monitors the voltage and temperature of multiple batteries to control the high voltage battery crucial for hybrid vehicles.

#### **Features**

- Reduced size due to DENSO's multicell monitoring IC
- · Reduced system cost

# **Battery Monitoring Unit**



Monitors the voltage and temperature of multiple batteries and sends the data to the upper ECU, monitoring the high voltage battery of hybrid vehicles.

## Features

 Small Size & Standardized BMU by our unique Dual Flying Caparictor technology

# **Battery Current Sensor**



Detects the charge and discharge current of the high voltage battery to calculate the state of charge (SOC) of the battery.

#### Features

 The compact current sensor with high reliability, supporting high performance hybrid control

**Typical adopting maker/car type** Toyota, etc.

## Inverter



Converts DC of HV-battery to AC at appropriate frequency, voltage, and current, to realize low fuel consumption with engine and electric motor.

### **Features**

- Original double side cooling structure improves power semicondoctor cooling performance.
- · Compact inverter with high power

## For more details



## **DCDC Converter**

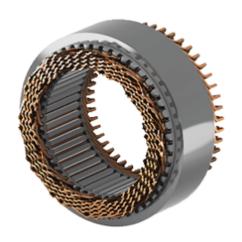


Charges the auxiliary battery from the main high voltage battery to supply the power to 12V electric devices.

### Features

Realizes both compact size and high efficiency.

## **Motor Generator Stator**



An electrical component for driving and power generation on EV, which functions as the motor to drive the vehicle, as well as the generator to convert the kinetic energy at braking to electric power.

#### Features

- Maximizes the space efficiency of the component
- · High power in compact size
- Contributes to size reduction and fuel economy on EV

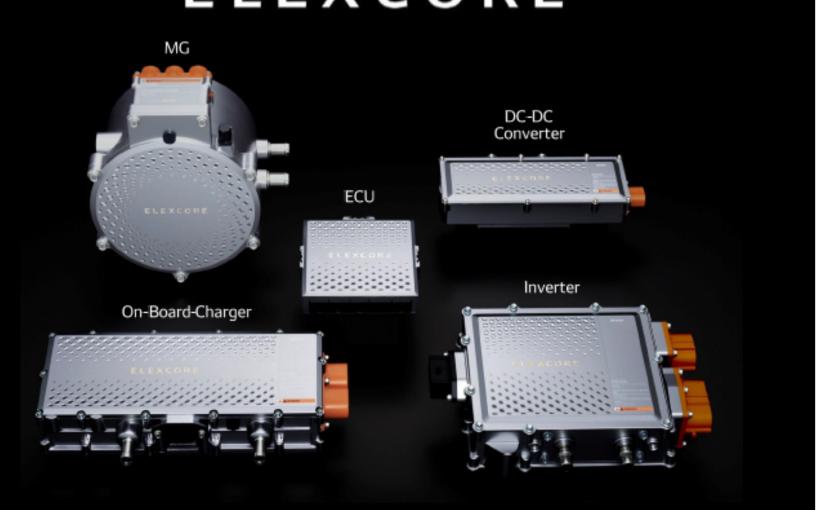
## Typical adopting maker/car type

Toyota Aqua, Prius, etc.

#### For more details



# ELEXCORE



No	Class	Goods	日本語商品
1	12	fan motors for land vehicles	自動車用ファンモータ
2	12	electric motors for windshield wipers	ワイパ用モータ
3	12	motors for automobiles (other than the above motors)	上記以外の自動車用モータ
4	12	power windows	パワーウィンド
5	12	windshield wipers	窓用ワイパ
6	12	headlight wipers	ヘッドライト用ワイパ
7	12	windshield washers	窓用ウッシャ
8	12	power antennas	モータアンテナ