# YMIN capacitors help the automotive electronic power field to operate stably!

The electronic and electrical architecture of the vehicle is divided into five areas: power area, chassis area, body area, cockpit area and autonomous driving area. YMIN capacitors help the stable operation and development of these "areas".



**Shanghai, China Mar 17, 2024 (Issuewire.com)** - With the increase of ECUs (Electronic Control Units), automotive logic control is becoming more and more complex. The initial logic of domain controllers does not exist to reduce the number of vehicle ECUs, but to integrate data and enhance computing capabilities. The so-called "areas" is a collection of electronic and electrical architecture that controls a certain large functional module of the car. Each domain is uniformly controlled by a field controller. The most typical division method is to divide the electronic and electrical architecture of the entire vehicle into There are five areas: power areas, chassis areas, body areas, cockpit areas and autonomous driving areas.

The power areas is the safety field. It is an intelligent powertrain management unit. It is mainly used for the optimization and control of the powertrain. In electric vehicles, it mainly refers to the integration of electric drive and electronic control systems. It also has electrical Intelligent fault diagnosis, intelligent power saving, bus communication and other functions. Taking new energy vehicles as an example, the power areas includes electronic control systems, battery management systems (BMS), electronic water pumps, on-board chargers (OBC), etc.

Selection of YMIN products in the power areas terminal complete machine

### <01 Automobile motor controller>

Polymer hybrid aluminum electrolytic capacitor for Filter energy storage

### VHT series

- low ESR
- Low leakage
- Small size and large capacity
- Resistant to large ripple current
- Broadband stability, wide temperature stability

Liquid chip type aluminum electrolytic capacitor for Filter energy storage

## VKL series

- Low leakage
- long life
- Small and large capacity
- Low temperature resistance and high temperature resistance
- Low ESR high ripple current

# <02 Car OBC, on-board chargers>

Liquid substrate self-supporting aluminum electrolytic capacitor, Improves system reliability and reduce risks such as breakdown and burnout

## CW3H series, <u>CW6H</u> series

- Lower ESR
- Higher withstand voltage
- Lower temperature rise

Metallized film capacitors, Buffer current and improve reliability

# DC-LINK capacitor for PCB

- Compact, high volume density, safety film design
- Low equivalent series resistance, high ripple current handling capability
- Metalized film, non-inductive structure
- · Have strong self-healing ability
- Strong ability to withstand ripple current
- Small equivalent series resistance and low stray inductance
- long life

Polymer hybrid aluminum electrolytic capacitor for Filter energy storage

## VHT series

low ESR

- Low leakage
- Small size and large capacity
- Resistant to large ripple current
- Broadband stability, wide temperature stability

# <03 Automobile BMS battery management system>

Polymer hybrid <u>aluminum electrolytic capacitor</u>, Buffer current, reduce noise ripple, ensure stable operation

#### VHT series

- Low ESR
- Low leakage
- Small size and large capacity
- Resistant to large ripple current
- · Broadband stability, wide temperature stability

Liquid chip type aluminum electrolytic capacitor, Buffer current, reduce noise ripple, ensure stable operation

## VKL series

- Low leakage
- long life
- Small and large capacity
- Low temperature resistance and high temperature resistance
- Low ESR high ripple current

<04 Automotive air conditioning compressor controller, power board>

Polymer hybrid aluminum electrolytic capacitor, Filter energy storage

#### VHT series

- Low ESR
- Low leakage
- Small size and large capacity
- Resistant to large ripple current
- · Broadband stability, wide temperature stability

Liquid lead type aluminum electrolytic capacitor, Filter energy storage

# LKG series

- long life
- Small size and large capacity
- Resistant to large ripple current
- · Broadband stability, wide temperature stability

<05 Automobile electronic water pump>

Polymer hybrid aluminum electrolytic capacitor

It plays the role of bus filtering and energy storage and reduces EMI and EMS for the whole machine.

VHU series, VHT series, VHR series

- Withstand voltage margin
- Stable over wide temperature range
- Ordinary seat board
- Anti-seismic seat plate
- High frequency performance
- High temperature durability
- Excellent earthquake resistance

<06 Car cooling fan controller>

Polymer hybrid aluminum electrolytic capacitor

It plays the role of energy storage and filtering and is impact-resistant to ensure the stability of the whole machine.

VHM series, VHU series

- Low ESR
- High capacity
- Ordinary seat board
- Anti-seismic seat plate
- Shock proof
- Strong earthquake resistance
- Resistant to large ripple current

<07 Automobile motor drive>

Metallized film capacitors

Buffer current and improve reliability

Dry DC filter capacitor (customized product)

- Optimize coating structure design
- · Low ESR, safety film is safer
- Wide temperature range, low temperature rise
- long life
- Strong ripple capability
- Innovative internal structure design, lower ESL, efficient heat conduction

Shanghai Yongming Electronics Co., Ltd.

Shanghai Yongming Electronics Co., Ltd. is a high-tech domestic high-end capacitor enterprise that has been engaged in the research and development, high-precision manufacturing and market promotion of new capacitor products for many years. Through continuous innovation and research and development, we have developed many high-quality, high-tech products. Capacitor products, the product line covers liquid aluminum electrolytic capacitors, polymer solid aluminum electrolytic capacitors, polymer hybrid aluminum electrolytic capacitors, laminated polymer aluminum electrolytic capacitors, supercapacitors, multilayer ceramic chip capacitors(MLCCs), polymer polymers High-end capacitors with various new technologies, such as tantalum capacitors and film capacitors, are quite competitive with international leading brands.



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