

# **LOW VOLTAGE PRODUCTS**







# INTRODUCTION \*\*\*

Hongfa, (Shanghai Stock Exchange: 600885), founded in 1984, has been adhering to the enterprise spirit of "persevere for progress, strive for excellence, and has built a complete industry system with complete categories and supporting facilities. At present, Hongfa has more than 30 subsidiaries and has established three districts of R & D and production bases. Its products cover various categories, such as medium and low voltage products, relays, high and low voltage switchgear, capacitors, precision parts and automation equipment.

Xiamen Hongfa Electrical Safety & Controls Co., Ltd. is a wholly-owned subsidiary of Hongfa, which specializes in R & D, design and manufacture medium and low voltage products. Its distribution apparatus, terminal apparatus, control apparatus and other products are widely used in real estate, electric power, new energy, industry, HVAC, transportation, information and other fields.

In the United States, Europe, Southeast Asia and other regions, Hongfa has established localized marketing and service networks with global market operation and technical service. Relying on professional and rigorous technical support, fast response and all-round service, safe and reliable product quality and high cost performance, Hongfa has reached business cooperation relationship with many global top 500 enterprises and other well-known enterprises, such as Enel, GE, Carrier, Trane, Johnson Controls, Danfoss, State Grid, China Southern Power Grid, CRRC, China Mobile, China Unicom, etc.

In terms of technology R & D and manufacturing, taking the national enterprise technology center as the platform, Hongfa has set up postdoctoral research workstation, academician and expert workstation. Now it has developed into a leading scientific research and production base in the industry. From product development, mold manufacturing, parts manufacturing, automated product assembly and online testing, Hongfa has successfully built an integrated whole industry chain of medium and low voltage products. In terms of product testing, Hongfa testing center has passed the certification of VDE, UL, CNAS and other international organizations, and has complete testing and analysis equipment for low-voltage products, such as 50kA ultimate short circuit test, 8kA electrical life test, 80kA characteristic test, mechanical simulation and testing system, electromagnetic simulation and testing system.

Hongfa always adheres to the policy of "market-oriented and quality oriented", and has a complete set of quality assurance system. Its products have passed UL / CUL, VDE, CQC, CCC and other international safety certification. In the process of quality management, Hongfa actively implements the advanced quality concept, constantly improves the quality management system, continuously promotes the product process quality control and testing, strengthens the supply chain management, and is committed to providing each customer with high-quality products and creating greater value.

Advanced technology and strict quality control have created Hongfa's brand strength. Hongfa is willing to work hand in hand with global customers to share the convenience and happiness brought by science and technology.





Focus · Industrial Innovation

Building Hongfa Industrial Ecosystem









# **Distribution Product**



UEW6-4000 is suitable for rated operating voltage AC690V/800V/1140V, rated current 1000A  $\sim\,$  4000A, with overload, short circuit, undervoltage and single-phase ground fault protection, widely used in new energy power generation, industry, construction, petrochemical and other occasions.

- **High breaking capacity:** rated ultimate short-circuit breaking capacity lcu (kA):100 (AC415V), 85 (AC690V), 50 (AC800V).
- **High voltage type:** breaking capacity up to lcw=lcu=lcs=75kA (AC1140V).
- **High reliability:** High strengh insulating shell with extremely high impact resistance and Insulation Properties.
- Compact size: save space and easy for operation.
- Intellectualization: remote measurement, remote control, remote adjustment,remote communication's "four remote" data transmission function.



UEW6DHG-2500 2P is suitable for rated operating voltage DC1500V, rated current from 800A to 2500A. With on-load isolation function, the products are widely used in DC power distribution systems such as photovoltaic power generation, energy storage, and data centers.

- Compact size (-30 %)
- Low temperature rise, no derating at 55°C
- 1500V critical load capacity for single pole
- Low power consumption (-40%)
- Modular design, easy for maintenance

#### **UEM6H Series DC MCCB**





UEM6H-400 2P is suitable for rated voltage DC1500V, rated current from 250A to 400A, for overload and short circuit protection. The product can be widely used in DC power distribution systems such as photovoltaic power generation, energy storage and data centers.

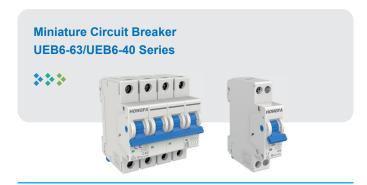
- Compact size (-50%)
- Low temperature rise, no derating at 55°C
- 1500V critical load current capability for single pole
- The arcing distance is less than 50mm
- Low power consumption (-40%)
- Single pole breaking capacity 5kA @ 1500V

# Molded Case Circuit Breaker UEM5 Series

UEM5\UEM5DC series molded case circuit breakers (MCCB) are suitable for AC 50/60Hz, rated current 10~1600A, rated insulation voltage 800V, rated voltage <=690V, or rated maximum operation voltage DC1500V in low-voltage power grids with overload, short circuit, residual current and overvoltage protection.

- **High performance:** insulating parts such as base, cover and shaft are made of thermosetting composite materials, which have high strength and high insulation performance.
- **High reliability:** unique contact design, fast breaking speed and small tripping force.
- Low power consumption: the contact is made of silver graphite alloy (Ag content 95%), small contact resistance, and low thermal value.
- Modular: rotating flip structure, easy to install accessories without opening cover.
- Rapid arc extinguishing: Adopt advanced electromagnetic repulsion technology to quickly extinguish the arc.
- Flexible wiring: The wiring is flexible, which can be upper in lower out or lower in upper out.

# **Terminal Product**



UEB6 series miniature circuit breakers (MCB) are used in AC 50/60Hz, rated voltage AC230V/AC400V, rated current 1A~125A, with overload protection, short circuit protection and isolation functions, and also can be used as infrequent on-off switch.

- **High reliability:** With innovative structural design, the time delay reliability is greatly improved.
- Energy saving and environmental protection: the circuit inside the circuit breaker is short, with low power consumption, energy saving and environmental protection.
- Excellent current limit: The current limit reaches the standard's requirement class 3
- Rapid arc extinguishing: Advanced electromagnetic repulsion technologies to lock the movable contact and increase the open distance to quickly extinguish the arc.
- **Reliable breaking:** excellent bi-metal material, to ensure the accurate operation and reliable breaking during the fault current.



UEG6-125 series switch-disconnector can be used in 50/60 Hz electrical circuits with rated operational voltage of 230/400V at rated operational current up to 125A. It is used in the line facilities and industrial power distribution system of buildings and similar places. It is mainly used to connect or disconnect the circuit under no load condition for the connection or isolation between the line and the power supply.

- More reliable: The contact has high wear resistance.
- Status indication: With contact status indicator.
- high safety: Rated insulation voltage 1000V, good dielectric strength, high safety.
- Wide application range: Rated impulse withstand voltage up to 8kV, withstand ultra-high transient overvoltage, The impact resistance category can meet the requirements of level I--level IV, applicable to a wide range of applications.

# Residual Current Operated Circuit Breaker UEB6LM-40/UEB6RM-100

The UEB6LM-40/UEB6RM-100 residual current operated circuit breaker is applied to the circuit with AC 50Hz/60Hz, rated operating voltage of 230V/400V and rated operating current of 100A. It can provide reliable personal protection for direct or indirect contact, as well as protection for insulation fault of electrical equipment. Provide leakage protection in TT, TN-S grounding systems.

• Safer: 10kA high breaking capacity provides customers absolutely reliable security.

It has multiple protections for isolation, overload, short circuit and current residual to ensure the safety of people and electrical equipment.

Comprehensive protection for AC and A residual current protection types. Bistable buckle design for reliable installation.

• More reliable: Mechanical endurance and electrical endurance are very equivalent to ABB/Schneider/ABB.

High quality and stable electromechanical tripping unit is used to ensure reliably breaking the residual current.

residual indication is in the form of handle, clear, safe and reliable.

 More flexible: Multiple accessories can be configured to help customers easily expand their functions.

Wiring of up in down out or down in up out can meet different requirements.



UEZ3 series Smart miniature circuit breakers (smart MCB) are suitable for AC 50Hz, rated voltage 230V/400V, and rated current up to 125A. The product adopts modular design, internal shaft drive, high synchronization of opening and closing, and intergrate with information collection, remote intelligent control and automatic reclosing function. The product also has overload, short circuit, over and under voltage, residual current protection functions, and can also be used for infrequent conversion of lines under normal conditions

- Multi-protections: overload, overvoltage, undervoltage, leakage, overpower over-temperature etc.
- Compact size: compact structure, small size and symmetrical design.
- **High reliability:** Conforming to EU's EMC requirement, the wires and accessories used in each part all apply the certified materials to ensure the safety, reliability and stability of the product.

# **Industrial Control Contactor**





AC Contactor
UEC3 Series

UEC1 series AC contactors with rated current from 9A to 800A are mainly used for circuit making and breaking at long distances, and can be combined with thermal overload relays to form electromagnetic starters to protect circuits from overloaded. It is used in construction machinery, elevators, air conditioners, iron and steel metallurgy, petrochemical and other fields.

- **High reliability:** innovative contact circuit structure design ensures safer and more reliable breaking of overload current, and avoids failures such to phase-to-phase breakdown;
- Wide voltage: With wider coil operation voltage range, the limit voltage fluctuation can reach 65%Uc~120%Uc.
- High standard: most products are VDE and UL approved, and all series are CCC certified.
- There are various ways to control power supply: supporting AC, DC, AC/DC.

UEC2 series AC contactors, with rated current from 12A to 30A, are mainly used for circuit making and breaking at long distances, and are widely used in load control of compressors, electric heating.

- Strong anti-shock and vibration ability: avoid misoperation due to repeated shock and vibration during transportation to ensure normal working state;
- Super overload resistance capacity: H-grade high temperature-resistant enameled wire, better overload resistance to reduce the risk of overheating and burning of the coil, and to reliably break the locked-rotor current.
- Resist harsh environment: super environmental adaptability, reliable operation in extreme high temperature environment over 85 °C , and super corrosion resistance.

UEC3 series AC contactors, with rated current from 6A to 25A, are mainly used for circuit making and breaking at long distances, and can be combined with appropriate thermal overload relays to form electromagnetic starters to protect circuits from overloaded. widely used in pump valve control, HVAC, packaging machinery and other fields.

- More compact: Small size, compact in structure and easy to install;
- Wide voltage: With wider coil operation voltage range, the limit voltage fluctuation can reach 65%Uc~120%Uc.
- Higher coil anti-abnormal heating capacity UEC3 coil anti-abnormal heating capacity can reach up to 240min.

# Capacitor Switching Contactor UEC1-K Series (10kvar-65kvar)



# Motor Protection Circuit Breakers UED1 Series



**Definite Purpose Contactor XMC0 Series** 



UEC1-K series capacitor switching contactor is a special application contactor, composed of capacitor switching module and contactor. The utilization category is AC-6b, which uses the module circuit resistance to suppress the closing inrush current and protect other electrical appliances in the line. Main application occasions: reactive power compensation equipment.

- More reliable: the suppression circuit is connected before the main contact, effectively suppressing the closing inrush current.
- Long endurance: The suppression circuit is opening after the main contact is closing to avoid the breaking arc and effectively improve the suppression circuit endurance.
- **Diversification:** up to 5 built-in auxiliary contact free combination of normally open and normally closed.

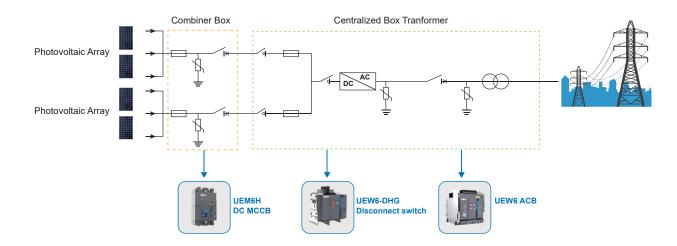
UED1 are motor protective circuit breakers applicable to AC 50Hz or 60 Hz, with the maximum rated insulation voltage of 690V, selective use category A and use category AC-3, rated working voltage of 690V and below, and rated working current of 0.1A ... 65A.Short circuit, overload and phase failure protection shall be provided by manually switching on/off the load. In addition, auxiliary control, remote shunt excitation and under voltage protection can be realized through additional auxiliary function modules.

- Compact structure: replacing the traditional "molded case circuit breaker + thermal overload relay", greatly reducing the installation space and wiring amount.
- Functional Diversification: The auxiliary function modules are rich and can be combined at will
- **High reliability**: Capable of harsh use environment, more durable.

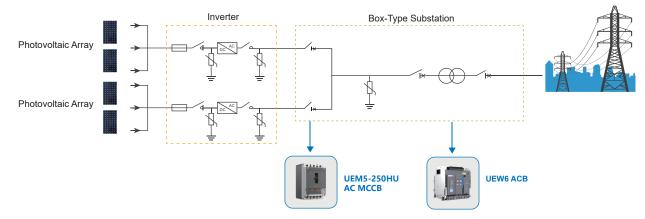
XMC0 series definite purpose contactors meet the harsh requirements of heating, ventilation and air-conditioning industry (HVAC), which are widely used in refrigeration, heating, data processing, welding, elevators, cranes, cleaning, lighting, hot springs, swimming pools and food processing industries.

- Easy installation: Accessories can be installed without tools, and a variety of terminal are available for different requirement of customers.
- **High reliability:** Coils with high heating resistance grade can be applied to a wide range of voltages, and can be used for both 50Hz and 60Hz.
- Effective dustproof: The coil cover can not only keep the coil dust-proof, but also to protect it from being damaged by sharp tools.

# Photovoltaic Centralized Power Distribution Solutions \*\*\*

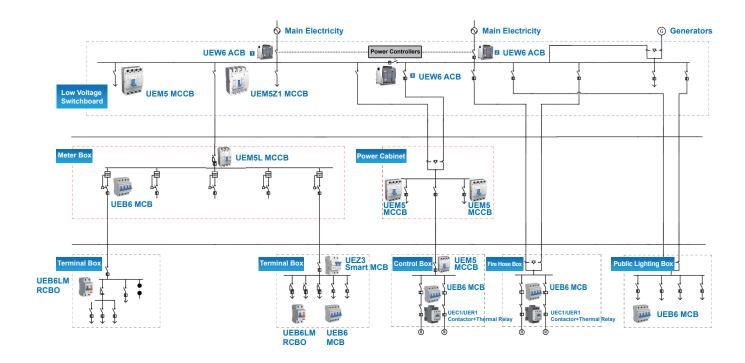


# Photovoltaic String Type Power Distribution Solutions \*\*\*

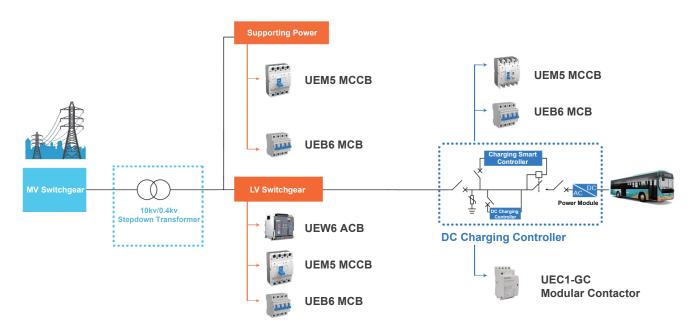




# Building Power Distribution Solutions \*\*\*



# Centralized Charging Station Power Distribution Solutions \*\*\*





## Power Solutions \*\*\*



#### **Power Generation**

#### **Power Transmission**

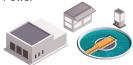
#### **Power Distribution**



Photovoltaic Power



Thermal Power



• Hydroelectric Power

## **Main Product**



MV Switchgear

#### **Main Product**



UEW6 Series ACB



• UEW6 DC Disconnect switch



UEM6 Series MCCB





• UEM5 Series MCCB • UEB6 Series MCB



UEC Series AC Contactor





Main Product



UEW6 Series ACB



UEM5 Series MCCB



UEB6 MCB



UEZ3 Smart MCB



UEC Series AC



LV Switchgear

• High & Low voltage Switchgear

The relevant information on the products contained is for reference only. For details, please consult our business staff.

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