AceReare: A Leading Supplier of DC MCCB for Solar Power Systems in Zhejiang, China

Wenzhou, Zhejiang May 8, 2026 (Issuewire.com) - Against the backdrop of an accelerating global energy transition, photovoltaics has leaped from a supplementary energy source to a mainstream energy source and is projected to become the world's largest power source after 2030. DC molded case circuit breakers (DC MCCBs), as the core safety protection device on the DC side of photovoltaic systems, directly determine the reliability of power plant operation, equipment lifespan, and overall safety level, making them an indispensable and crucial link in the photovoltaic industry chain.

Zhejiang AceReare has been deeply involved in the DC protection field for many years, focusing on the R&D, manufacturing, and solution output of dedicated DC MCCB for solar systems. With professional technology, stable quality, and full-process service, it has become a leading domestic and globally trusted DC circuit breaker supplier.

I. Key Differences Between DC MCCBFor SolarSystems and Traditional MCCB

Photovoltaic DC systems have no current zero-crossing point, high arc energy, and harsh outdoor operating conditions. Traditional AC MCCBs cannot meet safety requirements, necessitating the use of dedicated DC products.

- Different Arc Extinguishing Principles

Traditional MCCBs rely on AC zero-crossing arc extinguishing; photovoltaic DC MCCBs require

dedicated DC arc extinguishing chambers, employing a multi-breakpoint + magnetic field-assisted arc extinguishing structure, strong magnetic blow, multi-metal grids, extended arc extinguishing path, and gas-generating materials to quickly extinguish strong DC arcs and prevent fault escalation.

- Different Electrical Designs (Number of Poles and Polarity)

Supports a maximum rated voltage of DC 1500V, employs reinforced insulation and high-voltage resistant materials; features clear polarity markings to prevent reverse polarity connection; high breaking capacity reliably interrupts DC fault current, suitable for high-voltage, high-current photovoltaic scenarios.

- Different Environmental Adaptability

DC MCCB for solar systems supports a wide operating temperature range of -20℃ to +70℃, possesses resistance to salt spray, moisture, and UV radiation, and can adapt to harsh outdoor environments such as coastal areas, plateaus, and deserts; traditional MCCBs are only suitable for conventional indoor environments.

In summary, traditional AC MCCBs cannot be directly used in photovoltaic DC systems; dedicated DC MCCBs are an essential configuration for ensuring the safe and stable operation of power plants.

II. Company Overview: Rooted in Yueqing, Zhejiang, Deeply Developed in DC MCCBFor SolarSystems

Founded in Yueqing, Zhejiang, China in 2015, AceReare boasts two major production bases and two wholly-owned subsidiaries, "RuiRui Electric" and "KeRui Electric." With over 20 years of experience in circuit breaker manufacturing, it is a specialized enterprise focusing on the field of photovoltaic DC protection.

AceReare factory has obtained multiple authoritative system certifications, including ISO 9001:2015 and ISO 45001:2018. Adhering to the production philosophy of safety first, we have for years remained deeply committed to employees’ occupational health, production safety management and welfare protection.

Core Strengths

- R&D Capabilities: A dedicated DC protection R&D team of 5+ people, each with over 5 years of industry experience, implements 50+ DC product R&D projects annually, precisely targeting iterative technologies for photovoltaic DC application scenarios. Its DC series products have passed CQC and CE certifications, complying with both international and domestic standards of IEC 60947-2 and GB/T 14048.2, demonstrating industry-leading technical compliance and professionalism.
- Market Size: DC photovoltaic circuit breakers enjoy high market acceptance. Shipments of DC products exceeded 60,000 units in 2025, covering major photovoltaic production areas domestically and exported to Europe, America, Southeast Asia, the Middle East, and other regions overseas, with mass applications in various photovoltaic projects worldwide.

AceReare's products combine cutting-edge technical innovation with proven global performance, solidifying its position as a leading supplier of DC MCCB for solar power systems.

Industry Advantages

- Location Advantage: Based in the Yueqing electrical industry belt, with a complete supply chain, concentrated talent, and leading cost and delivery efficiency.
- Competitive Barriers: Self-developed and self-produced core components, ensuring independent control over quality and delivery time; providing one-stop services for selection, design, customization, testing, and after-sales service, differentiating itself from single-product manufacturing companies.
- Market Layout: Following the global trend of DC MCCB for solarsystems development, the company accurately predicts industry demand and has proactively entered the DC MCCB for solarsystems market, taking the lead in completing the R&D and implementation of the ARM6DC series of dedicated DC products, deeply adapting to the DC protection application needs of various photovoltaic projects.

III. Core Product: ARM6DC MCCB

Star Product: ARM6DC Series DC Circuit Breaker

- Rated Operating Voltage: Maximum DC 1500V
- Rated Current: 63A–500A
- Applicable Scenarios: Various DC protection related fields

Core Technological Advantages

- Professional DC Arc Extinguishing: High breaking capacity, accurately achieving overload, short circuit, and undervoltage protection, safely interrupting fault current.
- Strong Environmental Adaptability: High temperature resistance, humidity resistance, and salt spray resistance, adaptable to harsh outdoor conditions at wide temperature ranges and high altitudes.
- High Safety and Reliability: Can be equipped with a protective cover to achieve zero arc flash, reducing the risk of fire and equipment damage.
- Full Compliance Certification: Meets both international and domestic standards, passing mainstream global authoritative certifications, adaptable to the needs of projects both domestically and internationally. Our products cover all DC 1000V/1500V specifications and support OEM/ODM customization. They are not only compatible with photovoltaic systems, but can also be widely used in energy storage, charging piles, wind power, rail transit, industrial DC, communication equipment rooms, marine and maritime, off-grid microgrids and other fields, fully meeting the DC protection needs of all scenarios.

Application Scenarios and Customer Value

AceReare DC MCCB is widely used in:

- Large-scale ground-mounted centralized photovoltaic power plants
- Residential/commercial energy storage cabinets
- Tram DC power supply system
- Data center UPS DC power supply

- Wind turbine generator DC side converters

It brings customers the core value of: safe and reliable DC side disconnection, stable adaptation to high-voltage scenarios, long outdoor lifespan and durability, reduced operation and maintenance risks, and improved overall power plant profitability.

IV. Future Outlook

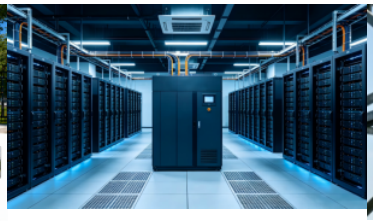
- Technological Upgrades: Continuously iterating on high-end DC 1500V+ circuit breakers, promoting intelligent, modular, and miniaturized upgrades to deeply adapt to the trend of photovoltaic-energy storage integration. Products have obtained CQC and CE authoritative certifications, strictly adhering to both domestic and international standards of IEC 60947-2 and GB/T 14048.2, solidifying the technological advantages of high-end DC products with comprehensive qualifications and superior compliance quality.
- Market Expansion: Deepening its presence in the core domestic photovoltaic market, accelerating expansion into emerging global photovoltaic markets such as Europe, America, Southeast Asia, and the Middle East, enhancing its international brand influence.
- Social Responsibility: Contributing to global energy transition and carbon neutrality goals with safer, more efficient, and greener DC protection products.

V. Conclusion

Based in Yueqing, Zhejiang, AceReare is deeply committed to core DC protection technologies, focusing on the needs of the photovoltaic industry, and dedicated to creating highly reliable dedicated DC MCCBs, striving to become a trustworthy Chinese brand in DC MCCB for solar systems protection field. In the future, the company will continue to innovate and upgrade, providing stable and secure solutions to global photovoltaic projects, and working with the industry to build a clean energy sustainable future. By continuously advancing its technical expertise and global service standards, AceReare is dedicated to maintaining its momentum as a leading supplier of DC MCCB for solar power systems within the industry.

To explore the full range of solutions and discover how AceReare ensures system safety and operational stability, please visit the official website: https://www.acereare-ele.com/.



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