

SAYOON: Precision DC Contactor Manufacturing With SEV HV Series & Technical Insights

SAYOON supplies certified SEV series HV DC contactors and expert insights on 20 amp contactor technology for global industrial and new energy clients.

YUEQING, ZHEJIANG, CHINA, July 30, 2026 /EINPresswire.com/ -- As global electrification accelerates across new energy vehicles, battery energy storage, industrial automation and telecom infrastructure, demand for reliable, high-performance DC switching components continues to rise. For engineering teams and OEMs, selecting a trusted contactor manufacturer directly impacts system safety, operational uptime and total cost of ownership. As a specialized DC contactor manufacturer founded in 1998, [SAYOON](https://www.sayoon.com) (Zhejiang Sayoon Electric Co., Ltd.) delivers end-to-end DC control solutions backed by decades of R&D expertise and large-scale in-house production capacity.

1.About SAYOON: 25+ Years of DC Contactor Innovation & Manufacturing

SAYOON is a comprehensive manufacturer integrating R&D, production, sales and technical services for DC contactors and related electrical control components. Its core product portfolio covers low-voltage DC contactors, high-voltage DC contactors, magnetic latching contactors, pre-charging contactors, brush controllers, foot accelerators and matching accessories, with current



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sev-series-hv-dc-contactor

ratings ranging from 20A for light control duties up to 3000A for heavy industrial power circuits.

The company holds 80+ proprietary technology patents and designs all products to strict international standards. Its product families include the SEV and HEV high-voltage series, SZJ and CZW general-purpose series, QZJ medium-voltage series, plus SDC, CZQ and CZ10 application-specific models, covering voltage classes from low-voltage control systems up to high-voltage EV and energy storage circuits.

SAYOON contactors are deployed across six core industrial sectors:

- AGVs and electric forklifts for traction, lifting and auxiliary power control
- Electric vehicle air conditioning compressor circuits
- UPS and battery energy storage systems for seamless transfer switching
- Marine and shipboard power distribution with corrosion-resistant configurations
- Telecom base station and data center power supplies for uninterrupted uptime
- New energy electric vehicles for battery disconnect, pre-charge and charging control



20-amp-contactor



Magnetic Holding DC Contactor

All products are certified under CE, RoHS, FCC and CCC standards, and the company operates under ISO 9001 quality, ISO 14001 environmental and ISO 45001 occupational health management systems. SAYOON provides full OEM/ODM services through a four-stage process: requirement consultation, design & prototyping, approval & volume production, and delivery & after-sales support. Clients benefit from 24-hour technical response, 12-month product warranty, global shipping options and full batch traceability for every order.

2.[SEV Series HV DC Contactor](#): Epoxy-Sealed Reliability for High-Voltage DC Systems

For high-voltage DC applications where safety and arc suppression are non-negotiable, the SEV Series HV DC Contactor stands as SAYOON's flagship high-voltage product line, engineered for dependable performance in demanding power systems.

Built with fully sealed epoxy resin construction, the SEV series delivers superior dielectric strength and arc quenching performance compared to open-frame designs. This hermetic sealing protects internal components from dust, moisture and environmental contaminants, ensuring stable operation even in harsh industrial and outdoor installation environments. All units comply with GB 14048.4 DC-1 standards, with verified electrical and mechanical endurance ratings for long service life.

The product family covers a wide range of current ratings to suit diverse project requirements, including 30A, 100A, 150A, 200A, 250A, 300A and 400A models, with AD, AH and FD configuration variants for different mounting and performance needs. Coil voltages are available in standard 12V and 24V DC options to match common control system architectures, with custom coil specifications available for OEM projects.

Key advantages of the SEV series include its compact form factor optimized for high-density cabinet installations, extended electrical and mechanical service life that reduces total cost of ownership, and modular design that simplifies field maintenance and replacement. These characteristics make the series ideal for deployment in new energy vehicle battery systems, battery energy storage stations, UPS backup power systems, DC fast charging infrastructure and industrial DC distribution networks.

3.Understanding the [20 Amp Contactor](#): Fundamentals of Low-Voltage Load Control

Beyond heavy-duty high-voltage power circuits, low-current contactors form the backbone of automated control in commercial, residential and light industrial buildings. SAYOON's technical knowledge base provides a detailed breakdown of the 20 Amp Contactor, helping engineers, contractors and maintenance teams understand its operating principles and appropriate use cases.

A 20 amp contactor is an electromechanical switching device that uses a low-voltage control signal to open and close electrical circuits carrying up to 20 amps of load current. Available in 2-pole and 3-pole configurations, it allows operators to control multiple circuits simultaneously and manage high-power loads safely from a remote location.

Its operating principle follows standard electromagnetic contactor design: when control voltage is applied to the coil, the resulting magnetic field pulls the movable armature into position, closing the main contacts and allowing current to flow to the load. When power to the coil is cut, the contacts spring back open, breaking the circuit. This architecture eliminates the need for

manual high-voltage switching, reduces safety hazards and enables automated control via thermostats, timers and building management systems.

The 20A rating makes this contactor class extremely versatile, with four primary application categories:

HVAC systems: Control of compressors, fans and pumps in residential and commercial heating, cooling and ventilation equipment

Residential & light commercial building control: Automated operation of water heaters, pool pumps, exterior lighting and appliance circuits

Light industrial equipment: Control of small motors, conveyor belts and auxiliary manufacturing machinery

Commercial facility management: Centralized control of lighting, heating and ventilation across schools, retail spaces and office buildings

Key benefits include improved operational safety through low-voltage remote control, reduced electrical fault risk, high mechanical durability for frequent switching, and support for energy-efficient automated load management. Combined with SAYOON's full portfolio of higher-current DC contactors, this allows customers to source both control-circuit and power-circuit switching components from a single supplier.

4.Frequently Asked Questions

Q: What core products does SAYOON manufacture?

A: SAYOON specializes in DC contactors and related electrical control components, including low-voltage DC contactors, high-voltage DC contactors (such as the SEV and HEV series), magnetic latching contactors, pre-charge contactors, brush controllers and foot accelerators. Current ratings range from light control-grade models up to 3000A heavy-duty units, serving EV, energy storage, industrial, marine and telecom applications.

Q: What are the key features of the SEV series HV DC contactor?

A: The SEV series features epoxy-resin sealed construction for enhanced insulation and arc suppression, making it ideal for high-voltage DC circuits. It covers current ratings from 30A to 400A with 12V/24V coil options, complies with GB 14048.4 DC-1 standards, and delivers reliable performance in EV battery systems, energy storage stations, UPS and industrial DC distribution applications.

Q: What is a 20 amp contactor used for, and how does it work?

A: A 20 amp contactor is an electromagnetic switching device that controls 20A electrical loads using a low-voltage control signal. It works by energizing a coil to move contact points and open or close the main circuit. It is widely used in HVAC systems, residential and commercial lighting, small industrial motors and building automation to enable safe, remote and automated load control.

Q: What certifications and after-sales support does SAYOON provide?

A: SAYOON products hold CE, RoHS, FCC and CCC certifications, and the company operates under ISO 9001, ISO 14001 and ISO 45001 management systems. We offer 12 months of warranty, 24-hour technical response, global shipping support and full lifecycle after-sales service including spare parts supply and batch traceability.

Q: Does SAYOON offer OEM/ODM custom solutions?

A: Yes. With a strong R&D team and dozens of proprietary patents, we provide full OEM/ODM services, including custom coil voltages, terminal types, mounting brackets and fully bespoke designs. Our process covers requirement consultation, prototyping, validation testing, volume production and dedicated after-sales support.

5.Final Thoughts

From low-voltage building automation to high-voltage new energy power systems, reliable DC switching components are the foundation of safe, efficient electrical infrastructure. With over 25 years of specialized manufacturing experience, a comprehensive product portfolio covering all current and voltage grades, and strong in-house R&D capabilities, SAYOON is a trusted partner for OEMs, system integrators and engineering teams worldwide.

Whether you are sourcing SEV series high-voltage DC contactors for energy storage projects, researching 20 amp contactor technology for building automation systems, or developing a custom DC control solution for a specialized application, SAYOON's technical and sales teams provide end-to-end support from initial specification through after-sales service. To explore the full product catalog, download technical datasheets or request a customized quotation, visit the official website or contact the global sales team today.

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