

Battery Management System for ESS

Gerchamp Case Story



Gerchamp is dedicated to safeguarding energy storage systems with cutting-edge G-BS BMS solutions.

Our technology ensures safe, efficient, and reliable operation of ESS across diverse geographies and industries—high altitude regions, challenging deserts, mountainous terrains, hazardous areas and RE+ESS integrations.



- **D**esert
- **Extreme Condition**
- **Large-scale BESS**

 # **CASE1**

150MW/600MWh Tarim Oilfield BESS Project

Located in the desert outskirts of Kashgar, Xinjiang, the 150MW/600MWh energy storage project supports the Tarim Oilfield under China National Petroleum Corporation (CNPC). Gerchamp provides advanced BMS solutions to ensure reliable performance in extreme conditions. Since project launch, GERCHAMP BMS has safeguarded the safe and efficient operation of 45 energy storage units across 3.42 hectares, enhancing system stability, battery life, and overall economic performance.



- **H**igh Altitude
- **Mountainous Areas**
- **Large-scale BESS**

 # **CASE2**

10MW/20MWh World Rooftop Tibet BESS Project

Gerchamp's BMS technology plays a vital role in ensuring the safety and stability of the 20MWh energy storage system in the Tibet Changdu project. Located at an altitude of approximately 4,500 meters, this 10MW station spans over 389,000 sqm and is part of a broader 500MW/2000MWh deployment with a total investment of 172 million RMB. Our advanced BMS solution is designed to withstand extreme conditions, helping to bridge power gaps during peak demand and support sustainable regional development.



- **P V+Wind+BESS**
- **Mountainous Areas**
- **Large-scale BESS**

CASE3

6.9 MWh Qingyuan County RE+ESS Project

Gerchamp's BMS solution supports renewable integration in a landmark Agri-PV energy storage project in Qingyuan County. With a total investment of 154 million RMB across 36.29 hectares, the project includes a 30MWp photovoltaic field, a 35kV switch station, collection lines, and supporting infrastructure.



Gerchamp's advanced BMS ensures safe and efficient battery operation, enabling stable renewable energy output. By promoting the synergy between agriculture and photovoltaics, this initiative contributes to green development and local prosperity — showcasing how clean energy and economic growth can thrive together.

- **S**tring-type
- **1,080 cabinets**
- **Largest-scale in China**

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CASE4

200MW/400MWh Binhai C&I ESS Project

The 200MW/400MWh Energy Storage Station in Binhai, Jiangsu is China's largest string-type ESS project. GERCHAMP's BMS is integrated across 1,080 C&I cabinets, providing robust battery safety and system reliability. The solution supports critical ancillary services such as peak shaving, frequency regulation, power back-up and demand-side response—enhancing grid stability and economic performance.



- **C**&I Energy Storage Cabinet
- **Peak Shaving & Valley Filling**
- **Largest Single-unit Power Capacity of User-side ESS**

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CASE5

81MW/123MWh Nanjing C&I ESS project

Gerchamp supports the 81MW/123MWh C&I energy storage project for Nanjing Iron, a milestone that reflects ongoing commitment to safe and sustainable BMS solutions. Featuring 15 liquid-cooled energy storage systems and 306 BMS units managing LFP batteries across 17 arrays, the project achieves a system efficiency of over 85%. Gerchamp's advanced BMS technology ensures reliable operation, setting a new standard for industrial-scale energy storage performance.





About Gerchamp

Gerchamp, a Huasu brand, specializes in critical power & energy storage solutions, are dedicated to delivering cutting-edge solutions for diverse applications.

Since 2005, we have combined over 20 years of expertise in battery management system, and continues to span our product and technology portfolio, to enhance safety, efficiency, and performance from backup power to energy storage.



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