

PCS-MV Station

HIM5000MV

HIM5000MV integrates PCS, transformers, BCP, BSP, FFS and SS system,these devices are unified through EMU or local controllers.Suitable for 5MWh battery container with 314/320Ah cell integration; Standardized communication interfaces and protocols; Supports AC 10kV or 35kV access to the grid; Easy transportation and installation due to integrated and skid-mounted design.

Compact construction, efficient conversion

- Industry-leading power density, 20% savings in floor space
- ANPC topology, PCS peak efficiency > 99%
- Intelligent liquid cooling, no derating up to 45°C
- Full power operation at DC 1500 V

Multi-scene applications

- Supports on-grid, off-grid, and hybrid (on/off-grid) modes
- Operable in high-altitude, high-salt, high-temperature and extremely-low-temperature scenarios
- Four-quadrant operation, constant voltage, constant current and constant power in battery charge/discharge
- Supports VSG control

Grid friendly, stable support

- Support primary frequency regulation and rapid voltage adjustment
- Support L/HVRT, stable operation in weak grid, efficient and adaptable
- Charge/discharge switching time <20ms, support GOOSE, response time <25ms
- Grid black start function integrated

Region: Global Version: V202504

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Technical Specifications

Model	HIM5000MV
DC Side	
DC voltage range	1000 to 1500V
Maximum continuous DC-side current	2806A × 4
Number of inputs	2
PCS AC Side (On-Grid)	
Rated output power	5000kVA
Maximum continuous output power	5500kVA
Rated current	2092A × 4
Maximum continuous AC-side current	2301A × 4
Rated AC voltage	690V
AC voltage range	586 to 759V
Rated grid frequency / grid frequency range	50Hz / 45 to 55Hz
AC current harmonic	< 3% (@rated power)
Power factor	> 0.99 (@rated power)
Reactive power adjustment range	-105% to +105%
Grid type	3P3W
PCS AC Side (Off-Grid)	
Rated AC voltage	690V
AC voltage range	586 to 759V
Rated grid frequency / grid frequency range	50Hz / 45 to 55Hz
AC Voltage harmonic	< 3% (Linear load)
DC component of AC-side voltage	< 0.5% Un (balanced linear load)
Unbalance load capacity	100%
Efficiency	
PCS peak efficiency	> 99%
Transformer	
Rated capacity	5000kVA
Maximum capacity	5500kVA
Primary / secondary voltage	37kV / 0.69kV
Winding type	Dy11 or Dy1
Protection and Overload	
DC input / reverse polarity protection	Load switch + Fuses
AC output protection	Circuit breaker
Surge protection	DC Type II / AC Type II
Grid monitoring and grounding fault monitoring	Integrated
Insulation monitoring	Integrated
Overheat and overtemperature protection	Integrated
Short circuit protection	Integrated
Communication failure protection	Integrated
Overload capacity	Operate for a long time at 1.1 times the rated load. Operate for no less than 2 minutes at 1.2 times the rated load. Operate for no less than 10 seconds at 1.5 times the rated load.
General Data	
Dimensions（W×H×D）	6400×3100×3200 mm
Weight	21000kg (Box type / Dry-type transformer)
Operating temperature	-35 to +60°C
Operating humidity	0 to100%RH (non-condensing)
Altitude	≤5000m (> 3000m, derating operation)
IP rating	IP54 (PCS : IP65)
Cooling method	Intelligent liquid cooling
Display and Communication	
Display	HMI + LED
Communication interface	RS485, CAN, Ethernet
Communication protocol	MODBUS-RTU, CAN, MODBUS-TCP, IEC61850
Standard and Regulation	
Compliance	GB/T 34120 - 2023, GB/T 34133 - 2023

* The product is expected to be launched by the end of April.

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