

# PCS-MV Station

## HIM2500MV
## HIM2750MV
## HIM3150MV
## HIM3450MV

HIM2750~3450MV series integrates PCS, transformers, BCP, BSP, FFS and SS system,these devices are unified through EMU or local controllers.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, floor space < 1m$^2$
- ANPC topology, PCS peak efficiency > 99%
- Intelligent liquid cooling, no derating up to 50°C
- Full power operation at DC 1500 V

### Multi-scene applications

- Supports on-grid, off-grid, and hybrid (on/off-grid) modes
- Supports 0 power operation, no battery loss in hot standby state
- 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 | HIM2500MV | HIM2750MV | HIM3150MV | HIM3450MV |
|---|---|---|---|---|
| **DC Side** | | | | |
| DC voltage range | 1000 to 1500V | 800 to 1500V | 915 to 1500V | 1000 to 1500V |
| Maximum continuous DC-side current @45°C | 1403A×2 | | 1936A×2 | |
| Number of inputs | | 2 | | |
| **PCS AC Side (On-Grid)** | | | | |
| Rated output power @50°C | 2500kVA | 2750kVA | 3150kVA | 3450kVA |
| Maximum continuous output power @45°C | 2750kVA | 3206kVA | 3466kVA | 3795kVA |
| Rated current @50°C | 1046A ×2 | | 1443A ×2 | |
| Maximum continuous AC-side current @45°C | 1151A ×2 | | 1588A ×2 | |
| Rated AC voltage | 690V | 550V | 630V | 690V |
| AC voltage range | 586 to 759V | 467 to 605V | 535 to 693V | 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 | 550V | 630V | 690V |
| AC voltage range | 586 to 759V | 467 to 605V | 535 to 693V | 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 | 2500kVA | 2750kVA | 3150kVA | 3450kVA |
| Maximum capacity | 2750kVA | 3206kVA | 3466kVA | 3795kVA |
| Primary / secondary voltage | 37kV / 0.69kV | 37kV / 0.55kV | 37kV / 0.63kV | 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 1 minutes at 1.2 times the rated load | | |
| **General Data** | | | | |
| Dimensions（W×H×D） | | 5900 × 2896 × 2800 mm | | |
| Weight | | 18000kg (Dry-type transformer) | | |
| Operating temperature | | -35 to +60°C ( > 50°C, derating operation) | | |
| 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 | | |

* Subject to actual product shipment

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