ORIENT POWER

# ISES4H-10000-MV-EX

## Prefabricated Inverter Substation



## Features

### Flexible Configuration

- Integrated inverter and booster, highly compact
- Improves space efficiency, easier installation
- Modular, configurable power

### High Efficiency & Stability

- 1500V wide-range DC voltage
- DC side 8/4 branch
- 5MWh, 1C, 0.5C and 0.25C application

### Extensive Use

- With active/reactive four-quadrant adjustment function
- Support constant power& current & voltage
- Deployment on demand. Peak shaving and local automatic operation

### Safety & Compatibility

- With LVRT and HVRT
- 4-quadrant active and reactive power control
- Fast power response (<20ms)

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# MVS Product Specification

| | |
|---|---|
| Model | SES4H-10000-MV-EX |
| AC AND DC PARAMTER | |
| Rated Power | 10000kVA |
| AC Voltage | 20kV-33kV<br>(Consult with OTE for other voltage level) |
| AC Frequency | 50Hz |
| DC Voltage Range | 1040~1500V |
| Number of DC branch | 4/8 |
| Max. DC Current per Branch | 2404A/1202A |
| THDi/THDu | <3% |
| LC AND AUXILIARY EQUIPMENT | |
| Aux. Transformer | 50kVA, 690V\400V, 50Hz, 3P4W<br>(Consult with OTE for Customized) |
| UPS | Up to 2kVA (1h standard)<br>(Consult with OTE for more capacity) |
| Meter | Meters for Aux. Power Consumption and PCS |
| Communication Method | RS485, CAN, TCP/IP<br>(via switch) |
| Cooling Method | Temperature controlled forced air cooling |
| TRANSFORMER | |
| Capacity | 10000kVA @45℃<br>Based on PCS rated power |
| Transformer Type | Oil-immersed transformer |
| Transformer Protection | Protection relay for pressure, temperature (two levels) and gas. |
| Winding Vector Group | Dy11y11<br>(Consult with OTE for customized) |
| MV AC Voltage Level | 24/36kV<br>(Consult with OTE for other voltage level) |
| LV AC Voltage | 690V<br>(Consult with OTE for other voltage level) |
| AC Frequency | 50Hz |
| Efficiency | Tier 2 (From EU548) |
| Transformer Impedance | 8% |
| Cooling Type | ONAN<br>(Based on project requirement) |
| Insulation Level | Class A |

# MVS Product Specification

| CONNECTION AND PROTECTION | |
|---|---|
| Switchgear Configuration | DeV\CV\CCV<br>(Consult with OTE for customized) |
| Switchgear Protection | Medium-voltage vacuum circuit breaker(V) |
| Internal Arc Classification Medium-voltage Control Room (according to IEC 62271-202) | 20kA 3s |
| LV-MV Connections | Copper bar or cable |
| LV Protection | Motorized CB in PCS |
| MV Protection | Microcomputer protection |
| DC Protection | Circuit Breaker and Fuses |
| GENERAL PARAMETER | |
| Size (W*H*D) | 12192*2896*2438 mm |
| Weight | ≤45t |
| Enclosure | IP55 for Overall (IP68 for Transformer; IP65 for PCS) |
| Corrosion Prevention | C5 (Only applicable to external mechanical part) |
| PCS cooling Method | Air Cooling |
| Operating Temp. | -25 ℃ to 60 ℃ (Derating above 45 ℃) |
| Storage Temp. | -50 ℃ to 70 ℃ |
| Operating Humidity | 0~95% (No condensing) |
| Storage Humidity | 0~100% (No condensing) |
| Max. Elevation | Standard 1000 m<br>(Consult with OTE for other elevation) |
| Inverter Max. Efficiency | 98.5% |
| Voltage Regulation Accuracy | ≤±1% |
| Current Regulation Accuracy | ≤±1% |
| CERTIFICATION | |
| Compliance | IEC62477/IEC61000/G99/VDE4110<br>/EN50549-2/IEC60076/IEC62271<br>(Consult with OTE for more certification information ) |