

ISES4H-9450-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 6/3 branch
- 6.25MWh, 0.5C and 0.25C application



Intelligent Collaboration

- Automated peak shaving operation
- VSG / PQ / VF mode capabilities
- Islanding, black start capable



Safety & Compatibility

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

MVS Product Specification

Model	SES4H-9450-MV-EX
AC AND DC PARAMTER	
Rated Power	9450kVA
AC Voltage	22kV-33kV (Consult with Sinexcel for other voltage level)
AC Frequency	50Hz
DC Voltage Range	1040~1500V
Number of DC Branch	3/6
Max. DC Current per Branch	3300A/1515A
THDi/THDu	<3%
LC AND AUXILIARY EQUIPMENT	
Aux. Transformer	300kVA, 690V\400V, 50Hz, 3P4W (Consult with Sinexcel for Customized)
UPS	Up to 2kVA (1h standard) (Consult with Sinexcel for more capacity)
Meter	Meters for Aux. Power Consumption and PCS
Communication Method	RS485, CAN, TCP/IP (via switch)
Cooling Method	Temperature controlled forced air cooling
TRANSFORMER	
Capacity	10000kVA @45°C 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 (Consult with Sinexcel for customized)
MV AC Voltage Level	24/36kV (Consult with Sinexcel for other voltage level)
LV AC Voltage	690V (Consult with Sinexcel for other voltage level)
AC Frequency	50Hz
Efficiency	Tier 2 (From EU548)
Transformer Impedance	8%
Cooling Type	ONAN (Based on project requirement)
Insulation Level	Class A

MVS Product Specification

CONNECTION AND PROTECTION	
Switchgear Configuration	De\CV\CCV (Consult with Sinexcel 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	≤40t
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.	-40 °C to 60 °C (De-rating over 45 °C)
Storage Temp.	-50 °C to 70 °C
Operating Humidity	0~95% (No condensing)
Storage Humidity	0~100% (No condensing)
Max. Elevation	Standard 1000 m (Consult with Sinexcel for other elevation)
Inverter Max. Efficiency	98.5%
Voltage Regulation Accuracy	≤±1%
Current Regulation Accuracy	≤±1%
CERTIFICATION	
Compliance	IEC62477/IEC61000/G99/VDE4110/ EN50549-2/IEC60076/IEC62271 (Consult with Sinexcel for more certification information)