SES2H-3150-MV-EX
Prefabricated Inverter Substation

Features

Flexible Configuration

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

High Efficiency & Stability

- 1500V wide-range DC voltage
- DC side 2/1 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	SES2H-3150-MV-EX
AC AND DC PARAMTER	
Rated Power	3150kVA
Overload capacity	1.1times long-term; 1.5 times overload 10s (Consult with Sinexcel)
AC Voltage	10kV-34.5kV (Consult with Sinexcel for other voltage level)
AC Frequency	50Hz/60Hz
DC voltage range	1000~1500V (1040~1500V for full load discharging)
Number of DC BUS	1/2 (Based on PCS branches)
Maximum current per branch	3030A/1515A
THDi/THDu	<3%
LC AND AUXILIARY EQUIPMENT	
Aux. Transformer	150kVA, 690V\400V, 50Hz, 3P4W (Consult with Sinexcel for Customized)
UPS	Up to 1kVA (0.5h Standard) (Consult with Sinexcel for more capacity)
Meter	Meters for Aux. Power Consumption and PCS
Communication method	RS485, CAN, TCP/IP (via gateway)
Cooling Method	Temperature controlled forced air cooling
TRANSFORMER	
Transformer Vector	Oil-immersed transformer
Transformer protection	Protection relay for pressure, temperature (two levels) and gas.
Oil retention tank	Galvanized steel. Integrated with hydrocarbon filter. Optional
Winding type	Dy11 (Consult with Sinexcel for customized)
MV AC voltage	10kV-34.5kV (Consult with Sinexcel for other voltage level)
LV AC voltage	690V (Consult with Sinexcel for other voltage level)
AC frequency	50\60Hz
Efficiency	Tier 2 (From EU548)
Transformer impedance	5.75%~8%
Cooling type	KNAN/ONAN (Based on project requirement)
Insulation level	Class A

MVS Product Specification

CONNECTION AND PROTECTION	
Switchgear configuration	DeV\CV (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 1s
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)	6058*2896*2438 mm
Weight	≤20t
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 ℃ to 60 ℃ (De-rating over 45 ℃)
Storage temp.	-50 ℃ to 70 ℃
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	98.4%
Voltage regulation accuracy	≤±1%
Current regulation accuracy	≤±1%
CERTIFICATION	
Compliance	IEC62477/IEC61000/G99/VDE4110/EN50549-2/IEC60076/IEC62271 (Consult with Sinxcel for more certification information)