

GESS-SW-1253TH-POB

1.253MW/1.253MWh (1C)



GESS



BESS DESIGNED BY SWEDISH ENGINEERS

Global Energy Storage Solutions Battery AB

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Features

- 1.253MW/1.253MWh capacity Forced Air-cooled (1CP)
- Cold start operations from -20°C *
- Fully containerized IP55 system
- Specially designed for FFR market with less than 600ms response time
- Can be used for other BESS applications (Reactive power trading, Peak shaving, UPS etc.)
- LiFePO4 Battery technology
- Backup power unit for emergency internal usage
- Directly communicating with IEC60870-5-104 /101, Modbus TCP
- 3 years warranty for PCS
- Cell cycle life: 4000 cycles or 5 years

CELL Standard:

- IEC 62619
- UL 1973
- UL9540A
- UN 38.3

Pack Standard:

- IEC 62619
- UL9540A

System Standards :

- IEC 62619

PCS Standards :

- IEC62477
- EN61000
- EN50549

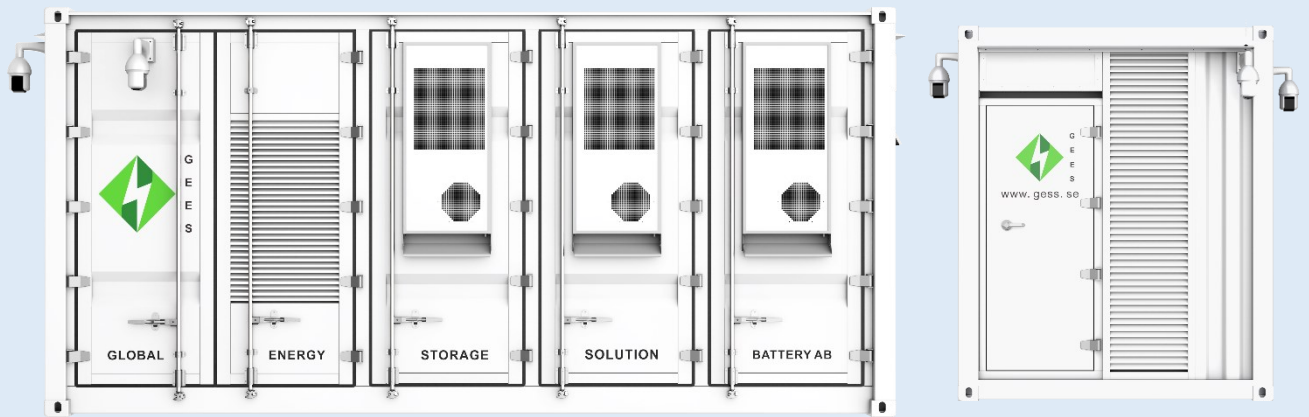
Technical specification	GESS-SW-1253TH-POB
Rated discharge power (kW)	1253
Rated charging power (kW)	1253
Rated capacity (kWh)	1253
Max. power (kW)	1760
Max. 2Sec power (kW)	1920
No of Cells	3264
Battery clusters (units)	8
Number of battery stacks	8
Dimensions (L x W x H) mm	6058 *2438 *2896
Weight (T)	22Ton
Cell parameters	
Cell type	LFP
Rated capacity (Ah)	120 (123--125)
Rated voltage (V)	3.2
Rated energy (kWh)	0.384 (+0.3936-+0.4)
Voltage range (V)	2.0-3.65
Charging cut-off voltage (V)	3.6
Discharge cut-off voltage (V)	2.8
Operating humidity	< 85% ROH, no condensation
Power Efficiency	97%
Calendar life	not less than 10 years
Battery pack parameters	
Combination	1P24S
Rated capacity (Ah)	120
Rated voltage (V)	76.8
Capacity (kWh)	9.216 (9.446-9.6)
Battery cluster parameters	
Battery packs	17
Rated capacity (Ah)	120
Rated voltage (V)	1305.6
Rated energy (kWh)	156.6
Series-parallel	1P17S
Battery stack parameters	
Clusters	1
Rated voltage (V)	1305.6
Minimum discharge voltage (V)	1142.4
Maximum charging voltage (V)	1468.8
Rated power (kW)	156.6
Rated current (A)	120
Rated capacity (kWh)	156.6
BESS parameters	
Stacks	8
Rated voltage (V)	1305.6
Minimum discharge voltage (V)	1142.4
Maximum charging voltage (V)	1468.8
Rated power (kW)	1253
Rated current (A)	960

Fire Fighting system	
Perfluorohexanone fire protection system	1 set
Cooling system	
Forced air cooling system with six air conditioner units	
PCS parameters	
PCS systems	8
Nominal power	200kVA
AC max power	220kVA
AC frequency	50/60(-2.5~2.5) Hz
AC voltage	690(-15%~15%) Vac
Battery voltage range	1000~1500Vdc
Quantity of battery strings	8
DC max current in each branch	120A
THDi	≤ 3%
AC PF	Listed: 0.8~1 leading or lagging (Controllable) Actual: 0.1~1 leading or lagging (Controllable)
Cooling Noise	Forced air cooling < 75dB
Enclosure	NEMA1 IP20 and optional IP54 with outdoor cabinet
Max elevation	3000m/ 10000feet (> 3000m/ 10000feet derating)
Operating ambient temperature	(-40°C to +55°C*) to 50°C (Derating over 45°C)
Humidity	0~95% (No condensing)
Size (W × H × D)	1100×2160×800 mm
Weight	Cabinet 280kg + Module 40kg*n (n=1, 2, ..., 8)
Installation	Floor standing OTP, AC OVP/ UVP, OFP/ UFP, EPO, AC Phase Reverse, Fan/ Relay Failure, OLP, GFDI, Anti-islanding
Protection	Upper/ Lower AC Voltage/ Frequency limit, Battery EOD voltage
Configurable protection limits	
AC connection	3-Phase 3-Wire
Display	Touch Screen
Communication	RS485, CAN, Ethernet
Isolation	Non-isolation CE LVD IEC 62477, CE EMC IEC 61000,
Certification	EN 50549-1:2019 G99, AS4777

*Optional features * Specification can be changed without notice



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GESS-SW-1253TH-POB side views