

GESS-SW-2000TL-POB

1.118MW/2.236MWh (0.5C)



GESS



BESS DESIGNED BY SWEDISH ENGINEERS

Global Energy Storage Solutions Battery AB

Helgenäsvägen 37 , 594 75 Edsbruk, Sweden. | +46 769 411422 | www.gess.se | info@gess.se

Features

- 1.118MW/2.236MWh capacity Forced Air-cooled (0.5CP)
- 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

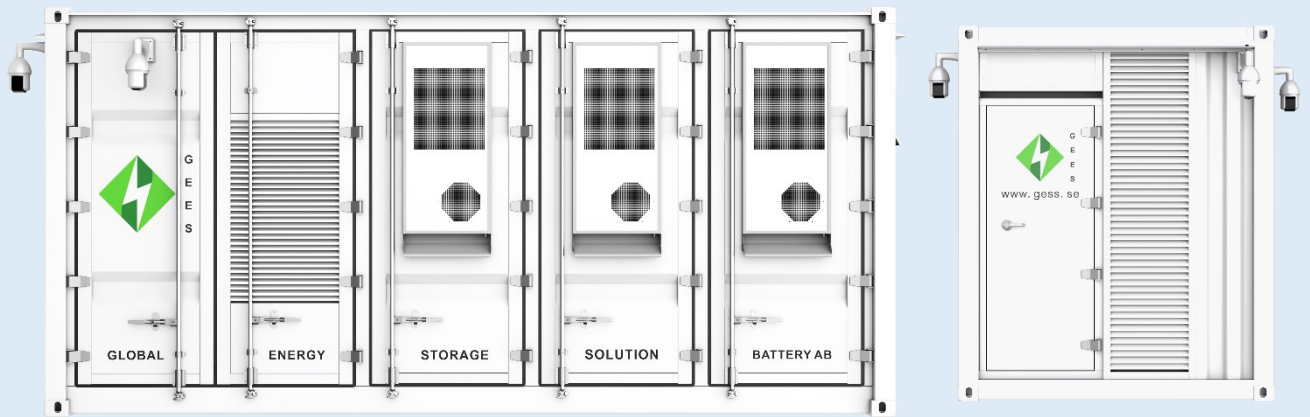
Technical specification	GESS-SW-2000TL-POB
Rated discharge power (kW)	1118
Rated charging power (kW)	1118
Rated capacity (kWh)	2236
Max. power (kW)	1320
Max. 2Sec power (kW)	1440
No of Cells	2496
Battery clusters (units)	6
Number of battery stacks	6
Dimensions (L x W x H) mm	6058 *2438 *2896
Weight (T)	<28Ton
Cell parameters	
Cell type	LFP
Rated capacity (Ah)	280
Rated voltage (V)	3.2
Rated energy (kWh)	0.896
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	1P16S
Rated capacity (Ah)	280
Rated voltage (V)	51.2
Low voltage (V)	46.4
High voltage (V)	56.32
Power (kW)	14.336
Battery cluster parameters	
Battery packs	26
Rated capacity (Ah)	280
Rated voltage (V)	1331.2
Low voltage (V)	1206.4
High voltage (V)	1464.32
Power (kW)	372.736
Rated energy (kWh)	372.736
Series-parallel	1P26S
Battery stack parameters	
Clusters	1
Rated capacity (Ah)	280
Rated voltage (V)	1331.2
Power (kW)	372.736
Rated capacity (kWh)	372.736
BESS parameters	
Stacks	6
Rated voltage (V)	1331.2
Low voltage (V)	1206.4
High voltage (V)	1464.32

Rated power (kW)	2236.416
Rated current (A)	1680
Fire Fighting system	
Perfluorohexanone fire protection system	1 set
Cooling system	
Forced air cooling system with six air conditioner units	
PCS parameters	
PCS systems	6
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
DC max current in each branch	120A
THDi	≤ 3%
	Listed: 0.8~1 leading or lagging (Controllable)
AC PF	Actual: 0.1~1 leading or lagging (Controllable)
Cooling	Forced air cooling
Noise	< 75d B
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
Protection	OTP, AC OVP/ UVP, OFP/ UFP, EPO, AC Phase Reverse, Fan/ Relay Failure, OLP, GFDI, Anti-islanding
Configurable protection limits	Upper/ Lower AC Voltage/ Frequency limit, Battery EOD voltage
AC connection	3-Phase 3-Wire
Display	Touch Screen
Communication	RS485, CAN, Ethernet
Isolation	Non-isolation
Certification	CE LVD IEC 62477, CE EMC IEC 61000, EN 50549-1:2019 G99, AS4777

*Optional features * Specification can be changed without notice



GESS-SW-2000TL-POB



GESS-SW-2000TL-POB side views