

GESS-GB-1000T-PO

1MW/1.118MWh (1C)



GESS



Global Energy Storage Solutions Battery AB

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Features

- 1MW/1MWh capacity (1CP)
- Swedish Grid approved PCS with EN50549 & EIFS 2018:2 certification
- Fully containerized IP54 system with LiFePO4 Battery technology
- Operating temperature range -20°C to +40°C
- Internal humidity controller to ensure to prevent static discharge in extreme weather conditions*
- Separate remote condition monitoring system to monitor Internal & external CCTV cameras, Fire system, door sensors, humidity & temperature *
- 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.)
- Backup power unit for internal usage
- Directly communicating with IEC60870-5-104/ Modbus TCP

CELL Standard:

- IEC 62619
- UL 1973
- UL9540A
- UN 38.3

Pack Standard:

- IEC 62619
- UL9540A

System Standards :

- IEC 62619

PCS Standards :

- IEC62477
- EN61000
- EN50549
- EIFS 2018:2

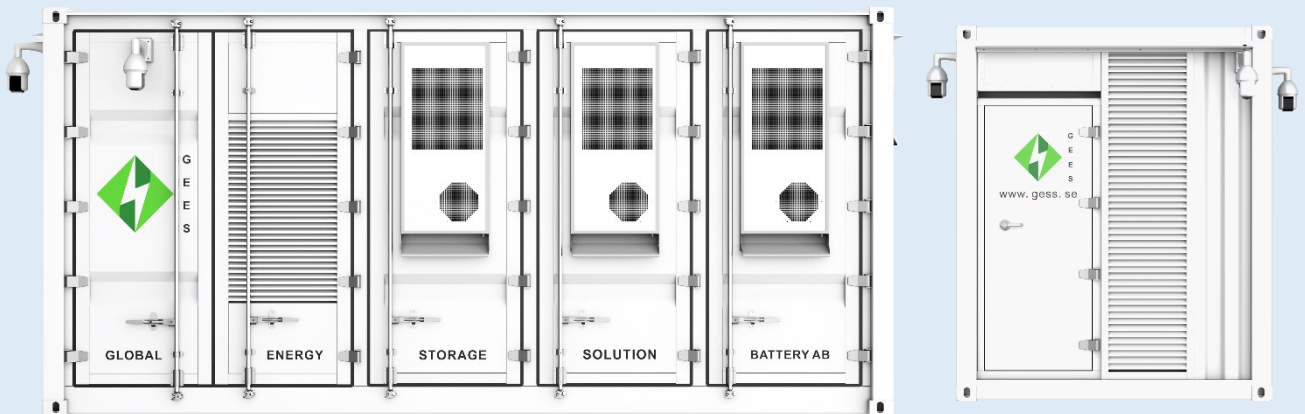
Technical specification	GESS-GB-1000T-PO
Rated discharge power (kW)	1000
Rated charging power (kW)	1000
Rated capacity (kWh)	1118
Max. power (kW)	1100
Max. 2Sec power (kW)	1200
No of Cells	2592
Battery clusters (units)	12
Number of battery stacks	4
Dimensions (L x W x H) mm	6058 *2438 *2896
Weight (T)	<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	
Rated capacity (Ah)	120
Rated voltage (V)	691.2
Rated energy (kWh)	82.944 (85.017-86.4)
Series-parallel	1P9S
Battery stack parameters	
Clusters	3
Rated voltage (V)	691.2
Minimum discharge voltage (V)	604.8
Maximum charging voltage (V)	777.6
Rated power (kW)	250
Rated current (A)	360
Rated capacity (kWh)	248.832 (248.832-259.2)
BESS parameters	
Stacks	4
Rated voltage (V)	691.2
Minimum discharge voltage (V)	604.8
Maximum charging voltage (V)	777.6
Rated power (kW)	1000
Rated current (A)	1440

Fire Fighting system	
Perfluorohexanone fire protection system	1 set
Cooling system	
Liquid cooling system	
PCS parameters	
PCS systems	2
Nominal power	500kVA
AC max power	550kVA
AC frequency	50/60(-2.5~2.5) Hz
AC voltage	400(-15%~15%) Vac
Battery voltage range	600~900Vdc
Quantity of battery strings	8
DC max current in each branch	110A
THDi	≤ 3%
	Listed: 0.8~1 leading or lagging (Controllable)
AC PF	Actual: 0.1~1 leading or lagging (Controllable)
Noise	<75d B
Enclosure	NEMA1 IP20 and optional IP54 with outdoor cabinet
Max elevation	3000m/ 10000feet (> 3000m/ 10000feet derating)
Operating ambient temperature	(-20°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	3-Phase 3-Wire
AC connection	Touch Screen
Display	RS485, CAN, Ethernet
Communication	Non-isolation
Isolation	CE LVD IEC 62477, CE EMC IEC 61000, EN 50549-1:2019 G99, AS4777
Certification	

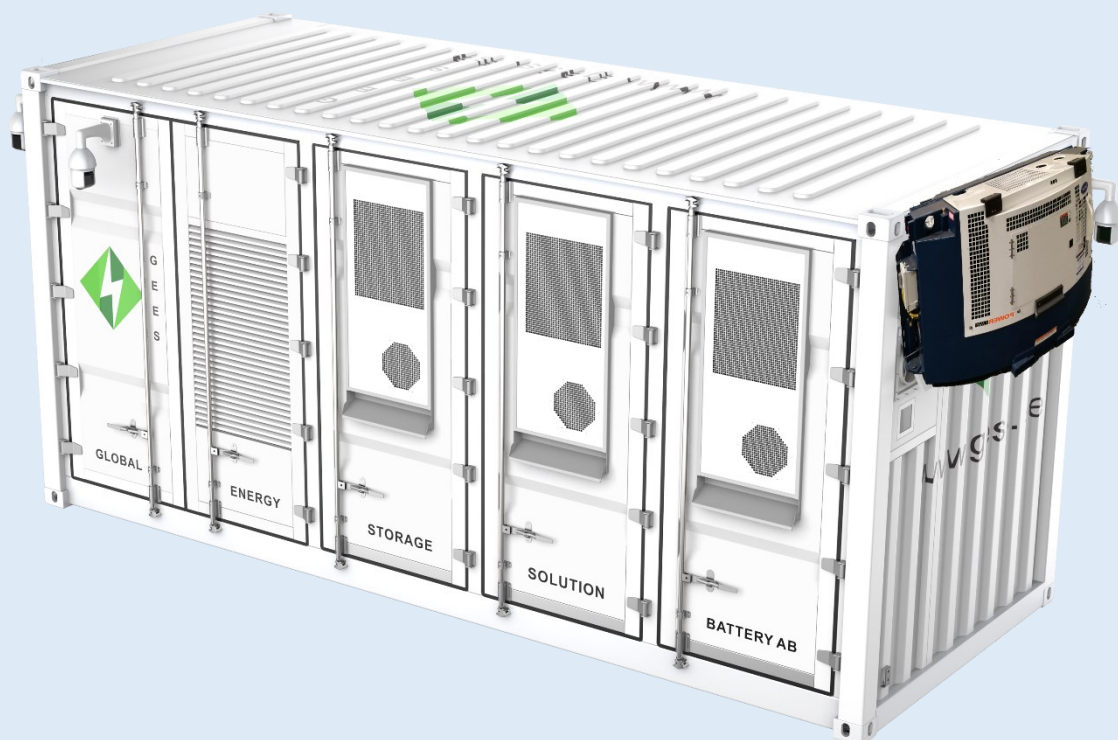
*Optional features * Specification can be changed without notice



GESS-GB-1000T-PO



GESS-GB-1000T-PO side views



GESS-GB-1000T-PO with Clip-On Genset attached