

GESS-SW-1096TH-DC

1.096MW/1.096MWh (1C)



GESS



**SPECIALLY DESIGNED
BESS FOR
ARCTIC ENVIRONMENT**

Global Energy Storage Solutions Battery AB

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

Features

- 1.096MW/1.096MWh capacity Forced Air-cooled (1CP; 1.096MW throughout 10 years guaranteed)
- Cold start operations from -55°C *
- Can operate in extreme environments up to -40°C* or -55°C * (Standard version designed for -20°C)
- Special Auxiliary heating systems to keep the battery warm for black start *
- Fully containerized IP55 system
- 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.)
- LiFePO4 Battery technology
- Backup power unit for emergency internal usage
- Clip-on Generator mounting facility and supply socket to facilitate to maintain the BESS temperature during transport*
- Directly communicating with IEC60870-5-104 /101, Modbus TCP

CELL Standard:

- IEC 62619
- UL 1973
- UL9540A
- UN 38.3

Pack Standard:

- IEC 62619
- UL9540A

System Standard:

- IEC 62619

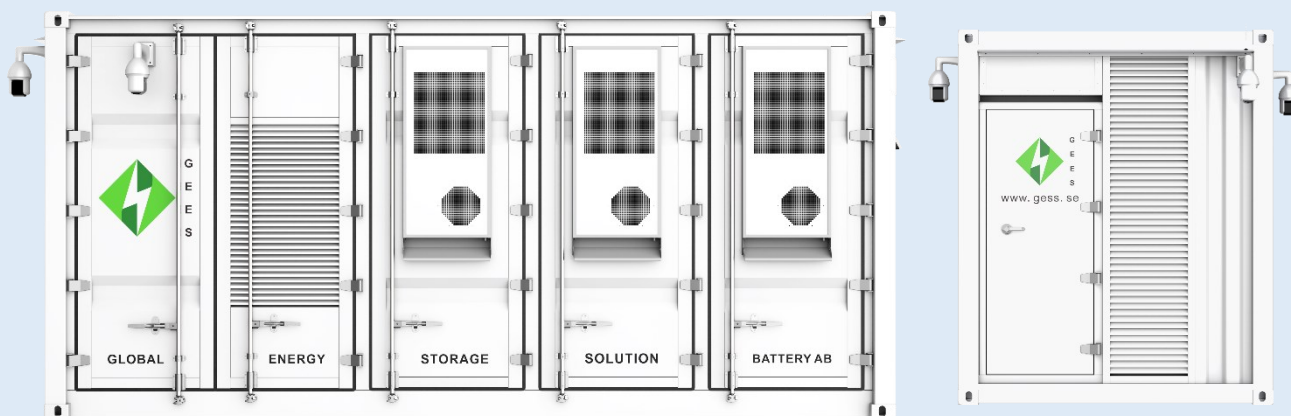
Technical specification	GESS-SW-1096TH-DC
Rated discharge power (kW)	1096
Rated charging power (kW)	1096
Rated capacity (kWh)	1096.7
Max. power (kW)	1540
Max. 2Sec power (kW)	1680
No of Cells	2856
Battery clusters (units)	7
Number of battery stacks	7
Dimensions (L x W x H) mm	6058 *2438 *2896
Weight (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
Rated energy (kWh)	156.6
Series-parallel	1P17S
Battery stack parameters	
Clusters	1
Rated voltage (V)	1305
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	7
Rated voltage (V)	1305
Minimum discharge voltage (V)	1142.4
Maximum charging voltage (V)	1468.8
Rated power (kW)	1096
Rated current (A)	840
Fire Fighting system	
Perfluorohexanone fire protection system	1 set
Cooling system	
Forced air cooling system with six air conditioner units	

*Optional features * Specification can be changed without notice



GESS-SW-1096TH-DC



GESS-SW-1096TH-DC side views



GESS-SW-1096TH-DC with Clip-On Genset attached