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GESS-SW-184C-DC

184kW/184kWh (1C)



Global Energy Storage Solutions Battery AB
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Features

- 184kW/184kWh (1C)
- Forced Air-cooling
- Operating temperature range -20°C to +40°C (Optional -40°C to +40°C)
- IP54 system
- LiFePO4 Battery technology
- Maximum auxiliary power requirement 12kW
- Warranty: 4000 cycles or 5 years (whichever comes first) (unless otherwise the commercial offer mention different warranty conditions)

Target Applications

Frequency Regulation, Peak Shaving, Capacity Firming, Transmission & Distribution support, PV & wind Integration, Black Start, Power Factor & Voltage Support, Reactive power trading

Standards

CELL:

- IEC 62619
- UL 1973
- UL9540A
- UN 38.3

Pack:

- IEC 62619

System Standards :

- IEC 62619

Technical specification	GESS-SW-184C-DC
Rated discharge power (kW)	184
Rated charging power (kW)	184
Rated capacity (kWh)	184.32
Storage capacity (kWh)	184
System "C" rate	1C
No of Cells	480
Battery clusters (units)	2
Number of battery stacks	2
Dimensions (W x D x H) mm	1700 x 1200 x 2100
Weight (T)	< 2.7
Cell parameters	
Cell type	LFP
Rated capacity (Ah)	120
Rated voltage (V)	3.2
Rated energy (kWh)	0.384
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
Rated Energy (kWh)	9.216
Battery cluster parameters	
Battery packs	10
Rated capacity (Ah)	92.16
Rated voltage (V)	768

Voltage range (V)	672 - 864
Rated energy (kWh)	92.16
Series-parallel	1P10S

Battery stack parameters	
Clusters	2
Rated capacity (Ah)	240
Rated voltage (V)	768
Rated capacity (kWh)	184.32

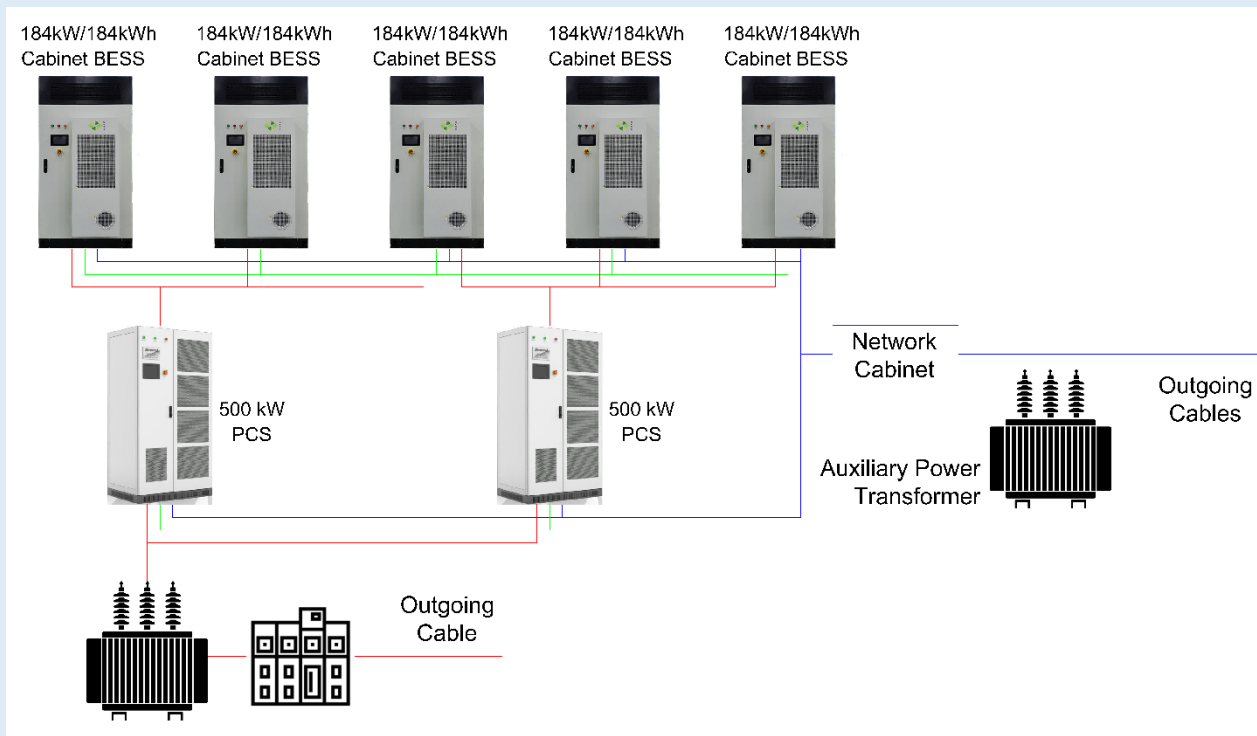
Battery system parameters	
Stacks	1
Rated capacity (Ah)	240
Rated voltage (V)	768
System voltage range (V)	672 - 864
Rated capacity (kWh)	184.32
Maximum SOC	100%
System Discharge Efficiency	97.5%
Usable Energy after discharge loss	179.7kWh

Battery system parameters	
Cooling System	Forced air cooling 2 Air condition systems
Fire System	Perfluorohexanone automatic fire fighting system

Warranty	5 Years or 4000 Life cycles ,80% DOD (extendable up to 10 years)
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Example FFR application: Connecting FIVE BESS to achieve 800kW/921kWh

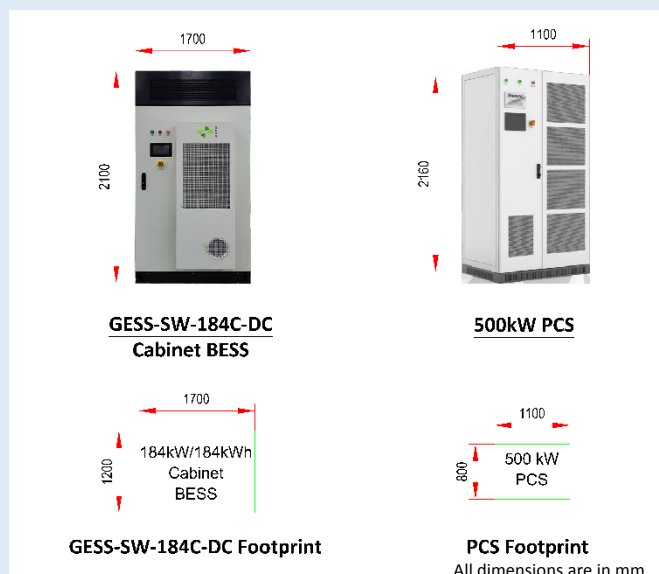


Features of 800kW/921kWh arrangement for FFR

Continuous power 800kW
 1200kW for 2Sec
 800kW continuous for 63min (@BOL)
 5 years or 4000 Life cycles warranty (extended upto 10 years)
 System Weight < 18 Ton

Swedish Grid approved PCS with
 EN50549 , IEC 61800-2 certification

Product Dimensions



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%
AC PF	Listed: 0.8~1 leading or lagging (Controllable) 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	(-20°C to -55°C*) to 50°C (De-rating 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, OFF/ 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
Certification	CE LVD IEC 62477, CE EMC IEC 61000, EN 50549-1:2019 G99, AS4777

