

GESS-SW-1500TH-PO

1.5MW/1.553MWh (1C)



GESS

**Swedish Grid approved PCS with
EN50549 , EIFS 2018:2 certification**



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

- 1.5MW/1.553MWh capacity Forced Air-cooled (1CP; 1.5MW throughout 10 years guaranteed)
- Swedish Grid approved PCS with EN50549 & EIFS 2018:2 certification
- 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 & PCS 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

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-SW-1500TH-PO	
Maximum discharge power (kW)	1650	PCS systems	3
Maximum 2Sec discharge power (kW)	1800	Nominal power	500kVA
Name plate capacity (kWh)	1500	AC max power	550kVA
Rated capacity (kWh)	1553	AC frequency	50/60(-2.5~2.5) Hz
	2 nos 20Ft containers	AC voltage	400(-15%~15%) Vac
Dimensions	connecting together at the site	Battery voltage range	600~900Vdc
Weight (T)	<31 T	Quantity of battery strings	8
Cell parameters		DC max current in each branch	110A
Cell type	LFP	THDi	≤ 3%
Rated capacity (Ah)	120 (123--125)	AC PF	Listed: 0.8~1 leading or lagging (Controllable)
Rated voltage (V)	3.2		Actual: 0.1~1 leading or lagging (Controllable)
Rated energy (kWh)	0.384 (+0.3936~+0.4)	Cooling	Forced air cooling
Voltage range (V)	2.0-3.65	Noise	< 75d B
Charging cut-off voltage (V)	3.6	Enclosure	NEMA1 IP20
Discharge cut-off voltage (V)	2.8		and optional IP54 with outdoor cabinet
Operating humidity	< 85% ROH, no condensation	Max elevation	3000m/ 10000feet (> 3000m/ 10000feet derating)
Discharge Power Efficiency	97%		(-20°C to -55°C*) to 50°C (Derating over 45°C)
Calendar life	not less than 10 years	Operating ambient temperature	0~95% (No condensing)
Battery pack parameters		Humidity	1100×2160×800 mm
Combination	1P24S	Size (W × H × D)	Cabinet 280kg + Module
Rated capacity (Ah)	120	Weight	40kg*n (n=1, 2, ..., 8)
Rated voltage (V)	76.8	Installation	Floor standing
Capacity (kWh)	9.216 (9.446-9.6)	Protection	OTP, AC OVP/ UVP, OFP/ UFP, EPO, AC Phase Reverse, Fan/ Relay Failure, OLP, GFDI, Anti-islanding
Fire Fighting system			Upper/ Lower AC Voltage/ Frequency limit, Battery EOD voltage
Perfluorohexanone fire protection system	2 set	Configurable protection limits	3-Phase 3-Wire
Cooling system			Touch Screen
Forced air cooling system with six air conditioner units	2 set	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