



EGS Series (single-phase)

Residential Smart Energy Storage System

3.6~12 kW

8~48 kWh

Scalable

Overview

The EGS series hybrid energy storage system is a household energy storage system that provides multiple energy storage options through an expandable modular design (combining 1-6 modules), further simplifying installation and operation, and featuring multiple intelligent functions. Built in battery optimizer, worry free mixing of old and new, high energy density design, efficient and compact energy storage, the safest battery technology (LFP) with high charging rate ensures excellent performance and provides powerful power for your life.

Key Features



Flexible configuration and easy installation.



The battery capacity can be expanded to a maximum of 6 stacks.



Multiple working modes can meet different needs.



A-grade batteries have high safety and reliability.



The advanced MPPT technology has an efficiency of up to 99.9%.



Adopting intelligent speed regulating fan for efficient heat dissipation, Extend the lifespan of the system.

Inverter specifications (single-phase)

Technical Specifications

EGP3.6K-P1 EGP4.6K-P1 EGP5K-P1 EGP6K-P1 EGP8K-P1 EGP10K-P1 EGP12K-P1

PV parameters

Rated input voltage	360Vdc						
Starting voltage	100Vdc						
Input voltage range/Max. DC input voltage	50 ~ 550Vdc/600Vdc						
Maximum input current/short-circuit current	18/20A						
Maximum input power	7.2kW	9.2kW	10kW	12kW	16kW	18kW	18kW
MPPT quantity/string quantity	3/1						

AC parameters(on-grid)

Rated voltage	220/230/240Vac,0.85Un-1.1Un, L+N+PE						
Rated active power	3.6kW	4.6kW	5kW	6kW	8kW	10kW	12kW
Max apparent power	3.6kW	4.6kW	5kW	6.6kW	8.8kW	10kW	12kW
Frequency	50/60/Hz						
Power factor	0.8 lead~0.8 lag						
Off grid overload capacity	1.5 times rated power, 10 seconds						
Total current harmonic distortion THDi	< 2% (rated power)						

Efficiency

Max efficiency	98.0%	98.0%	98.0%	98.0%	97.6%	97.6%	97.6%
EU efficiency	97.4%	97.4%	97.4%	97.4%	97.0%	97.0%	97.0%

AC parameters(backup)

Rated voltage	220/230/240Vac,0.85Un-1.1Un, L+N+PE						
Rated active power	3.6kW	4.6kW	5kW	6kW	8kW	10kW	12kW
Max apparent power	4kW	5kW	5.5kW	6.6kW	8.8kW	11kW	13.2kW
Frequency	50/60/Hz						
Power factor	0.8 lead~0.8 lag						
Off grid overload capacity	1.5 times rated power, 10 seconds						
Total voltage harmonic distortion THDv	< 2% (rated power)						

Battery end parameters

Battery module models	EGB8K
Number of modules per controller	1~6
Battery module voltage range	300~600Vdc

Protection

Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter , AC overcurrent/overvoltage/short-circuit protection. Type II DC/AC surge protection, Anti-islanding protection
---------------------------	--

General Data

Size(W*D*H mm)	735×230×408
Weight	35Kg
Operating Temperature	-30°C ~ 60°C (Reduce power beyond 45 °C)
Max. operating altitude	4000m (> 2000m derating)
Cooling	Smart air cooling
Protection level	IP66
Communication	LAN/RS485 /EG CommMod (4G/WIFI/BT)

Standards Compliant	IEC 62109-1:2010, IEC 62109-2:2011, IEC/EN 62477, IEC/EN 61000-6-1, IEC/EN 61000-6-2, AS/NZS 4777.2:2020+A1:2024
---------------------	--

Energy storage battery specifications

Technical Specifications		EGB8K
Battery parameters		
Cell Type	LiFePO4	
Cell capacity	314Ah	
Cell cycle life	≥8000 (EOL SoH60 %, @25°C)	
Total battery capacity	8kWh	
Available capacity of battery	7.6kWh	
Depth of Discharge	100%	
DCDC parameters		
Rated power	4KW	
Operating voltage range	300~600Vdc	
Maximum operating current	9.3A	
General Data		
Size(W*D*H mm)	735×230×368	
Weight	68Kg	
Operating Temperature	-20°C ~ 55°C (Reduce power beyond 45 °C)	
Max. operating altitude	4000m (> 2000m derating)	
Cooling	Smart air cooling	
Protection level	IP66	
Installation method	Floor standing / Wall-mounted	
Number of modules per controller	1 ~ 6	
Compatible inverters	EGP series	
Communication	CAN	
Standards Compliant	IEC/EN 60730-1, UN 38.3, IEC/EN 62619, IEC/EN 63056, IEC/EN 62040	

Shenzhen Smart Energy Gap Corporation

✉ Email: info@smartenergygap.com

🌐 Web: www.smartenergygap.com

☎ Tel: 0755-23104515

