

## Smart photovoltaic energy storage Machine (ESGL/ESGN series)

### Application scenario:

- Peak cutting and valley filling industry
- Outdoor mining
- Rail transit industry
- Petrochemical industry
- Farm/fishing/forestry
- Photovoltaic microgrid application industry

### Product Introduction

This series of products is our company specially designed for small photovoltaic system GES series products. This series uses safe and reliable LiFePO4/ Sodium-ion battery (Sodium battery) batteries. It has the characteristics of good safety and long life. The three-level structure is adopted and the battery cell, control, module and system form a complete communication management. It has the functions of remote data collection, analysis, alarm and protection.

This series can meet three products of 30KW/60KW/90KW according to different configurations.

### Product Features

- Lithium iron phosphate/sodium battery is CE standard.
- Product safety No fire after thermal runaway, and integrated modular level fire protection; Three-level fire protection;
- And off grid seamless switching to ensure the continuity and stability of the load;
- Support oil-electric hybrid operation to provide energy efficiency
- Remote monitoring and maintenance functions
- Meet the outdoor application, IP54



### Specifications (ESGL lithium iron phosphate battery)

Model number	ESLG030400-280HTP 307	ESGL060400-314HTP 358	ESGL090400-280HTP 768	ESGL120400-314HTP 768
Grid-connected parameters				
Rated power	30KW	60KW	90KW	120KW
Grid-connected AC voltage/frequency	400V, 3P+N+PE 50/60HZ±5%			
Harmonic wave	< 3%(greater than 30% load)			
Maximum power	33KW	66KW	99KW	132KW
Maximum output current	50A	100A	150A	200A
Off-grid parameters				
Power rating	30KW	60KW	90KW	120KW
Maximum power	33KW	66KW	99KW	132KW
Rated voltage and frequency	400V/230V, 50/60HZ			
Output	1.25/10S 1.50/100ms			

overload (current)				
PV parameters				
Power rating	36KW	72KW	108KW	144KW
MPPT voltage range	200~830VDC			
Max/min starting voltage	850/250VDC			
Maximum output current	32A*2	32A*4	32A*6	32A*8
Battery parameters				
Battery capacity	86KWH	112KWH	215KWH	241KWH
Battery type	Lithium iron phosphate battery			
Maximum battery input current	100A	170A	120A	160A
Battery Protection current	120A	200A	145A	192A
System Parameters				
Operating environment temperature range	-30~50℃ (over 50℃ derated use)			
Storage temperature range	0 ~ 40 ℃			
Humidity range	0 to 95% no condensation			
Control mode	EMS and remote monitoring			
Cooling method	Battery for air conditioning/power for smart forced air cooling			
Fire REQUIREMENTS	Module grade aerosols/system aerosols or heptafluoropropane			
System Assurance	The system has the function of power failure protection			
Installation method/protection level	Outdoor /IP54			
Altitude	2000m. Derated over 2000m			
Product size	1200*1000*1900mm		1600*1300*2200mm	
Product weight	1100KG	1220KG	2650KG	2930KG
Shipping certification	Have UN38.3 Shipping certification			
Product Standards	Meet CE standards			

The above is the product with UN38.3 certification.

**Specifications (ESGN Sodium battery)**

Model number	ESGN025400-100HT P336	ESGN050400-160HT P336	ESGN092400-160HT P672	ESGN120400-160HT P720
Grid-connected parameters				
Rated power	25KW	50KW	90KW	120KW
Grid-connected AC voltage/frequency	400V, 3P+N+PE 50/60HZ±5%			
Harmonics	< 3%(greater than 30% load)			
Maximum power	27.5 KW	55KW	99KW	132KW
Maximum output current	40A	73A	143A	192A
Off-grid parameters				
Power rating	25KW	50KW	90KW	120KW
Maximum power	27.5 KW	55KW	99KW	132KW
Rated voltage and frequency	400V/230V, 50/60HZ			
Output overload (current)	1.25/10S 1.50/100ms			
PV parameters				
Power rating	36KW	72KW	108KW	144KW
MPPT voltage range	200~830VDC			
Max/min starting voltage	850/250VDC			
Maximum output current	32A*2	32A*4	32A*6	32A*8
Battery parameters				
Battery capacity	33.6 KWH	53.7 KWH	107KWH	115WH
Battery type	Sodium battery			
Maximum input current for the battery	100A	170A	120A	160A
Battery Protection current	120A	200A	145A	192A
System Parameters				
Operating environment temperature range	-30~50°C (over 50°C derated use)			
Storage				

temperature range	0 ~ 40 °C			
Humidity range	0 to 95% no condensation			
Control mode	EMS and remote monitoring			
Cooling method	The battery is an air conditioner and the power supply is intelligent forced air cooling			
Fire REQUIREMENTS	Module grade aerosols/system aerosols or heptafluoropropane			
System Assurance	The system has the function of power failure protection			
Installation method/protection level	Outdoor /IP54			
Altitude	2000m. Derated over 2000m			
Product size	1200*1000*1900mm		1600*1300*2200mm	
Product weight	710KG	1420KG	2950KG	3330KG
Shipping certification	Have UN38.3 Shipping certification			
Product Standards	Meet CE standards			

The above is the product with UN38.3 certification.