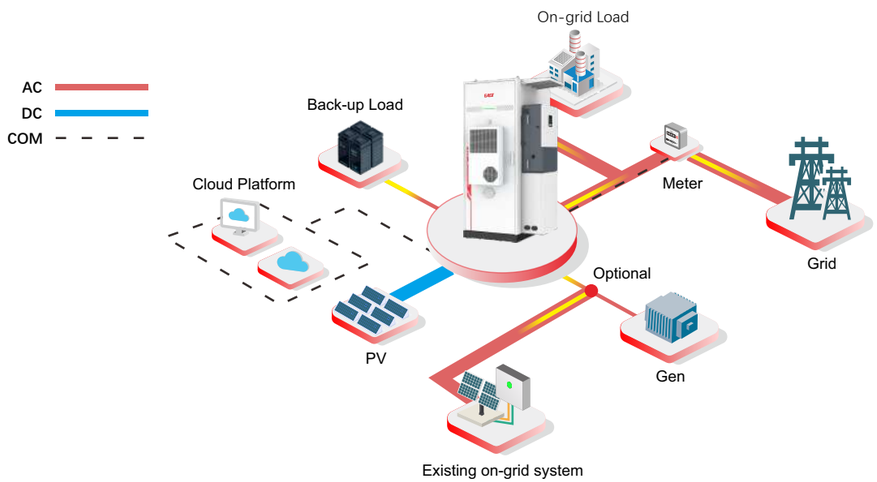
C&I Energy Storage System
30k-60k/100kWh-120kWh

Diesel-PV-ESS

- High protection level: cabinet IP54, Inverter IP66 protection, can be used in a variety of harsh scenarios
- Intelligent monitoring: real-time intelligent power balance control, energy management and scheduling, information monitoring and early warning, safe and reliable system
- Three-level fire-fighting strategy: Level 1 power off and shutdown protection, Level 2 perfluorohexanone gas start, Level 3 water spray fire-fighting to prevent re-ignition
- Modular design: the system consists of battery cabinet, hybrid inverter, and EMS modules, which can be flexibly configured and support dynamic expansion
- High conversion efficiency: the hybrid inverter adopts SiC technology, with the highest conversion efficiency reaching 98.5%, reducing the cost
- Application scenarios: industrial and commercial energy storage, emergency backup power supply, Diesel-PV-ESS microgrid, etc.

Typical application



Specification

MODEL	30kW-100kWh	40kW-100kWh	50kW-100kWh	30kW-120kWh	40kW-120kWh	50kW-120kWh	60kW-120kWh
System							
Rated energy capacity	100kWh			120kWh			
Rated system power	30kW	40kW	50kW	30kW	40kW	50kW	60kW
On-grid and off-grid switching time	<20ms						
Max. conversion efficiency	98.50%						
European/MPPT efficiency	97.5%/99.9%						
IP rating	Battery cabinet(IP54), Inverter(IP66)						
Operating temperature	-25~+60ºC(>45ºC linear derating to 60%)						
Relative humidity	<95%(non-condensing)						
Altitude	<4000m						
Cooling method	Air cooling						
Noise	<65dB						
Fire protection system	cabinet level gas fire-fighting(perfluorohexanone)/aerosol+water fire-fighting						
Wired/wireless communication	Ethernet, RS485, 4G/WIFI						
Human-computer interaction	LCD						
Standards	VDE V 0124-100, VDE-AR-N 4105, Tor Erzeuger Type A, OVE R25, EN 50549-1, EN 50549-2, ΕΛΟΤ EN 50549-1, PAE 1165-2020, BWBR0037940 Netcode elektriciteit, NA-EEA-NE7, EIFS 2018: 2, Section 8 and 9, Type A, C10/11, MSZ EN 50549-1/-2, EN 50438 NS protection settings, CEI 0-21, UNE 217002, UNE 217001, NTS631						
Dimensions(W×H×D)(mm)	800x2100x1200						
Weight(kg)	≤1300						
Battery							
Cell	314Ah						
Configuration	1P100S			1P120S			
Rated energy	100kWh			120kWh			
Rated voltage	320Vdc			384Vdc			
Voltage range	280~365Vdc			336~438Vdc			
Inverter							
Inverter model	ESH30K3PHV G1-EU	ESH40K3PHV G1-EU	ESH50K3PHV G1-EU	ESH30K3PHV G1-EU	ESH40K3PHV G1-EU	ESH50K3PHV G1-EU	ESH60K3PHV G1-EU
PV parameters							
Max. input power	60kW	80kW	100kW	60kW	80kW	100kW	
Max. input voltage	1000Vdc						
Input voltage range	150~950Vdc						
Starting voltage	200Vdc						
Max. input current per string	8x20A						
Max. short-circuit current per string	8x30A						
MPPT voltage range	150~850Vdc						
MPPT quantity/ strings per MPPT	4/2+2+2+2						
Grid parameters							
Rated input/output power	30kW	40kW	50kW	30kW	40kW	50kW	60kW
Voltage range	380V/400V, 3L+N+PE						
Rated input current	45.6/43.3A	60.8/57.7A	76/72.2A	45.6/43.3A	60.8/57.7A	76/72.2A	91.2/86.6A
Rated output current	45.6/43.3A	60.8/57.7A	76/72.2A	45.6/43.3A	60.8/57.7A	76/72.2A	91.2/86.6A
Power factor	>0.99(0.8 leading~0.8 lagging)						
THDi	<3%@rated power						
Diesel engine parameters							
Rated power	30kW	40kW	50kW	30kW	40kW	50kW	60kW
Voltage range	320V~460V						
Rated current	45.6/43.3A	60.8/57.7A	76/72.2A	45.6/43.3A	60.8/57.7A	76/72.2A	91.2/86.6A
Backup parameters							
Rated power	30kW	40kW	50kW	30kW	40kW	50kW	60kW
Rated voltage	380V/400V, 3L+N+PE						
Rated frequency	50Hz/60Hz						
Rated current	45.6/43.3A	60.8/57.7A	76/72.2A	45.6/43.3A	60.8/57.7A	76/72.2A	91.2/86.6A