

UTILITY-SCALE ESS SOLUTION

DEYE WINTER WS SERIES



Integrated Technology

- LC, PCS, MPPT, and battery integrated
- EMS for system management
- ATS for on/off-grid switching
- 1 MW PCS output, 1.6 MWp solar input
- System energy capacity: 2057 kWh
- System size and weight: 20ft, 25,000 kg



Performance

- 1.1x overload, 1.5x overload
- Max RTE: 88.5%
- System Operating Conditions :
-20°C ~ 55°C | IP54 | C4-M
- Supports 2 PCS & 2 MW off-grid



Advanced Safety

- 2-hour fire resistance
- Combustible gas detection, smoke evacuation, aerosol extinguishers, water sprinklers



Applications

- Support black start function
- Support off-grid operation & back up
- Support peak shaving
- Transformer capacity control

4 Level

Power Redundancy Design

88.5%

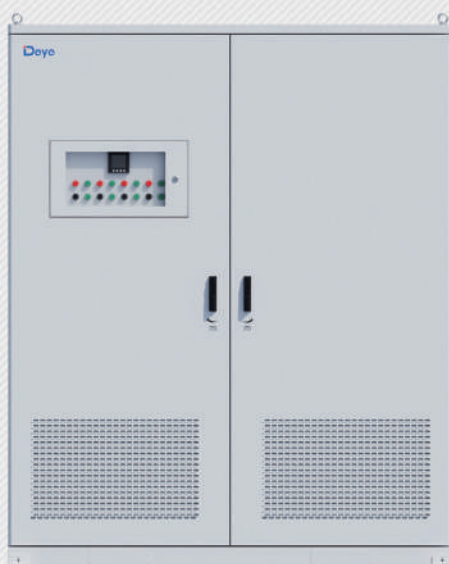
Max.RTE

C4-M

High Protection

Model	WS-GS2000-2H3	WS-G2000-2H3
AC parameter		
Rated power	1000kW	
Max. Apparent Power	1100kVA	
AC Rated Current	1443A(8×180.4A)	
Rated Voltage/Range	400V/0.85Un-1.1Un	
Grid Connection Form	3L+N+PE	
Frequency/Range	50Hz/45Hz-55Hz	
Power Factor Adjustment Range	0.8 leading-0.8lagging	
Total Current Harmonic Distortion (THDi)	<3% (of Rated power)	
DC Injection Current	<0.5% In	
Max.RTE	88.50%	
Battery parameter		
Cell type	LFP	
Nominal Capacity (Cell)	314Ah	
PACK Configuration	1P16S	
Battery configuration	256S1P*8	
Battery energy	2057kWh	
Battery voltage range	819.2Vdc(691.2~921.6Vdc)	
Other parameter		
Fire protect system	Gas fire protection+Water fire protection	
Cooling type	Air cooling	
Communication port	RJ45	
Communication protocol	Modbus TCP, IEC104, IEC61850	
Operating ambient	-20~55 °C	
Humidity	0%~90%RH	
Altitude	3000m	
IP rating of enclosure	IP54	
Anti-corrosion level	C4-M	
Seismic grade	Moderate performance level (0.5g)	
Dimension (W/D/H,mm)	20ft (HC)	
Weight approximate (kg)	≤26000kg	
Installation Location	Floor mount	
Recommend storage temperature (°C)	-20~60	
PV parameter		
Max. PV Input Power	1280kW(160kW*8)	/
Max. PV Input Voltage	800Vdc	/
Start-up Voltage	200Vdc	/
MPPT Voltage Range	180-750Vdc	/
Full Load MPPT Voltage Range	450-750Vdc	/
Rated PV Input Voltage	600Vdc	/
Max. Operating PV Input Current	8× (40+40+40+40+40+40+40+40) A	/
Max. Input Short-Circuit Current	8× (60+60+60+60+60+60+60+60) A	/
No. of MPP Trackers	64 (8*8)	/
Max. Efficiency	>99%	/

Model	WS-GS2000-4H3	WS-G2000-4H3
AC parameter		
Rated power	500kW	
Max. Apparent Power	550kVA	
AC Rated Current	722A(8×180.4A)	
Rated Voltage/Range	400V/0.85Un-1.1Un	
Grid Connection Form	3L+N+PE	
Frequency/Range	50Hz/45Hz-55Hz	
Power Factor Adjustment Range	0.8 leading-0.8lagging	
Total Current Harmonic Distortion （THDi）	<3%（of Rated power）	
DC Injection Current	<0.5% In	
Max.RTE	88.50%	
Battery parameter		
Cell type	LFP	
Nominal Capacity（Cell）	314Ah	
PACK Configuration	1P16S	
Battery configuration	256S1P*8	
Battery energy	2057kWh	
Battery voltage range	819.2Vdc(691.2~921.6Vdc)	
Other parameter		
Fire protect system	Gas fire protection+Water fire protection	
Cooling type	Air cooling	
Communication port	RJ45	
Communication protocol	Modbus TCP, IEC104, IEC61850	
Operating ambient	-20~55℃	
Humidity	0%~90%RH	
Altitude	3000m	
IP rating of enclosure	IP54	
Anti-corrosion level	C4-M	
Seismic grade	Moderate performance level (0.5g)	
Dimension (W/D/H,mm)	20ft (HC)	
Weight approximate (kg)	≤26000kg	
Installation Location	Floor mount	
Recommend storage temperature (℃)	-20~60	
PV parameter		
Max. PV Input Power	640kW(160kW*4)	/
Max. PV Input Voltage	800Vdc	/
Start-up Voltage	200Vdc	/
MPPT Voltage Range	180-750Vdc	/
Full Load MPPT Voltage Range	450-750Vdc	/
Rated PV Input Voltage	600Vdc	/
Max. Operating PV Input Current	4×（40+40+40+40+40+40+40）A	/
Max. Input Short-Circuit Current	4×（60+60+60+60+60+60+60）A	/
No. of MPP Trackers	32（4*8）	/
Max. Efficiency	>99%	/



WS-TS1000-2-A

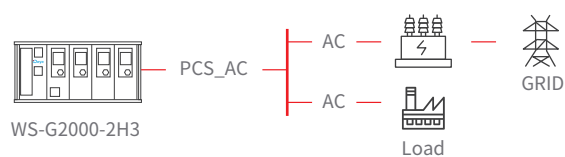
Model	WS-TS1000-2-A
Grid Side Data	
Rated AC Input/Output Active Power (kw)	1000
Rated AC Input/Output Current(A)	1450
Rated input/Output Voltage(V)	220/380,230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
Load Side Data	
Rated AC Input/Output Active Power(kw)	1000
Rated AC Input/Output Current	1450
Rated Input/Output Voltage(V)	220/380,230/400(three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
GEN Side Data	
Rated AC Input/Output Active Power (kW)	1000
Rated AC input/Output Current(A)	1450
Rated Input/Output Voltage(V)	220/380,230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
System Data	
Dimension (W x D x H, mm)	2000 × 1200 × 2450mm
Weight Appr. (kg)	1600
System Operating temperature range	-20°C ~ 55°C
Max. working altitude (m)	≤3000
IP Rating of Enclosure	IP54
Switching Time (ms)	≤20

Categorisation

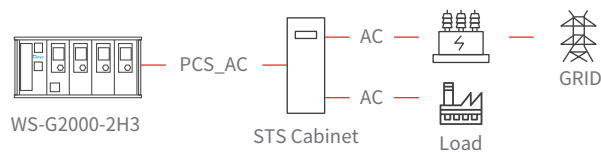
Combination

Application block diagram

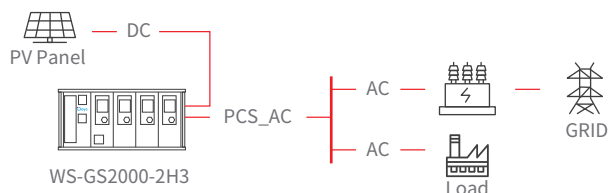
Energy Storage Only



Energy Storage/Backup Power

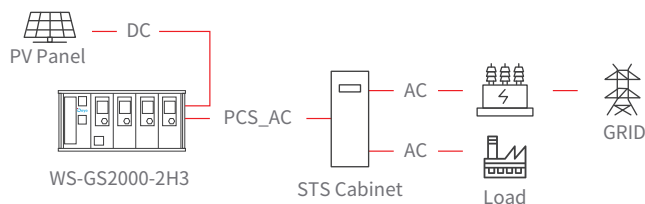


Energy Storage+Photovoltaic

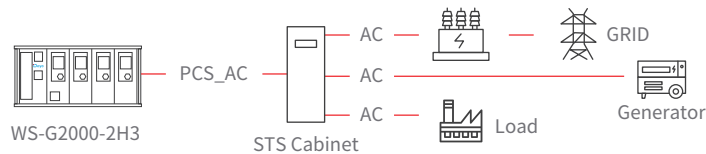


On-grid/On-grid、
Off-grid Switching

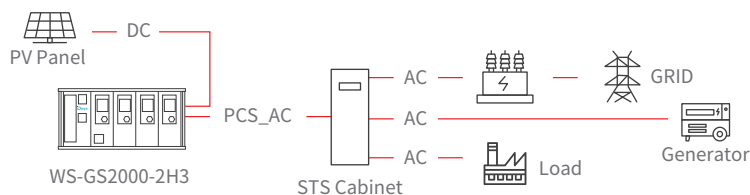
Energy Storage+Photovoltaic/
Standby Power



Energy Storage+Generator



Energy Storage+Photovoltaic+
Generator

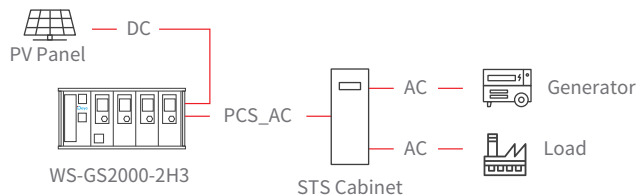


Energy Storage+Photovoltaic



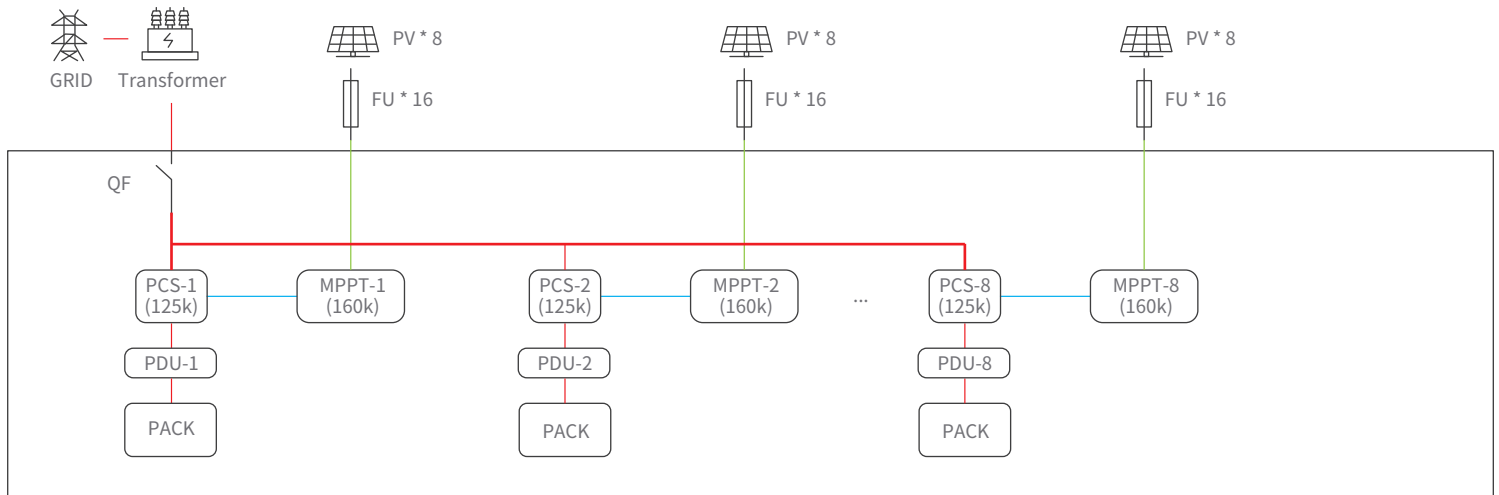
Off-grid

Energy Storage+Photovoltaic+
Generator



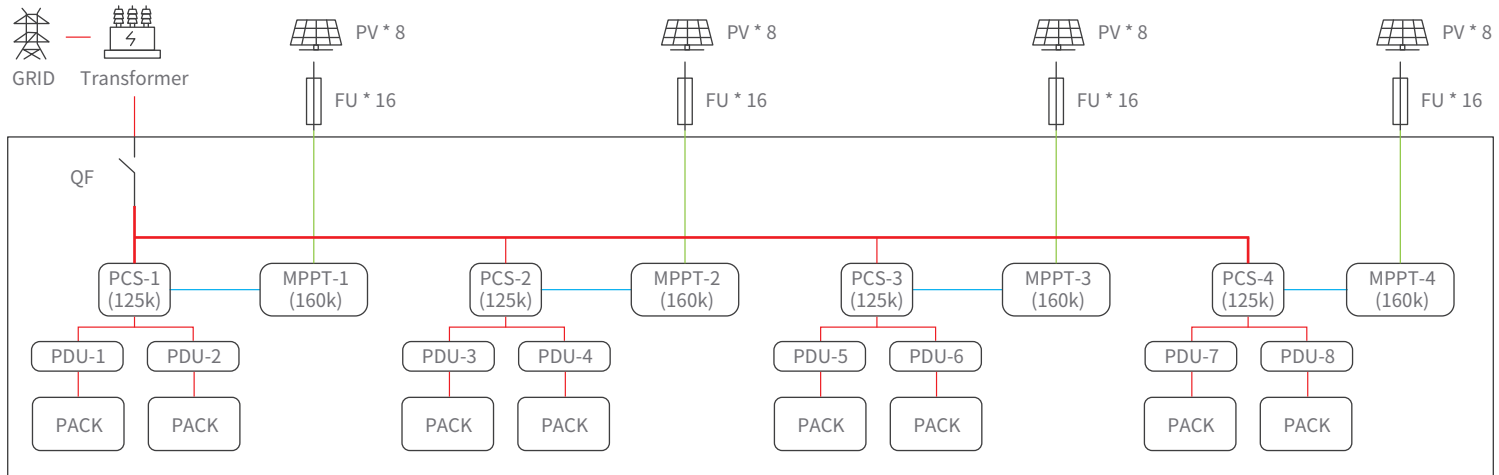
2-hour Energy Storage Solution

1MW/2MWh(2h)



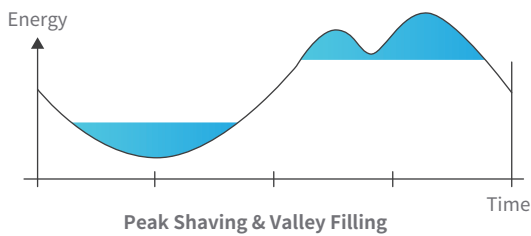
4-hour Energy Storage Solution

0.5MW/2MWh(4h)

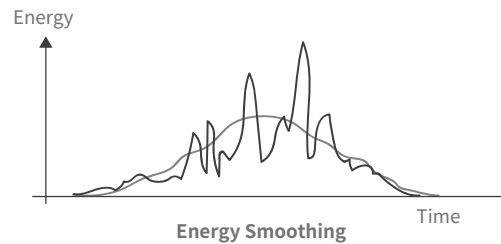


Application Scenarios

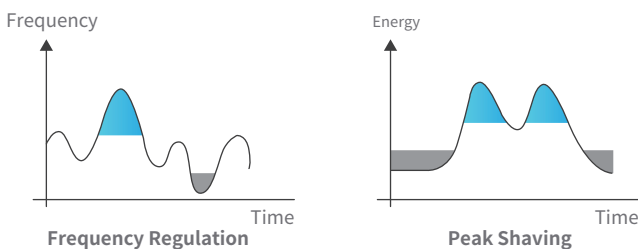
1. Applied in medium to large-scale C&I applications (Peak Shaving & Valley Filling)



2. Integrated with renewable energy storage systems to smooth power output



3. Used for Peak Shaving and Frequency Regulation on the power generation side



4. Participates in virtual power plants to provide ancillary power services (electricity trading)

