

UTILITY-SCALE ESS SOLUTION

DEYE WINTER WS SERIES





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



Advanced Safety

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



Performance

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



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

4 Level

Power Redundancy Design

88.5%

8000 Cycles **EOL** 70%

10 Years





AC parameter Rated power 1000kW Max. Apparent Power 1100kVA Rated Voltage/Range 400V/0.85Un-1.1Un Grid Connection Form 3L+N+PE Frequency/Range 508tz/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 LFP Battery configuration 25651P*8 Battery energy 2057kWh Battery voltage range 691.2-921.6Vdc Other parameter Tere protect system Fire protect system Gas fire protection+Water fire protection cooling type Small air cooling Communication port RJ45 Communication protocol Modbus TCP, IEC104, IEC61850 Operating ambient -20-55 °C Humidity 0%-90%RH Altitude 3000m IP Fating of enclosure IP54 anti-corrosion level C4-M seismic grade </th <th>Model</th> <th>WS-G2000-2H3</th>	Model	WS-G2000-2H3
Max. Apparent Power 1100kVA Rated Voltage/Range 400V/0.85Un-1.1Un Grid Connection Form 3.1-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 6.5% in Max.RTE 88.50% Battery parameter LFP Battery configuration 256S1P'8 Battery energy 6912-921.6Vdc Other parameter 6912-921.6Vdc Other parameter 6912-921.6Vdc Fire protect system Gas fire protection+Water fire protection cooling type Small air cooling Communication protocol Modbust CP, IEC104, IEC61850 Communication protocol Modbust CP, IEC104, IEC61850 Operating ambient -20-55 °C Humidity 0%-90%RH Altitude 3000m IP rating of enclosure IPS4 anti-corrosion level C4-M seisnic grade Moderate performance level (0.5g) Dimension (W/D/H	AC parameter	
Rated Voltage/Range 400V/0.85Un-1.1Un Grid Connection Form 3.t+M+PE Frequency/Range 50Hz/45Hz-55Hz Power Factor Adjustment Range 0.8 leading-0.8 lagging Total Current Harmonic Distortion (THDi) <3% (of Rated power)	Rated power	1000kW
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 LFP Battery porfiguration 25651P*8 Battery energy 2057kWh Battery voltage range 6912-921.6Vdc Other parameter Gas fire protection+Water fire protection Cooling type Small in cooling Communication port R.145 Communication protocol Modbus TCP, IEC104, IEC61850 Operating ambient -20-55°C Humidity 0%-90%RH Altitude 3000m IP Fating 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) 25000kg Listallation Location Floor mount Recommend storage temperature (*C)	Max. Apparent Power	1100kVA
Frequency/Range 50Hz/45Hz-55Hz Power Factor Adjustment Range 0.8 leading-0.8lagging Total Current Harmonic Distortion (THDi) <3% (of Rated power)	Rated Voltage/Range	400V/0.85Un-1.1Un
Power Factor Adjustment Range 0.8 leading-0.8 lagging Total Current Harmonic Distortion (THDi) <3% (of Rated power)	Grid Connection Form	3L+N+PE
Total Current Harmonic Distortion (THDi) 3% (of Rated power) DC Injection Current <0.5% In	Frequency/Range	50Hz/45Hz-55Hz
DC Injection Current <0.5% In	Power Factor Adjustment Range	0.8 leading-0.8lagging
Max.RTE 88.50% Battery parameter Cell type LFP Battery configuration 25651P*8 Battery energy 2057kWh Battery voltage range 691.2~921.6Vdc Other parameter Fire protect system Gas fire protection+Water fire protection cooling type Small 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 esismic grade Moderate performance level (0.5g) Dimension (W/D/H,mm) 20ft (HC) Weight approximate (kg) 25000kg Installation Location Floor mount Recommend storage temperature (°C) 0~35 Cycle Life 25±2°C,0.5P, E0L70%>8000	Total Current Harmonic Distortion (THDi)	<3% (of Rated power)
Battery parameterCell typeLFPBattery configuration256S1P*8Battery energy2057kWhBattery voltage range691.2~921.6VdcOther parameterFire protect systemGas fire protection+Water fire protectioncooling typeSmall air coolingCommunication portRJ45Communication protocolModbus TCP, IEC104, IEC61850Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, E0L70%≥8000	DC Injection Current	<0.5% In
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Battery configuration 25651P*8 Battery energy 2057kWh Battery voltage range 691.2~921.6Vdc Other parameter Fire protect system Gas fire protection+Water fire protection cooling type Small 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) 25000kg Installation Location Floor mount Recommend storage temperature (°C) 0~35 Cycle Life 25±2°C,0.5P, E0L70%≥8000	Battery parameter	
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Battery voltage range691.2~921.6VdcOther parameterGas fire protection+Water fire protectionFire protect systemGas fire protection+Water fire protectioncooling typeSmall air coolingCommunication portRJ45Communication protocolModbus TCP, IEC104, IEC61850Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,nm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	Battery configuration	256S1P*8
Other parameterFire protect systemGas fire protection+Water fire protectioncooling typeSmall air coolingCommunication portRJ45Communication protocolModbus TCP, IEC104, IEC61850Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P,EOL70%≥8000	Battery energy	2057kWh
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Communication portRJ45Communication protocolModbus TCP, IEC104, IEC61850Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P,E0L70%≥8000	Fire protect system	Gas fire protection+Water fire protection
Communication protocolModbus TCP, IEC104, IEC61850Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	cooling type	Small air cooling
Operating ambient-20~55 °CHumidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	Communication port	RJ45
Humidity0%~90%RHAltitude3000mIP rating of enclosureIP54anti-corrosion levelC4-Mseismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	Communication protocol	Modbus TCP,IEC104,IEC61850
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) 25000kg Installation Location Floor mount Recommend storage temperature (°C) 0~35 Cycle Life 25±2°C,0.5P, EOL70%≥8000	Operating ambient	-20~55 °C
IP rating of enclosure anti-corrosion level C4-M seismic grade Moderate performance level (0.5g) Dimension (W/D/H,mm) 20ft (HC) Weight approximate (kg) Installation Location Recommend storage temperature (°C) Cycle Life IP54 C4-M Moderate performance level (0.5g) Moderate performance level (0.5g) Floor mance level (0.5g) 25000kg 25000kg Floor mount 25±2°C,0.5P, EOL70%≥8000	Humidity	0%~90%RH
anti-corrosion level C4-M seismic grade Moderate performance level (0.5g) Dimension (W/D/H,mm) 20ft (HC) Weight approximate (kg) 25000kg Installation Location Floor mount Recommend storage temperature (°C) 0~35 Cycle Life 25±2°C,0.5P, EOL70%≥8000	Altitude	3000m
seismic gradeModerate performance level (0.5g)Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	IP rating of enclosure	IP54
Dimension (W/D/H,mm)20ft (HC)Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	anti-corrosion level	C4-M
Weight approximate (kg)25000kgInstallation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	seismic grade	Moderate performance level (0.5g)
Installation LocationFloor mountRecommend storage temperature (°C)0~35Cycle Life25±2°C,0.5P, EOL70%≥8000	Dimension (W/D/H,mm)	20ft (HC)
Recommend storage temperature (°C) $0~35$ Cycle Life $25\pm2^{\circ}\text{C},0.5\text{P}, \text{EOL}70\% \geqslant 8000$	Weight approximate (kg)	25000kg
Cycle Life 25±2°C,0.5P, EOL70%≥8000	Installation Location	Floor mount
	Recommend storage temperature (°C)	0~35
Warranty 10years	Cycle Life	25±2°C,0.5P, EOL70%≥8000
	Warranty	10years



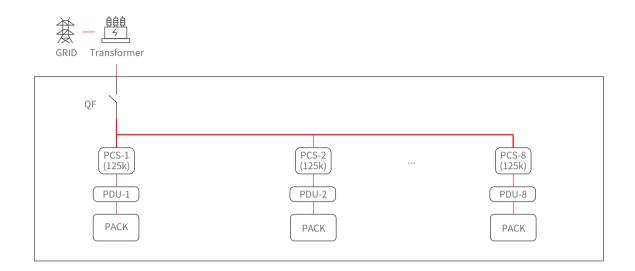


Categorisation	Combination	Application block diagram
On-grid/On-grid、 Off-grid Switching	Energy Storage Only	PCS_AC — AC — GRID WS-G2000-2H3 Load
	Energy Storage/Backup Power	WS-G2000-2H3 AC — AC — GRID AC — GRID ATS Cabinet Load
	Energy Storage+Generator	PCS_AC — AC — AC — GRID WS-G2000-2H3 ATS Cabinet Load Generator
Off-grid	Energy Storage+Generator	PCS_AC — AC — Generator WS-G2000-2H3 ATS Cabinet



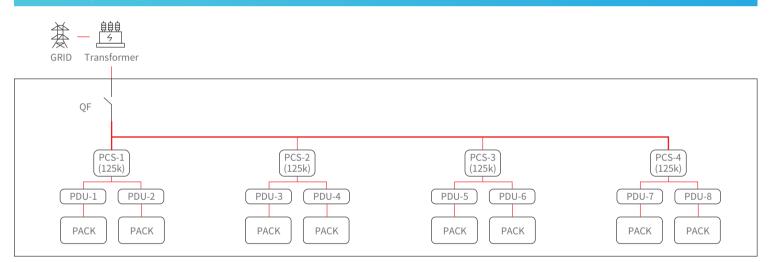
2-hour Energy Storage Solution

1MW/2MWh(2h)



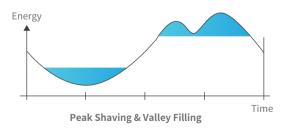
4-hour Energy Storage Solution

0.5MW/2MWh(4h)

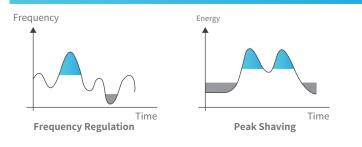


Application Scenarios

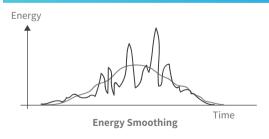
1.Applied in medium to large-scale C&I applications (Peak Shaving & Valley Filling)



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



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



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

