

CPS ES-4170KWH/5015KWH

Battery Energy Storage System



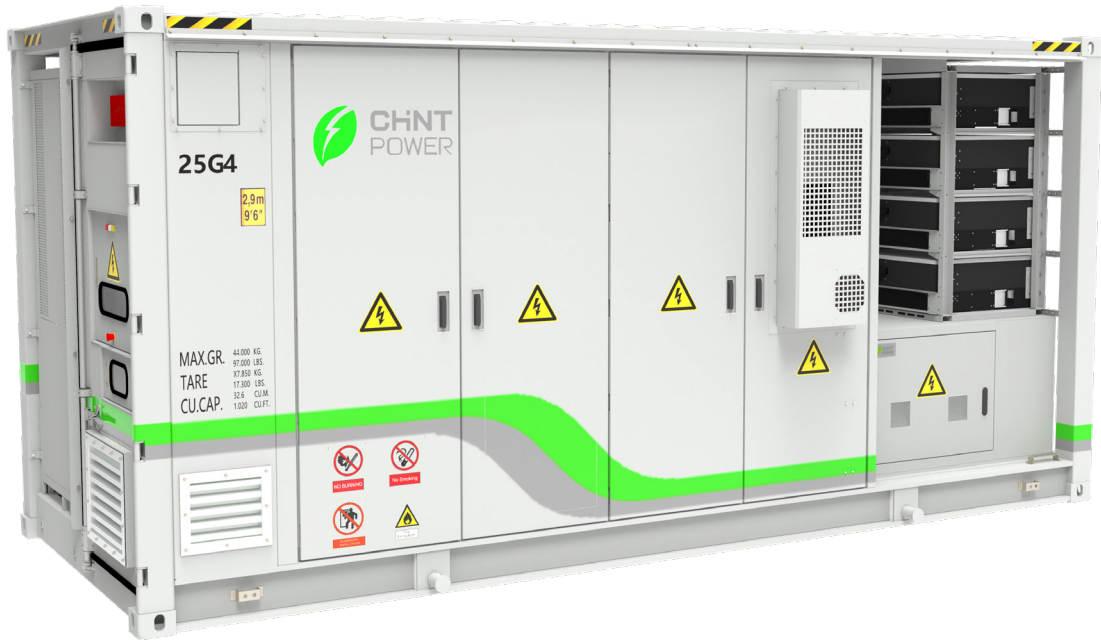
Key Features

- Fully integrated system with minimum on-site installation and commission efforts
- High energy density: 5 MWh in one 20ft container Multiple-point electrical linkage measures
- Easy to expand with CPS’s modular and string design
- Integrated fast-acting fault protection
- Comprehensive fire prevention design to ensure system safety
- Smart cooling control to improve battery performance and lifecycle

Model Name	CPS ES-4170kWH	CPS ES-5015kWH
Battery Parameter		
Battery Capacity	4179.9kWh	5015.96kWh
Battery Cell	314Ah	
Pack Configuration	1P52S	
Battery Configuration	10 x 1P416S	12 x 1P416S
Rate Voltage	1331.2V	
Operating Voltage Range	1164~1497V	
Maximum Power	2089kW	2508kW
System Parameter		
Protection Degree	IP54	
Cooling Method	Liquid Cooling	
Operation Temperature	-25°C~50°C	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	≤6561.7ft / 2000m	
Dimensions (WxHxD)	238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm	
Weight	40T	43T
Communication	RS485/Ethernet / CAN	
Protocol	Modbus RTU / Modbus TCP / CAN	
Auxiliary Power Input	3P+N 400Vac / 50kVA	
Safety		
Compliance	IEC 62477 / EC 61000 / IEC 62619 / IEC 63056	
* Product specifications and dimensions may be updated based on the latest information provided and are subject to change without prior notice.		

CPS ES-1.6MW/3.34MWh-EU

All In One Liquid Cooling Energy Storage System



Key Features

- All in one design, without on-site installation and commissioning
- 6 battery racks, modular PCS etc. are integrated in a 20ft container
- Rack-level management allows the racks to run independently, eliminating the mismatch between parallel racks
- Old and new batteries can be mixed
- Modular design, minimizing the impact of faults and O&M cost, easy to expand
- Intelligent liquid-cooling system, ensures longer battery cycle life

Model Name	CPS ES-0.8MW/1.6MWh-EU	CPS ES-1.2MW/2.5MWh-EU	CPS ES-1.6MW/3.34MWh-EU
DC Parameter			
Rated Voltage	1331.2Vdc		
Battery Voltage Range	1164.8~1497.6Vdc		
Nominal Battery Energy	1672kWh	2508kWh	3344kWh
AC Parameter			
Rated AC Output Power	800kW	1200kW	1600kW
Rated AC Output Voltage	800V		
Output Voltage Range	704V~880V		
Grid Frequency	50Hz / 60Hz		
Grid Frequency Range	±5Hz		
System Parameter			
Protection Degree	IP54		
Cooling Method	PCS: Air Cooling, Batteries: Liquid Cooling		
Operation Temperature	-25°C~55°C		
Operating Humidity	0-95%, non-condensing		
Operating Altitude	≤3000m (derating from 2000m)		
Dimensions (WxHxD)	238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm		
Weight(T)	<30T		
Display and Communication			
Communication	Ethernet/CAN/RS485		
Safety			
Compliance	Battery: IEC 62477 / IEC 61000 / IEC 62619 / IEC 63056 PCS: UL1741, CSA-22.2 NO.107.1-16, IEEE1547-2018, FCC Part 15, IEC61000, IEC62477, IEC62109, EN50549, VDE 4110&4120, NTS2.1		
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CPS ES-2MW/2.4MW-EU 2/4h

Utility Energy Storage System



Key Features

- Fully integrated system with minimum on-site instllation and commission efforts
- High energy density: 5MWh in one 20ft container, 2.4MW PCS skid in one 20ft container
- Modular design, reducing O&M costs, easy to expand
- Outdoor design, IP54 rated for application in different environments
- New and old battery racks can be integrated
- Comprehensive fire prevention design to ensure system safety
- Smart cooling control to improve battery performance and lifecycle
- Rack-level control and management for ESS, improved availability and efficiency

Model Name (PCS Skid, Battery Container)	PCS Skid: CPS PSW2.4M-EU Battery Container: CPS ES-5015KWH-EU		PCS Skid: CPS PSW2M-EU Battery Container: CPS ES-4179KWH-EU	
Battery Parameter				
Battery Capacity	5MWh	2x5MWh	4.179MWh	2x4.179MWh
Battery Cell	LFP 314Ah			
Pack Configuration	1P52S			
Battery Configuration	1x12P416S	2x12P416S	1x10P416S	2x10P416S
Rate Voltage	1331.2V			
Operating Voltage Range	1164~1497V			
Electrical Parameter				
Rated AC Output Power	2.4MW		2MW	
Medium Voltage Rating	13.8kV, 15kV, 20kV, 30kV, 33kV, 34.5kV			
Grid Frequency	50Hz / 60Hz			
Vector Group	Dy1, Dy11			
Cooling Method	ONAN			
System Parameter				
Protection Degree	PCS Skid: IP54 ; Battery Container: IP54			
Cooling Method	PCS: Air Cooling, Batteries :Liquid Cooling			
Operating Temperature Range	-20°C to 50°C			
Operating Altitude	≤6562ft / 2000m			
Operating Humidity	0-95%, non-condensing			
PCS Weight	12.9T	12.9T	12T	12.5T
Battery Container Weight	43T	2x43T	37T	2x37T
Dimensions (WxHxD)	PCS Skid: 238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm Battery Container: 238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm			
Display and Communication				
Communication	RS485 / Ethernet / CAN			
Communication protocol	Modbus-TCP/RTU			
Safety				
Certifications and Standards	Battery : IEC 62477 / IEC 61000 / IEC 62619 / IEC 63056 PCS: UL1741, CSA-22.2 NO.107.1-16, IEEE1547-2018, FCC Part 15, IEC61000, IEC62477, IEC62109, EN50549, VDE 4110&4120, NTS2.1			

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CPS PSA4.8MW-EU

Energy Storage System



Key Features

- 4.8MW Skid, with high power integration density
- PCS has IP66 protection degree, suitable for C5 environment
- Standard 20-foot container integration, pre-assembled and pre-adjusted in the factory, convenient for transportation and installation
- AC 800V output, compatible with photovoltaic and energy storage coupling solutions
- Wide DC voltage range, suitable for various batteries
- Modular design of the PCS, easy to maintain and expand

Model Name	CPS PSA4.8MW -EU
DC Parameter	
Max.DC Input Voltage	1500V
Min.DC Input Voltage	875V
Operating DC input Voltage Range	950~1500V
Max.DC Input Current	24 x 218A
DC Disconnection Type	Load-rated DC Switch
AC Parameter	
Rated AC Output Power @ PF>0.99	24 x 200kW
Rated Output Voltage	800V
Output Voltage Range	704~880V
Grid Connection Type	3-Phase / PE
Max. AC Output Current @ 800Vac	24 x 145A
Grid Frequency / Grid Frequency Range	50Hz / 60Hz (±5Hz)
Power Factor	-1~+1
AC Current THD	<3%
DC Current Injection	<0.5% Inom
AC Surge Protection	Type II
System Parameter	
Dimensions (WxHxD)	238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm
Weight	<12T
Enclosure Protection Degree	IP54
Cooling Method	Variable speed cooling fans
Operating Temperature Range	-30°C to +60°C (derating from +45°C)
Operating Humidity	0~95%
Operating Altitude	9842.5ft / 3000m (no derating)
Display and Communication	
Communication	CAN / Ethernet / RS485
Safety	
Certifications and Standards	UL1741, CSA-22.2 NO.107.1-16, FCC Part 15, IEC 62109-1/2,IEC 62477-1, IEC 62040-1, IEC 61000-6-2/4
Selectable Grid Standard	IEEE1547-2018, IEEE1547.1-2010, EN50549-1/2, VED4110&4120, NTS2.1
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CPS ES-9.6MW/20MWh-EU

Utility Energy Storage System



Key Features

- Pre-assembled system design with standard container transportation for the entire unit
- Battery, PCS, and transformer compartmentalized design for isolating faults and flexible combination
- Equipment supply with in-factory pre-assembly and testing for quick grid connection on-site
- Maximum 9.6MW system matrix to reduce equipment quantity and lower system costs
- One cluster, one management design to eliminate inter-cluster circulating currents, ensuring high system availability
- Custom design for ease of maintenance and expansion
- High protection design for the system, ensuring adaptability to various environmental conditions

Model Name	CPS ES-9.6MW/20MWh-EU
Model Name (Battery Container, PCS Skid, PMVS transformer)	Battery Container: CPS ES-5015KWH-EU PCS Skid: CPS PSA4.8MW-EU PMVS: CPS PSA9.6MO
Battery Parameter	
Battery Capacity	4x5MWh
Battery Cell	LFP 314Ah
Pack Configuration	1P52S
Battery Configuration	4x12P416S
Rate Voltage	1331.2V
Operating Voltage Range	1164~1497V
PCS Parameter	
Rated AC Output Power @ PF>0.99	2 x 24 x 200kW
Operating DC input Voltage Range	950~1500V
Output Voltage	800Vac (704~880Vac)
Grid Connection Type	3-Phase/PE
Max. AC Output Current @ 800Vac	145A
Nominal Grid Frequency / Grid Frequency	50Hz/60Hz (±5Hz)
DC/AC Surge Protection	Type II
PMVS Parameter	
Rated Input Voltage	800V
Rated AC Output Power	9.6MW
Medium Voltage Rating	6~35kV
Grid Frequency	50Hz / 60Hz
Vector Group	Dy11-y11
Cooling Method	ONAN
Surge Protection	Type II
System Parameter	
Protection Degree	PCS Skid: IP54; Battery Container: IP55; PMVS: IP54
Cooling Method	PCS Skid: Variable speed cooling fans, Batteries :Liquid Cooling; PMVS:ONAN
Operating Temperature Range	-20°C to 50°C (derating from +45°C)
Operating Altitude	PCS: 9842.5ft / 3000m (no derating); Battery Container ≤6562ft / 2000m; PMVS≤3281ft / 1000m
Operating Humidity	0-95%, non-condensing
PCS Skid Weight	12T
Battery Container Weight	4x43T
PMVS Weight	<30T
Dimensions (WxHxD)	238.5 x 114.0 x 96.0in / 6058 x 2896 x 2438mm
Display and Communication	
Communication	RS485 / Ethernet / CAN
Communication protocol	Modbus-TCP / RTU
Safety	
Certifications and Standards	Battery: IEC 62477 / IEC 61000 / IEC 62619 / IEC 63056 / ISO 14067 PCS: IEC61000 / IEC62477 / IEC62109 / IEC 62920 PMVS: IEC 62271-202 / IEC 50708-3 / IEC 62271-200 / IEC 61439-2

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