

CHS2 All In One Hybrid Energy Storage System

Better Performance

- String current 22.5A, matching high power (210) PV panel
- 6 MPPT, support 200% oversizing
- Adopting C&I 280Ah cell, good performance and higher energy density
- Built-in STS function, on-off grid switch in 20ms



Ultimate Safety

- AFCI as standard to prevent fire
- Support core health warning, CO, fire detection, cabinet-level fire protection
- AC and DC type II SPD



Highly Integrated

- pre-installed in the factory, no need for on-site installation and debugging
- Accessing to DG(diesel generator), no need for additional equipment
- AC coupling available



Higher Revenue

- PV and Battery are dc coupled with high efficiency
- Wide environmental adaptability improves VPP revenue
- Intelligent scheduling, and multiple scheduling modes



CHS2-29.9K-T4-X | CHS2-50K-T6-X

MODEL	CHS2-29.9K-T4-X	CHS2-50K-T6-X
DC Input		
Max. PV Array Power [Wp]@STC	59800	100000
Max. DC Voltage [V]		1000
MPPT Voltage Range [V]		180 ~ 850
Rated DC Voltage [V]		600
Start Voltage [V]		200
Max. DC Input Current [A]	4*45	6*45
Max. DC Short Circuit Current [A]	4*55	6*55
Number of Strings per MPPT	2	2
Battery Parameters		
Battery Type		LiFePO4
Rated Energy [kWh]		100
Max. Charging/Discharging Current [A]		140
AC Output [On-grid]		
Rated AC Power [W]	29999	50000
Max. Apparent Power [VA]	29999	55000
Rated Output Current [A]@230V	43.3	72.5
Max. Output Current [A]@230V	43.3	79.8
Rated AC Voltage [V]		3+N+PE,380/ 400
Rated Output Frequency/Range [Hz]		50,60/45 ~ 55,55 ~ 65
Power Factor [cos φ]		0i - 1 - 0c
Total Harmonic Distortion [THDi]		<3%
AC input [On-grid]		
Rated AC Voltage/Range [V]		3+N+PE,380/ 400
Rated Output Frequency [Hz]		50,60
Max. Input Current [A]		150
AC Output [Back-up]		
Max. Output Power [VA]	29999	55000
Peak Output Apparent Power [VA]	29999	75000,5s
Rated AC Voltage [V]		3+N+PE,380/ 400
Rated Output Frequency/Range [Hz]		50,60/45 ~ 55,55 ~ 65
Output THDv (@ Liner Load)		<3%
AC Input [Generator]		
Max. Input Power [W]	29999	50000
Max. Input Current [A]@230V	43.3	72.5
Rated Input Voltage [V]		3+N+PE,380/ 400
Rated Input Frequency/Range [Hz]		50,60/45 ~ 55,55 ~ 65
Efficiency		
Max. Efficiency		98%
Euro Efficiency		97.3%
Max. Battery to AC Efficiency		96.0%
Protection		
PV Reverse Polarity Protection		Integrated
Anti-islanding Protection		Integrated
AC Overcurrent Protection		Integrated
AC Short Circuit Protection		Integrated
AC Overvoltage Protection		Integrated
DC switch		Integrated
DC Surge Protection		II
AC Surge Protection		II
AFCI		Integrated
RSD		Optional
General Parameters		
Communication		Wi-Fi/Ethernet/CAN/RS485
Topology		Transformerless
Operating Temperature Range		-30°C to +50°C (45°C to 50°C with derating)
Cooling Method		Air Conditioner
Ambient Humidity		5~95%(No Condensing)
Altitude [m]		2000
Ingress Protection		IP55, IP66(Inverter)
Dimensions [H*W*D] [mm]		1980*988*1065
Weight [kg]		1050(57.3kWh)/1150(71.6kWh)/1250(85.9kWh)/1350(100kWh)
Warranty [Year]		5/10
Standard		VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0-21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150, IEC62109-1/-2, NBT32004-2018, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4

MODEL	CH2-29.9K-T4-X	CH2-50K-T6-X
DC Input		
Max. PV Array Power [Wp]@STC	59800	100000
Max. DC Voltage [V]	1000	
MPPT Voltage Range [V]	180 ~ 850	
Rated DC Voltage [V]	600	
Start Voltage [V]	200	
Max.DC Input Current [A]	4*45	6*45
Max.DC Short Circuit Current [A]	4*55	6*55
Number of Strings per MPPT	2	2
Battery Parameters		
Battery Type	LiFePO4	
Battery Voltage Range[V]	180 ~ 800	
Max.Charging/Discharging Current [A]	3*50	
AC Output [On-grid]		
Rated AC Power [W]	29900	50000
Max.Apparent Power[VA]	29900	55000
Rated Output Current[A]@230V	43.3	72.5
Max. Output Current [A]@230V	43.3	79.8
Rated AC Voltage/Range [V]	3+N+PE/ 3+PE, 380/ 400	
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Power Factor [cos φ]	0i - 1 - 0c	
Total Harmonic Distortion [THDi]	<3%	
AC input [On-grid]		
Rated AC Voltage [V]	3+N+PE,380/400	
Rated Output Frequency [Hz]	50,60	
Max. Input Current [A]	150	
AC Output [Back-up]		
Max.Output Power [VA]	29900	55000
Peak Output Apparent Power [VA]	29900	75000,5s
Rated AC Voltage [V]	3+N+PE,380/400	
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Output THDv (@ Liner Load)	<3%	
AC Input [Generator]		
Max. Input Power [W]	29900	50000
Max. Input Current [A]@230V	43.3	72.5
Rated Input Voltage [V]	3+N+PE,380/400	
Rated Input Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Efficiency		
Max. Efficiency	≥98.0%	
Euro Efficiency	97.3%	
Max. Battery to AC Efficiency	96.0%	
Protection		
PV Reverse Polarity Protection	Integrated	
Anti-islanding Protection	Integrated	
AC Overcurrent Protection	Integrated	
AC Short Circuit Protection	Integrated	
AC Overvoltage Protection	Integrated	
DC switch	Integrated	
DC Surge Protection	II	
AC Surge Protection	II	
AFCI	Integrated	
RSD	Optional	
General Parameters		
Communication	Wi-Fi/Ethernet/CAN/RS485	
Topology	Transformerless	
Operating Temperature Range	-30°C to +60°C (45°C to 60°C with derating)	
Cooling Method	Smart Fan Cooling	
Ambient Humidity	0-100% Non-condensing	
Altitude	3000	
Ingress Protection	IP66	
Dimensions [H*W*D] [mm]	630*630*290	
Weight [kg]	76	
Warranty [Year]	5/10	
Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NRS097 NBR16149/NBR16150, IEC62109-1/-2, NBT32004-2018, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4	

MODEL	CB2-57.3-HV5	CB2-71.6-HV5	CB2-85.9-HV5	CB2-100.3-HV5
Rated Energy [kWh]	57	71	85	100
Usable Energy [kWh]	51.5	64.4	77.3	90.2
Rated Capacity [Ah]	280	280	280	280
No. of Modules	4	5	6	7
Nominal Voltage [V]	204.8	256	307.2	358.4
Voltage Range [V]	179.2~230.4	224~288	268.8~345.6	313.6~403.2
Charge/Discharge Current [A]	140	140	140	140
Rated Power [kW]	28.6	35.6	42.9	50.1
Weight [kg]	960	1060	1160	1260
Dimension [H*W*D] [mm]	1980*988*1065			
Communication	CAN			
Operating Temperature Range [°C]	-30~50			
Cooling Method	Air Conditioner			
Relative Humidity	5~95% (No Condensing)			
Altitude [m]	2000			
Ingress Protection	IP55			
Mounting	Ground-Mounted			
Control Module	CBC2-HV5			
Weight [kg]	28			
Dimension [H*W*D] [mm]	225*483*610			
Battery Module	CBU2-14.33-HV5			
Rated Energy [kWh]	14.33			
Weight [kg]	115			
Dimension [H*W*D] [mm]	231*523*805			
Applicable Standard	IEC62619-2017, UN38.3, IEC61000-6-2/4, IEC62477			

Manufacturer: Guangzhou Sanjing Electric Co., Ltd.
Made in China