

CHS2 All In One Hybrid Energy Storage System



CHS2-29.9K-T4-X | CHS2-30K-T4-X
CHS2-50K-T6-X

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



MODEL	CHS2-29.9K-T4-X	CHS2-30K-T4-X	CHS2-50K-T6-X
DC Input			
Max. PV Array Power [Wp]@STC	59998	60000	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	4*45	6*45
Max.DC Short Circuit Current [A]	4*55	4*55	6*55
Number of Strings per MPPT	2	2	2
Battery Parameters			
Battery Type		LiFePO4	
Rated Energy [kWh]		100.3	
Max.Charging/Discharging Current [A]		150	
AC Output [On-grid]			
Rated AC Power [W]	29999	30000	50000
Max.Apparent Power[VA]	29999	33000	55000
Rated Output Current[A]@230V	43.3	43.5	72.5
Max. Output Current [A]@230V	43.3	47.9	79.8
Rated AC Voltage [V]		3+N+PE, 380/ 400	
Rated Output Frequency/Range [Hz]		50,45 ~ 55	
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	
Max. Input Current [A]		200	
AC Output [Back-up]			
Max.Output Power [VA]	29999	33000	55000
Peak Output Apparent Power [VA]	29999	45000,5s	75000,5s
Rated AC Voltage [V]		3+N+PE, 380/ 400	
Rated Output Frequency/Range [Hz]		50,45 ~ 55	
Output THDv (@ Liner Load)		<3%	
AC Input [Generator]			
Max. Input Power [W]	29999	30000	50000
Max. Input Current [A]@230V		200	
Rated Input Voltage [V]		3+N+PE, 380/ 400	
Rated Input Frequency/Range [Hz]		50,45 ~ 55	
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/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]		1035(57.3kWh)/1145(71.6kWh)/1255(85.9kWh)/1365(100.3kWh)	
Warranty [Year]		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		CH2-30K-T4		CH2-50K-T6	
DC Input						
Max. PV Array Power [Wp]@STC	59800		60000		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]			150			
AC Output [On-grid]						
Rated AC Power [W]	29900		30000		50000	
Max.Apparent Power[VA]	29900		33000		55000	
Rated Output Current[A]@230V	43.3		43.5		72.5	
Max. Output Current [A]@230V	43.3		47.9		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]			200			
AC Output [Back-up]						
Max.Output Power [VA]	29900		33000		55000	
Peak Output Apparent Power [VA]	29900		45000,5s		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		30000		50000	
Max. Input Current [A]@230V	43.3		43.5		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]	57.3	71.6	85.9	100.3
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]	150	150	150	150
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			