CHS2 All In One Hybrid Energy Storage System

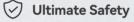
CHS2 is suitable for various scenarios such as large residential areas, supermarkets, farms, and small factories. It integrates functions including power generation, conversion, storage, and utilization. With its high-end hardware configuration and intelligent IoT software, CHS2 supports various application modes such as self-consumption, time-of-use, and backup mode. It meets daily usage scenarios and can also connect with other devices such as diesel generators, helping owners achieve more stable, secure, and economical electricity needs.





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



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



(i) 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

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Model	CHS2-29.9K-T4-204.8V /280Ah/51.5kWh	CHS2-29.9K-T4-256.0V /280Ah/64.4kWh	CHS2-29.9K-T4-307. 2V/280Ah/77.3kWh	CHS2-29.9K-T4-358. 4V/280Ah/90.2kWh	CHS2-50K-T6-204.8V/	
	7200AII/31.3R**II	7200AII/04.4KWII	247200AH777.3KWH	747 200AII/ 70.2R44II	200AII/ 31.3KWII	
DC Input						
Max. PV Array Power [Wp]@STC		5999	8		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	5		6*45	
Max. DC Short Circuit Current [A]		4*56.	5		6*56.5	
Number of Strings per MPPT			2			
Battery Parameters						
Battery Type		I	LiFePO4			
Rated Energy [kWh]	57.3	71.6	85.9	100.3	57.3	
Battery Voltage Range [V] Max. Charging/Discharging Current	179.2~230.4	224~288	268.8~345.6	313.6~403.2	179.2~230.4	
[A]			140			
Max. DC Short Circuit Current [A]			250			
Usable Energy [kWh]	51.5	64.4	77.3	90.2	51.5	
AC Output [On-grid]					I	
Rated AC Power [W]		2999			50000	
Rated Apparent Power [VA]		2999			50000	
Max. Apparent Power [VA]		2999			55000	
Rated Output Current [A]@230Vac Max. AC Output Current to Utility		43.3			72.5	
Grid [A]		43.3			79.8	
Current Inrush[A]			192			
Max. AC Fault Current[A]			182.6			
Max. AC Over Current Protection[A]		86.6			145	
Rated AC Voltage [V]			3+N+PE,400			
Rated Input/Output Voltage/Range(V)		23	30/400V 0.85Un-1.1Ur	1		
Rated Output Frequency/Range [Hz]	50,60/45 - 55,55 - 65					
Power Factor [cos]			0i - 1 - 0c			
Total Harmonic Distortion [THDi]			<3%			
AC Input [On-grid]						
Rated AC Voltage [V]	3+N+PE,400					
Rated Input Frequency [Hz]			50,60			
Max. Input Current [A]			150			
AC Input [Generator]			_		T	
Max. Input Power [W]	29999			50000		
Max. Input Current [A]@230V Rated Input Voltage [v]	43.3 72.5					
Rated Input Frequency/Range [Hz]	3+N+PE,400 50,60/45 - 55,55 - 65					
AC Output [Back-up]		31	0,007 +0 - 00,00 - 00			
Max. Apparent Power [VA]		2999	9		55000	
Peak Output Apparent Power [VA]		2999			75000,5s	
Rated AC Voltage [V]			3+N+PE,400		1	
Rated Output Frequency/Range [Hz]	50,60/45 - 55,55 - 65					
Output THDv (@ Linear Load)			<3%			
Efficiency						
Max. Efficiency			98.0%			
Euro Efficiency	97.3%					
Max. Battery to AC Efficiency			96.0%			
Protection DV String Current Menitoring			Integrated			
PV String Current Monitoring PV Insulation Resistance Detection	Integrated					
Residual Current Monitoring	Integrated					
PV Reverse Polarity Protection	Integrated Integrated					
Anti-islanding Protection	AFD					
AC Overcurrent Protection			Integrated			
AC Short Circuit Protection	Integrated					
AC Overvoltage Protection	Integrated					
DC switch	Integrated					

Model	CHS2-29.9K-T4- 204.8V/280Ah/51. 5kWh	CHS2-29.9K-T4- 256.0V/280Ah/64. 4kWh	CHS2-29.9K-T4- 307.2V/280Ah/ 77.3kWh	CHS2-29.9K-T4- 358.4V/280Ah/ 90.2kWh	CHS2-50K-T6-204.8V/280Ah/51.5kWh	
DC Input						
DC Surge Protection				II		
AC Surge Protection				II		
AFCI			Inte	egrated		
RSD			Ор	tional		
General Parameters						
Communication		Wi-Fi/Ethernet/CAN/RS485				
Topology		Non-isolated				
Over Voltage Category		OVC II(DC), OVC III(AC)				
Operating Temperature Range		-30 to +50 (45 to 50 with derating)				
Cooling Method		Air Conditioner				
Ambient Humidity		0-100% Non-condensing				
Altitude		2000m				
Ingress Protection		IP55				
Dimensions [H*W*D] [mm]	1980*988*1065					
Weight [kg]	1050	1150	1250	1350	1050	
Warranty [Year]		10				
Standard		VDE4105,IEC61727/62116,VDE0126,AS4777.2, CEI O 21,EN50549-1,G98,G99,C10-11,UNE217002,NBR16149/ NBR16150 IEC62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4				

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Model	CHS2-50K-T6-256. 0V/280Ah/64.4kWh	CHS2-50K-T6-307. 2V/280Ah/77.3kWh	CHS2-50K-T6-358. 4V/280Ah/90.2kWh	CHS2-50K-T6- 280Ah/180.4k		CHS2-50K-T6-358.4V /280Ah/270.6kWh		
DC Input								
Max. PV Array Power [Wp]@STC	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					6*45		
Max. DC Short Circuit Current [A]	4*56.5 6*56.5					6*56.5		
Number of Strings per MPPT			2					
Battery Parameters								
Battery Type			LiFePO4					
Rated Energy [kWh]	71.6	85.9	100.3	200.6		300.9		
Battery Voltage Range [V]	224~288	268.8~345.6	313.6~403.2	313.6~40	03.2	313.6~403.2		
Max. Charging/Discharging Current [A]	140							
Max. DC Short Circuit Current [A]			250					
Usable Energy [kWh]	64.4	77.3	90.2	180.4		270.6		
AC Output [On-grid]								
Rated AC Power [W]		50000						
Rated Apparent Power [VA]	50000							
Max. Apparent Power [VA]	55000							
Rated Output Current [A]@230Vac	72.5							
Max. AC Output Current to Utility Grid [A]	79.8							
Current Inrush[A]	192							
Max. AC Fault Current[A]	182.6							
Max. AC Over Current Protection[A]	145							
Rated AC Voltage [V]	3+N+PE,400							
Rated Input/Output Voltage/Range (V)	230/400V 0.85Un-1.1Un							
Rated Output Frequency/Range [Hz]	50,60/45 - 55,55 - 65							
Power Factor [cos]	0i - 1 - 0c							
Total Harmonic Distortion [THDi]	<3%							

Model	CHS2-50K-T6-256.0V/ 280Ah/64.4kWh	CHS2-50K-T6-307. 2V/280Ah/77.3kWh	CHS2-50K-T6-358. 4V/280Ah/90. 2kWh	CHS2-50K-T6-358. 4V/280Ah/180. 4kWh	CHS2-50K-T6-358. 4V/280Ah/270. 6kWh		
AC Input [On-grid]							
Rated AC Voltage [V]			3+N+PE,400				
Rated Input Frequency [Hz]			50,60				
Max. Input Current [A]			150				
AC Input [Generator]							
Max. Input Power [W]	50000						
Max. Input Current [A]@230V			72.5				
Rated Input Voltage [v]			3+N+PE,400				
Rated Input Frequency/Range [Hz]		50	0,60/45 - 55,55 - 65				
AC Output [Back-up]							
Max. Apparent Power [VA]			55000				
Peak Output Apparent Power [VA]			75000,5s				
Rated AC Voltage [V]	+		3+N+PE,400				
Rated Output Frequency/Range [Hz]		50	0,60/45 - 55,55 - 65				
Output THDv (@ Linear Load)			<3%				
Efficiency			\370				
Max. Efficiency			98.0%				
Euro Efficiency			97.3%				
Max. Battery to AC Efficiency	 		96.0%				
Protection			70.070				
PV String Current Monitoring	T		Intograted				
		Integrated					
PV Insulation Resistance Detection	Integrated						
Residual Current Monitoring	Integrated						
PV Reverse Polarity Protection			Integrated AFD				
Anti-islanding Protection							
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		Non-isolated Non-isolated					
Over Voltage Category	OVC II(DC), OVC III(AC)						
Operating Temperature Range	-30 to +50 (45 to 50 with derating)						
Cooling Method	Air Conditioner						
Ambient Humidity	0-100% Non-condensing						
Altitude			2000m				
Ingress Protection	IP55						
Dimensions [H*W*D] [mm]	1980*988*1065						
Weight [kg]	1150	1250	1350	2610	3870		
Warranty [Year]			10				
Standard	VDE4105,IEC61727/62116,VDE0126,AS4777.2, CEI O 21,EN50549-1,G98,G99,C10-11,UNE217002,NBR16149/ NBR16150 IEC62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4						

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