

HS3 Three Phase All-in-One Solution

SAJ's latest all-in-one solution for residential energy storage system, integrated PCS, BMS, EMS, EV charger and battery, with plug-in play design, IP65 design and only 12 screws, making the installation a lot easier. HS3 covers from 5-12kW, 2 MPPTs and three phase grid.



- ❑ Integrated with 11kW EV charger module
- ❑ Max. 20A input current to better match high power panel
- ❑ Battery module integrated with a DC/DC optimiser, expandable whenever you need
- ❑ Plug-in connection of the modules without any cabling, easy installation
- ❑ Supported 100% three phase voltage imbalance
- ❑ 170mm thick, blend in with its surrounding
- ❑ Self-heating and fire-protection system inside the battery

HS3-5-12K-T2-W/G-P1 | HS3-5-12K-T2-W/G-P2
HS3-5-12K-T2-W/G-P3 | HS3-5-12K-T2-W/G-P4
HS3-5-12K-T2-W/G-P5

System Model	HS3-5-12K-T2-W/G-P1	HS3-5-12K-T2-W/G-P2	HS3-5-12K-T2-W/G-P3	HS3-5-12K-T2-W/G-P4	HS3-5-12K-T2-W/G-P5	
System Diagram						
Rated Output [W]	5000-12000					
EV Charging Power [W]	11000					
Number of Battery Modules	1	2	3	4	5	
Nominal Energy [kWh]	5.0	10.0	15.0	20.0	25.0	
Ingress Protection	IP65					
Operating Temperature Range	-30°C ~ +50°C					
Relative Humidity Range	5-95%					
Max. Operating Altitude [m]	2000					
Dimensions [H*W*D] [mm]	1030*695*170	1400*695*170	1770*695*170	1770*695*170 520*695*170	1770*695*170 890*695*170	
Inverter Model						
Model	HS3-5K-T2-W/G-P	HS3-6K-T2-W/G-P	HS3-8K-T2-W/G-P	HS3-10K-T2-W/G-P	HS3-12K-T2-W/G-P	HS3-12K-T2-W/G-P-IE
DC Input						
Max. PV Array Power [Wp]@STC	10000	12000	12000	15000	15000	15000
Max. DC Voltage [V]	1000					
MPPT Voltage Range [V]	180 ~ 900					
Rated DC Voltage [V]	600					
Start Voltage [V]	180					
Max. DC Input Current [A]	20/20					
Max. DC Short Circuit Current [A]	25/25					
No. of MPPT	2					
AC Output/Input [On-grid]						
Rated AC Power [W]	5000	6000	8000	10000	12000	11000
Max. Apparent Power [VA]	5500	6600	8800	11000	12000	11000
Rated Output Current [A]@230Vac	7.2	8.7	11.6	14.5	17.4	15.9
Max. Output Current [A]	8.0	9.6	12.8	15.9	17.4	15.9
Max. Input Current [A]@230Vac	29.0					
Rated AC Voltage/Range [V]	3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485					
Rated Output Frequency/Range [Hz]	50, 60/45 ~ 55, 55 ~ 65					
Power Factor [cos φ]	0.8 leading ~ 0.8 lagging					
Total Harmonic Distortion [THDi]	<3%					
Battery Parameters						
Battery Type	LiFePO4					
Battery Voltage Range[V]	380~500					
Max. Charging/Discharging Current [A]	30/15.8	30/18.4	30/25	30/30	30/30	30/30
Scalability	BU3-5.0-TV2-PRO (up to 8 battery modules)					
AC Output [Back-up]						
Rated Output Power [W]	5000	6000	8000	10000	12000	12000
Peak Output Apparent Power [VA]	7500,60s	9000,60s	12000,60s	15000,60s	15000,60s	15000,60s
Rated AC Voltage/Range [V]	3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485					
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65					
Output THDv (@ Linear Load)	<3%					
Efficiency						
Max. Efficiency	98.0%					
Euro Efficiency	97.6%					
Protection						
Battery Input Reverse Polarity Protection	Integrated					
Over load Protection	Integrated					
AC Short Circuit Current Protection	Integrated					
AC Overcurrent Protection	Integrated					
AC Overvoltage Protection	Integrated					
DC Surge Protection	Type II					
AC Surge Protection	Type II					
Anti-islanding Protection	Integrated					
AFCI Protection	Integrated					
Interface						
PV Connection	MC4/D4					
AC Connection	Plug-in connector					
Battery Connection	Quick connector					
Display	LED+APP					
Communication	Wi-Fi/Ethernet/4G (Optional)					
General Parameters						
Topology	Non-isolated					
Operating Temperature Range	-30°C ~ +50°C					
Cooling Method	Natural Convection					
Relative Humidity Range	0-100% Non-condensing					
Max. Operating Altitude [m]	3000					
Noise [dBA]	<35					
Ingress Protection	IP65					
Dimensions [H*W*D] [mm]	450*695*170					
Weight [kg]	34					
Standard	EN 62109-1/2, EN 61000-6-2/4, EN 50438, EN 50549, C10/11, IEC 62116, IEC 61727, RD 1699, RD 413, UNE 206006, UNE 206007, NTS, CEI 0-16, CEI 0-21, AS 4777.2, NBR 16149, NBR 16150, VDE-AR-N 4105, VDE 0126-1-1					