

# HS3 Single 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 3-6kW, 2 MPPTs and single phase grid.



- ❑ Integrated with 7kW 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
- ❑ 170mm thick, blend in with its surrounding
- ❑ Self-heating and fire-protection system inside the battery

HS3-3-6K-S2-W/G-P1 | HS3-3-6K-S2-W/G-P2  
HS3-3-6K-S2-W/G-P3 | HS3-3-6K-S2-W/G-P4  
HS3-3-6K-S2-W/G-P5 | HS3-3-6K-S2-W/G-P6

---

System Model	HS3-3-6K-S2-W/G-P1	HS3-3-6K-S2-W/G-P2	HS3-3-6K-S2-W/G-P3	HS3-3-6K-S2-W/G-P4	HS3-3-6K-S2-W/G-P5	HS3-3-6K-S2-W/G-P6
System Diagram						
Rated Output [W]	3000-6000					
EV Charging Power [W]	7000					
Number of Battery Modules	1	2	3	4	5	6
Nominal Energy [kWh]	5.0	10.0	15.0	20.0	25.0	30.0
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]	980*695*170	1350*695*170	1720*695*170	1720*695*170 520*695*170	1720*695*170 890*695*170	1720*695*170 1260*695*170
<b>Inverter Module</b>						
Module	HS3-3K-S2-W/G-P	HS3-3.6K-S2-W/G-P	HS3-4K-S2-W/G-P	HS3-4.6K-S2-W/G-P	HS3-5K-S2-W/G-P	HS3-6K-S2-W/G-P
<b>DC Input</b>						
Max. PV Array Power [Wp]@STC	6000	7200	8000	9200	10000	12000
Max. DC Voltage [V]	600					
MPPT Voltage Range [V]	90~550					
Rated DC Voltage [V]	360					
Start Voltage [V]	100					
Max. DC Input Current [A]	20/20					
Max. DC Short Circuit Current [A]	25/25					
No. of MPPT	2					
<b>AC Output/Input [On-grid]</b>						
Rated AC Power [W]	3000	3600	4000	4600	5000	6000
Max. Apparent Power [VA]	3300	3600	4400	4600	5500	6000
Rated Output Current [A]@230Vac	13.0	15.7	17.4	20.0	21.7	26.1
Max. Output Current [A]	14.3	15.7	19.1	20.0	23.9	27.3
Max. Input Current [A]@230Vac	54.5					
Rated AC Voltage/Range [V]	L+N+PE, 220, 230, 240/180 ~ 280					
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%					
<b>Battery Parameters</b>						
Battery Type	LiFePO4					
Battery Voltage Range[V]	380 ~ 500					
Max. Charging/Discharging Current [A]	15.8/9.2	15.8/10	15.8/12.4	15.8/12.9	15.8/15.2	15.8/16.8
Scalability	BU3-5.0-TV2-PRO (up to 8 battery modules)					
<b>AC Output [Back-up]</b>						
Rated Output Power [W]	3000	3680	4000	4600	5000	6000
Peak Output Apparent Power [VA]	3600,60s	4416,60s	4800,60s	5520,60s	6000,60s	7200,60s
Rated AC Voltage/Range [V]	L+N+PE, 220,230,240/180 ~ 280					
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65					
Output THDv (@ Linear Load)	<3%					
<b>Efficiency</b>						
Max. Efficiency	97.6%					
Euro Efficiency	97.2%					
<b>Protection</b>						
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					
<b>Interface</b>						
PV Connection	MC4/D4					
AC Connection	Plug-in connector					
Battery Connection	Quick connector					
Display	LED+APP					
Communication	Wi-Fi/Ethernet/4G(Optional)					
<b>General Parameters</b>						
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]	400*695*170					
Weight [kg]	27.5					
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					