

# HS2 Single Phase All-in-One Solution

---

SAJ's first all-in-one solution for residential energy storage system, integrated PCS, BMS and battery, with module and IP65 design, no external wire, suitable for outdoor easy installation. HS2 covers from 3-6kW, 2 MPPTs and single phase grid.



- ❑ AC retrofit & easy installation
- ❑ Max 16A input current to better match high power panel
- ❑ Modular design and expandable up to 20.0kWh
- ❑ With UPS function switch time  $\leq 10\text{ms}$
- ❑ IP65 outdoor design
- ❑ AFCI integrated(optional), RSD supported(optional)

HS2-3K-S2-X | HS2-3.6K-S2-X  
HS2-4K-S2-X | HS2-4.6K-S2-X | HS2-5K-S2-X  
HS2-5K-S2-B-X | HS2-6K-S2-IE-X | HS2-6K-S2-X

---

MODEL	HS2-3K-S2-X	HS2-3.6K-S2-X	HS2-4K-S2-X	HS2-4.6K-S2-X	HS2-5K-S2-X	HS2-5K-S2-B-X	HS2-6K-S2-IE-X	HS2-6K-S2-X
<b>DC Input</b>								
Max. PV Array Power [Wp]@ STC	4500	5400	6000	6900	7500	7500	9000	9000
Max. DC Voltage [V]					550			
MPPT Voltage Range [V]					90 ~ 500			
Rated DC Voltage [V]					360			
Start Voltage [V]					100			
Max. DC Input Current [A]					16/16			
Max. DC Short Circuit Current [A]					19.2/19.2			
No. of MPPT					2			
<b>Battery Parameters</b>								
Battery Type					LiFePO4			
Battery Voltage Range [V]					85 ~ 450			
Max. Charging/ Discharging Current [A]					30/30			
Scalability	BU2-5.0-HV1/5 (up to 4 battery modules)							
<b>AC Output [On-grid]</b>								
Rated AC Power [W]	3000	3680	4000	4600	5000	5000	5500	6000
Max. Apparent Power [VA]	3300	3680	4400	4600	5500	5000	5500	6000
Rated Output Current [A]@ 230Vac	13.0	16.0	17.4	20.0	21.7*	21.7	25.0	26.1
Max. Output Current [A]	15.0	16.0	20.0	20.0	25.0	22.7	25.0	27.3
Current Inrush [A]					100.0			
Max. AC Fault Current [A]					55.0			
Max. AC Over Current Protection [A]					55.0			
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>AC Input [On-grid]</b>								
Rated AC Voltage/ Range [V]					L+N+PE, 220,230,240/180 ~ 280			
Rated Input Frequency [Hz]					50,60			
Max. Input Current [A]@ 230Vac	26.1	32.0	34.8	40.0	43.5	43.5	52.2	52.2
<b>AC Output [Back-up]</b>								
Max. Output Power [VA]	3000	3680	4000	4600	5000	5000	5500	6000
Max. Output Current [A]	13.6	16.7	18.2	20.9	22.7	22.7	25.0	27.3
Peak Output Apparent Power [VA]	3600,60s	4416,60s	4800,60s	5520,60s	6000,60s	6000,60s	7200,60s	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					97.0%			
<b>Protection</b>								
Battery Input Reverse Polarity Protection					Integrated			
Over load Protection					Integrated			
AC Short Circuit Current Protection					Integrated			
DC Surge Protection					Integrated			
AC Surge Protection					Integrated			
Anti-islanding Protection					Integrated			
AFCI Protection					Optional			
RSD Protection					Optional			
<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					-10°C to +50°C (>45°C derating)			
Cooling Method					Natural Convection			
Ambient Humidity					0-100% Non-condensing			
Altitude					4000m (>3000m Power Derating)			
Noise [dBA]					<35			
Ingress Protection					IP65			
Dimensions [H*W*D] [mm]					354*626*365			
Weight [kg]					25			
Warranty [Year]					5/10/15/20			
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							

Remarks: \*1 According to VDE-ARN-N 4105, Rated AC Current for HS2-5K-S2 is 20A.