



Single Phase Hybrid Inverter (HV) (3-6) kW

FROM GRID TO HOME



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KEY FEATURES



50v

Low starting voltage

330%

Max. DC input oversizing

16A

Max. DC input

6.6kw

Max. power of charging and supply

<10ms

Off-grid switching

4000m

Max. operating altitude



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Type Designation	SiH-3kW-SH	SiH-3.6kW-SH	SiH-4kW-SH	SiH-5kW-SH	SiH-6kW-SH
PV (input)					
Max. recommended PV array power [Wp]	10000	10700	11000	12000	13000
Max. PV input voltage* [V]		600			
Min. operating PV voltage [V]		40			
Start-up input voltage [V]		50			
Rated PV input voltage [V]		360			
MPPT voltage range [V]		40-560			
No. of MPPT/Strings per MPPT		2 (1/1)			
Max. PV input current [A]		32 (16/16)			
Max. DC short-circuit current [A]		40 (20/20)			
Max. current for each input connector [A]		20			
Battery (input/output)					
Battery type	LiFePO4 Prismatic Cell				
Battery voltage range [V]	80-460				
Max. charge/discharge current** [A]	30/30				
Max. charge/discharge power [W]	6600/6600				
Backup Output (On-Grid Mode)					
Rated output power [W]	6000				
Rated output current [A]	27				
Backup Output (Off-Grid Mode)					
Rated output power	3000 W/3000 VA	3680 W/3680 VA	4000 W/4000 VA	5000 W/5000 VA	6000 W/6000 VA
Peak output power***	8400 VA, 10s				
Backup switching time [ms]	<10				
Rated voltage [V]	220/230/240 (±2 %)				
Frequency range [Hz]	50/60 (±0.5 %)				
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2				
Grid (input/output)					
Max. AC input power from grid [VA]	10000	10700	11000	12000	13000
Rated AC output power [W]	3000	3680	4000	5000	6000
Max. AC output power [VA]	3000	3680	4000	5000	6000
Rated AC output current (at 230V) [A]	13.1	16	17.4	21.8	26.1
Max. AC output current [A]	13.7	16	18.2	22.8	27.3
Rated AC voltage [V]	220/230/240				
AC voltage range [V]	154-276				
Rated grid frequency [Hz]	50/60				
Grid frequency range [Hz]	45-55/55-65				
Total harmonic distortion (THDi, rated power) [%]	<3				
Power factor at rated power	>0.99				
Adjustable power factor	adj.0.8.leading to 0.8 lagging				
Efficiency					
Max. efficiency/European efficiency [%]	97.30/97.00	97.50/97.00	97.70/97.30		
Protection & Function					
Surge protection	DC type II / AC type II				
Grid monitoring	Yes				
DC reverse polarity protection	Yes				
Battery input reverse polarity protection	Yes				
AC short-circuit protection	Yes				
Leakage current protection	Yes				
DC switch (PV)	Yes				
DC fuse (Battery)	Yes				
General Data					
Topology (PV/Battery)	Transformerless				
Degree of protection	IP65				
Dimensions (W*H*D) [mm]	495*345*180				
Weight [kg]	≤20				
Mounting method	Wall-mounting bracket				
Operating ambient temperature range [°C]	-25-60				
Allowable relative humidity range [%]	0-100				
Cooling method	Natural convection				
Max. operating altitude [m]	4000				
Display	LED				
Communication	RS485/CAN/WLAN				
DI/DO	1*DI/1*DO/DRM				
DC connection type	MC4				
Battery connection type	MC4				
AC connection type	Screws & Fasteners				

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Depending on the connected battery

*** Can be reached only if PV and battery power is sufficient

About Us

Full Range From Power Generation,
Transmission, Distribution To

Energy Storage

33 years

With 33 years of experience,
specialized in equipment manufacturing
and engineering services

Public Co.

Founded in 1993
Stock listed in 2004 (SZSE002028)

US\$5.0 Billion

2025 Turnover

1400+

1411 Qualified engineers are
the driving force behind the
exceptional R&D progress

TOP 3

Sieyuan 思源电气
Electrical Equip. Manufacturer

22

22 Manufacturing bases

100+

With 10,000+ employees
in 100+ countries and regions

1,000kV

Full range product: 10kV -1,000kV

esGrid

Grid-level energy storage

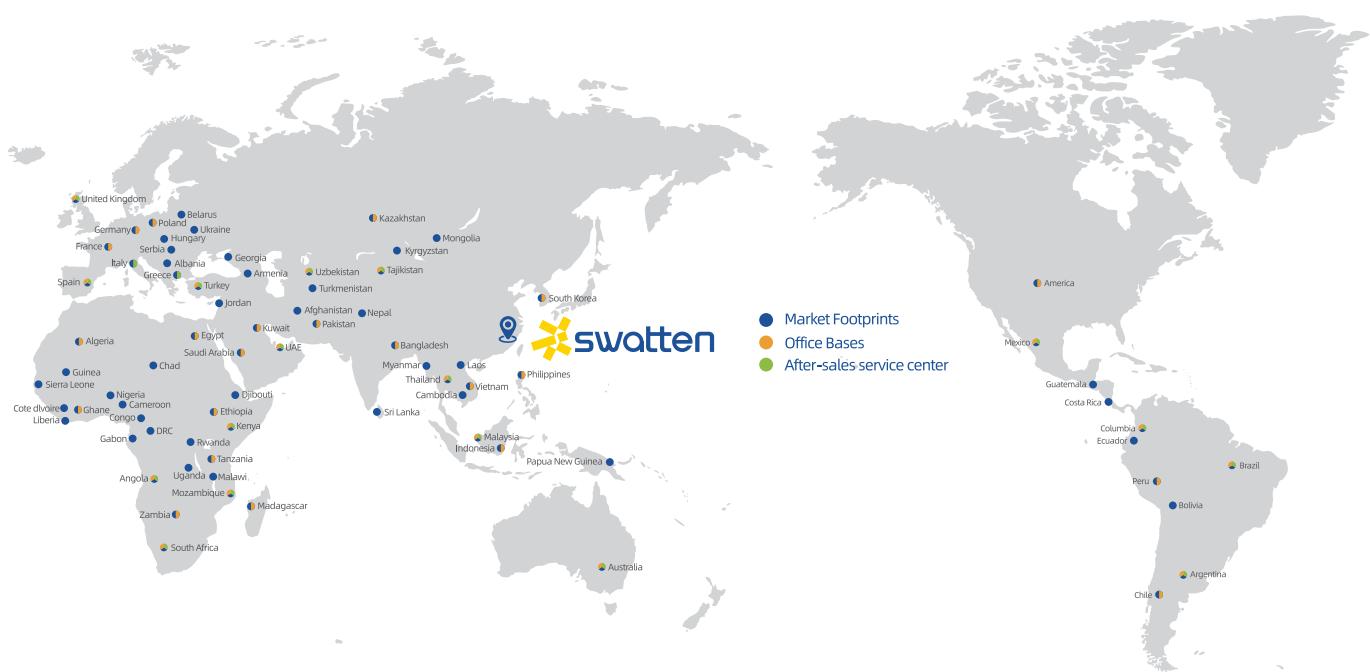
Sieyuan Utility Scale BESS

 **swatten**
Powered by Sieyuan

C&I and Residential BESS



Global Marketing & Service Layout



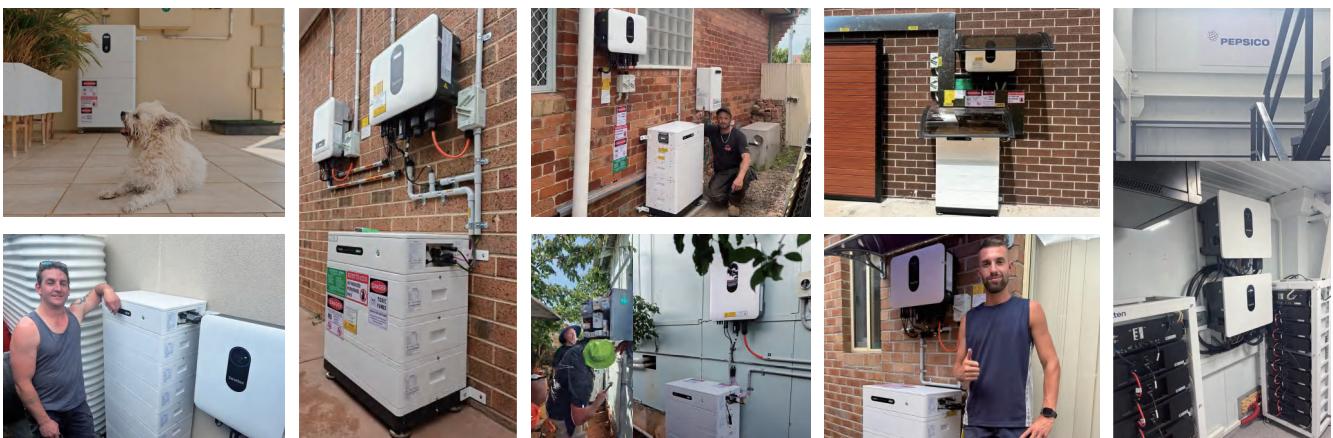
Our Global Clients



Swatten Europe Case



Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team



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