swatten
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BNEF Tier 1
Energy Storage Manufacturer



All-in-One
(HV) (5-20) kW

FROM GRID TO HOME

Shanghai Sieyuan Watten Technology Co., Ltd.
Member of Sieyuan Electric Co., Ltd.

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ALL-IN-ONE 5-20kW

Compared With Separate Installation



All-in-one
after-sales service

- 10-year warranty. Replace new machines instead of repairing.*
- No need to worry about after-sales between inverters and batteries of different brands.

* For critical parts quality issues.

Saves 20% space

- Integrated humanized design, removed redundant cables.
- Adds points to beauty and attractiveness.





20%
reduction in installation time

- Stack installation with Plug & Play connection.
- Makes the installation process time-saving, cost-effective and worry-free.

Integrated AC Charger, Plug & Play

- Charging electric vehicles with clean energy, effectively save charging costs.



All-in-one System Three Phase (HV) (5-10) kW

Type Designation	All-in-one sys-5kW-TH	All-in-one sys-6kW-TH	All-in-one sys-8kW-TH	All-in-one sys-10kW-TH
PV (input)				
Max. recommended PV array power [Wp]	7500	9000	12000	15000
Max. PV input voltage* [V]	1000			
Rated PV input voltage [V]	600			
Start-up input voltage [V]	180			
MPPT voltage range [V]	150-950			
No. of MPPT/Strings per MPPT	2 (1/1)			2 (1/2)
Max. PV input current [A]	32 (16/16)			48 (16/32)
Max. DC short-circuit current [A]	40 (20/20)			60 (20/40)
Battery				
Battery type	LiFePO4 Prismatic Cell			
Max. charge/discharge current [A]	30/30			
Battery voltage range [V]	150-600			
Nominal capacity range	9.6 kWh-25.6 kWh (3.2 kWh / 50 Ah per module)			
Number of connectable modules	Max. 8 modules for each stack, Max. 4 stacks in parallel (102.4kWh)			
Backup (output)				
Rated output power (off-grid mode)	5000W/5000VA	6000W/6000VA	8000W/8000VA	10000W/10000VA
Peak output power** (off-grid mode)	6000VA,5min/10000VA, 10s	7200VA,5min/10000VA, 10s	12000VA, 5min	12000VA, 5min
Max. output power (on-grid mode) [VA]	5500	6600	8800	11000
Max. output current (on-grid mode) [A]	8.4	10	13.3	16.7
Backup switching time [ms]	<10			
Rated voltage [V]	3/N/PE 220/380; 230/400; 240/415 (±2%)			
Frequency range [Hz]	50/60 (±0.5%)			
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2			
Grid (input/output)				
Max. AC power from grid [VA]	12500	15000	18600	20600
Rated AC output power [W]	5000	6000	8000	10000
Max. AC output power [VA]	5500	6600	8800	11000
Max. AC output current [A]	8.4	10	13.3	16.7
Rated AC voltage [V]	3/N/PE 220/380; 230/400; 240/415			
AC voltage range [V]	270-480			
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/ Adjustable power factor	> 0.99/0.8.leading to 0.8 lagging			
Effciency				
Max. effciency/European effciency [%]	98.00/97.20	98.20/97.50	98.40/97.90	
Protection & Function				
Surge protection	Type II, DC and AC			
Overvoltage category	II DC and III AC			
Protective class	Class I			
Grid monitoring	Yes			
DC reverse polarity protection	Yes			
Battery input reverse polarity protection	Yes			
Insulation monitoring	Yes			
AC short-circuit protection	Yes			
Residual current protection	Yes			
DC switch (PV)	Yes			
Over-heat protection	Yes			
AFCI	OPT			
General Data				
Topology (PV/Battery)	Transformerless			
Degree of protection	IP65			
Mounting method	Floor-standing			
Operating ambient temperature range [℃]	-25-60 (Derating above 45)			
Storage temperature [℃]	-20-45 (≤1 Month)/-20-25 (≤6 Months)			
Allowable relative humidity range [%]	5-95			
Cooling method	Natural convection			
Max. operating altitude [m]	2000			
Display	LED			
Communication	RS485/CAN/WLAN			
DI/DO	1*DI/1*DO/DRM			
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Plug and play connector			

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection
** Can be reached only if PV and battery power is sufficient

All-in-one System Three Phase (HV) (10-20) kW

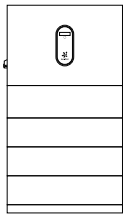
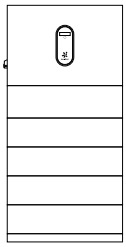
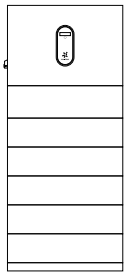
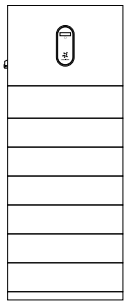
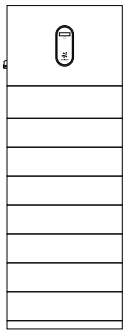
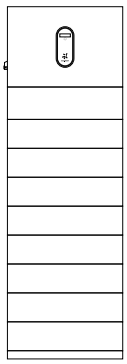
Type Designation	All-in-one sys-10kW-TH PRO	All-in-one sys-15kW-TH	All-in-one sys-20kW-TH
PV (input)			
Max. recommended PV array power [Wp]	20000	30000	40000
Max. PV input voltage* [V]	1000		
Rated PV input voltage [V]	650		
Start-up input voltage [V]	150		
MPPT voltage range [V]	150-950		
No. of MPPT/Strings per MPPT	3 (2/1/1)		3 (2/2/1)
Max. PV input current [A]	64 (32/16/16)		80 (32/32/16)
Max. DC short-circuit current [A]	80 (40/20/20)		100 (40/40/20)
Battery			
Battery type	LiFePO4 Prismatic Cell		
Max. charge/discharge current [A]	30/30		
Battery voltage range [V]	100-800		
Nominal capacity range	9.6 kWh-25.6 kWh (3.2 kWh / 50 Ah per module)		
Number of connectable modules	Max. 8 modules for each stack, Max. 4 stacks in parallel (102.4kWh)		
Backup (output)			
Rated output power (off-grid mode) [VA]	10000	15000	20000
Peak output power** (off-grid mode)	16800 W / 16800 VA, 10s	25500 W / 25500 VA, 10s	32000 W / 32000 VA, 10s
Max. output power (on-grid mode)	43000 W / 43000 VA		
Max. output current (on-grid mode) [A]	3*63		
Backup switching time [ms]	≤4		
Rated voltage [V]	3/N/PE, 220/380; 230/400; 240/415		
Frequency range [Hz]	50/60		
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2		
Grid (input/output)			
Max. AC power from grid	43000 W / 43000 VA		
Rated AC output power [VA]	10000	15000	20000
Max. AC output power [VA]	10000	15000	20000
Max. AC output current [A]	15.2	22.8	30.3
Rated AC voltage [V]	3/N/PE, 220/380; 230/400; 240/415		
AC voltage range [V]	270-480		
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/ Adjustable power factor	> 0.99/0.8.leading to 0.8 lagging		
Effciency			
Max. effciency/European effciency [%]	98.00/97.50	98.10/97.60	
Protection & Function			
Parallel*	Master-slave mode		
Surge protection	Type II, DC and AC		
Overvoltage category	II DC and III AC		
Protective class	Class I		
Grid monitoring	Yes		
DC reverse polarity protection	Yes		
Battery input reverse polarity protection	Yes		
Insulation monitoring	Yes		
AC short-circuit protection	Yes		
Residual current protection	Yes		
DC switch (PV)	Yes		
Over-heat protection	Yes		
AFCI	OPT		
General Data			
Topology (PV/Battery)	Transformerless		
Degree of protection	IP65		
Mounting method	Floor-standing		
Operating ambient temperature range [℃]	-25-60 (Derating above 45)		
Storage temperature [℃]	-20-45 (≤1 Month)/-20-25 (≤6 Months)		
Allowable relative humidity range [%]	5-95		
Cooling method	Natural convection		
Noise (Typical)	35 dB (A)		
Max. operating altitude [m]	2000		
Display	LED		
Communication	2*RS485/1*CAN/WLAN		
DI/DO	4*DI/2*DO/DRM0		
DC connection type	MC4 (PV, Max. 6 mm^2)		
AC connection type	Plug and play terminals (Grid / Backup, Max. 10 mm^2)		

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

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

*** Detail refer to inverters parallel configuration in User Manual

All-in-one System Batteries (HV) (9.6-25.6) kWh

Type Designation	3 modules	4 modules	5 modules	6 modules	7 modules	8 modules**
Technical data						
Usable energy* [kWh]	9.60	12.80	16.00	19.20	22.40	25.60
Depth of discharge	Max.100% DOD (settable)					
Module parameter	64V 50Ah 640*172*360mm 33.3±0.5kg					
Cell type	LiFePO4 Prismatic Cell					
System configuration	3 	4 	5 	6 	7 	8** 
Cell configuration	1P60S	1P80S	1P100S	1P120S	1P140S	1P160S
Nominal voltage [V]	192	256	320	384	448	512
Operating voltage range [V]	171-216	228-288	285-360	342-432	399-504	456-576
Max. continuous current*** [A]	30					
Max. continuous power*** [kW]	5.76	7.68	9.60	11.52	13.44	15.36
Short circuit current [A]	40					
Communication	CAN / RS485					
Weight**** [kg]	152	185	218	251	284	317
Dimensions (W*H*D)****[mm]	640*1012*360	640*1172*360	640*1332*360	640*1492*360	640*1652*360	640*1812*360
Operating temperature [°C]	Charge: 0-50 / Discharge: -20-50					
Storage temperature [°C]	-20-45 (≤1Month) / -20-25 (≤6 Months)					
Humidity [%]	5-95					
Altitude [m]	≤2000					
Degree of protection	IP65 (Indoor / Outdoor)					
Cooling	Natural convection					
Installation location	Floor-standing					
Display	SOC indicator, Status indicator					
Warranty	10 Years					

* Test conditions: 3.0V-3.5V, 0.2C Charge (CC-CV) and discharge at 25±3°C, 100% depth of discharge (DOD);

** Single Phase All-in-one system are not applicable to this configuration.

*** Max. Continuous Current/Power derating will occur related to temperature / SOC / Humidity;

**** Measured based on the Three Phase All-in-one system. Only slight differences in height&weight between different models.

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FROM GRID TO HOME

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

TOP 3
Sieyuan 思源电气
Electrical Equip. Manufacturer

1,000kV
Full range product: 10kV -1,000kV

1400+
1411 Qualified engineers are the driving force behind the exceptional R&D progress

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

22
22 Manufacturing bases



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C&I and Residential BESS

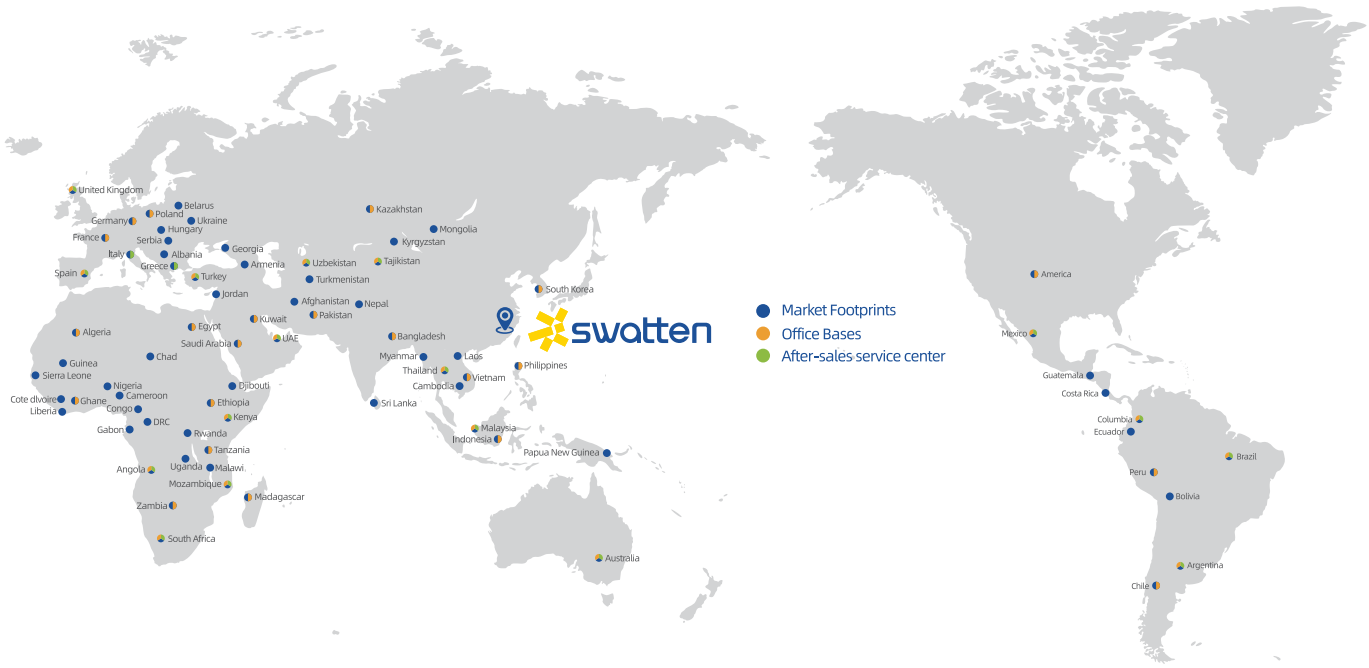


esGrid
Grid-level energy storage

Sieyuan Utility Scale BESS



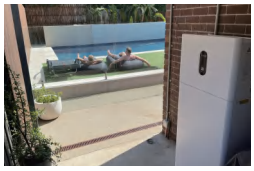
Global Marketing & Service Layout



Our Global Clients

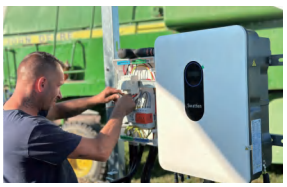
Swatten's Global Cases























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