



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

Smarter Power Better Life



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 Single Phase (HV) (5-10) kW

Type Designation	All-in-one sys-5kW-SH	All-in-one sys-6kW-SH	All-in-one sys-8kW-SH	All-in-one sys-10kW-SH
PV (input)				
Max. recommended PV array power [Wp]	12000	13000	16000	20000
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)		4 (1/1/1/1)	
Max. PV input current [A]	32 (16/16)		64 (16/16/16/16)	
Max. DC short-circuit current [A]	40 (20/20)		80 (20/20/20/20)	
Max. current for each input connector [A]	20			
Battery				
Battery type	Li-ion battery			
Max. charge/discharge current [A]	30/30			
Battery voltage range [V]	80-460			
Nominal capacity range	9.6 kWh-19.2 kWh (3.2 kWh/50 Ah per module)			
Number of connectable modules	3-7 modules			
Backup Output (On-Grid Mode)				
Rated output power [W]	6000		14500	
Rated output current [A]	27		63	
Backup Output (Off-Grid Mode)				
Rated output power	5000 W / 5000 VA	6000 W / 6000 VA	8000 W/8000 VA	9999 W/9999 VA
Peak output power	8400 VA, 10s		13680 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]	12000	13000	14500	
Rated AC output power [W]	5000	6000	8000	9999
Max. AC output power [VA]	5000	6000	8000	9999
Rated AC output current (at 230V) [A]	21.8	26.1	36.4	45.5
Max. AC output current [A]	22.8	27.3	36.4	45.5
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	adjustable 0.8.leading to 0.8 lagging			
Efficiency				
Max. efficiency/European efficiency [%]	97.70/97.30		97.40/96.80	97.50/97.10
Protection & Function				
Surge protection	DC type II/AC type II			
Gird 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			
Mounting method	Floor-standing			
Operating ambient temperature range [°C]	-25-60			
Storage temperature [°C]	-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		1*DI/2*DO/DRM	
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Plug and play connector			

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

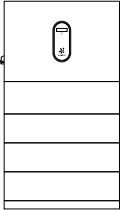
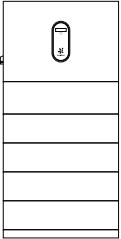
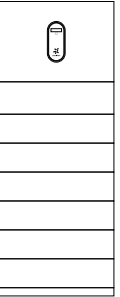
Type Designation	All-in-one sys-5kW-TH	All-in-one sys-6kW-TH	All-in-one sys-8kW-TH	All-in-one sys-10kW-TH
PV (input)				
Max. recommended PV array power [Wp]	7500	9000	12000	15000
Max. PV input voltage [V]	1000			
Rated PV input voltage [V]	600			
Start-up input voltage [V]	180			
MPPT voltage range [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	Li-ion battery			
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	3-8 modules			
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			
Efficiency				
Max. efficiency/European efficiency [%]	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			
Gird 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 [°C]	-25-60 (Derating above 45)			
Storage temperature [°C]	-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			

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	Li-ion battery			
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	3-8 modules			
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]	<10			
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			
Efficiency				
Max. efficiency/European efficiency [%]	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			
Gird 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 [°C]	-25-60 (Derating above 45)			
Storage temperature [°C]	-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 mm²)			
AC connection type	Plug and play terminals (Grid / Backup, Max. 10 mm²)			

* 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	LFP (LiFePO4)					
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
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.

Full Range From Power Generation,
Transmission, Distribution To

Energy Storage

32 years

With 32 years of experience,
specialized in equipment manufacturing
and engineering services

Public Co.

Founded in 1993
Stock listed in 2004 (SZSE002028)

US\$3.2 Billion

2024 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

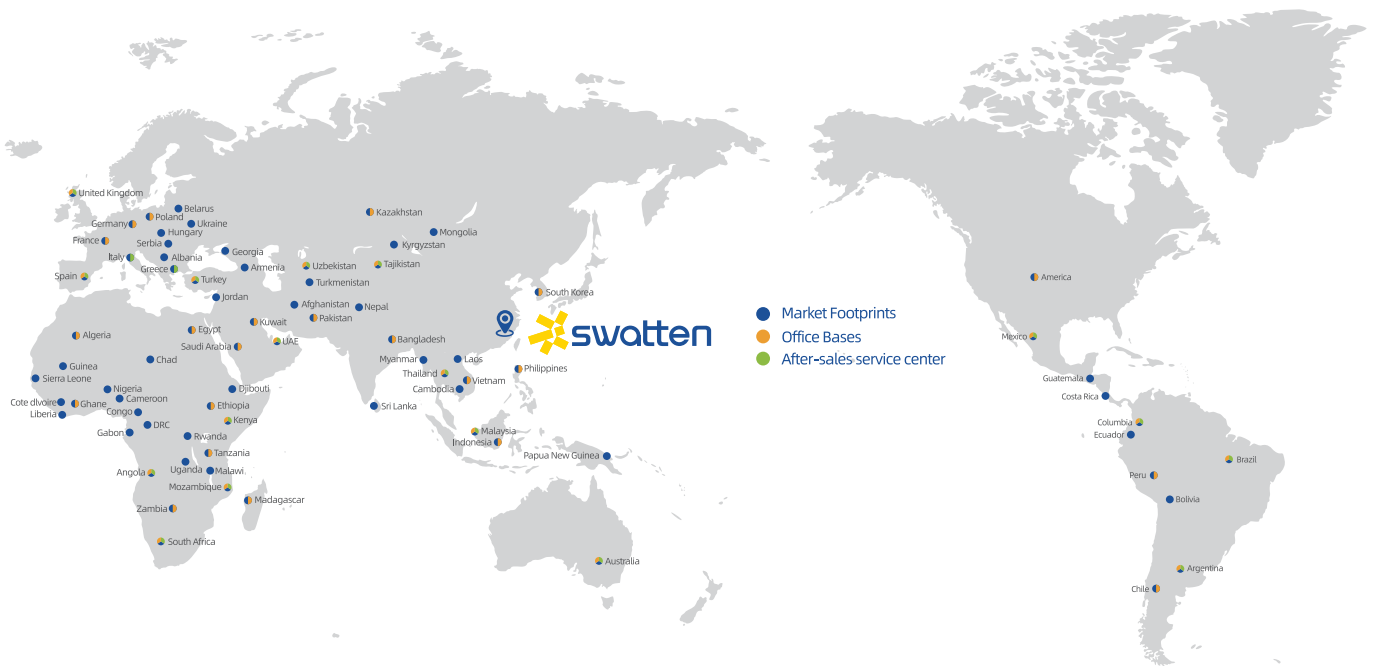
Sieyuan Utility Scale BESS

 **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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