



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) (5/6) kW

Type Designation	All-in-one sys-5kW-SH		All-in-one sys-6kW-SH	
PV (input)				
Max. recommended PV array power [Wp]	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				
Battery type			Li-ion battery	
Max. charge/discharge current [A]			30/30	
Nominal voltage range [V]			192-512 (64 per module)	
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 (On-Grid Mode)				
Rated output power [W]			6000	
Rated output current [A]			27	
Backup Output (Off-Grid Mode)				
Rated output power	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]	12000		13000	
Rated AC output power [W]	5000		6000	
Max. AC output power [VA]	5000		6000	
Rated AC output current (at 230V) [A]	21.8		26.1	
Max. AC output current [A]	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			adjustable 0.8.leading to 0.8 lagging	
Efficiency				
Max. efficiency/European efficiency [%]			97.70/97.30	
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	
Dimensions (W*H*D) [mm]			640*1012*360 (With 3 Battery modules)	
Weight [kg]			<132 (With 3 Battery modules)	
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	
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			
Nominal voltage range [V]	192-512 (64 per module)			
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				
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			
Dimensions (W*H*D) [mm]	640*1012*360 (With 3 Battery modules)			
Weight [kg]	<147 (With 3 Battery modules)			
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			

* Detail refer to inverters parallel configuration in User Manual

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			
Nominal voltage range [V]	192-512 (64 per module)			
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			
Dimensions (W*H*D) [mm]	640*1012*360 (With 3 Battery modules)			
Weight [kg]	<152 (With 3 Battery modules)			
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*RS485/2*CAN/WLAN			
DI/DO	4*DI/2*DO/DRM0			
DC connection type	MC4 (PV, Max. 6 mm²)			
Battery connection type	Plug and play connector (Battery, Max. 10 mm²)			
AC connection type	OT Terminals (Grid / Backup, Max. 26 mm²)			

* Detail refer to inverters parallel configuration in User Manual

Full Range From Power Generation,
Transmission, Distribution To

Energy Storage

30 years

With 30+ 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

60+

With 10,000+ employees
in 60+ countries and regions

1,000kV

Full range product: 10kV -1,000kV

esGrid

Grid-level energy storage

Sieyuan Utility Scale BESS



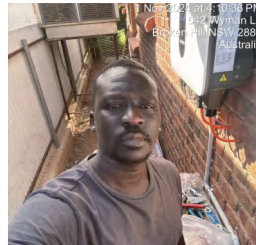
C&I and Residential BESS



Swatten Europe Case



Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team



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