

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 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]	20000	1000	40000				
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	9.6 kWn-25.6 kWn / 50 An per module)  3-8 modules						
		5 6 modates					
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				
lax. 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				
/lax. 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	/07.60				
7 1 71 1	98.00/97.50	98.10/	797.00				
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						
OC reverse polarity protection		Yes					
Battery input reverse polarity protection	Yes						
nsulation monitoring	Yes						
AC short-circuit protection	Yes						
Residual current protection	Yes						
OC switch (PV)	Yes						
Over-heat protection	Yes						
AFCI		OPT					
General Data							
opology (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/2*DO/DRMO						
DI/DO	4*DI/2*DO/DRM0  MC4/DV May 6 mm²\						
OC connection type	MC4 (PV, Max. 6 mm²)  Plug and play terminals (Grid / Backup, Max. 10 mm²)						
AC connection type							

 $<sup>\</sup>ensuremath{^{\star}}$  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)							
	3	4	5	6	7**	8**		
System configuration			( #			g ##		
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							

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

<sup>\*\*</sup> Single Phase All-in-one system are not applicable to this configuration.

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

<sup>\*\*\*\*</sup> 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**

### **3**2 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

#### **1**00+

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



**C&l and Residential BESS** 







#### Swatten Europe Case



















#### <

#### **Swatten APAC Case**

















#### **Compatible Battery Brand**



**Dyness** 















\* For detailed list please contact our technical team





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