



# Three Phase Hybrid Inverter (HV) (10-50) kW

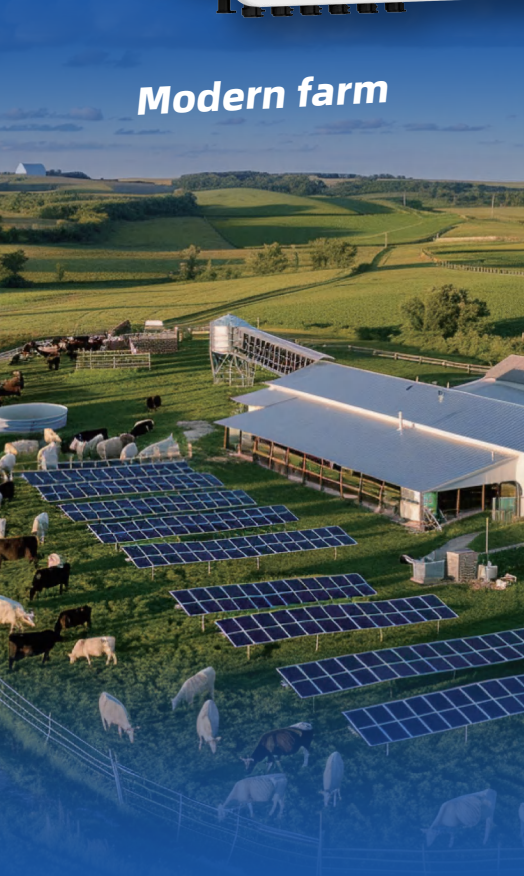
**FROM GRID TO HOME**

# Three Phase Hybrid Inverter

## 10-50kW



**Modern farm**



**Rural school**



**Community hospital**



More Powerful **200%**

Oversizing PV system

PV input power up to 60kW

More Reliable **55kW**

Max. output power for backup load during On-Grid mode

Supports **30 pcs**

Supports 30 pcs in parallel with Master-Slave control, delivering up to 1500kW

More Flexible **6 PV Strings**

Divide the solar panels into up to six zones

Adapts to complex installation scenarios

More Extensive **100%**

Ensures all the energy supplied is green energy

Support fast Ac chargers and SG-ready heat pumps

More Intelligent **4 ms**

Switching time with whole home backup

100% EPS output power (off grid mode)

# Three Phase Hybrid Inverter (HV) (10-20) kW

Type Designation	SiH-10kW-TH-PRO	SiH-15kW-TH	SiH-20kW-TH
<b>PV (input)</b>			
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)
<b>Battery (input/output)</b>			
Battery type	LiFePO4 Prismatic Cell		
Battery voltage range [V]	100-800		
Max. charge/discharge current** [A]	50/50		
Max. charge/discharge power [W]	15000/10000	30000/15000	30000/20000
<b>Grid (input/output)</b>			
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 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		
<b>Backup (output)</b>			
Rated voltage [V]	3 / N / PE, 220 ; 230 ; 240		
Frequency range [Hz]	50 / 60		
Total harmonic distortion (THDv, rated power, Linear load) [%]	≤2		
Backup switching time [ms]	≤4		
Rated output power (off-grid mode) [VA]	10000	15000	20000
Peak output power (off-grid mode)***	16800 W / 168000 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		
<b>Efficiency</b>			
Max. efficiency/European efficiency [%]	98.00/97.50	98.10/97.60	
<b>Protection &amp; Function</b>			
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		
<b>General Data</b>			
Topology (PV/battery)	Transformerless		
Degree of protection	IP66		
Dimensions (W*H*D) [mm]	615 * 465 * 255		
Weight [kg]	35	36.5	
Mounting method	Wall-mounting bracket		
Operating ambient temperature range [°C]	-25-60 (Derating above 45)		
Allowable relative humidity range (Non-condensing) [%]	0-100		
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/DRMO		
DC connection type	MC4 (PV, Max. 6 mm <sup>2</sup> )		
Battery connection type	Plug and play connector ( Battery, Max.10mm <sup>2</sup> )		
AC connection type	OT Terminals (Grid / Backup, Max.26mm <sup>2</sup> )		

\* 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

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

# Three Phase Hybrid Inverter (HV) (25-50) kW

Type Designation	SiH-25kW-TH	SiH-30kW-TH	SiH-40kW-TH	SiH-50kW-TH
<b>PV (input)</b>				
Max. recommended PV array power [Wp]	50000		60000	
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 (2/2/2)		
Max. PV input current [A]		96 (32 / 32 / 32)		
Max. DC short-circuit current [A]		120 (40 / 40 / 40)		
<b>Battery (input/output)</b>				
Battery type	LiFePO4 Prismatic Cell			
Battery voltage range [V]	100-800			
Max. charge/discharge current** [A]	60/60		65/65	
Max. charge/discharge power [W]	30000 / 25000	30000 / 30000	40000 / 40000	50000 / 50000
<b>Grid (input/output)</b>				
Max. AC power from grid	55000 W / 55000 VA			
Rated AC output power [VA]	25000	30000	40000	50000
Max. AC output power [VA]	25000	30000	40000	50000
Max. AC output current [A]	37.9	45,5	60,6	75,8
Rated 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			
<b>Backup (output)</b>				
Rated voltage [V]	3 / N / PE, 220 ; 230 ; 240			
Frequency range [Hz]	50 / 60			
Total harmonic distortion (THDv, rated power, Linear load) [%]	≤2			
Backup switching time [ms]	≤4			
Rated output power (off-grid mode) [VA]	25000	30000	40000	50000
Peak output power (off-grid mode)***	36500 W / 36500 VA, 10s	45000 W / 45000 VA, 10s	60000 W / 60000 VA, 10s	70000 W / 70000 VA, 10s
Max. output power (on-grid mode)	55000 W / 55000 VA			
Max. output current (on-grid mode) [A]	3*80			
<b>Efficiency</b>				
Max. efficiency/European efficiency [%]	98.20 / 97.80		98.20 / 97.90	
<b>Protection &amp; Function</b>				
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			
<b>General Data</b>				
Topology (PV/battery)	Transformerless			
Degree of protection	IP66			
Dimensions (W*H*D) [mm]	615 * 465 * 255			
Weight [kg]	38		39,5	39,8
Mounting method	Wall-mounting bracket			
Operating ambient temperature range [°C]	-25-60 (Derating above 45)			
Allowable relative humidity range (Non-condensing) [%]	0-100			
Cooling method	Fan cooling			
Noise (Typical)	55 dB (A)		60 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 mm <sup>2</sup> )			
Battery connection type	Plug and play connector ( Battery, Max.10mm <sup>2</sup> )			
AC connection type	OT Terminals (Grid / Backup, Max.26mm <sup>2</sup> )			

\* 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

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

# 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

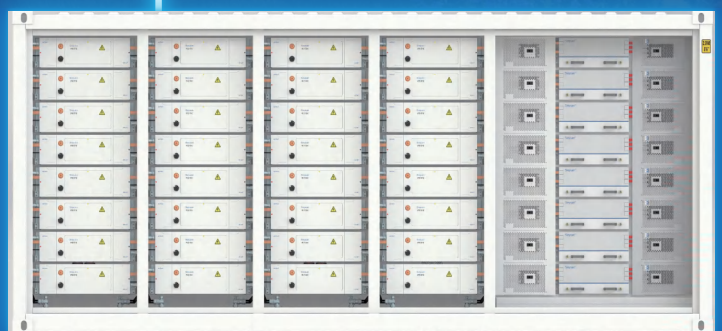
22 Manufacturing bases



C&I and Residential BESS

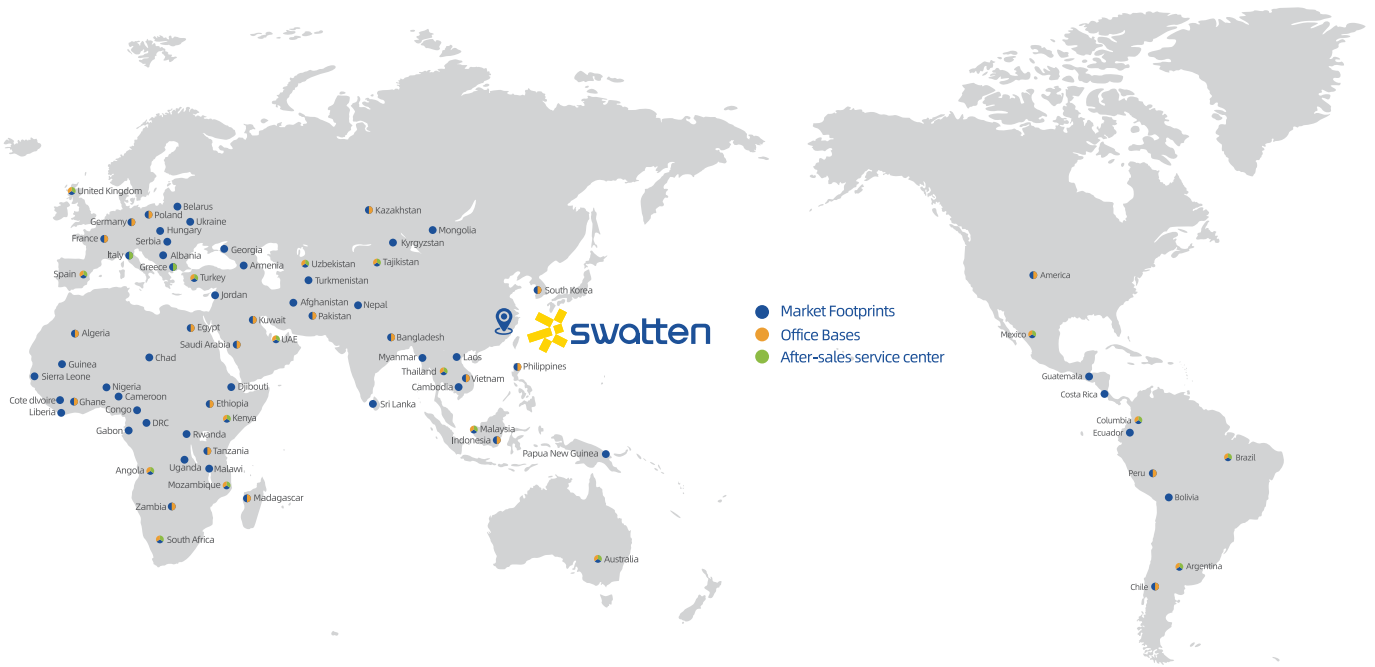
**esGrid**  
 Grid-level energy storage

Sieyuan Utility Scale BESS





# Global Marketing & Service Layout



# Our Global Clients





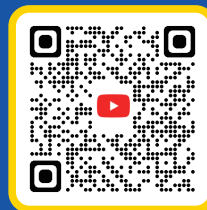
# Swatten's Global Cases



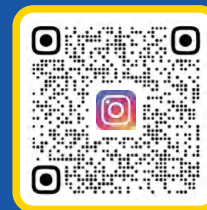
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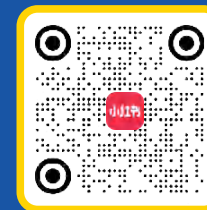
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