swatten
Powered by Sieyuan

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

Smarter Power Better Life

Three Phase Hybrid Inverter

10-50kW

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 10ms

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
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 (input/output)			
Battery type	Li-ion battery		
Battery voltage range [V]	100-800		
Max. charge/discharge current* [A]	50/50		
Max. charge/discharge power [W]	15000/10000	30000/15000	30000/20000
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 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		
Backup (output)			
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]	< 10		
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		
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		
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	IP66		
Dimensions (W*H*D) [mm]	615 * 465 * 255		
Weight [kg]	35	36.5	
Mounting method	Wall-mounting bracket		
Operating ambient temperature range [℃]	-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/DRM0		
DC connection type	MC4 (PV, Max. 6 mm^2)		
Battery connection type	Plug and play connector (Battery, Max.10mm^2)		
AC connection type	OT Terminals (Grid / Backup, Max.26mm^2)		

* 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
PV (input)				
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)			
Battery (input/output)				
Battery type	Li-ion battery			
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
Grid (input/output)				
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			
Backup (output)				
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]	< 10			
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			
Efficiency				
Max. efficiency/European efficiency [%]	98.20 / 97.80		98.20 / 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			
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	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 [℃]	-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 mm²)			
Battery connection type	Plug and play connector (Battery, Max.10mm²)			
AC connection type	OT Terminals (Grid / Backup, Max.26mm²)			

* 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

About swatten

Powered by Sieyuan

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

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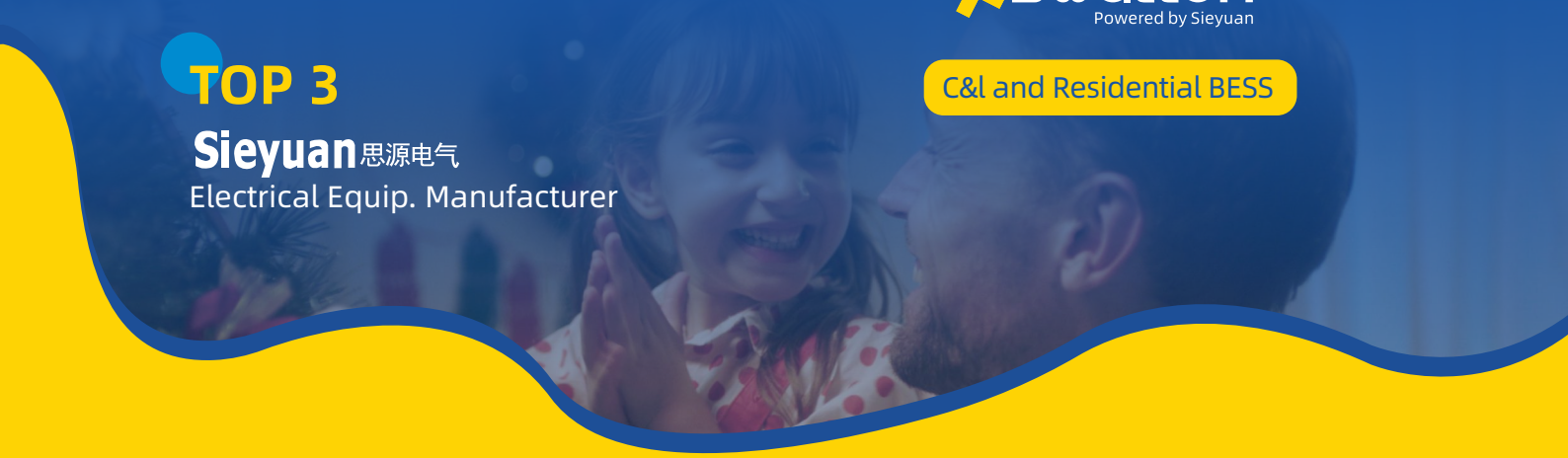
C&I and Residential BESS



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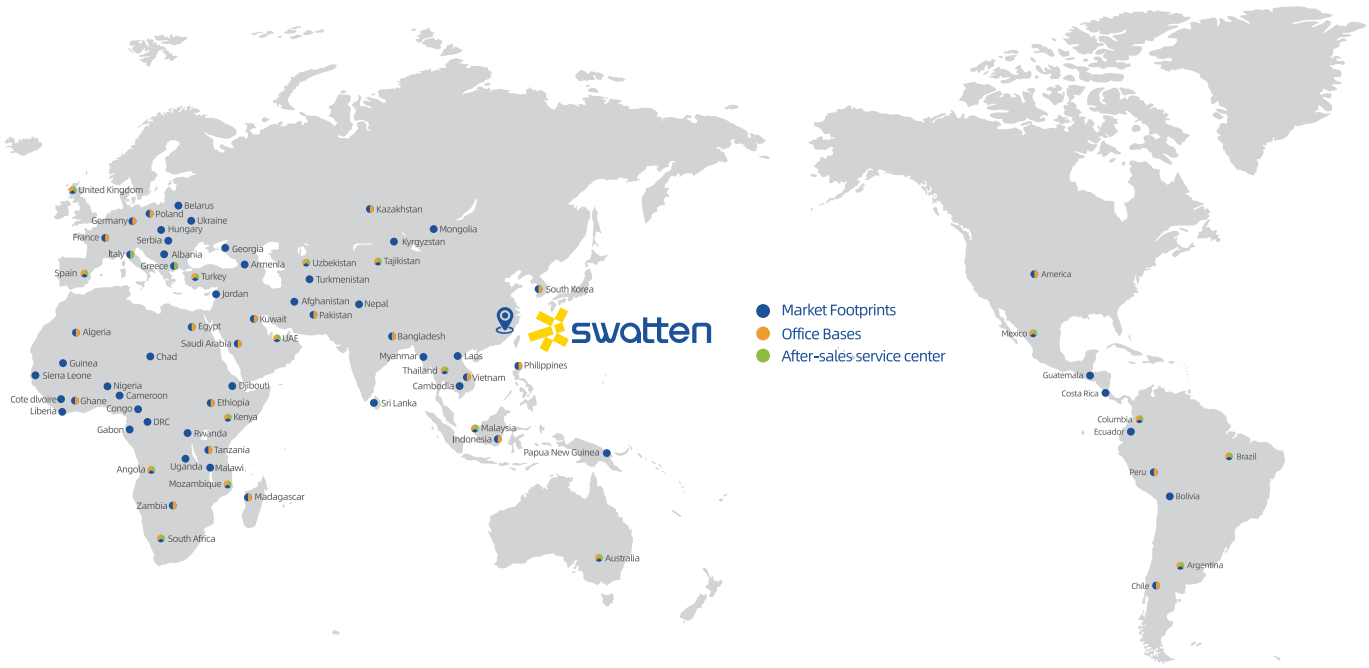
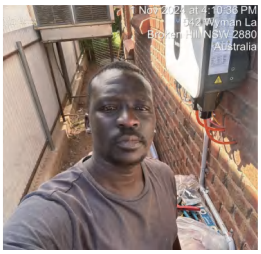
Global Marketing & Service Layout



Our Global Clients

Swatten Europe Case

Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team

ATL · POWERAMP · BYD · EVE · PYLONTECH · Dyness · Ampace · HAME · VESTWOODS · CIE

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