



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

Smarter Power Better Life



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 **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 [°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 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 [°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 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

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

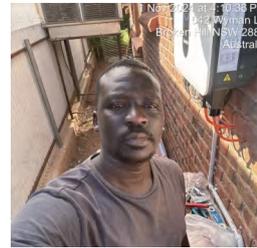




Swatten Europe Case



Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team



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