



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
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	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
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]	≤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		
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)		

* 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
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	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
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]	≤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			
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)			

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About Us

Full Range From Power Generation,
Transmission, Distribution To

Energy Storage

33 years

With 33 years of experience,
specialized in equipment manufacturing
and engineering services

22

22 Manufacturing bases

Public Co.

Founded in 1993
Stock listed in 2004 (SZSE002028)

100+

With 10,000+ employees
in 100+ countries and regions

US\$5.0 Billion

2025 Turnover

1,000kV

Full range product: 10kV -1,000kV

1400+

1411 Qualified engineers are
the driving force behind the
exceptional R&D progress

esGrid

Grid-level energy storage

Sieyuan Utility Scale BESS

TOP 3

Sieyuan 思源电气
Electrical Equip. Manufacturer

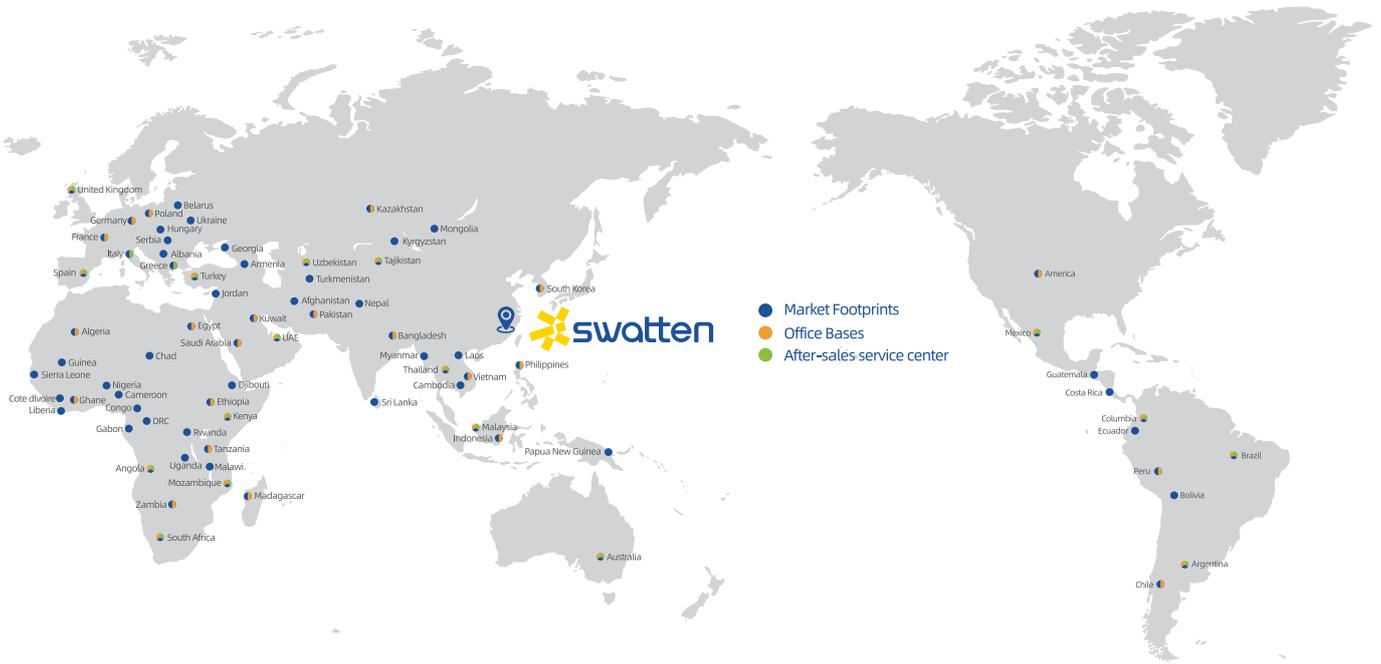
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