

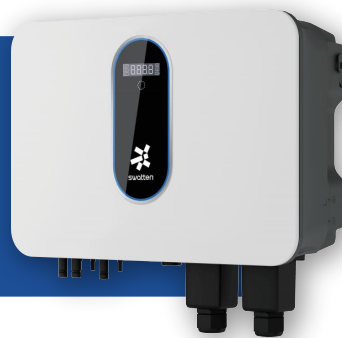


Energy Storage Solution

Smarter power better life



KEY FEATURES



50v

Low starting voltage

330%

Max. DC input oversizing

16A

Max. DC input

6.6kw

Max. power of charging and supply

<10ms

Off-grid switching

4000m

Max. operating altitude



Single Phase Hybrid Inverter (HV) (3-6) kW

Type Designation	SiH-3kW-SH	SiH-3.6kW-SH	SiH-4kW-SH	SiH-5kW-SH	SiH-6kW-SH
PV (input)					
Max. recommended PV array power [Wp]	10000	10700	11000	12000	13000
Max. PV input voltage* [V]	600				
Min. operating PV voltage [V]	40				
Start-up input voltage [V]	50				
Rated PV input voltage [V]	360				
MPPT voltage range [V]	40-560				
No. of MPPT/Strings per MPPT	2 (1/1)				
Max. PV input current [A]	32 (16/16)				
Max. DC short-circuit current [A]	40 (20/20)				
Max. current for each input connector [A]	20				
Battery (input/output)					
Battery type	LiFePO4 Prismatic Cell				
Battery voltage range [V]	80-460				
Max. charge/discharge current** [A]	30/30				
Max. charge/discharge power [W]	6600/6600				
Backup Output (On-Grid Mode)					
Rated output power [W]	6000				
Rated output current [A]	27				
Backup Output (Off-Grid Mode)					
Rated output power	3000 W/3000 VA	3680 W/3680 VA	4000 W/4000 VA	5000 W/5000 VA	6000 W/6000 VA
Peak output power***	8400 VA, 10s				
Backup switching time [ms]	<10				
Rated voltage [V]	220/230/240 (±2 %)				
Frequency range [Hz]	50/60 (±0.5 %)				
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2				
Grid (input/output)					
Max. AC input power from grid [VA]	10000	10700	11000	12000	13000
Rated AC output power [W]	3000	3680	4000	5000	6000
Max. AC output power [VA]	3000	3680	4000	5000	6000
Rated AC output current (at 230V) [A]	13.1	16	17.4	21.8	26.1
Max. AC output current [A]	13.7	16	18.2	22.8	27.3
Rated AC voltage [V]	220/230/240				
AC voltage range [V]	154-276				
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	>0.99				
Adjustable power factor	adj.0.8.leading to 0.8 lagging				
Efficiency					
Max. efficiency/European efficiency [%]	97.30/97.00	97.50/97.00		97.70/97.30	
Protection & Function					
Surge protection	DC type II / AC type II				
Gird monitoring	Yes				
DC reverse polarity protection	Yes				
Battery input reverse polarity protection	Yes				
AC short-circuit protection	Yes				
Leakage current protection	Yes				
DC switch (PV)	Yes				
DC fuse (Battery)	Yes				
General Data					
Topology (PV/Battery)	Transformerless				
Degree of protection	IP65				
Dimensions (W*H*D) [mm]	495*345*180				
Weight [kg]	≤20				
Mounting method	Wall-mounting bracket				
Operating ambient temperature range [°C]	-25-60				
Allowable relative humidity range [%]	0-100				
Cooling method	Natural convection				
Max. operating altitude [m]	4000				
Display	LED				
Communication	RS485/CAN/WLAN				
DI/DO	1*DI/1*DO/DRM				
DC connection type	MC4				
Battery connection type	MC4				
AC connection type	Screws & Fasteners				

* 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



KEY FEATURES



50v

Low starting voltage

200%

Max. DC input oversizing

4MPPT

Max. 16A DC input

10kw

Max. charge/discharge power

14.5kw

Rated output power

4000m

Max. operating altitude



Single Phase Hybrid Inverter (HV) (8/10) kW

Type Designation	SiH-8kW-SH		SiH-10kW-SH	
PV (input)				
Max. recommended PV array power [Wp]	16000		20000	
Max. PV input voltage* [V]			600	
Min. operating PV voltage [V]			40	
Start-up input voltage [V]			50	
Rated PV input voltage [V]			360	
MPPT voltage range [V]			40-560	
No. of MPPT/Strings per MPPT			4 (1/1/1/1)	
Max. PV input current [A]			64 (16/16/16/16)	
Max. DC short-circuit current [A]			80 (20/20/20/20)	
Max. current for each input connector [A]			20	
Battery (input/output)				
Battery type	LiFePO4 Prismatic Cell			
Battery voltage range [V]	80-460			
Max. charge/discharge current** [A]	50/50			
Max. charge/discharge power [W]	10000/10000			
Backup Output (On-Grid Mode)				
Rated output power [W]	14500			
Rated output current [A]	63			
Backup Output (Off-Grid Mode)				
Rated output power	8000 W/8000 VA		9999 W/9999 VA	
Peak output power***	13680 VA, 10s			
Backup switching time [ms]	<10			
Rated voltage [V]	220/230/240 (±2 %)			
Frequency range [Hz]	50/60 (±2 %)			
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2			
Grid (input/output)				
Max. AC input power from grid [VA]	14500			
Rated AC output power [W]	8000		9999	
Max. AC output power [VA]	8000		9999	
Max. AC output current [A]	36.4		45.5	
Rated AC voltage [V]	220/230/240			
AC voltage range [V]	154-276			
Rated grid frequency [Hz]	50/60			
Grid frequency range [Hz]	45-55/55-65			
Total harmonic distortion (THDi) [%]	<3			
Power factor at rated power	>0.99			
Adjustable power factor	adj.0.8.leading to 0.8 lagging			
Efficiency				
Max. efficiency/European efficiency [%]	97.40/96.80		97.50/97.10	
Protection & Function				
Surge protection	DC type II / AC type II			
Gird monitoring	Yes			
DC reverse polarity protection	Yes			
Battery input reverse polarity protection	Yes			
AC short-circuit protection	Yes			
Leakage current protection	Yes			
DC switch (PV)	Yes			
DC fuse (Battery)	Yes			
General Data				
Topology (PV/Battery)	Transformerless			
Degree of protection	IP65			
Dimensions (W*H*D) [mm]	599*490*177			
Weight [kg]	≤29			
Mounting method	Wall-mounting bracket			
Operating ambient temperature range [°c]	-25-60			
Allowable relative humidity range [%]	0-100			
Cooling method	Natural convection			
Max. operating altitude [m]	4000			
Display	LED			
Communication	RS485/CAN/WLAN			
DI/DO	1*DI / 2*DO/ DRM			
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Screws & Fasteners			

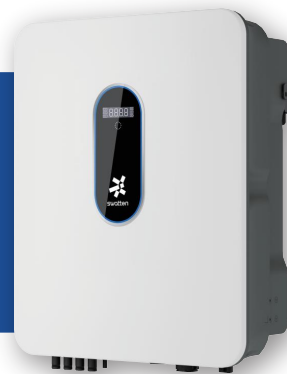
* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Depending on the connected battery

*** Can be reached only if PV and battery power is sufficient



KEY FEATURES



100%

Unbalanced output at full power

Max 3

PV input

Fanless

Natural convection

<10ms

Off-grid switching

98.4%

Max. Efficiency

4000m

Max. operating altitude



Three Phase Hybrid Inverter (HV) (5-10) kW

Type Designation	SiH-5kW-TH	SiH-6kW-TH	SiH-8kW-TH	SiH-10kW-TH
PV (input)				
Max. recommended PV array power [Wp]	7500	9000	12000	15000
Max. PV input voltage* [V]	1000			
Rated PV input voltage [V]	600			
Start-up input voltage [V]	180			
MPPT voltage range [V]	150-950			
No. of MPPT/Strings per MPPT	2 (1/1)			2 (1/2)
Max. PV input current [A]	32 (16/16)			48 (16/32)
Max. DC short-circuit current [A]	40 (20/20)			60 (20/40)
Battery (input/output)				
Battery type	LiFePO4 Prismatic Cell			
Battery voltage range [V]	150-600			
Max. charge/discharge current** [A]	30/30			
Max. charge/discharge power [W]	7500/6000	9000/7200	10600/10600	10600/10600
Backup (output)				
Rated output power (off-grid mode)	5000W/5000VA	6000W/6000VA	8000W/8000VA	10000W/10000VA
Peak output power (off-grid mode)***	6000VA, 5min/10000VA, 10s	7200VA, 5min/10000VA, 10s	12000VA, 5min	12000VA, 5min
Max. output power (on-grid mode) [VA]	5500	6600	8800	11000
Max. output current (on-grid mode) [A]	8.4	10	13.3	16.7
Backup switching time [ms]	<10			
Rated voltage [V]	3/N/PE, 220/380; 230/400; 240/415 (±2%)			
Frequency range [Hz]	50/60 (±0.5%)			
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2			
Grid (input/output)				
Max. AC power from grid [VA]	12500	15000	18600	20600
Rated AC output power [W]	5000	6000	8000	10000
Max. AC output power [VA]	5500	6600	8800	11000
Max. AC output current [A]	8.4	10	13.3	16.7
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			
Efficiency				
Max. efficiency/European efficiency [%]	98.00/97.20	98.20/97.50	98.40/97.90	
Protection & Function				
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 (LV)	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	IP65			
Dimensions (W*H*D) [mm]	450*550*185			
Weight [kg]	31			
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			
Max. operating altitude	4000			
Display	LED			
Communication	RS485/CAN/WLAN			
DI/DO	1*DI/1*DO/DRM			
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Plug and play connector			

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Depending on the connected battery

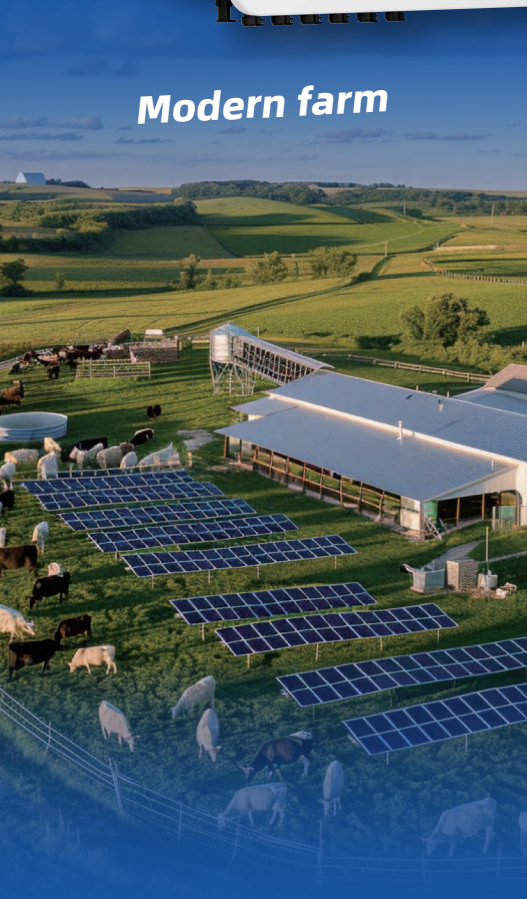
*** Can be reached only if PV and battery power is sufficient



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/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)			

* 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 mm²)							
Battery connection type	Plug and play connector (Battery, Max.10mm²)							
AC connection type	OT Terminals (Grid / Backup, Max.26mm²)							

* 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



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 Single Phase (HV) (5-10) kW

Type Designation	All-in-one sys-5kW-SH	All-in-one sys-6kW-SH	All-in-one sys-8kW-SH	All-in-one sys-10kW-SH
PV (input)				
Max. recommended PV array power [Wp]	12000	13000	16000	20000
Max. PV input voltage* [V]			600	
Min. operating PV voltage [V]			40	
Start-up input voltage [V]			50	
Rated PV input voltage [V]			360	
MPPT voltage range [V]			40-560	
No. of MPPT/Strings per MPPT	2 (1/1)			4 (1/1/1/1)
Max. PV input current [A]	32 (16/16)			64 (16/16/16/16)
Max. DC short-circuit current [A]	40 (20/20)			80 (20/20/20/20)
Max. current for each input connector [A]			20	
Battery				
Battery type		LiFePO4 Prismatic Cell		
Max. charge/discharge current [A]			30/30	
Battery voltage range [V]			80-460	
Nominal capacity range		9.6 kWh-22.4 kWh (3.2 kWh/50 Ah per module)		
Number of connectable modules		Max. 7 modules for each stack, Max. 4 stacks in parallel (89.6kWh)		
Backup Output (On-Grid Mode)				
Rated output power [W]	6000			14500
Rated output current [A]	27			63
Backup Output (Off-Grid Mode)				
Rated output power	5000 W / 5000 VA	6000 W / 6000 VA	8000 W/8000 VA	9999 W/9999 VA
Peak output power**	8400 VA, 10s		13680 VA, 10s	
Backup switching time [ms]			<10	
Rated voltage [V]			220/230/240 (±2%)	
Frequency range [Hz]			50/60 (±0.5%)	
Total harmonic distortion (THDv, rated power, linear load) [%]			≤2	
Grid (input/output)				
Max. AC input power from grid [VA]	12000	13000	14500	
Rated AC output power [W]	5000	6000	8000	9999
Max. AC output power [VA]	5000	6000	8000	9999
Rated AC output current (at 230V) [A]	21.8	26.1	36.4	45.5
Max. AC output current [A]	22.8	27.3	36.4	45.5
Rated AC voltage [V]		220/230/240		
AC voltage range [V]		154-276		
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		> 0.99		
Adjustable power factor		adjustable 0.8.leading to 0.8 lagging		
Efficiency				
Max. efficiency/European efficiency [%]	97.70/97.30		97.40/96.80	97.50/97.10
Protection & Function				
Surge protection		DC type II/AC type II		
Gird monitoring		Yes		
DC reverse polarity protection		Yes		
Battery input reverse polarity protection		Yes		
AC short-circuit protection		Yes		
Leakage current protection		Yes		
DC switch (PV)		Yes		
DC fuse (Battery)		Yes		
General Data				
Topology (PV/Battery)		Transformerless		
Degree of protection		IP65		
Mounting method		Floor-standing		
Operating ambient temperature range [°C]		-25-60		
Storage temperature [°C]		-20-45 (≤1 Month)/-20-25 (≤6 Months)		
Allowable relative humidity range [%]		5-95		
Cooling method		Natural convection		
Max. operating altitude [m]		2000		
Display		LED		
Communication		RS485/CAN/WLAN		
DI/DO	1*DI/1*DO/DRM		1*DI/2*DO/DRM	
DC connection type		MC4		
Battery connection type		MC4		
AC connection type		Plug and play connector		

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Can be reached only if PV and battery power is sufficient

All-in-one System Three Phase (HV) (5-10) kW

Type Designation	All-in-one sys-5kW-TH	All-in-one sys-6kW-TH	All-in-one sys-8kW-TH	All-in-one sys-10kW-TH
PV (input)				
Max. recommended PV array power [Wp]	7500	9000	12000	15000
Max. PV input voltage* [V]			1000	
Rated PV input voltage [V]			600	
Start-up input voltage [V]			180	
MPPT voltage range [V]			150-950	
No. of MPPT/Strings per MPPT		2 (1/1)		2 (1/2)
Max. PV input current [A]		32 (16/16)		48 (16/32)
Max. DC short-circuit current [A]		40 (20/20)		60 (20/40)
Battery				
Battery type	LiFePO4 Prismatic Cell			
Max. charge/discharge current [A]	30/30			
Battery voltage range [V]	150-600			
Nominal capacity range	9.6 kWh-25.6 kWh (3.2 kWh / 50 Ah per module)			
Number of connectable modules	Max. 8 modules for each stack, Max. 4 stacks in parallel (102.4kWh)			
Backup (output)				
Rated output power (off-grid mode)	5000W/5000VA	6000W/6000VA	8000W/8000VA	10000W/10000VA
Peak output power** (off-grid mode)	6000VA,5min/10000VA, 10s	7200VA,5min/10000VA, 10s	12000VA, 5min	12000VA, 5min
Max. output power (on-grid mode) [VA]	5500	6600	8800	11000
Max. output current (on-grid mode) [A]	8.4	10	13.3	16.7
Backup switching time [ms]	<10			
Rated voltage [V]	3/N/PE 220/380; 230/400; 240/415 (±2%)			
Frequency range [Hz]	50/60 (±0.5%)			
Total harmonic distortion (THDv, rated power, linear load) [%]	≤2			
Grid (input/output)				
Max. AC power from grid [VA]	12500	15000	18600	20600
Rated AC output power [W]	5000	6000	8000	10000
Max. AC output power [VA]	5500	6600	8800	11000
Max. AC output current [A]	8.4	10	13.3	16.7
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			
Efficiency				
Max. efficiency/European efficiency [%]	98.00/97.20	98.20/97.50	98.40/97.90	
Protection & Function				
Surge protection	Type II, DC and AC			
Overvoltage category	II DC and III AC			
Protective class	Class I			
Gird 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	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			
Max. operating altitude [m]	2000			
Display	LED			
Communication	RS485/CAN/WLAN			
DI/DO	1*DI/1*DO/DRM			
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Plug and play connector			

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Can be reached only if PV and battery power is sufficient

All-in-one System Three Phase (HV) (10-20) kW

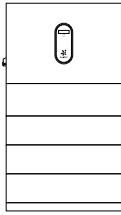
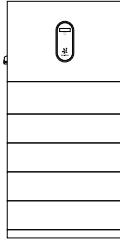
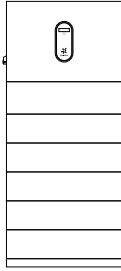
Type Designation	All-in-one sys-10kW-TH PRO		All-in-one sys-15kW-TH	All-in-one sys-20kW-TH
PV (input)				
Max. recommended PV array power [Wp]	20000		30000	40000
Max. PV input voltage* [V]			1000	
Rated PV input voltage [V]			650	
Start-up input voltage [V]			150	
MPPT voltage range [V]			150-950	
No. 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				
Battery type	LiFePO4 Prismatic Cell			
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	Max. 8 modules for each stack, Max. 4 stacks in parallel (102.4kWh)			
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
Max. 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
Max. 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			
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			
Gird 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	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/DO	4*DI/2*DO/DRM0			
DC connection type	MC4 (PV, Max. 6 mm²)			
AC connection type	Plug and play terminals (Grid / Backup, Max. 10 mm²)			

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Can be reached only if PV and battery power is sufficient

*** 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	LiFePO4 Prismatic Cell					
System configuration	3	4	5	6	7	8**
						
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
Short circuit current [A]	40					
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					

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

** Single Phase All-in-one system are not applicable to this configuration.

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

**** Measured based on the Three Phase All-in-one system. Only slight differences in height&weight between different models.



KEY FEATURES



IP65

High protection level for indoor & outdoor

Easy

Quick installation with stackable modules

35kg

Lightweight modules per unit

10Years

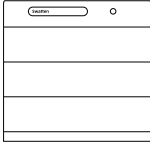
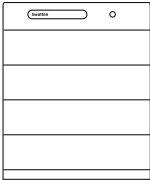
Warranty with 1000-hour salt spray test

OTA

Real-time monitoring & remote upgrades



Stackable BESS (HV) (9.6-25.6) kWh

Type Designation	SieB-H9600-F	SieB-H12K8-F	SieB-H16K0-F	SieB-H19K2-F	SieB-H22K4-F	SieB-H25K6-F
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 type	SieB-H3200-F					
Module parameter	64V 50Ah 615*360*165mm 33.3±0.5kg					
Cell type	LFP (LiFePO4)					
Max. module configuration	3	4	5	6	7	8
						
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
Short circuit current [A]	40					
Communication	CAN / RS485					
Weight [kg]	120	155	190	225	260	295
Dimensions (W*D*H) [mm]	615*360*730	615*360*880	615*360*1030	615*360*1180	615*360*1330	615*360*1480
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					

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

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

*** Refer to Swatten SieB-H-F Limited Warranty Letter;



KEY FEATURES

SAFETY FEATURES

- Support for **A+6** leakage protection
- Fast protection with **AC 30mA**, **DC 6mA**, and **30ms** response time
- Anti-theft electric protection with a security lock feature

SMART CHARGING FEATURES

- Support **100%** sustainable energy, PV charging with the PV system
- Appointment scheduling for low electricity rate periods
- Automatic identification of countries, type of plugs, voltage and current corresponding to these plugs

INSTALLATION FRIENDLY DESIGN

- Easy to set up your charging session with LCD display screen
- Place on the car or hang on the wall
- Support remote firmware upgrade for convenient upgrade maintenance



AC Charger

Type Designation	SiECS-4kW	SiECT-11kW
Adapter	EU-PLUG	165 Red
AC Input and Output		
Input voltage [V]	230	400
Max. Output current [A]	16	
Max. Output power [kW]	4	11
Output voltage [V]	230	400
Input and output frequency [Hz]	50-60	
Protection & Functions		
Over/Under voltage protection	Yes	
Overheating protection	Yes	
Over-current protection	Yes	
Leakage protection	Yes	
Grounding protection	Yes	
Lightning protection	Yes	
Fire and flame protection	Yes	
Antistatic protection	Yes	
Dynamic load balancing	Optional	
General Data		
Control box dimensions [mm]	242*105.5*67.5	
Weight [kg]	4	
Mounting method	Wall-Mounting	
Total length	5.5 meters with charging handle installed	
Impact resistance	Able to withstand 1 meter free fall drop and 2,000kg vehicle crush test without critical damage	
Control box material	PC+PBT, Flame retardance UL94: 5VA	
Handle material	PC+PBT, Copper, silver-plated	
Cable material	Copper + TPU	
Degree of protection	IP66	
Operating ambient temperature range [°C]	-30-50	
Allowable relative humidity range [%]	5-95	
Cooling method	Natural cooling	
Max. operating altitude [m]	2000	
LCD display	1.8 inch LCD screen	
LED indicator	Red/blue	
Communication	RS485	
Charging handle/Connector life cycle	10,000 insertion / removal events (no load)	
Charging port type	IEC 62196 (Type2)	



Swatten Europe Case



Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team



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