

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

**Smarter Power Better Life** 



## KEY FEATURES



50<sub>v</sub> Low starting voltage

330% Max. DC input oversizing 16<sub>A</sub> Max. DC input

6.6kw

Max. power of charging and supply

<10<sub>ms</sub>

Off-grid switching

4000<sub>m</sub>

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	12000
	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		
			0000,0000		
Backup Output (On-Grid Mode)					
Rated output power [W]			6000		
Rated output current [A]			27		
Backup Output (Off-Grid Mode)					
	1				
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 freguency range [Hz]			45-55/55-65		
Total harmonic distortion			<3		
	<b>S</b>				
(THDi, rated power) [%]			>0.99		
			20.99		
(THDi, rated power) [%] Power factor at rated power		a	dj.0.8.leading to 0.8 laggir	ng	
(THDi, rated power) [%]		a		ng	
(THDi, rated power) [%] Power factor at rated power Adjustable power factor	97.30/97.00	97.50)	dj.0.8.leading to 0.8 laggii	ng 97.70/	/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]	97.30/97.00		dj.0.8.leading to 0.8 laggii		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00 DC type II /AC type II		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection  Gird monitoring	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00 DC type II /AC type II		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection  Gird monitoring  DC reverse polarity protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00 DC type II /AC type II Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection  Gird monitoring  DC reverse polarity protection  Battery input reverse polarity protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00 DC type II /AC type II Yes Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Surge protection  Gird monitoring	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II  Yes  Yes  Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%]  Protection & Function  Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%]  Protection & Function  Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV)	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency  Max. efficiency/European efficiency [%]  Protection & Function  Gurge protection  Gird monitoring  DC reverse polarity protection  Battery input reverse polarity protection  AC short-circuit protection  Leakage current protection  DC switch (PV)  DC fuse (Battery)	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%]  Protection & Function  Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery)  General Data	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery)  General Data Topology (PV/Battery)	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%]  Protection & Function  Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Yes Transformerless		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm]	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Yes If yes Yes Yes Yes		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring PC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg]	97.30/97.00		dj.0.8.leading to 0.8 laggii /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Yes 465 495*345*180 ≤20		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring PC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Operating ambient temperature range [°C]	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Operating ambient temperature range [°C] Allowable relative humidity range [%]	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Additional type Yes Yes Wes Yes Yes Yes Yes Yes Yes Wes Yes Or Annual type Wall-mounting bracket -25-60 0-100		/97.30
(THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring DC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) General Data Topology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Operating ambient temperature range [°C] Allowable relative humidity range [%] Cooling method	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring Po reverse polarity protection Battery input reverse polarity protection Ac short-circuit protection Leakage current protection Do switch (PV) Do fuse (Battery) General Data Fopology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [%] Cooling method Max. operating altitude [m]	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring Po reverse polarity protection Battery input reverse polarity protection Ac short-circuit protection Leakage current protection Do switch (PV) Do fuse (Battery) General Data Fopology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [%] Cooling method Max. operating altitude [m] Display	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Additional type Yes Wes Yes Additional type Additional type Wall-mounting bracket -25-60 0-100 Natural convection 4000 LED		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring Po reverse polarity protection Battery input reverse polarity protection Leakage current protection Leakage current protection Do switch (PV) Do fuse (Battery) General Data Fopology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [%] Cooling method Max. operating altitude [m] Display Communication	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		/97.30
THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Gurge protection Gurge protection Gattery input reverse polarity protection Ac short-circuit protection Leakage current protection Defuse (Battery) Defuse (Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [%] Cooling method Max. operating altitude [m] Display Communication	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Additional type Yes Wes Yes Additional type Additional type Wall-mounting bracket -25-60 0-100 Natural convection 4000 LED		/97.30
THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Gurge protection Gurde monitoring OC reverse polarity protection Battery input reverse polarity protection AC short-circuit protection Leakage current protection DC switch (PV) DC fuse (Battery) DC guree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deperating ambient temperature range [%] Cooling method Max. operating altitude [m] Display Communication DI/DO	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Wes Yes One Wes Wes Wes Addition  IP65 A95*345*180 ≤20  Wall-mounting bracket -25-60 0-100  Natural convection A000 LED RS485/CAN/WLAN		/97.30
[THDi, rated power) [%] Power factor at rated power Adjustable power factor  Efficiency Max. efficiency/European efficiency [%] Protection & Function Surge protection Gird monitoring Po reverse polarity protection Battery input reverse polarity protection Ac short-circuit protection Leakage current protection Do switch (PV) Do fuse (Battery) General Data Fopology (PV/Battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [%] Cooling method Max. operating altitude [m] Display	97.30/97.00		dj.0.8.leading to 0.8 laggin  /97.00  DC type II /AC type II Yes Yes Yes Yes Yes Yes Yes Yes Additional Application of the properties of		/97.30

 $<sup>\</sup>ensuremath{^{\star}}$  Input voltage exceeding the MPPT operating voltage range triggers inverter protection

<sup>\*\*</sup> Depending on the connected battery

<sup>\*\*\*</sup> Can be reached only if PV and battery power is sufficient



## 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

#### **1**00+

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



**C&l and Residential BESS** 





#### Swatten Europe Case



















#### <

#### **Swatten APAC Case**

















#### **Compatible Battery Brand**



**Dyness** 















\* For detailed list please contact our technical team





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