

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

Smarter Power Better Life



KEY FEATURES



100%
Unbalanced output at

full power

Max 3

Fanless

Natural convection

<10ms
Off-grid switching

98.4%

Max. Efficiency

4000_m

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]	7,500	1000		13000
Rated PV input voltage [V]		600		
Start-up input voltage [V]	180			
MPPT voltage range [V]		150-9	50	
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		Li-ion ba	tterv	
Battery voltage range [V]		150-6	•	
Max. charge/discharge current* [A]	30/30			
lax. 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
eak output power (off-grid mode)**	6000VA, 5min/10000VA, 10s	7200VA, 5min/10000VA, 10s	12000VA, 5min	12000VA, 5min
1ax. output power (on-grid mode) [VA]	5500	6600	8800	11000
lax. output current (on-grid mode) [A]	8.4	10	13.3	16.7
ackup switching time [ms]		<10		
ated voltage [V]		3/N/PE, 220/380; 230/		
requency range [Hz]		50/60 (±0	J.570)	
otal 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
ባax. AC output current [A]	8.4	10	13.3	16.7
lated AC voltage [V]	3/N/PE, 220/380; 230/400; 240/415			
AC voltage range [V]	270-480			
	50/60			
Grid frequency range [Hz]		50/6i 45-55/5:		
Grid frequency range [Hz] Fotal harmonic distortion				
Rated grid frequency [Hz] Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%]		45-55/5		
Grid frequency range [Hz] Fotal harmonic distortion		45-55/5	5-65	
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Power factor at rated power/ Adjustable power factor		45-55/5 <3	5-65	
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor	00.00/07.70	45-55/5 <3 >0.99/0.8.leading	to 0.8 lagging	0.07.00
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%]	98.00/97.20	45-55/5 <3	to 0.8 lagging	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Power factor at rated power/	98.00/97.20	45-55/5 <3 >0.99/0.8.leading	to 0.8 lagging	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Fficiency Max. efficiency/European efficiency [%] Protection & Function	98.00/97.20	45-55/5 <3 >0.99/0.8.leading	5-65 to 0.8 lagging 98.40	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Fificiency Max. efficiency/European efficiency [%] Protection & Function Parallel***	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50	5-65 to 0.8 lagging 98.40 e mode	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Fficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav	to 0.8 lagging 98.40 e mode and AC	0/97.90
Frid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Europe protection Dervoltage category Protective class	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
irid frequency range [Hz] fotal harmonic distortion THDi, rated power) [%] fower factor at rated power/ dijustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Europe protection Overvoltage category Protective class Firid monitoring	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Flat. efficiency/European efficiency [%] Protection & Function Parallel*** Surge protection Overvoltage category Protective class Grid monitoring DC reverse polarity protection	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Grotal harmonic distortion THDi, rated power) [%] Grower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection Overvoltage category Protective class Grid monitoring OC reverse polarity protection Battery input reverse polarity protection	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Force ficiency Force ficiency/European efficiency [%] Forcection & Function Function Foreveroltage category Forcective class Firid monitoring Oc reverse polarity protection Battery input reverse polarity protection Insulation monitoring (LV)	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Forcetion & Function F	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Ficiency Foratection & Function Foratellel*** Fourge protection Foreverse polarity protection Forattery input reverse polarity protection Forsted in monitoring (LV) For Short-circuit protection Residual current protection	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection Devervoltage category Protective class Grid monitoring DC reverse polarity protection Battery input reverse polarity protection Insulation monitoring (LV) AC short-circuit protection Residual current protection DC switch (PV)	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Ficiency Foratection & Function Foratellel*** Four group rotection Foreverse polarity protection Foratery input reverse polarity protection For short-circuit protection Residual current protection For switch (PV) Foreverse potection	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Grotal harmonic distortion THDi, rated power) [%] Grower factor at rated power/ Adjustable power factor Grotection & Function Grantlel*** Grotection & Function Grantlel*** Grotective class Grid monitoring Greverse polarity protection Grattery input reverse polarity protection Grantlelion monitoring (LV) Grotecticular protection Grantlelion monitoring (LV) Grotective class Grid monitoring Greverse polarity protection Grantlelion monitoring (LV) Grotecticular protection Grantlelion monitoring (LV) Grotecticular protection Grotecticular protecticular protection Grotecticular protecticular pro	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Force ficiency Force ficiency/European efficiency [%] Forcection & Function Foratallel*** Four ge protection Foreverse polarity protection For everse polarity protection For short-circuit protection Residual current protection Conswitch (PV) For ever-heat protection	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] fotal harmonic distortion THDi, rated power) [%] fower factor at rated power/ dijustable power factor Fificiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Furge protection Dervoltage category Protective class Fird monitoring OF reverse polarity protection Fattery input reverse polarity protection Insulation monitoring (LV) OF Short-circuit protection Residual current protection Conswitch (PV) Dever-heat protection General Data	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Burge protection Deervoltage category Protective class Grid monitoring For reverse polarity protection Buttery input reverse polarity protection mulation monitoring (LV) AC short-circuit protection Residual current protection Consultation monitoring Consultation mon	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion FHDi, rated power) [%] Fower factor at rated power/ Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Fourge protection Dervoltage category Protective class Firid monitoring For everse polarity protection Fourth insulation monitoring (LV) For sevice class For everse polarity protection For everse polarity protec	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes OPT Transform	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
irid frequency range [Hz] total harmonic distortion ITHDi, rated power) [%] tower factor at rated power/ djustable power factor ifficiency tax. efficiency/European efficiency [%] Protection & Function arallel*** urge protection towervoltage category rotective class trid monitoring IC reverse polarity protection attery input reverse polarity protection assulation monitoring (LV) IC short-circuit protection esidual current protection esidual current protection for switch (PV) tover-heat protection FCI General Data opology (PV/battery) tegree of protection imensions (W*H*D) [mm]	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes OPT Transform IP65	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
Grid frequency range [Hz] Gotal harmonic distortion THDi, rated power) [%] Gower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection Dervoltage category Protective class Grid monitoring DC reverse polarity protection Battery input reverse polarity protection mulation monitoring (LV) CC switch (PV) Dever-heat protection General Data Gopology (PV/battery) Degree of protection Diveright [kg]	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes OPT Transform IP65 450*550	to 0.8 lagging 98.40 e mode and AC III AC I	0/97.90
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Grid frequency range [Hz] Gotal harmonic distortion THDi, rated power) [%] Gower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection Overvoltage category Protective class Grid monitoring OC reverse polarity protection Gualation monitoring (LV) AC short-circuit protection Residual current protection Residual c	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes OPT Transform IP65 450*550 31 Wall-mountin -25-60 (Deratin	to 0.8 lagging 98.40 e mode and AC III AC I erless *185 g bracket g above 45)	0/97.90
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Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Fourge protection Pervoltage category Protective class Foid monitoring Por reverse polarity protection Battery input reverse polarity protection Insulation monitoring (LV) AC short-circuit protection Residual current protection Por Switch (PV) Pover-heat protection AFCI Seneral Data Fopology (PV/battery) Forgree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Departing ambient temperature range [°C] Kllowable relative humidity range Non-condensing) [%]	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes OPT Transform IP65 450*550 31 Wall-mountin -25-60 (Deratin	to 0.8 lagging 98.40 e mode and AC III AC I erless *185 g bracket g above 45)	0/97.90
Grid frequency range [Hz] Gotal harmonic distortion THDi, rated power) [%] Gower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Gurge protection Pervoltage category Protective class Grid monitoring OC reverse polarity protection Battery input reverse polarity protection Casulation monitoring (LV) CC short-circuit protection CE switch (PV) Deer-heat protection AFCI Seneral Data Gopology (PV/battery) Degree of protection Dimensions (W*H*D) [mm] Veight [kg] Mounting method Departing ambient temperature range [°C] Killowable relative humidity range Non-condensing) [%] Gooling method	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I erless *185 g bracket g above 45) 0	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Surge protection Pervoltage category Protective class Grid monitoring DC reverse polarity protection Battery input reverse polarity protection Insulation monitoring (LV) AC short-circuit protection Residual current protection AFCI General Data Fopology (PV/battery) Degree of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Departing ambient temperature range [°C] Allowable relative humidity range Non-condensing) [%] Cooling method Max. operating altitude	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Afortion Transform IP65 450*550 31 Wall-mountin -25-60 (Deratin 0-100 Natural con	to 0.8 lagging 98.40 e mode and AC III AC I serless *185 g bracket g above 45) 0	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%]	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes And Yes	to 0.8 lagging 98.40 e mode and AC III AC I serless *185 g bracket g above 45) 0 vection	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Fourge protection Pervoltage category Protective class Foid monitoring For reverse polarity protection Battery input reverse polarity protection Insulation monitoring (LV) AC short-circuit protection Residual current protection Residual current protection For switch (PV) Fore-heat protection For large For	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Afortion Transform IP65 450*550 31 Wall-mountin -25-60 (Deratin 0-100 Natural con 4000 LED	to 0.8 lagging 98.40 e mode and AC III AC I serless *185 g bracket g above 45) 0 vection)	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Surge protection Perotective class Frid monitoring For reverse polarity protection Battery input rever	98.00/97.20	45-55/5 <3 >>0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I erless *185 g bracket g above 45) 0 vection) //WLAN	0/97.90
Grid frequency range [Hz] Fotal harmonic distortion THDi, rated power) [%] Fower factor at rated power/ Adjustable power factor Efficiency Max. efficiency/European efficiency [%] Protection & Function Parallel*** Surge protection Perotective class Frid monitoring For reverse polarity protection Battery input reverse polarity protection Battery input reverse polarity protection Residual current protection Poswitch (PV) Pover-heat protection AFCI General Data Fopology (PV/battery) Foreigne of protection Dimensions (W*H*D) [mm] Weight [kg] Mounting method Deparating ambient temperature range [°C] Allowable relative humidity range Non-condensing) [%] Fooling method Max. operating altitude Display Communication DI/DO	98.00/97.20	45-55/5 <3 >0.99/0.8.leading 98.20/97.50 Master-slav Type II, DC II DC and Class Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	to 0.8 lagging 98.40 e mode and AC III AC I erless *185 g bracket g above 45) 0 vection) /WLAN I/DRM	0/97.90

^{*} 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

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



C&l and Residential BESS







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Swatten Europe Case















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Swatten APAC Case















Compatible Battery Brand



Dyness





















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