

## All Products



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



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



Single Phase Hybrid Inverter  
(LV) (3.6-6) kW



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



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



ALL IN ONE  
(HV) (5-20) kW



Stackable BESS  
(HV) (9.6-25.6) kWh



Rack Mounting BESS  
(HV) (9.8-26.2) kWh



Rack Mounting BESS  
(LV) (5.12) kWh

## Quality Components



TEXAS  
INSTRUMENTS

MAIN DSP / SLAVE DSP



GigaDevice

ARM



onsemi

IGBT



infineon

IGBT



TOSHIBA

Optocoupler



VISHAY

Isolated IC



STÄUBLI

PV&BAT connector



ZETTLER  
electronics

BAT precharge relay



ZBENY

DC switch



HONGFA

Relay



LAZZEN

Contractor



法拉电子  
FARATRONIC

DC link capacitor



# 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                                                   | Li-ion battery                 |                |                |                |                |
| 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             |                |                |                |                |



# 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

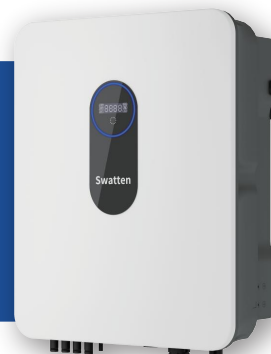


# Single Phase Hybrid Inverter (HV) (8/10) kW

| 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                                                   |                |  | Li-ion battery                 |  |
| 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             |  |



# 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                                                   | Li-ion battery                          |                           |               |                |
| 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                                          |                                         |                           |               |                |
| 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 (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                 |                           |               |                |

\* 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 **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/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)        |  |                         |                         |

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

\* 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