

# SH 5K



## Flexible

- Handy and light, easy to handle without lift machinery assistance, lower the cost of installation and maintenance.
- EMS Integrated, multiple-target can be optimized
- Integrated DC combine and surge protection function, lower the system cost
- DC switch, safe and convenient for maintenance
- Dual MPPTs

## Safe and long lifetime

- Lithium-ion battery from Samsung is recommended, safe and stable, after-sale service and guarantee
- Charging/discharging lifetime could up to 6000 cycles

## Grid-friendly

- Active power continuously adjustable (0~100%)
- Reactive power control with power factor 0.8 lagging~0.8 leading

## Efficient

- Max. Efficiency at 98.0%
- Battery to grid efficiency at 95.0%

## Qualified

- TÜV, AS4777, VDE AR N 4105

### Input Side Data

|                                     |                     |
|-------------------------------------|---------------------|
| Max. PV input power                 | 5100W (2550W/2550W) |
| Max. PV input voltage               | 600V                |
| Startup voltage                     | 125V                |
| Nominal input voltage               | 345V                |
| MPP voltage range                   | 125~560V            |
| MPP voltage range for nominal power | 255~520V            |
| No. of MPPTs                        | 2                   |
| Max. number of PV strings per MPPT  | 1                   |
| Max. PV input current               | 20A (10A/10A)       |
| Max. current for input connector    | 12A                 |

### Output Side Data

|                               |                                                                       |
|-------------------------------|-----------------------------------------------------------------------|
| Nominal AC output power       | 5000W                                                                 |
| Max AC output power (PF=1)    | 5000W                                                                 |
| Max. AC output apparent power | 5000VA                                                                |
| Max. AC output current        | 21.7A                                                                 |
| Nominal AC voltage            | 230Vac                                                                |
| AC voltage range              | 180~276Vac                                                            |
| Nominal grid frequency        | 50Hz                                                                  |
| Grid frequency range          | 45-55Hz                                                               |
| THD                           | <3% (Nominal power)                                                   |
| DC current injection          | <0.5%In                                                               |
| Power factor                  | >0.99@default value at nominal power, (adj. 0.8 lagging ~0.8 leading) |

### Protection

|                             |     |
|-----------------------------|-----|
| Anti-islanding protection   | Yes |
| AC short circuit protection | Yes |
| Leakage current protection  | Yes |
| DC switch (solar)           | Yes |

### System Data

|                                      |                                                                                                                  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Max. efficiency                      | 98.0%                                                                                                            |
| Max. European efficiency             | 97.6%                                                                                                            |
| Battery to grid efficiency           | 95.0%                                                                                                            |
| Isolation method (solar)             | Transformerless                                                                                                  |
| Isolation method (battery)           | HF                                                                                                               |
| Ingress protection rating            | IP65                                                                                                             |
| Night power consumption              | <1W                                                                                                              |
| Noise emission                       | <30dB                                                                                                            |
| Operating ambient temperature range  | -25~60°C                                                                                                         |
| Allowable relative humidity range    | 0~100%                                                                                                           |
| Cooling method                       | Nature convection                                                                                                |
| Max. operating altitude              | 4000m (<2000m derating)                                                                                          |
| Display                              | Graphic LCD                                                                                                      |
| Communication                        | 2 × RS485/Ethernet/CAN/Wi-Fi (optional)                                                                          |
| Power management                     | 4 × Digital Inputs, 1 × Digital Output                                                                           |
| Analogue inputs                      | PT1000 (temperature sensor)                                                                                      |
| DC connection type                   | MC4                                                                                                              |
| AC connection type                   | Clamping yoke connector                                                                                          |
| Certificates and approvals (Planned) | AS4777, AS/NZS3100, SI4777, G59/2, G83/2, IEC62109-1, IEC62109-2, VDE-AR-N-4105, IEC 62619, IEC 61427, IEC 62040 |

### Battery Side Data

|                              |                               |
|------------------------------|-------------------------------|
| Battery type                 | Li-battery/ Lead acid battery |
| Battery voltage              | 48V (32V-70V)                 |
| Max charge/discharge current | 65A/65A                       |

### Mechanical Data

|                        |                   |
|------------------------|-------------------|
| Dimensions (W × H × D) | 447 × 510 × 150mm |
| Mounting method        | Wall bracket      |
| Weight                 | 20kg              |