

# AF-SLP(PLUS) Series / 4-6kW

Residential Single Phase Hybrid Inverter



**Max. 1.5**  
1.5 Times PV Oversize

**2 MPPT**  
Up to 2 MPPT Channels

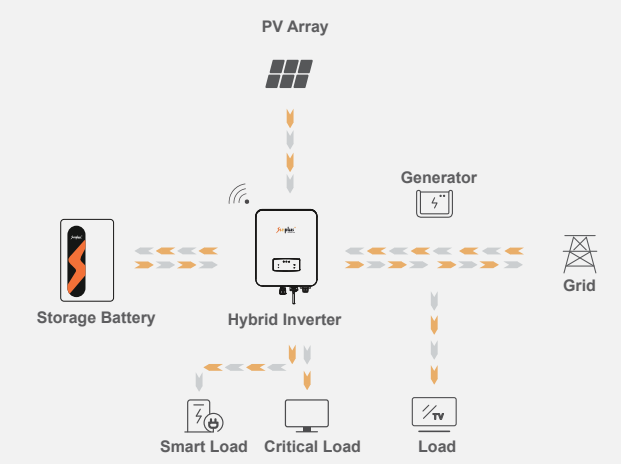
**< 10ms**  
Switch Time < 10ms

Max.6 Parallel Stacking

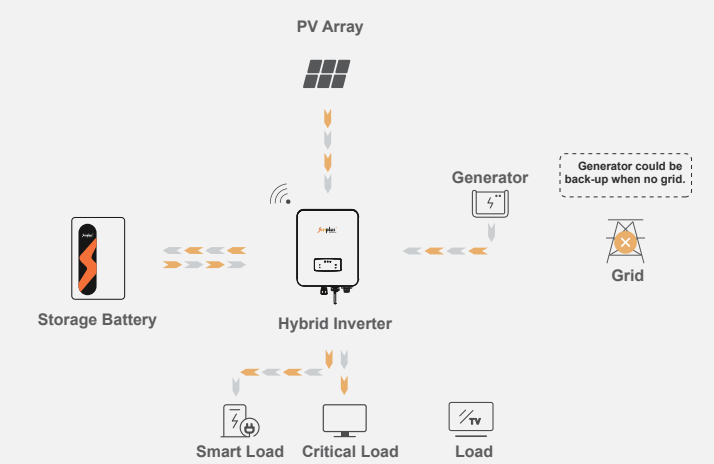
Support Generator

- Support for Time-of-use Optimization
- Configurable Operation Modes
- Arc Fault Circuit Interrupter (AFCI)
- Build in Anti-feed-in Function
- Compact Size and Easy Installation
- Smart Monitoring & Remote Firmware Upgrade

## Optimizing Self-Consumption (on-grid)

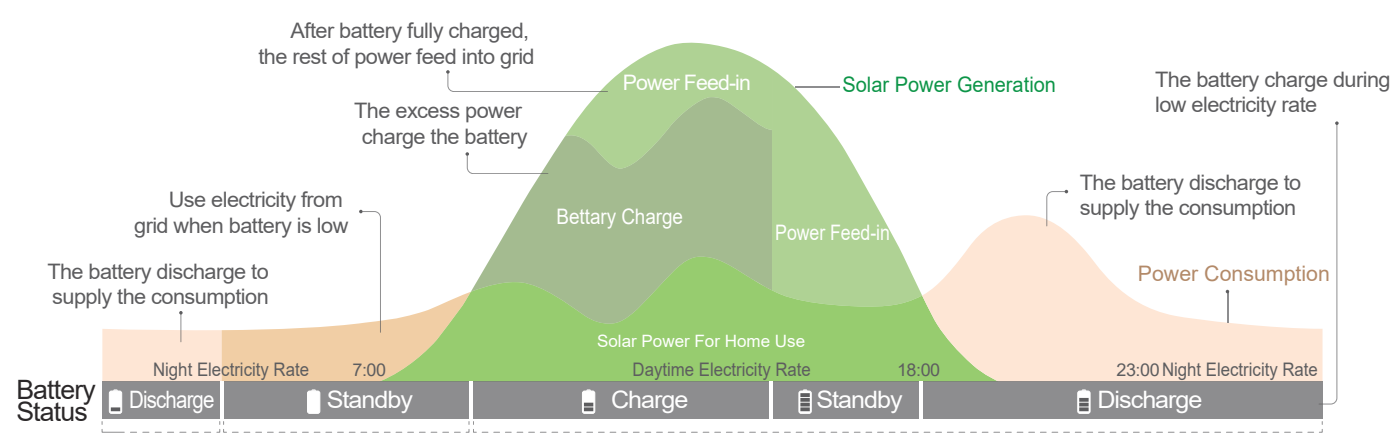


## Emergency Power Supply (off-grid)



## Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



| PV Input                              | AF4K-SLP   | AF4.6K-SLP                            | AF5K-SLP    |
|---------------------------------------|--|---------------------------------------|-------------|
| Max. Input Power (kW)                 | 6  | 6.9                                   | 7.5         |
| Max. PV Voltage (V)                   |  | 550                                   |             |
| MPPT Range (V)                        |  | 80 - 500                              |             |
| Full MPPT Range (V)                   | 120 - 500  | 130 - 500                             | 150 - 500   |
| Normal Voltage (V)                    |  | 360                                   |             |
| Startup Voltage (V)                   |  | 100                                   |             |
| Max. Input Current (A)                |  | 18.5 x 2                              |             |
| Max. Short Current (A)                |  | 26 x 2                                |             |
| No. of MPP Tracker / No. of PV String |  | 2 / 2                                 |             |
| <b>Battery Port</b>                   |  |                                       |             |
| Max. Charge/Discharge Power (kW)      | 4.0  | 4.6                                   | 5.0         |
| Max. Charge/Discharge Current (A)     |  | 120                                   |             |
| Battery Normal Voltage (V)            |  | 51.2                                  |             |
| Battery Voltage Range (V)             |  | 40 - 60                               |             |
| Battery Type                          |  | Li-ion / Lead-acid etc.               |             |
| <b>AC Grid</b>                        |  |                                       |             |
| Max Continuous Current (A)            | 19.0   | 22.0                                  | 23.0        |
| Max Continuous Power (kVA)            | 4.0  | 4.6                                   | 5.0         |
| Nominal Grid Current(A)               | 18.2 / 17.4  | 21.0 / 20.0                           | 22.8 / 21.8 |
| Nominal Grid Voltage (V)              |  | 198 to 242 @ 220 / 207 to 253 @ 230   |             |
| Nominal Grid Frequency (Hz)           |  | 50 / 60                               |             |
| Power Factor                          | 0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)                              |                                       |             |
| Current THD (%)                       |  | < 3                                   |             |
| <b>AC Load Output</b>                 |  |                                       |             |
| Max Continuous Current (A)            | 19.0   | 22.0                                  | 23.0        |
| Max Continuous Power (kVA)            | 4.0  | 4.6                                   | 5.0         |
| Max Peak Current (A) (10min)          | 27.3 / 26.1  | 31.4 / 30                             | 34.1 / 32.7 |
| Max Peak Power (kVA) (10min)          | 6.0  | 6.9                                   | 7.5         |
| Nominal AC Current (A)                | 18.2 / 17.4  | 21.0 / 20.0                           | 22.8 / 21.8 |
| Nominal AC Voltage L-N (V)            |  | 220 / 230                             |             |
| Nominal AC Frequency (Hz)             |  | 50 / 60                               |             |
| Switching Time (s)                    |  | Seamless                              |             |
| Voltage THD (%)                       |  | < 3                                   |             |
| <b>Efficiency</b>                     |  |                                       |             |
| CEC Efficiency (%)                    |  | 97.0                                  |             |
| Max. Efficiency (%)                   |  | 97.6                                  |             |
| PV to Bat. Efficiency (%)             |  | 98.1                                  |             |
| Bat. between AC Efficiency (%)        |  | 96.8                                  |             |
| <b>Protection</b>                     |  |                                       |             |
| PV Reverse Polarity Protection        |  | Yes                                   |             |
| Over Current/Voltage Protection       |  | Yes                                   |             |
| Anti-Islanding Protection             |  | Yes                                   |             |
| AC Short Circuit Protection           |  | Yes                                   |             |
| Residual Current Detection            |  | Yes                                   |             |
| Ground Fault Monitoring               |  | Yes                                   |             |
| Insulation Resister Detection         |  | Yes                                   |             |
| PV Arc Detection                      |  | Yes                                   |             |
| Enclosure Protect Level               |  | IP65 / NEMA4X                         |             |
| <b>General Data</b>                   |  |                                       |             |
| Dimensions (H x W x D, mm)            |  | 535 x 370 x 192                       |             |
| Weight (kg)                           |  | 20.5                                  |             |
| Topology                              |  | Transformerless                       |             |
| Cooling                               |  | Intelligent Fan                       |             |
| Relatively Humidity                   |  | 0 - 100 %                             |             |
| Operating Temperature Range (°C)      |  | - 25 to 60                            |             |
| Operating Altitude (m)                |  | < 4000                                |             |
| Noise Emission (dB)                   |  | < 25                                  |             |
| Standby Consumption (W)               |  | < 10                                  |             |
| Mounting                              |  | Wall Bracket                          |             |
| Communication with RSD                |  | SUNSPEC                               |             |
| Display & Communication Interfaces    |  | LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G |             |
| Certification & Approvals             | NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2 |                                       |             |
| EMC                                   |  | EN61000-6-2, EN61000-6-3              |             |

| PV Input                              | AF5.5K-SLP   | AF6K-SLP                              |
|---------------------------------------|--|---------------------------------------|
| Max. Input Power (kW)                 | 8.3  | 9                                     |
| Max. PV Voltage (V)                   |  | 550                                   |
| MPPT Range (V)                        |  | 80 - 500                              |
| Full MPPT Range (V)                   | 160 - 500  | 170 - 500                             |
| Normal Voltage (V)                    |  | 360                                   |
| Startup Voltage (V)                   |  | 100                                   |
| Max. Input Current (A)                |  | 18.5 x 2                              |
| Max. Short Current (A)                |  | 26 x 2                                |
| No. of MPP Tracker / No. of PV String |  | 2 / 2                                 |
| <b>Battery Port</b>                   |  |                                       |
| Max. Charge/Discharge Power (kW)      | 5.5  | 6.0                                   |
| Max. Charge/Discharge Current (A)     |  | 120                                   |
| Battery Normal Voltage (V)            |  | 51.2                                  |
| Battery Voltage Range (V)             |  | 40 - 60                               |
| Battery Type                          |  | Li-ion / Lead-acid etc.               |
| <b>AC Grid</b>                        |  |                                       |
| Max Continuous Current (A)            | 26.0   | 28.0                                  |
| Max Continuous Power (kVA)            | 5.5  | 6.0                                   |
| Nominal Grid Current(A)               | 25.0 / 24.0  | 27.3 / 26.1                           |
| Nominal Grid Voltage (V)              |  | 198 to 242 @ 220 / 207 to 253 @ 230   |
| Nominal Grid Frequency (Hz)           |  | 50 / 60                               |
| Power Factor                          | 0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)                              |                                       |
| Current THD (%)                       |  | < 3                                   |
| <b>AC Load Output</b>                 |  |                                       |
| Max Continuous Current (A)            | 26.0   | 28.0                                  |
| Max Continuous Power (kVA)            | 5.5  | 6.0                                   |
| Max Peak Current (A) (10min)          | 37.8 / 36.1  | 41.0 / 39.2                           |
| Max Peak Power (kVA) (10min)          | 8.3  | 9.0                                   |
| Nominal AC Current (A)                | 25.0 / 24.0  | 27.3 / 26.1                           |
| Nominal AC Voltage L-N (V)            |  | 220 / 230                             |
| Nominal AC Frequency (Hz)             |  | 50 / 60                               |
| Switching Time (s)                    |  | Seamless                              |
| Voltage THD (%)                       |  | < 3                                   |
| <b>Efficiency</b>                     |  |                                       |
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| PV Reverse Polarity Protection        |  | Yes                                   |
| Over Current/Voltage Protection       |  | Yes                                   |
| Anti-Islanding Protection             |  | Yes                                   |
| AC Short Circuit Protection           |  | Yes                                   |
| Residual Current Detection            |  | Yes                                   |
| Ground Fault Monitoring               |  | Yes                                   |
| Insulation Resister Detection         |  | Yes                                   |
| PV Arc Detection                      |  | Yes                                   |
| Enclosure Protect Level               |  | IP65 / NEMA4X                         |
| <b>General Data</b>                   |  |                                       |
| Dimensions (H x W x D, mm)            |  | 513 x 370 x 192                       |
| Weight (kg)                           |  | 20.5                                  |
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| Relatively Humidity                   |  | 0 - 100 %                             |
| Operating Temperature Range (°C)      |  | - 25 to 60                            |
| Operating Altitude (m)                |  | < 4000                                |
| Noise Emission (dB)                   |  | < 25                                  |
| Standby Consumption (W)               |  | < 10                                  |
| Mounting                              |  | Wall Bracket                          |
| Communication with RSD                |  | SUNSPEC                               |
| Display & Communication Interfaces    |  | LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G |
| Certification & Approvals             | NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2 |                                       |
| EMC                                   |  | EN61000-6-2, EN61000-6-3              |