

**IESS-05K10U**

# Power Rover



## IESS-05K10U | PORTABLE POWER



### 3 In 1 Household ESS, Plug and Play

400W PV MPPT Controller  
500W Hybrid Inverter  
1000Wh Lithium Battery, Back Up Time up to 2 Hours



### 100% grade A Cells Inside

More than 6000 Cycles, up to 10 Years  
LiFePO<sub>4</sub> Battery, High Safety and Performance



### High Performance Inverter

Pure Sine Wave  
UPS Class Switch Time: <20ms



### Rapid Charge

PV and Grid Dual Charge, up to 500W  
Battery Full Charged in 2 Hours  
AC input power to load (bypass) and battery charge from grid up to 1000W



### Grid Compatibility and Excellent AC Output

Phase voltage withstand voltage 380V,  
self-adapting to unstable power grid  
Strong overload capability and smart overload protection  
Intelligent power control algorithm,  
self-adapting to household appliances

| Model                                                 | IESS-05K10U                                                                                                                                 |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Efficiency                                            |                                                                                                                                             |
| MPP Tracking Efficiency                               | ≥87.0%                                                                                                                                      |
| Max. Battery Mode Conversion Efficiency               | 87.0%                                                                                                                                       |
| PV Input                                              |                                                                                                                                             |
| Max. PV Input Power                                   | 400W                                                                                                                                        |
| Max. PV Input Voltage                                 | 60V                                                                                                                                         |
| MPPT Voltage Range                                    | 11~60V                                                                                                                                      |
| Max. PV Input Current                                 | 15A                                                                                                                                         |
| Number of MPP Trackers                                | 1                                                                                                                                           |
| AC Input                                              |                                                                                                                                             |
| Max. Grid Input Voltage (Absolute Maximum Ratings)    | 380Vrms                                                                                                                                     |
| Input Voltage Range                                   | 90-280Vac                                                                                                                                   |
| OVP Voltage                                           | 280±10Vac                                                                                                                                   |
| Maximum AC Input Power (Bypass Mode+Battery Charge)   | 1000W                                                                                                                                       |
| Maximum AC Input Current (Bypass Mode+Battery Charge) | 6A                                                                                                                                          |
| Nominal Operating Frequency                           | 50Hz/60Hz                                                                                                                                   |
| AC Output                                             |                                                                                                                                             |
| Nominal AC Output Power (Inverter Mode)               | 500W                                                                                                                                        |
| Max. Output Apparent Power (Inverter Mode)            | 600VA                                                                                                                                       |
| Nominal AC Output Voltage (Inverter Mode)             | 230VAC                                                                                                                                      |
| Total Voltage Harmonic Distortion (Inverter Mode)     | <3%                                                                                                                                         |
| Nominal AC Output Current (Inverter Mode)             | 2.2A                                                                                                                                        |
| Max. Output AC Output Current Limit (Inverter Mode)   | 3.0A                                                                                                                                        |
| Nominal AC Frequency                                  | 50Hz                                                                                                                                        |
| Switch Time                                           | ≤20ms                                                                                                                                       |
| Surge Power                                           | 600VA                                                                                                                                       |
| Overload Capacity                                     | 500W<Load≤600W @ 60s<br>600W<Load≤690W @ 30s<br>>690W @ 20s with output voltage under 165Vac<br>>690W @ 2s with output voltage under 155Vac |
| DC Output                                             |                                                                                                                                             |
| 2*USB-A + 1*USB-C                                     | 5V/3A, Max 15W                                                                                                                              |
| 2*DC5521                                              | 12V/5A, Max 60W                                                                                                                             |
| Battery                                               |                                                                                                                                             |
| Battery Type                                          | LiFePO4                                                                                                                                     |
| Rated Battery Voltage                                 | 3.2VDC                                                                                                                                      |
| Rated Capacity                                        | 314Ah                                                                                                                                       |
| Battery Energy                                        | 1000Wh                                                                                                                                      |
| Cycle Life                                            | 6000                                                                                                                                        |
| General Data                                          |                                                                                                                                             |
| Operating Temperature Range                           | -10~+60°C, >40°C Power Derating                                                                                                             |
| Max. Operating Altitude                               | 4000m, >2000m Power Derating                                                                                                                |
| SOC Display                                           | LED                                                                                                                                         |
| Cool Method                                           | Intelligent Fan Cooling                                                                                                                     |
| Noise                                                 | <45dB (1m)                                                                                                                                  |
| Authentication Level                                  | IEC62619/IEC62368/UN38.3                                                                                                                    |
| Protection                                            |                                                                                                                                             |
| Battery Fuse                                          | Yes                                                                                                                                         |
| Grid OVP                                              | Yes                                                                                                                                         |
| PV Over Voltage Protection                            | Yes                                                                                                                                         |
| Overload Protection                                   | Yes                                                                                                                                         |
| Short Circuit Protection                              | Yes                                                                                                                                         |
| Over-Temperature Protection                           | Yes                                                                                                                                         |
| Surge Protection                                      | AC:Type III DC:Type III                                                                                                                     |