**Features and Benefits**

- **Inputs:**
  - PV solar
  - AC grid power
  - Batteries
  - Generator
- **Output voltage** – 230V AC
- **Continuous power** – 5000W
- **Backup power** – 5000W
- **DC** – 48V
- **Battery charger** – 120A
- **Transfer time** <= 10ms
- **Battery charger adjustable for battery bank size and type**
  - Can charge Lead Acid and Li-ion batteries
  - Li-ion battery charging self-adapts to BMS
- **Solar Input**
  - Max power input – 5500W
  - Max V DC input – 500V DC
  - Max current input – 10A + 10A
  - MPPTs – 2
- **Multi-core processor design and advanced MPPT control**
- **High reliability and response speed**
- **Multiple operating modes:**
  - Battery only
  - Grid-tie only
  - Hybrid
  - Off-grid
- **Additional features**
  - AC couple - for additional PV Input
  - 6 stages time of use settings
  - IP65
- **Protections**
  - PV input lightning protection
  - Anti-islanding
  - Insulation resistance detection
  - Residual current
  - Output short circuit
  - Output overvoltage
  - Arc detection

**Overview**

Ideal for hybrid / off-grid / backup / applications

**Packaging Contents**

1 x 5kW Hybrid Inverter
1 x Installation Screws (1 pack)
1 x Temperature Sensor Probe
1 x CT 100Amp 50mA

**Product Code:** FBIHSK5K48

**Certifications**

- NRS097-2-1: 2017 Edition 2
- Grid Regulation: UL1741, IEE1547, VDE-ARN4105
- Safety Regulation: IEC62109-1&2, IEC62040-1
- EMC: EN61000-6-1, EN61000-6-3, FCC 15 class B

www.ellies.co.za
## Specifications

### Battery Input Data
- **Batter Type**: Lead-Acid or Li-ion
- **Battery Voltage Range (V)**: 40V-60V
- **Max. Charging Current (A)**: 120A
- **Max. Discharging Current (A)**: 120A
- **Charging Curve**: 3 Stages/Equalization
- **External Temperature Sensor**: Optional
- **Charging Strategy for Li-ion Battery**: Self-Adaption to BMS

### PV String Input Data
- **Max. DC Input Power (W)**: 5500W
- **Max. DC Input Voltage (V)**: 500V
- **MPPT Range (V)**: 125V-425V
- **Start-up Voltage (V)**: 150V
- **Max. Input Current (A)**: 10A+10A
- **No. of MPPT Trackers**: 2
- **No. of Strings Per MPPT Tracker**: 1/1

### AC Output Data
- **Rated AC Output and UPS Power (W)**: 5000W
- **Peak Power (off-grid)**: 2 Times Rated Power for 10 Seconds
- **Max. AC Current (A)**: 20.8A
- **Output Frequency and Voltage**: 50, 230 VAC (Single Phase)
- **Grid Type**: Single Phase
- **Current Harmonic Distortion**: THD<3% (Linear Load<1.5%)

### Efficiency
- **Max. Efficiency**: 97.60%
- **Euro Efficiency**: 97.00%
- **MPPT Efficiency**: 99.90%

### Protection
- **PV Input Lightning Protection**: Integrated
- **Anti-islanding Protection**: Integrated
- **PV String Input Reverse Polarity Protection**: Integrated
- **Insulation Resistor Detection**: Integrated
- **Residual Current Monitoring Unit**: Integrated
- **Output Over Current Protection**: Integrated
- **Output Shorted Protection**: Integrated
- **Output Over Voltage Protection**: Integrated

### Certifications and Standards
- **Grid Regulation**: UL1741, IEEE1547, VDE-ARN 4105, VDE0126
- **Safety Regulation**: IEC62109-1&2, IEC62040-1
- **EMC**: EN61000-6-1, EN61000-6-3, FCC 15 class B
- **South African Certifications**: NRS097-2-1: 2017 Edition 2

### General Data
- **Operating Temperature Range (°C)**: -25~60°C, >45°C Derating
- **Cooling**: Fan
- **Noise (dB)**: <30
- **Communication with BMS**: RS485; CAN
- **Weight (kg)**: 32KG
- **Size (Length*Width*Height mm)**: 580*330*217mm
- **Protection Degree**: IP65
- **Installation Style**: Wall-Mounted
- **Warranty**: 5 Years