

## Footprint Review

## KH BATTERY CATALOGUE

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## ABOUT US



Keheng New Energy Technology (shenzhen) Co., Ltd is dedicated to renewable energy field, It is the pioneer company of producing the high power and high safety battery in the world. With total investment of 50 million USD. Its annual output is around 3GWh high power of lithium ion battery cells, which is widely used in power tools, car jump starter, medical equipments, and Remote Control toys (RC car, helicopter, boat, etc.)Electric vehicle, Energy storage System etc, With strong R&D team, 8 automation production line, the total output can reach 258 million USD per year.

The marketing center is located in Shenzhen where can look for the elites from global new energy industry.Serving a global customer base, Anhui are the global manufacturing base of lithium batteries,it provides top quality products in rechargeable cells and packs for Fascia guns, keheng have been providing ODM and OEM service to customers from USA, Mexico, Europe, Japan, Korea, Taiwan, Middle East and other countries. And the products will be sold all over the world.

Factory certificated by ISO9001:2015,ISO14001,OHSAS18001.

Battery certificated by MSDS,ROHS,UN38.3,CE,CB,UL,KC,BIS,etc.

## CERTIFICATION



ISO 9001



ISO 14001



OHSAS 18001



CE



CB/IEC 62133



UL



ROHS



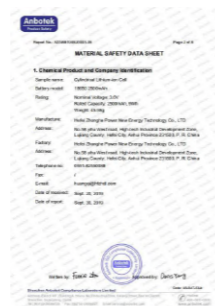
KC



BIS



UN 38.3



MSDS

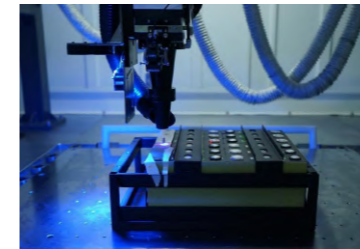


SEA/AIR SHIPMENT

## CELL FACTORY OVERVIEW



## PACK FACTORY OVERVIEW



## CYLINDRICAL CELL



INR18650-2000MAH-3C



INR18650-2000MAH-10C



INR18650-2500MAH-3C

## CYLINDRICAL CELL



INR18650-2600MAH-3C



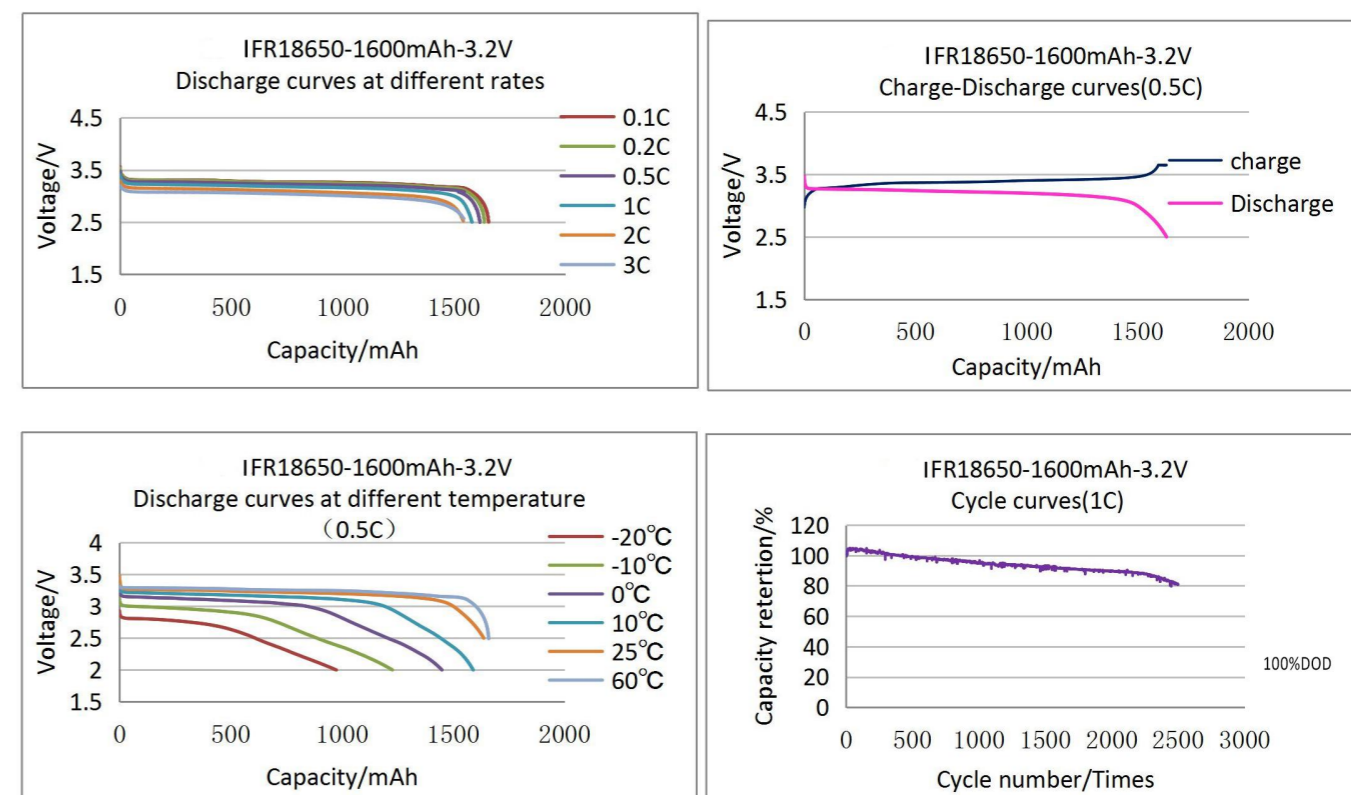
IFR18650-1600MAH-10A



IFR32650-6000MAH-2C

| Model                             | INR18650-2000-3C                            | INR18650-2000-10C | INR18650-2500-3C | INR18650-2600-3C | IFR18650-1600-10A | IFR32650-6000-2C |
|-----------------------------------|---|-------------------|------------------|------------------|-------------------|------------------|
| <b>General characteristic</b>     |   |                   |                  |                  |                   |                  |
| Nominal Voltage                   | 3.7V  |                   |                  | 3.2V             |                   |                  |
| Nominal capacity                  | 2000MAH                                     | 2000MAH           | 2500MAH          | 2600MAH          | 1600MAH           | 6000MAH          |
| Min capacity                      | 1950MAH                                     | 1950MAH           | 2490MAH          | 2550MAH          | 1550MAH           | 5950MAH          |
| Nominal energy                    | 7.4WH                                       | 7.4WH             | 9.3WH            | 9.7WH            | 5.2WH             | 19.2WH           |
| Dimension(MM)                     | H65.0*D18.3                                 |                   |                  | H65.0*D18.3      |                   | H65.0*D32.2      |
| Discharge rate                    | 3C  | 10C               | 3C               | 3C               | 3C                | 3C               |
| Approx.weight(G)                  | 44G   | 44G               | 48G              | 48G              | 40G               | 140G             |
| Material                          | NCM   |                   |                  | LiFePO4          |                   |                  |
| <b>Electrical characteristics</b> |   |                   |                  |                  |                   |                  |
| End of charge voltage             | 4.2V  |                   |                  | 3.65V            |                   |                  |
| End of discharge voltage          | 2.75V                                       |                   |                  | 2.5V             |                   |                  |
| Continuous charge current         | 2A  | 2A                | 2.5A             | 2.6A             | 1.6A              | 6A               |
| Continuous discharge current      | 6A  | 20A               | 7.5A             | 7.8A             | 4.8A              | 12A              |
| Internal resistance               | <30mΩ                                       | <20mΩ             | <25mΩ            | <30mΩ            | <40mΩ             | 9mΩ              |
| Charge temperature                | 0°C ~ 45°C                                  |                   |                  | 0°C ~ 60°C       |                   |                  |
| Discharge temperature             | -20°C ~ 60°C                                |                   |                  | -20°C ~ 60°C     |                   |                  |
| Storage temperature               | -20°C-30°C                                  |                   |                  | -20°C ~ 55°C     |                   |                  |
| Cycle lfe(25°C,1C.@100%DOD)       | 500 times                                   | 500 times         | 500 times        | 500 times        | 2000 times        | 2000 times       |
| Cycle lfe(25°C,1C.@80%DOD)        | 800 times                                   | 800 times         | 800 times        | 800 times        | 4000 times        | 4000 times       |
| Certifications                    | CE/CB//UL/KC/BIS/UN38.3/MSDS/ROHS/IEC 62321 |                   |                  |                  |                   |                  |

# Please contact KH for more models beyond the lists



### Main Features

- Rechargeable Lithium ion battery
- No memory effect
- High energy density
- Low internal resistance
- Low self-discharge character
- 4000 times cycle life@80%DOD
- 10C continuous discharge rate optional
- Multi-kinds of capacity optional
- 18650 and 32650 optional
- NCM and LFP cell optional
- Friendly to the environment:No Cd, Hg, Pb

### Applications

- Electric vehicle(EVs)
- Golf-carts
- E-bikes
- E-motocycle
- Robots
- Electrical tools
- 3C products
- Solar street lighting
- Energy storage system

## PRISMATIC CELL



KH-LFP12



KH-LFP25



KH-LFP50

## PRISMATIC CELL



KH-LFP100



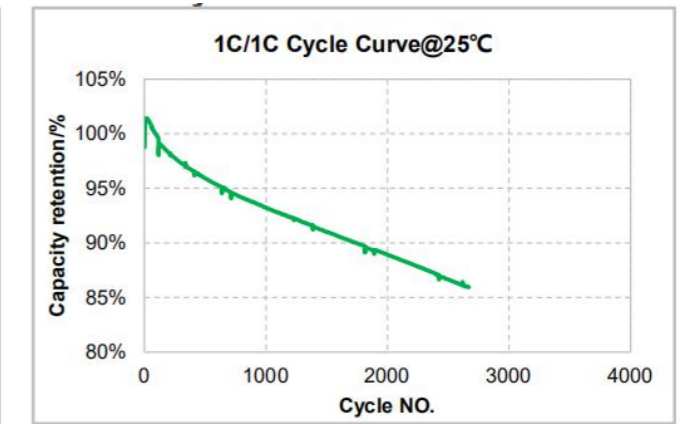
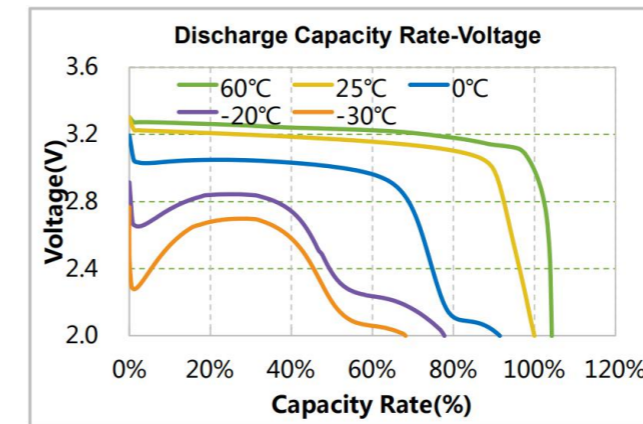
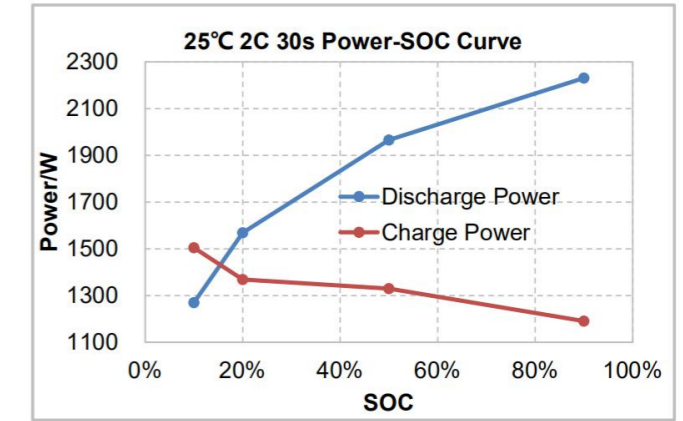
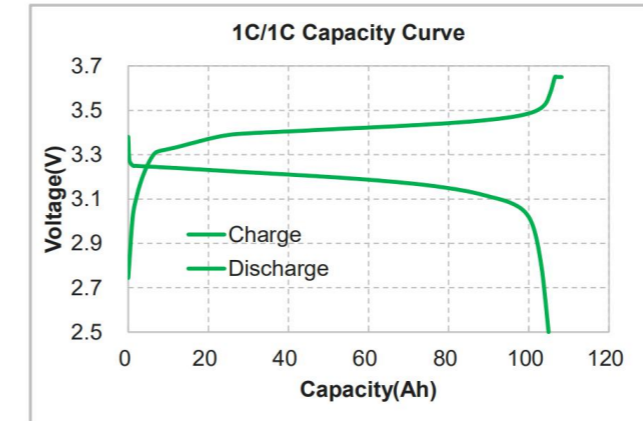
KH-LFP120



KH-LFP200

| Model                             | KHLFP12           | KHLFP25    | KHLFP50    | KHLFP100   | KHLFP120   | KHLFP200   |
|-----------------------------------|-------------------|------------|------------|------------|------------|------------|
| <b>General characteristic</b>     |                   |            |            |            |            |            |
| Nominal Voltage                   | 3.2V              | 3.2V       | 3.2V       | 3.2V       | 3.2V       | 3.2V       |
| Nominal capacity                  | 12AH              | 25AH       | 50AH       | 100AH      | 120AH      | 200AH      |
| Min capacity                      | 11.5AH            | 24.5AH     | 49.5AH     | 99AH       | 119AH      | 198AH      |
| Nominal energy                    | 38.4WH            | 80WH       | 160WH      | 320WH      | 384WH      | 640WH      |
| Dimension(L*W*H, MM)              | 65*15*120         | 100*20*145 | 148*25*115 | 200*33*169 | 173*47*170 | 173*54*200 |
| Approx.weight                     | 0.32KG            | 0.69KG     | 0.98KG     | 2.38KG     | 2.86KG     | 4.01KG     |
| Material                          | LiFePO4           |            |            |            |            |            |
| <b>Electrical characteristics</b> |                   |            |            |            |            |            |
| End of charge voltage             | 3.65V             |            |            |            |            |            |
| End of discharge voltage          | 2.5V              |            |            |            |            |            |
| Continuous charge current         | 12A               | 22A        | 50A        | 100A       | 120A       | 100A       |
| Continuous discharge current      | 12A               | 22A        | 50A        | 100A       | 120A       | 140A       |
| Max pulse discharge current       | 36A               | 66A        | 150A       | 300A       | 360A       | 600A       |
| Internal resistance               | 5mΩ               | 2mΩ        | 1.5mΩ      | 0.19mΩ     | 0.18mΩ     | 0.15mΩ     |
| Operating temperature(charge)     | 0°C ~ 55°C        |            |            |            |            |            |
| Operating temperature(discharge)  | -30°C ~ 55°C      |            |            |            |            |            |
| Storage temperature               | -40°C ~ 60°C      |            |            |            |            |            |
| Cycle life(25°C@50%DOD,0.2C)      | 7000 times        |            |            |            |            |            |
| Cycle life(25°C@80%DOD,0.2C)      | 4000 times        |            |            |            |            |            |
| Cycle life(25°C@100%DOD,1C)       | 2000 times        |            |            |            |            |            |
| Certifications                    | UL/CE/UN38.3/MSDS |            |            |            |            |            |

# Please contact KH for more models beyond the lists



### Main Features

- LiFePO4 battery
- 7000 cycle life@50%DOD
- Highest safe chemistry with high energy density
- No memory effect
- High energy density
- Low internal resistance
- Low self-discharge character
- Multi-kinds of capacity optional
- Friendly to the environment:No Cd, Hg, Pb

### Applications

- E-Bus
- Golf-Carts
- E-Motorcycle
- Robots
- Medical Equipment
- Solar Street Lighting
- Lead Acid Replacement
- Energy Storage System
- Uninterrupted Power Supply

**CUSTOMIZED BATTERY PACK (KH-P SERIES)**

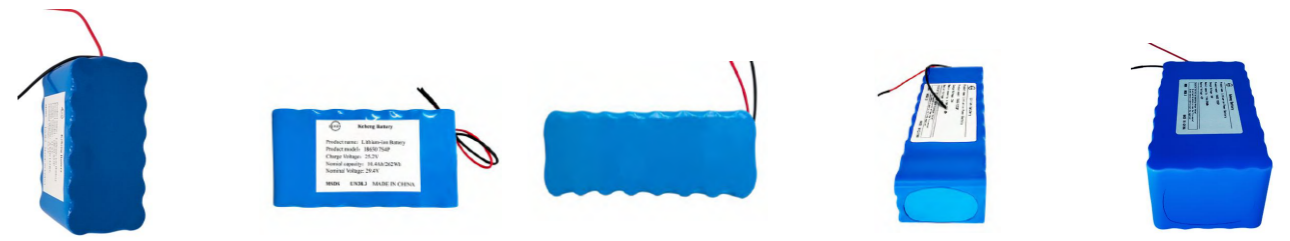


KH-P-NCM3720 KH-P-NCM3750 KH-P-NCM7425 KH-P-NCM11125 KH-P-NCM11150

| Model                             | KH-P-NCM3720 | KH-P-NCM3750 | KH-P-NCM7425 | KH-P-NCM11125 | KH-P-NCM11150 |
|-----------------------------------|--------------|--------------|--------------|---------------|---------------|
| <b>General characteristic</b>     |              |              |              |               |               |
| Nominal Voltage                   | 3.7V         | 3.7V         | 7.4V         | 11.1V         | 11.1V         |
| Nominal capacity                  | 2000MAH      | 5000MAH      | 2500MAH      | 2500MAH       | 5000MAH       |
| Min capacity                      | 1950MAH      | 4950MAH      | 2450MAH      | 2450MAH       | 4950MAH       |
| Nominal energy                    | 7.4WH        | 18.5WH       | 18.5WH       | 27.8WH        | 55.5WH        |
| Dimension(L*W*H, MM)              | H70*D20      | 38*22*70     | 38*22*70     | 57*22*70      | 57*40*70      |
| Approx.weight                     | 55G          | 110G         | 110G         | 160G          | 310G          |
| Connect method                    | 1S1P         | 1S2P         | 2S1P         | 3S1P          | 3S2P          |
| Cell                              | 18650        |              |              |               |               |
| Material                          | NCM          |              |              |               |               |
| <b>Electrical characteristics</b> |              |              |              |               |               |
| End of charge voltage(cell)       | 4.25V        |              |              |               |               |
| End of discharge voltage(cell)    | 2.75V        |              |              |               |               |
| Charging mode                     | CC/CV        |              |              |               |               |
| Charging cut-off current          | 0.02C        |              |              |               |               |
| Continuous charge current         | 2A           | 5A           | 2.5A         | 2.5A          | 5A            |
| Continuous discharge current      | 2A           | 5A           | 2.5A         | 2.5A          | 5A            |
| Max pulse discharge current       | 6A           | 10A          | 5A           | 5A            | 10A           |
| Operating temperature(charge)     | 0°C ~ 45°C   |              |              |               |               |
| Operating temperature(discharge)  | -10°C ~60°C  |              |              |               |               |
| Storage temperature               | -20°C ~ 45°C |              |              |               |               |
| Cycle lfe(25°C@80%DOD,0.2C)       | 800 times    |              |              |               |               |
| Cycle lfe(25°C@100%DOD,0.2C)      | 700 times    |              |              |               |               |

# Please contact KH for more models beyond the lists

**CUSTOMIZED BATTERY PACK (KH-P SERIES)**



KH-P-NCM22275 KH-P-NCM259104 KH-P-NCM29650 KH-P-NCM37060 KH- P-NCM370100

| Model                             | KH-P-NCM22275 | KH-P-NCM259104 | KH-P-NCM29650 | KH-P-NCM37060 | KH-P-NCM370100 |
|-----------------------------------|---------------|----------------|---------------|---------------|----------------|
| <b>General characteristic</b>     |               |                |               |               |                |
| Nominal Voltage                   | 22.2V         | 25.9V          | 29.6V         | 37V           | 37V            |
| Nominal capacity                  | 7500MAH       | 10400MAH       | 5000MAH       | 6000MAH       | 10000MAH       |
| Min capacity                      | 7450MAH       | 10350MAH       | 4950MAH       | 5950MAH       | 9950MAH        |
| Nominal energy                    | 166.5WH       | 269.4WH        | 148WH         | 222WH         | 370WH          |
| Dimension(L*W*H, MM)              | 114*61*70     | 133*80*70      | 1152*42*70    | 190*61*70     | 190*99*70      |
| Approx.weight                     | 920G          | 1230G          | 730G          | 1530G         | 2550G          |
| Connect method                    | 6S3P          | 7S4P           | 8S2P          | 10S3P         | 10S5P          |
| Cell                              | 18650         |                |               |               |                |
| Material                          | NCM           |                |               |               |                |
| <b>Electrical characteristics</b> |               |                |               |               |                |
| End of charge voltage             | 4.25V         |                |               |               |                |
| End of discharge voltage          | 2.75V         |                |               |               |                |
| Charging mode                     | CC/CV         |                |               |               |                |
| Charging cut-off current          | 0.02C         |                |               |               |                |
| Continuous charge current         | 7.5A          | 10A            | 5A            | 6A            | 10A            |
| Continuous discharge current      | 7.5A          | 10A            | 5A            | 6A            | 10A            |
| Max pulse discharge current       | 15A           | 20A            | 10A           | 12A           | 20A            |
| Operating temperature(charge)     | 0°C ~ 45°C    |                |               |               |                |
| Operating temperature(discharge)  | -10°C ~60°C   |                |               |               |                |
| Storage temperature               | -20°C ~ 45°C  |                |               |               |                |
| Cycle lfe(25°C@80%DOD,0.2C)       | 800 times     |                |               |               |                |
| Cycle lfe(25°C@100%DOD,0.2C)      | 700 times     |                |               |               |                |

# Please contact KH for more models beyond the lists

## CUSTOMIZED EV BATTERY

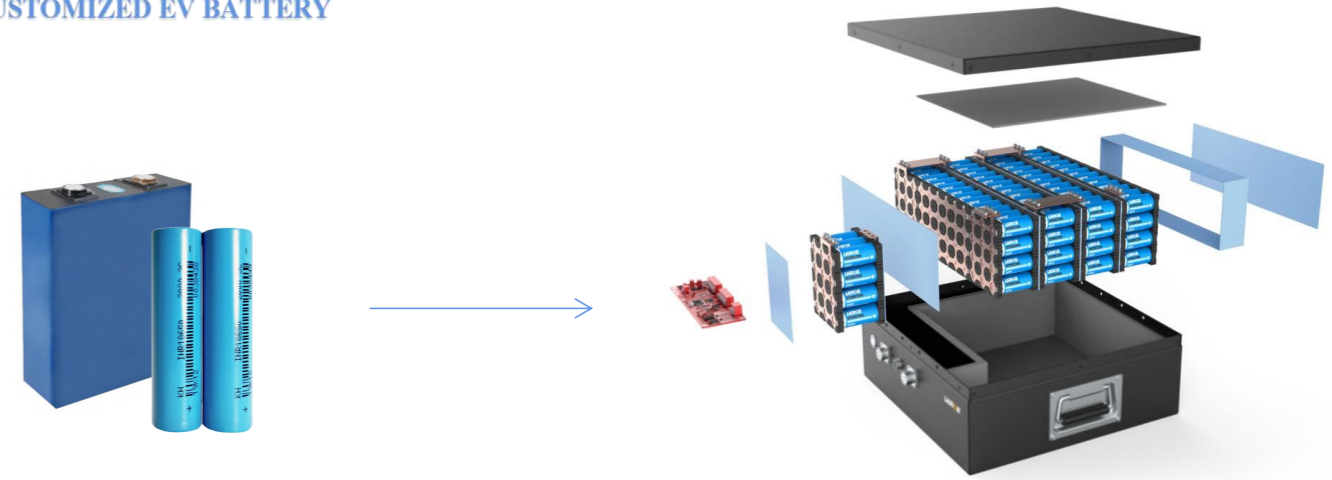


SILVERFISH4810    HAILONG3615    KH-EV 6020    KH-EV7220    KH-EV48200

| 1                                 | SILVERFISH 4810 | HAILONG3615 | KH-EV 6020  | KH-EV7220    | KH-EV48200  |
|-----------------------------------|-----------------|-------------|-------------|--------------|-------------|
| <b>General characteristic</b>     |                 |             |             |              |             |
| Nominal Voltage                   | 48V             | 36V         | 60V         | 72V          | 48V         |
| Nominal capacity                  | 10AH            | 15AH        | 20AH        | 20AH         | 200AH       |
| Nominal energy                    | 480WH           | 540WH       | 1200WH      | 1400WH       | 9600WH      |
| Dimension(L*W*H, MM)              | 325*110*65      | 367*111*90  | 230*185*171 | 249*211*171  | 930*230*200 |
| Approx.weight                     | 3.1KG           | 5KG         | 9KG         | 10KG         | 88KG        |
| Connect method                    | 13S4P           | 10S6P       | 17S8P       | 20S10P       | 16S1P       |
| Cell                              | 18650           | 18650       | 18650       | 18650        | 3.2V200AH   |
| Material                          | NCM             | NCM         | NCM         | LiFePO4      |             |
| <b>Electrical characteristics</b> |                 |             |             |              |             |
| End of charge voltage(cell)       | 4.25V           |             |             | 3.75V        |             |
| End of discharge voltage(cell)    | 2.75V           |             |             | 2.1V         |             |
| Charging mode                     | CC/CV           |             |             | CC/CV        |             |
| Charging cut-off current          | 0.02C           |             |             | 0.02C        |             |
| Continuous charge current         | 5A              | 10A         | 10A         | 10A          | 30A         |
| Continuous discharge current      | 5A              | 10A         | 10A         | 10A          | 30A         |
| Max pulse discharge current       | 10A             | 20A         | 20A         | 20A          | 100A        |
| Operating temperature(charge)     | 0°C ~ 45°C      |             |             | 0°C ~ 55°C   |             |
| Operating temperature(discharge)  | -10°C ~ 60°C    |             |             | -20°C ~ 60°C |             |
| Storage temperature               | -20°C ~ 45°C    |             |             | -20°C ~ 60°C |             |
| Cycle lfe(25°C@80%DOD,0.2C)       | 800 times       |             |             | 4000 times   |             |
| Cycle lfe(25°C@100%DOD,0.2C)      | 700 times       |             |             | 2000 times   |             |

# Please contact KH for more models beyond the lists

## CUSTOMIZED EV BATTERY



CELL

EV BATTERY

KEHENG can provide customized services for all kinds of EV battery. At now, we succeeded to provide 36V 48V 60V 72V battery for E-bike,E-motocycle, E-tricycle, Electric Van etc.

### Main Features

- Customized size
- Customized voltage
- Customized capacity
- Built-in smart BMS
- Highest safe chemistry with high enery density
- Low self-discharge character

### Applications

- E-Bus
- Golf-Carts
- E-Motocycle
- Robots
- Medical Equipment
- Electric Van
- Lead Acid Replacement

### Case



Application: E-Bike  
Voltage: 36V  
Capacity: 10.4AH  
Cell: 3.7V 2600mah 18650 cell  
Pack: 10S4P



Application: Electric Van  
Voltage: 48V  
Capacity: 200AH  
Cell: 3.2V 200AH prismatic cell  
Pack: 16S1P

**LiFePO4 LITHIUM BATTERY (KH-LFP SERIES)**



KH-LFP0605



KH-LFP1206



KH-LFP1210



KH-LFP1212



KH-LFP1250

| Model                             | KH-LFP0605  | KH-LFP1206 | KH-LFP1210 | KH-LFP1212 | KH-LFP1250  |
|-----------------------------------|---|------------|------------|------------|-------------|
| <b>General characteristic</b>     |   |            |            |            |             |
| Nominal Voltage                   | 6.4V  | 12.8V      | 12.8V      | 12.8V      | 12.8V       |
| Nominal capacity                  | 4.8AH   | 6AH        | 10AH       | 12AH       | 50AH        |
| Nominal energy                    | 30.7WH  | 76.8WH     | 128WH      | 153.6WH    | 640WH       |
| Dimension(L*W*H, MM)              | 70*47*100   | 151*65*94  | 181*77*170 | 151*99*99  | 229*138*208 |
| Approx.weight                     | 0.4KG   | 0.8KG      | 0.98KG     | 1.5KG      | 5.7KG       |
| Case                              | Plastic   |            |            |            |             |
| Material                          | LiFePO4   |            |            |            |             |
| <b>Electrical characteristics</b> |   |            |            |            |             |
| End of charge voltage(cell)       | 3.75V   |            |            |            |             |
| End of discharge voltage(cell)    | 2.1V  |            |            |            |             |
| Continuous charge current         | 3A  | 3A         | 5A         | 6A         | 25A         |
| Continuous discharge current      | 3A  | 3A         | 5A         | 6A         | 25A         |
| Max pulse discharge current       | 6A  | 6A         | 10A        | 12A        | 50A         |
| Internal resistance               | 90mΩ  | 80mΩ       | 70mΩ       | 70mΩ       | 60mΩ        |
| Operating temperature(charge)     | 0°C ~ 55°C  |            |            |            |             |
| Operating temperature(discharge)  | -30°C ~ 55°C  |            |            |            |             |
| Storage temperature               | -20°C ~ 60°C  |            |            |            |             |
| Cycle lfe                         | 7000 times(25°C@50%DOD,0.2C)<br>4000 times(25°C@80%DOD,0.2C)<br>2000 times(25°C@100%DOD,1C) |            |            |            |             |

# Please contact KH for more models beyond the lists

**LiFePO4 LITHIUM BATTERY (KH-LFP SERIES)**



KH-LFP1284



KH-LFP12100



KH-LFP12120



KH-LFP12150



KH-LFP12200

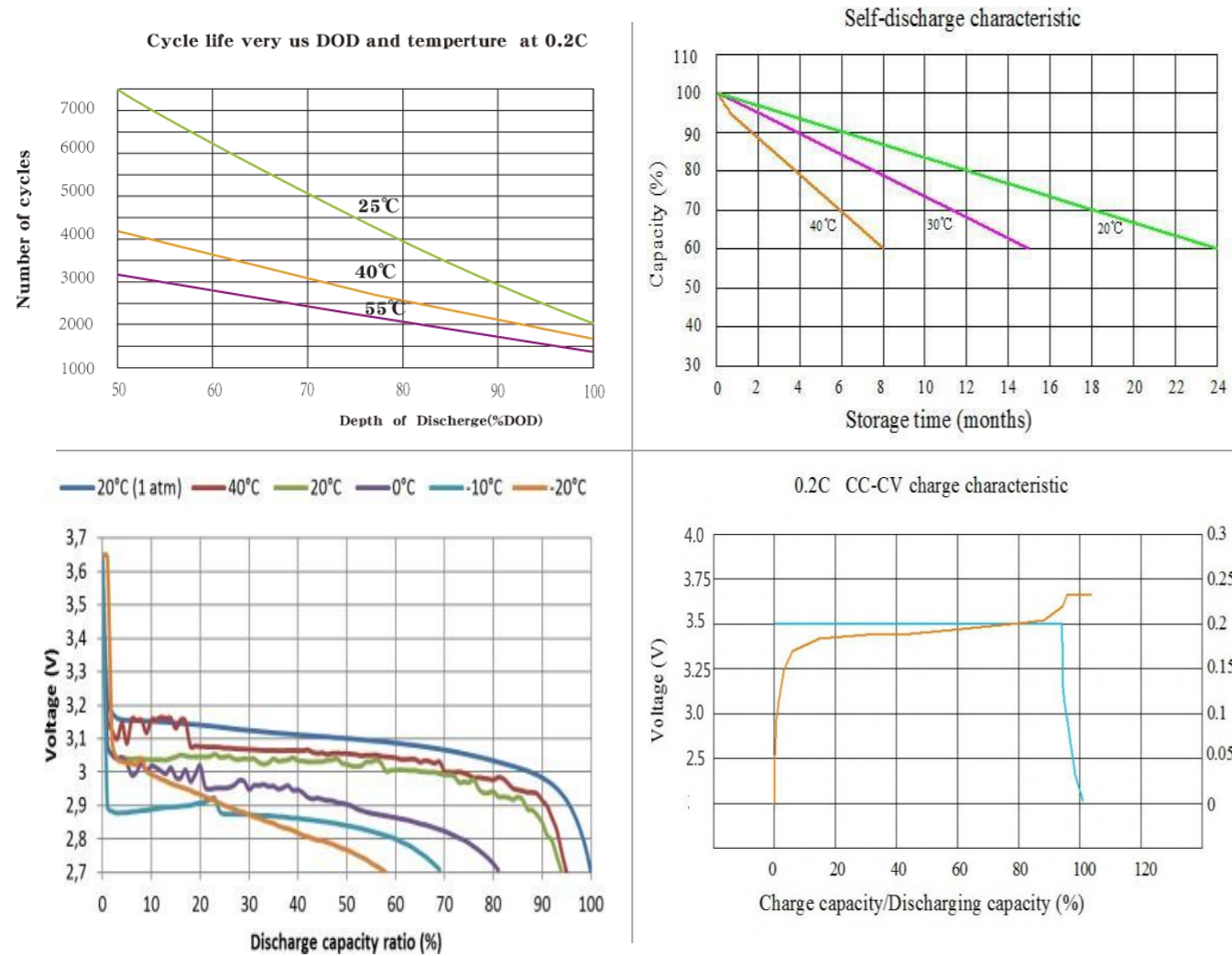
| Model                             | KH-LFP1284  | KH-LFP12100 | KH-LFP12120 | KH-LFP12150 | KH-LFP12200 |
|-----------------------------------|---|-------------|-------------|-------------|-------------|
| <b>General characteristic</b>     |   |             |             |             |             |
| Nominal Voltage                   | 12.8V   | 12.8V       | 12.8V       | 12.8V       | 12.8V       |
| Nominal capacity                  | 84AH  | 100AH       | 120AH       | 150AH       | 200AH       |
| Nominal energy                    | 840WH   | 1200WH      | 1440WH      | 1800WH      | 2400WH      |
| Dimension(L*W*H, MM)              | 260*168*210   | 260*168*210 | 307*169*208 | 483*170*240 | 483*170*240 |
| Approx.weight                     | 10.2KG  | 11.1KG      | 12.7KG      | 17.2KG      | 19.5KG      |
| Case                              | Plastic   |             |             |             |             |
| Material                          | LiFePO4   |             |             |             |             |
| <b>Electrical characteristics</b> |   |             |             |             |             |
| End of charge voltage(cell)       | 3.75V   |             |             |             |             |
| End of discharge voltage(cell)    | 2.1V  |             |             |             |             |
| Continuous charge current         | 42A   | 50A         | 60A         | 75A         | 100A        |
| Continuous discharge current      | 42A   | 50A         | 60A         | 75A         | 100A        |
| Max pulse discharge current       | 84A   | 100A        | 120A        | 150A        | 200A        |
| Internal resistance               | 50mΩ  | 45mΩ        | 35mΩ        | 30mΩ        | 30mΩ        |
| Operating temperature(charge)     | 0°C ~ 55°C  |             |             |             |             |
| Operating temperature(discharge)  | -30°C ~ 55°C  |             |             |             |             |
| Storage temperature               | -20°C ~ 60°C  |             |             |             |             |
| Cycle lfe                         | 7000 times(25°C@50%DOD,0.2C)<br>4000 times(25°C@80%DOD,0.2C)<br>2000 times(25°C@100%DOD,1C) |             |             |             |             |

# Please contact KH for more models beyond the lists

## LiFePO4 LITHIUM BATTERY

Lead acid replacement series are all made by LiFePO4 material, with long cycle life, the case are all compatible with Seal Lead Acid battery, the voltage and capacity can be customized according to different requirement. 12V series are widely used for solar light, Low speed EVs, golf carts, etc.

Protection BMS function: Overcharge detection function /Over discharge detection function) /Over current detection function/ Short detection function /Temperature detection function /Balance function



### Main Features

- LiFePO4 battery
- 7000 cycle life@50%DOD
- Highest safe chemistry with high enery density
- Built-in protection BMS
- Maintenance free
- No memory effect
- High energy density
- Low internal resistance
- Low self-discharge character
- Light weight, about 40%~50% of the weight of SLA battery
- Same case with SLA battery

### Applications

- Golf-Carts
- E-tricycle
- Robots
- Solar Street Lighting
- Lead Acid Replacement
- Energy Storage System
- Uninterrupted Power Supply

## FRONT TERIMINAL LIFEPO4 LITHIUM BATTERY (KH-LFP SERIES)



KH-LFP12-42



KH-LFP12-96



KH-LFP12-100

| Model                             | KH-LFP12-42   | KH-LFP12-96 | KH-LFP12-100 |
|-----------------------------------|---|-------------|--------------|
| <b>General characteristic</b>     |   |             |              |
| Nominal Voltage                   | 12.8V   | 12.8V       | 12.8V        |
| Nominal capacity                  | 42H   | 96AH        | 100AH        |
| Nominal energy                    | 504WH   | 1152WH      | 1200WH       |
| Dimension(L*W*H, MM)              | 275*105*225   | 400*115*290 | 555*115*240  |
| Approx.weight                     | 6.5KG   | 12.5KG      | 13KG         |
| Case                              | Plastic   |             |              |
| Material                          | LiFePO4   |             |              |
| <b>Electrical characteristics</b> |   |             |              |
| End of charge voltage(cell)       | 3.75V   |             |              |
| End of discharge voltage(cell)    | 2.1V  |             |              |
| Continuous charge current         | 21A   | 48A         | 50A          |
| Continuous discharge current      | 41A   | 96A         | 100A         |
| Max pulse discharge current       | 82A   | 198A        | 200A         |
| Internal resistance               | 60mΩ  | 48mΩ        | 45mΩ         |
| Operating temperature(charge)     | 0°C ~ 55°C  |             |              |
| Operating temperature(discharge)  | -30°C ~ 55°C  |             |              |
| Storage temperature               | -20°C ~ 60°C  |             |              |
| Cycle lfe                         | 7000 times(25°C@50%DOD,0.2C)<br>4000 times(25°C@80%DOD,0.2C)<br>2000 times(25°C@100%DOD,1C) |             |              |

# Please contact KH for more models beyond the lists



## LIFEPO4 LITHIUM BATTERY

### Applications



Solar system



Data center



Lighting



Communication system



Storage system



Uninterruptible power supply



Power control system



Fire alarm system



Marine equipment

## PORTABLE POWER STATION



KH-P02



KH-D300



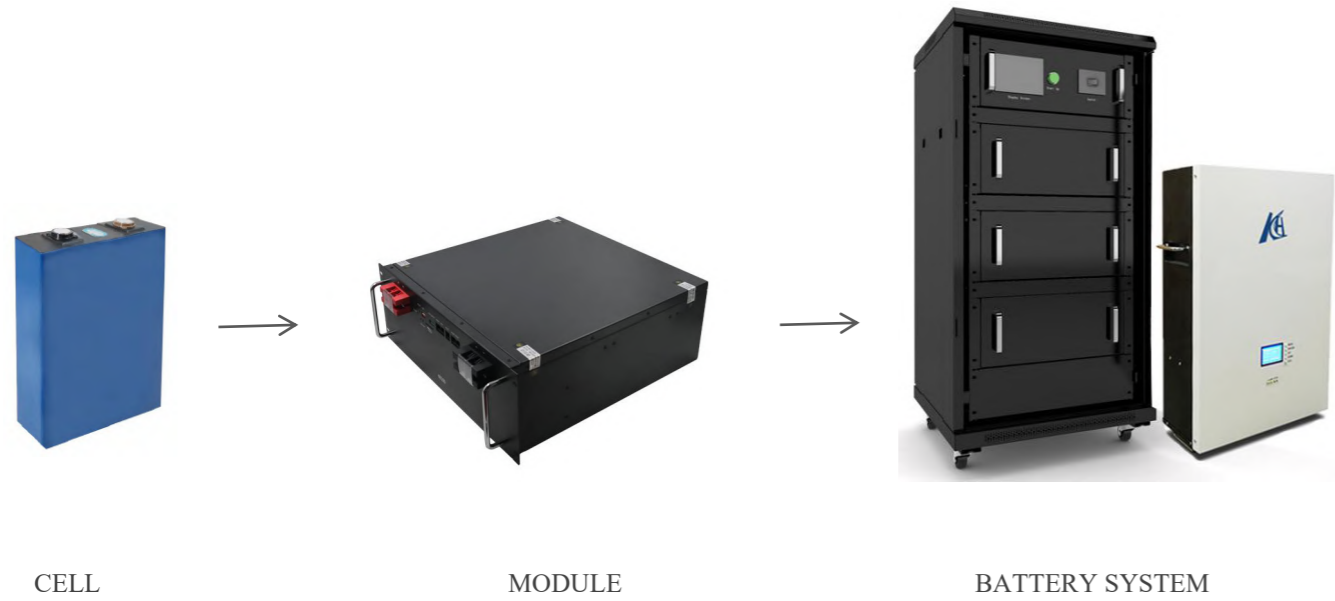
KH-ES700



KH-D1000

| Model                         | KH-P02   | KH-D300  | KH-ES700   | KH-D1000   |
|-------------------------------|--|--|--|--|
| <b>General characteristic</b> |  |  |  |  |
| Battery capacity              | 30000mAh /111Wh  | 75000mAh /278Wh  | 192000mAh /710.4Wh   | 180000mAh /666Wh   |
| DC Charging spec              | DC 12.6V/1~3A  | DC 15V/3A  | /  | DC 15V/5A  |
| AC Charging spec              | /  | /  | AC 110V~220V 50/60Hz   | 100V~220V /50Hz  |
| Solar Charging spec           | DC 12~13V/1~3A   | DC 18V/3A  | DC 12~13V/7A   | DC 13V~22V/5A  |
| Charging time                 | 6~10h  | 9~11h  | 7~9h   | 12~14h   |
| USB output                    | 2xUSB 5V/2.4A(MAX)   | 1xUSB 5V/2.4A<br>1xUSB 5V/3A 9V/2A 12V/1.5A(QC3.0)<br>1xType-C 5V/3A 9V/2A 12V/1.5A(QC3.0) | 2x12V/10A<br>1xUSB 5V/3A   | 3xUSB 5V/2.4A<br>1xUSB 5V/3A 9V/2A 12V/1.5A(QC3.0)               |
| DC output                     | Car ignition EC5 12V/600A (700A MAX)<br>DC 12V/6A(MAX)   | DC 12V/8A  | DC 12V/10A   | DC 12V/10A   |
| Material                      | LiFePO4  | NCM  | NCM  | NCM  |
| AC output                     | 220V/50Hz 110V/60Hz  | 220V/50Hz 110V/60Hz  | 220V/50Hz 110V/60Hz  | 220V/50Hz 110V/60Hz  |
| Car charge output             | /  | 12V/10A  | 12V7.5A  | 12V/10A  |
| AC Continuous output power    | 200W   | 300W   | 700W,  | 1000W  |
| AC Pulse output power         | 200W   | 400W   | 700W   | 1000W  |
| Lighting                      | 8W LED light   | 3V/1W LED  | 3V/1W LED  | /  |
| Working temperature           | -20°C~60°C   | -20°C~60°C   | -20°C~60°C   | -20°C~60°C   |
| Cycle life                    | >1000 times  | >500 times   | >800 times   | >500 times   |
| Packing list                  | 1 x Powerstation<br>1 x Adapter<br>1 x Car ignition wire<br>1 x Manual   | 1 x Powerstation<br>1 x Adapter<br>1 x Manual  | 1xUPS Power mainframe<br>1xAC power line<br>1xCar charging line<br>1xDC adapter line<br>1 x Manual | 1 x Powerstation<br>1 x Adapter<br>1 x Car charger<br>1 x Manual |
| Certifications                | CE/FCC/RoHS/PSE/MSDS/UN38.3  |  |  |  |
| Protection                    | Overcharge detection function /Over discharge detection function) /Over current detection function/ Short detection function /Temperature detection function |  |  |  |

## RESIDENTIAL SOLAR ENERGY STORAGE



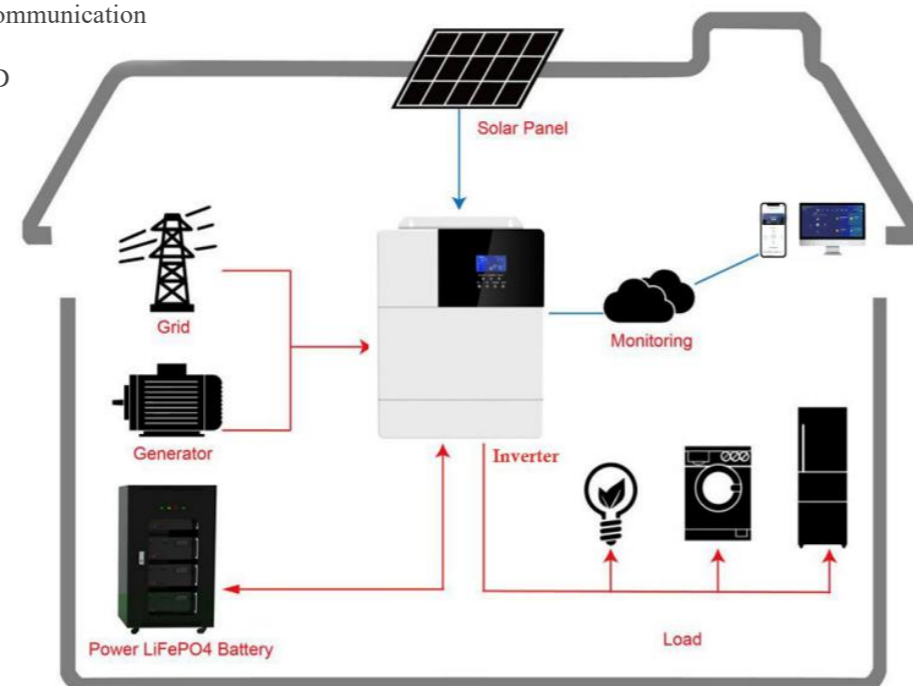
KEHENG 48V series LiFePO4 battery is specially developed to provide reliable backup power for residential solar energy storage systems. Multiple storage batteries can be integrated as battery system in parallel connections with intelligent centralized monitoring and installed in standard cabinet(3U/4U/5U), the maximum parallel connection can be 16 units and easily build up a system of 76.8kWh.

### Main Features

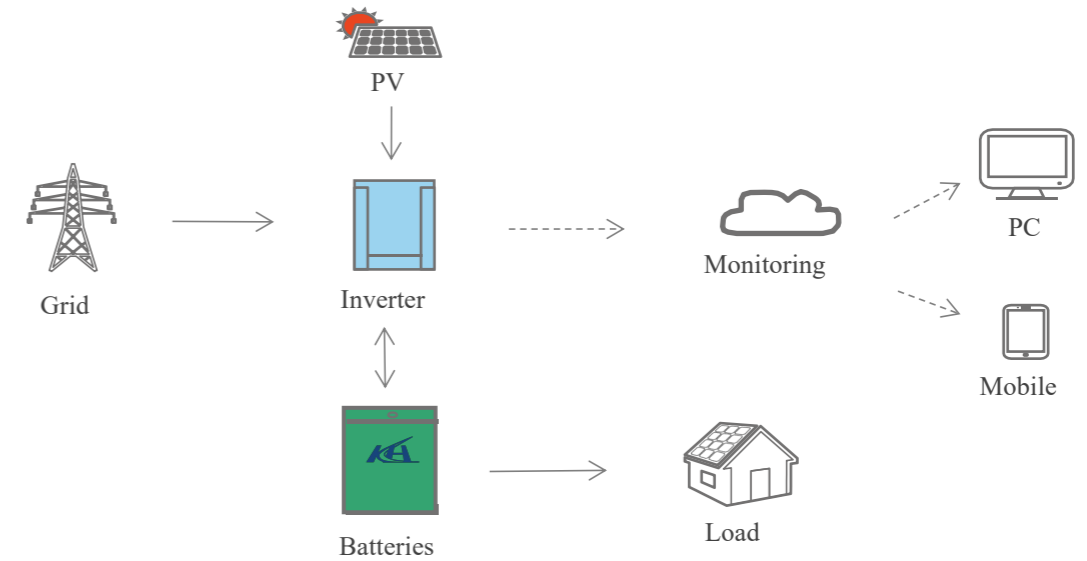
- Highest lithium chemistry with LiFePO4 material
- High energy density with small volume
- Built-in intelligent BMS for battery system
- Standard 19-inch rack-mount durable enclosure for plug and play replacement
- Maximum parallel connection up to 16 units(76.8KWH)
- Equipped with RS485/RS232/CAN communication
- Remote monitoring function
- 7000 times long cycle life @50%DOD

### BMS Function

- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Short detection function
- Temperature detection function
- Balance function
- Communicate function
- Alarm function

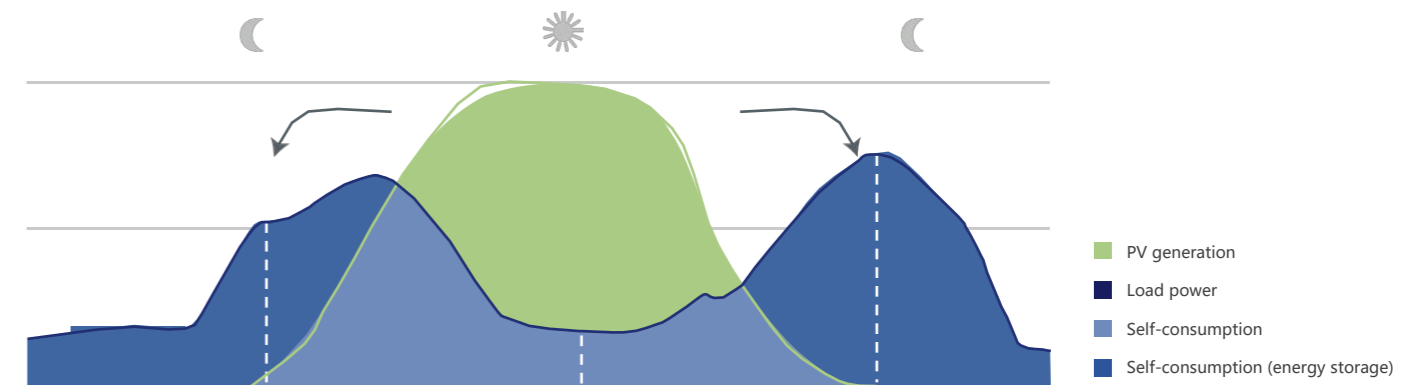


## RESIDENTIAL SOLAR ENERGY STORAGE



Keheng residential energy storage system is a green, efficient, advanced and safe energy supplying system, which saves home electricity cost by storing energy from off-peak hours and surplus clean energy generated from photovoltaic system, and powering the household during peak hours or blackout.

Integrated with solar power generation system, lithium-ion battery energy storage system and home energy management system, the solution is expandable on demand and has a variety of combinations. Flexible, efficient and customized products and services, it is friendly to home users to build his or her clean, independent and economic energy micro-grid solutions.



During the day, The PV will generate energy and charge the battery and provide electricity to load. When the battery full charged, the extra electricity will be send to distribution network.

During the night, the battery will provide electricity to the load, when the electricity use up, then the Inverter will connect with commercial Mains to provide electricity to load.

### Main Features

- 5KWH, 10KWH, 20 KWH capacity optional.
- On-grid or off-grid operation for various application
- Real-time remote monitoring
- Quick installation and easy operation
- Stable power supply and high safety
- Long cycle life

### 48V MODULE (KH-ES SERIES)



KH-ES4850



KH-ES48100



KH-ES48200

| Model                             | KH-ES4850       | KH-ES48100      | KH-ES48200      |
|-----------------------------------|-----------------|-----------------|-----------------|
| <b>General characteristic</b>     |                 |                 |                 |
| Nominal Voltage                   | 48V             | 48V             | 48V             |
| Nominal capacity                  | 50AH            | 100AH           | 200AH           |
| Min capacity                      | 49.5AH          | 99AH            | 198AH           |
| Nominal energy                    | 2400WH          | 4800WH          | 9600WH          |
| Dimension(L*W*H)                  | 482*400*133MM   | 483*459*175MM   | 483*650*220MM   |
| Approx.weight                     | 31.5KG          | 49.5KG          | 78KG            |
| <b>Electrical characteristics</b> |                 |                 |                 |
| End of charge voltage             | 58.4V           | 58.4V           | 58.4V           |
| End of discharge voltage          | 42V             | 42V             | 42V             |
| Continuous charge current         | 25A             | 50A             | 100A            |
| Continuous discharge current      | 50A             | 100A            | 140A            |
| Max pulse discharge current       | 150A            | 300A            | 600A            |
| Standard charge method            | CC/CV           | CC/CV           | CC/CV           |
| Internal resistance               | 80mΩ            | 70mΩ            | 60mΩ            |
| Operating temperature(charge)     | 0°C ~ 55°C      | 0°C ~ 55°C      | 0°C ~ 55°C      |
| Operating temperature(discharge)  | -30°C ~ 55°C    | -30°C ~ 55°C    | -30°C ~ 55°C    |
| Storage temperature               | -40°C ~ 60°C    | -40°C ~ 60°C    | -40°C ~ 60°C    |
| Storage duration                  | 12 months@25°C  | 12 months@25°C  | 12 months@25°C  |
| Cycle life(25°C@50%DOD,0.2C)      | 7000 times      | 7000 times      | 7000 times      |
| Cycle life(25°C@80%DOD,0.2C)      | 4000 times      | 4000 times      | 4000 times      |
| Certification                     | CE/UN38.3/MSDS  | CE/UN38.3/MSDS  | CE/UN38.3/MSDS  |
| Communication                     | RS485/RS232/CAN | RS485/RS232/CAN | RS485/RS232/CAN |
| Display                           | LED light       | LED light       | LED light       |
| Parallel connection               | Maxium 16 units | Maxium 16 units | Maxium 16 units |
| Cooling method                    | Natural cooling | Natural cooling | Natural cooling |

### 48V BATTERY (KH-ES SERIES)



KH-ES5KPW



KH-ES10KPW



KH-ES20KPT

| Model                             | KH-ES5KPW       | KH-ES10KPW      | KH-ES20KPT      |
|-----------------------------------|-----------------|-----------------|-----------------|
| <b>General characteristic</b>     |                 |                 |                 |
| Nominal Voltage                   | 48V             | 48V             | 48V             |
| Nominal capacity                  | 100AH           | 200AH           | 400AH           |
| Min capacity                      | 99AH            | 198AH           | 396AH           |
| Nominal energy                    | 4.8KWH          | 9.6KWH          | 19.2KWH         |
| Dimension(L*W*H)                  | 442*410*220MM   | 485*650*220MM   | 600*600*1100MM  |
| Approx.weight                     | 54.5KG          | 83KG            | 220KG           |
| <b>Electrical characteristics</b> |                 |                 |                 |
| End of charge voltage             | 58.4V           | 58.4V           | 58.4V           |
| End of discharge voltage          | 42V             | 42V             | 42V             |
| Continuous charge current         | 50A             | 100A            | 200A            |
| Continuous discharge current      | 100A            | 140A            | 300A            |
| Max pulse discharge current       | 200A            | 300A            | 400A            |
| Standard charge method            | CC/CV           | CC/CV           | CC/CV           |
| Internal resistance               | 70mΩ            | 60mΩ            | 60mΩ            |
| Operating temperature(charge)     | 0°C ~ 55°C      | 0°C ~ 55°C      | 0°C ~ 55°C      |
| Operating temperature(discharge)  | -30°C ~ 55°C    | -30°C ~ 55°C    | -30°C ~ 55°C    |
| Storage temperature               | -40°C ~ 60°C    | -40°C ~ 60°C    | -40°C ~ 60°C    |
| Storage duration                  | 12 months@25°C  | 12 months@25°C  | 12 months@25°C  |
| Cycle life(25°C@50%DOD,0.2C)      | 7000 times      | 7000 times      | 7000 times      |
| Cycle life(25°C@80%DOD,0.2C)      | 4000 times      | 4000 times      | 4000 times      |
| Certification                     | CE/UN38.3/MSDS  | CE/UN38.3/MSDS  | CE/UN38.3/MSDS  |
| Communication                     | RS485/RS232/CAN | RS485/RS232/CAN | RS485/RS232/CAN |
| Display                           | LED light       | LED light       | LED light       |
| Parallel connection               | Maxium 16 units | Maxium 16 units | /               |
| Cooling method                    | Natural cooling | Natural cooling | Natural cooling |

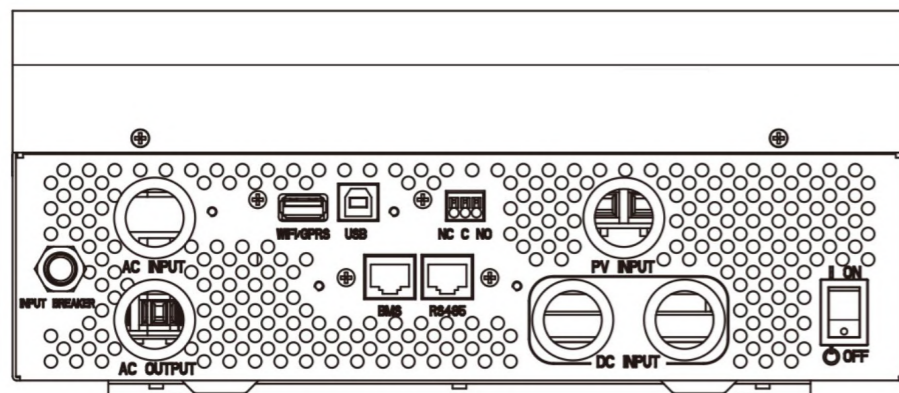


3kw Inverter+5kwh Battery

Main Features

- 110V@60HZ, Rated power 3KW
- 5KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

This is multifunctional off-grid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfect for off grid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION |  |                        |   |
|------------------------|--|------------------------|---|
| Model                  | MHP 3000LV-48  | DC voltage             | 48VDC                                   |
| PV INPUT               |  |                        |   |
| Max. voltage           | 145V   | Max.PV array power     | 4500W                                   |
| Max.current            | 80A  | MPPT working voltage   | 60-115Vdc                               |
| AC OUTPUT              |  |                        |   |
| AC voltage             | 110/120VAC   | Rated power            | 3000VA/3000W                            |
| Peak efficiency        | 93%  | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times         | 10ms~20ms  | Frequency range        | 50/60HZ                                 |
| AC INPUT               |  |                        |   |
| AC input voltage range | 65~140VAC  | MAX. AC charge current | 40A                                     |
| GENERAL                |  |                        |   |
| Charge temperature     | 0°C~50°C   | Dimension (H*W*D)      | 455*295*130mm                           |
| Discharge temperature  | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication          | RS485/USB/Wifi   | Weight                 | 11.5KG                                  |
| Humidity range         | 5%~95% relative  | Warrenty               | 2 years                                 |
| BATTERY SPECIFICATION  |  |                        |   |
| Norminal voltage       | 48V  | Norminal capacity      | 100AH                                   |
| Battery type           | Lithium battery (LiFePO4)  | Energy                 | 4.8KWH                                  |
| Max current            | Charge 50A<br>Discharge :100A  | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)      | 442*410*220mm  | Cycle life             | 4000 times@80%DOD                       |
| Weight                 | 38KG around  | Warrenty               | 5 years                                 |
| Protection function    | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |

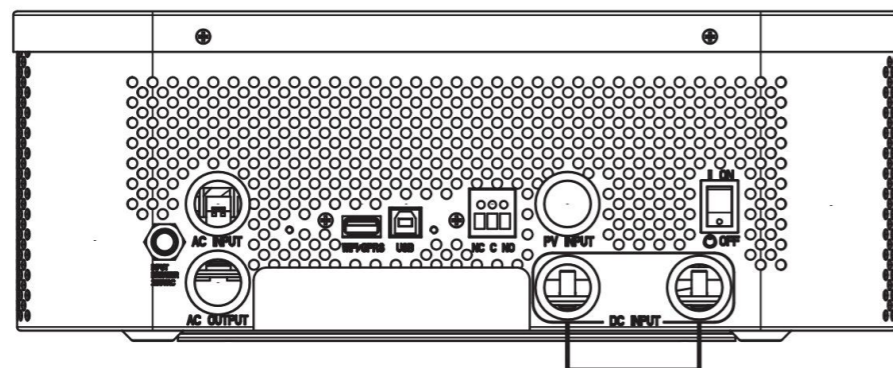


5kw Inverter+10kwh Battery

Main Features

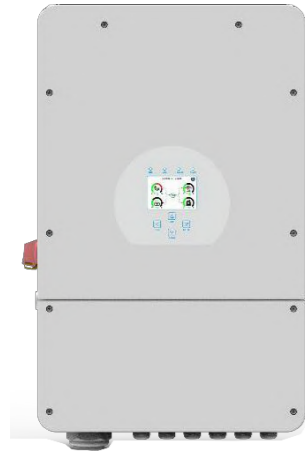
- 110V@60HZ, Rated power 5KW
- 10KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

This is multifunctional hybrid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfectet for hybrid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION |  |                        |   |
|------------------------|--|------------------------|---|
| Model                  | KH-SUN-5K-SG01LP1-US   | DC voltage             | 48VDC                                   |
| PV INPUT               |  |                        |   |
| Max. voltage           | 500V   | Max.PV array power     | 6500W                                   |
| Max.current            | 11A+11A  | MPPT working voltage   | 125-425Vdc                              |
| AC OUTPUT              |  |                        |   |
| AC voltage             | 120Vac(split phase)  | Rated power            | 5000VA/5000W                            |
| Peak efficiency        | 97.6%  | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times         | 10ms~20ms  | Frenquency range       | 50/60HZ                                 |
| AC INPUT               |  |                        |   |
| AC input voltage range | 120Vac(split phase)  | MAX. AC charge current | 25A                                     |
| GENERAL                |  |                        |   |
| Charge temperature     | 0°C~50°C   | Dimension (H*W*D)      | 680*420*233mm                           |
| Discharge temperature  | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication          | RS485/USB/Wifi   | Weight                 | 32KG                                    |
| Humidity range         | 5%~95% relative  | Warrenty               | 5 years                                 |
| BATTERY SPECIFICATION  |  |                        |   |
| Nominal voltage        | 48V  | Norminal capacity      | 200AH                                   |
| Battery type           | Lithium battery (LiFePO4)  | Energy                 | 9.6KWH                                  |
| Max current            | Charge 100A<br>Discharge :200A   | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)      | 485*650*220mm  | Cycle life             | 4000 times@80%DOD                       |
| Weight                 | 78KG around  | Warrenty               | 5 years                                 |
| Protection function    | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |

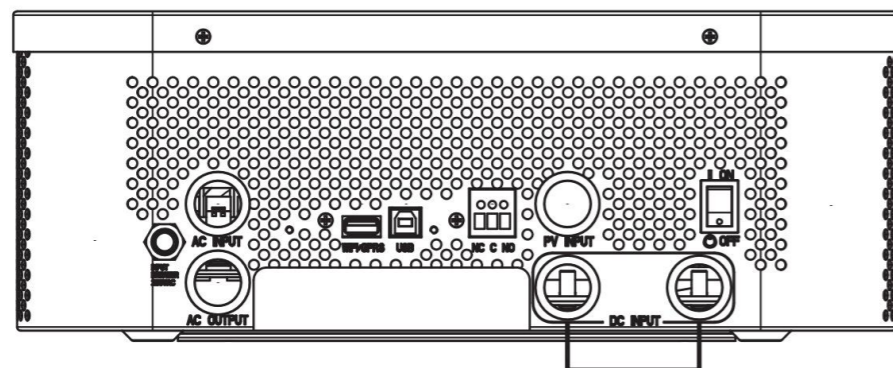


8kw Inverter+20kwh Battery

Main Features

- 110V@60HZ, Rated power 8KW
- 20KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

This is multifunctional hybrid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfect for hybrid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION |  |                        |   |
|------------------------|--|------------------------|---|
| Model                  | KH-SUN-8K-SG01LP1-US   | DC voltage             | 48VDC                                   |
| PV INPUT               |  |                        |   |
| Max. voltage           | 500V   | Max.PV array power     | 10400W                                  |
| Max.current            | 18+18A   | MPPT working voltage   | 125-425Vdc                              |
| AC OUTPUT              |  |                        |   |
| AC voltage             | 120Vac(split phase)  | Rated power            | 8000VA/8000W                            |
| Peak efficiency        | >98%   | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times         | 10ms~20ms  | Frenquency range       | 50/60HZ                                 |
| AC INPUT               |  |                        |   |
| AC input voltage range | 120Vac(split phase)  | MAX. AC charge current | 50A                                     |
| GENERAL                |  |                        |   |
| Charge temperature     | 0°C~50°C   | Dimension (H*W*D)      | 680*420*233mm                           |
| Discharge temperature  | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication          | RS485/USB/Wifi   | Weight                 | 32KG                                    |
| Humidity range         | 5%~95% relative  | Warrenty               | 5 years                                 |
| BATTERY SPECIFICATION  |  |                        |   |
| Nominal voltage        | 48V  | Norminal capacity      | 400AH                                   |
| Battery type           | Lithium battery (LiFePO4)  | Energy                 | 19.2KWH                                 |
| Max current            | Charge 200A<br>Discharge :400A   | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)      | 600*600*1100mm   | Cycle life             | 4000 times@80%DOD                       |
| Weight                 | 170KG around   | Warrenty               | 5 years                                 |
| Protection function    | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |

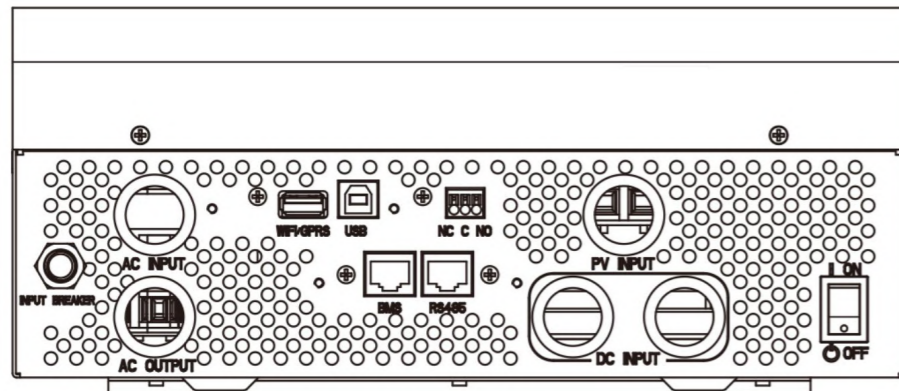


3kw Inverter+5kwh Battery

Main Features

- 220V@50HZ, Rated power 3KW
- 5KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

This is multifunctional off-grid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfect for off grid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION |  |                        |   |
|------------------------|--|------------------------|---|
| Model                  | SPF-3000TL   | DC voltage             | 48VDC                                   |
| PV INPUT               |  |                        |   |
| Max. voltage           | 145V   | Max.PV array power     | 1800W                                   |
| Max.current            | 30A  | MPPT working voltage   | 60-115Vdc                               |
| AC OUTPUT              |  |                        |   |
| AC voltage             | 220/230VAC   | Rated power            | 3000VA/3000W                            |
| Peak efficiency        | 93%  | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times         | 10ms~20ms  | Frenquency range       | 50/60HZ                                 |
| AC INPUT               |  |                        |   |
| AC input voltage range | 170~280VAC   | MAX. AC charge current | 15A                                     |
| GENERAL                |  |                        |   |
| Charge temperature     | 0°C~50°C   | Dimension (H*W*D)      | 455*295*130mm                           |
| Discharge temperature  | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication          | RS485/USB/Wifi   | Weight                 | 8.5KG                                   |
| Humidity range         | 5%~95% relative  | Warrenty               | 2 years                                 |
| BATTERY SPECIFICATION  |  |                        |   |
| Nominal voltage        | 48V  | Norminal capacity      | 100AH                                   |
| Battery type           | Lithium battery (LiFePO4)  | Energy                 | 4.8KWH                                  |
| Max current            | Charge 50A<br>Discharge :100A  | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)      | 442*410*220mm  | Cycle life             | 4000 times@80%DOD                       |
| Weight                 | 38KG around  | Warrenty               | 5 years                                 |
| Protection function    | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |

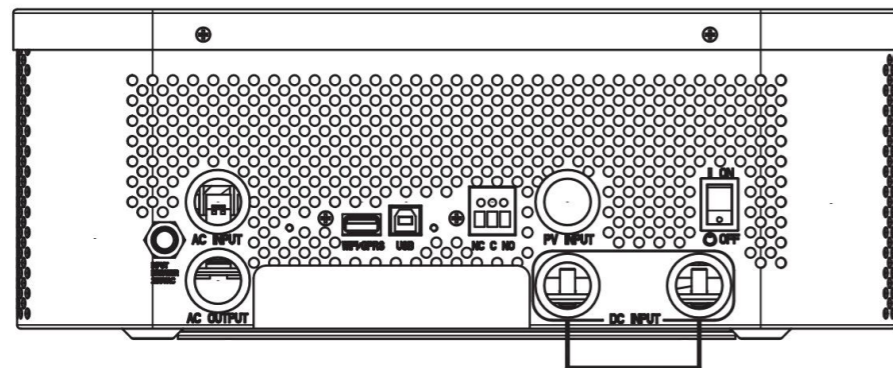


5kw Inverter+10kwh Battery

Main Features

- 220V@50HZ, Rated power 5KW
- 10KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

This is multifunctional off-grid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfect for off grid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION    |  |                        |   |
|---------------------------|--|------------------------|---|
| Model                     | KH-SPF-5000TL-HVM-WPV  | DC voltage             | 48VDC                                   |
| PV INPUT                  |  |                        |   |
| Max. voltage              | 450V   | Max.PV array power     | 5500W                                   |
| Max.current               | 100A   | MPPT working voltage   | 120-430Vdc                              |
| AC OUTPUT                 |  |                        |   |
| AC voltage                | 230VAC   | Rated power            | 5000VA/5000W                            |
| Peak efficiency           | 93%  | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times            | 10ms~20ms  | Frenquency range       | 50/60HZ                                 |
| AC INPUT                  |  |                        |   |
| AC input voltage range    | 230VAC   | MAX. AC charge current | 80A                                     |
| MAX. AC+PV charge current | 180A   |                        |   |
| GENERAL                   |  |                        |   |
| Charge temperature        | 0°C~50°C   | Dimension (H*W*D)      | 485*330*135mm                           |
| Discharge temperature     | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication             | RS485/USB/Wifi   | Weight                 | 12KG                                    |
| Humidity range            | 5%~95% relative  | Warrenty               | 2 years                                 |
| BATTERY SPECIFICATION     |  |                        |   |
| Nominal voltage           | 48V  | Norminal capacity      | 200AH                                   |
| Battery type              | Lithium battery (LiFePO4)  | Energy                 | 9.6KWH                                  |
| Max current               | Charge 100A<br>Discharge :200A   | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)         | 485*650*220mm  | Cycle life             | 4000 times@80%DOD                       |
| Weight                    | 78KG around  | Warrenty               | 5 years                                 |
| Protection function       | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |



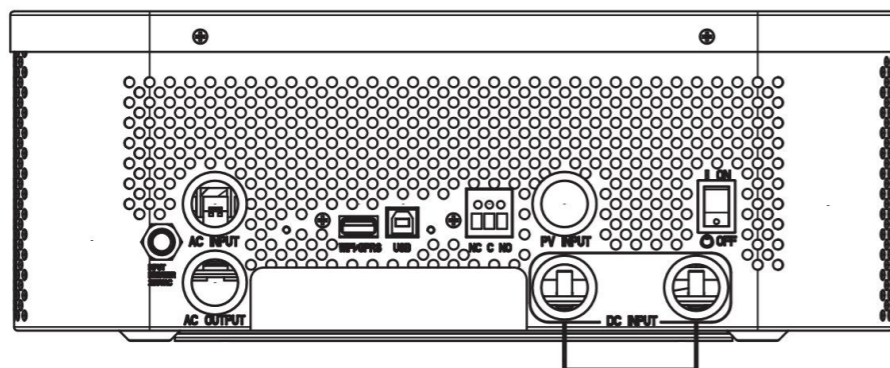


10kw Inverter+20kwh Battery

Main Features

- 220V@50HZ, Rated power 10KW
- 20KWH LiFePO4 batteries with 7000cycle life@50%DOD
- Built-in MPPT solar charge controller
- High frequency inverter with compact design
- Pure sine wave AC output
- Wall mounted and easy installation
- Fast and easy commissioning via front panel
- LCD or APP/WIFI/GPRS remote monitoring
- RS485/CAN communication with BMS
- Integrated advanced energy management system

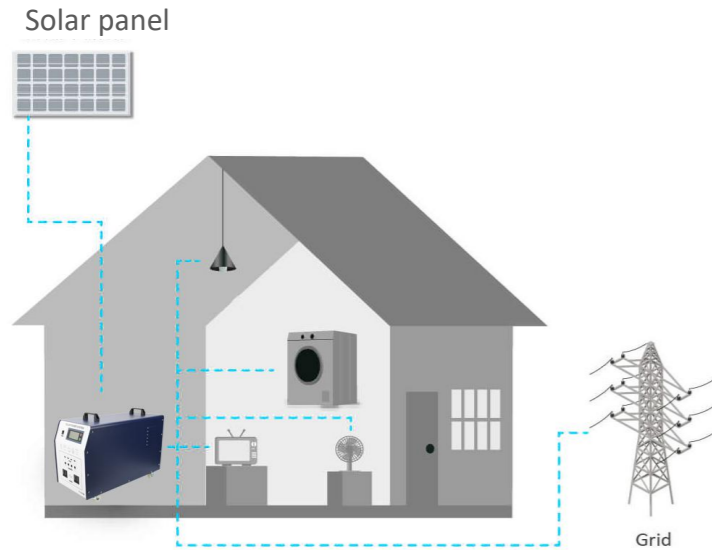
This is multifunctional off-grid inverter with long-cycle life LiFePO4 batteries, integrated with a MTTP solar charge controller, a high frequency pure sine wave inverter and a UPS function module in one machine, which is a perfect for off grid backup power and self-consumption applications.



Bottom view of Inverter

| INVERTER SPECIFICATION    |  |                        |   |
|---------------------------|--|------------------------|---|
| Model                     | KH-SPF-10000T-HVM  | DC voltage             | 48VDC                                   |
| PV INPUT                  |  |                        |   |
| Max. voltage              | 150V   | Max.PV array power     | 5000W                                   |
| Max.current               | 80A  | MPPT working voltage   | 60-145Vdc                               |
| AC OUTPUT                 |  |                        |   |
| AC voltage                | 230VAC   | Rated power            | 10000VA/10000W                          |
| Peak efficiency           | >98%   | Monitoring operation   | WIFI or GPRS                            |
| Transfer Times            | 10ms~20ms  | Frenquency range       | 50/60HZ                                 |
| AC INPUT                  |  |                        |   |
| AC input voltage range    | 230VAC   | MAX. AC charge current | 80A                                     |
| MAX. AC+PV charge current | 160A   |                        |   |
| GENERAL                   |  |                        |   |
| Charge temperature        | 0°C~50°C   | Dimension (H*W*D)      | 650*460*255mm                           |
| Discharge temperature     | -15°C~60°C   | Cooling method         | Natural air cooling                     |
| Communication             | RS485/USB/Wifi   | Weight                 | 76KG                                    |
| Humidity range            | 5%~95% relative  | Warrenty               | 2 years                                 |
| BATTERY SPECIFICATION     |  |                        |   |
| Nominal voltage           | 48V  | Norminal capacity      | 400AH                                   |
| Battery type              | Lithium battery (LiFePO4)  | Energy                 | 19.2KWH                                 |
| Max current               | Charge 200A<br>Discharge :400A   | Working temperature    | Charge: -10~55°C<br>Discharge: -20~60°C |
| Dimension (H*W*D)         | 600*600*1100mm   | Cycle life             | 4000 times@80%DOD                       |
| Weight                    | 170KG around   | Warrenty               | 5 years                                 |
| Protection function       | Overcharge protection, Over discharge protection, Over current protection, Short protection, Over temperature protection, Balance function, Communicate function, Alarm function |                        |   |

**1KW/1.28KWH 2.56KWH ALL IN ONE MINI ENERGY STORAGE SYSTEM (KH-A1000W)**



**MAIN FEATURES**

- All in one solutions
- 24 hour clean energy supplying
- Automatically on/off-grid switch
- Quick charged by solar panel and Grid
- Long designed lifespan
- Environmentally friendly without pollution

KEHENG all in one mini energy storage system, is a completely power solution with built-in inverter, controller and battery inside for easy installation and operation. This system can charged by Solar panel and Grid to work as backup power, which can keep your lights, fans, computers, phones, TVs, washing machine charged when there is sudden power shortage.

**Applications**



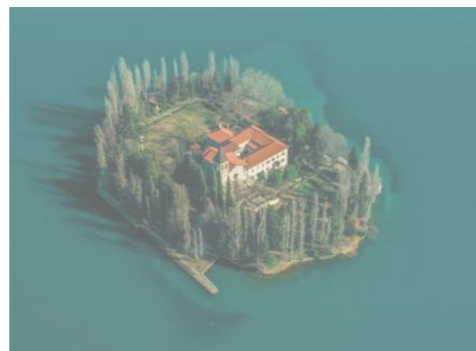
Residential energy storage



RV energy storage



Camping power



Isolated island power

**1KW/1.28KWH 2.56KWH ALL IN ONE MINI ENERGY STORAGE SYSTEM (KH-A1000W)**



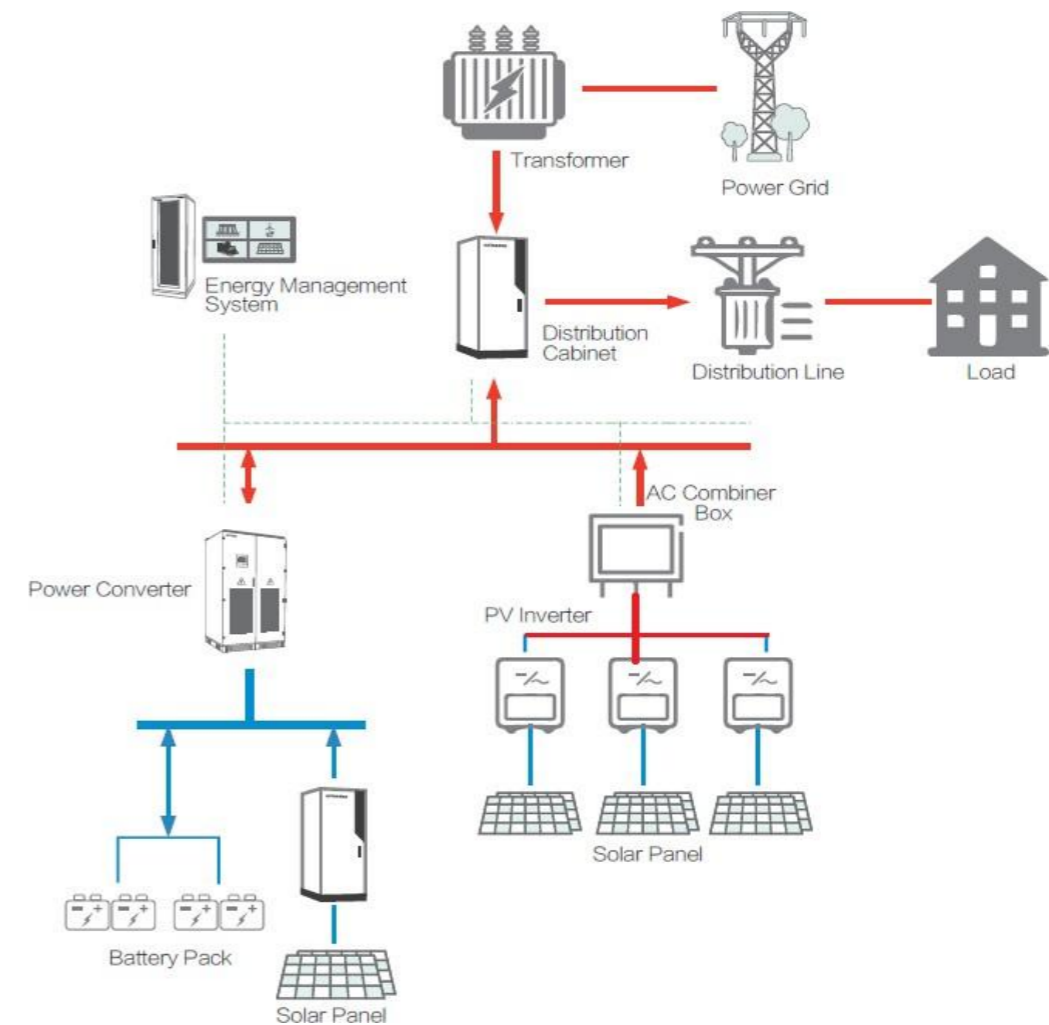
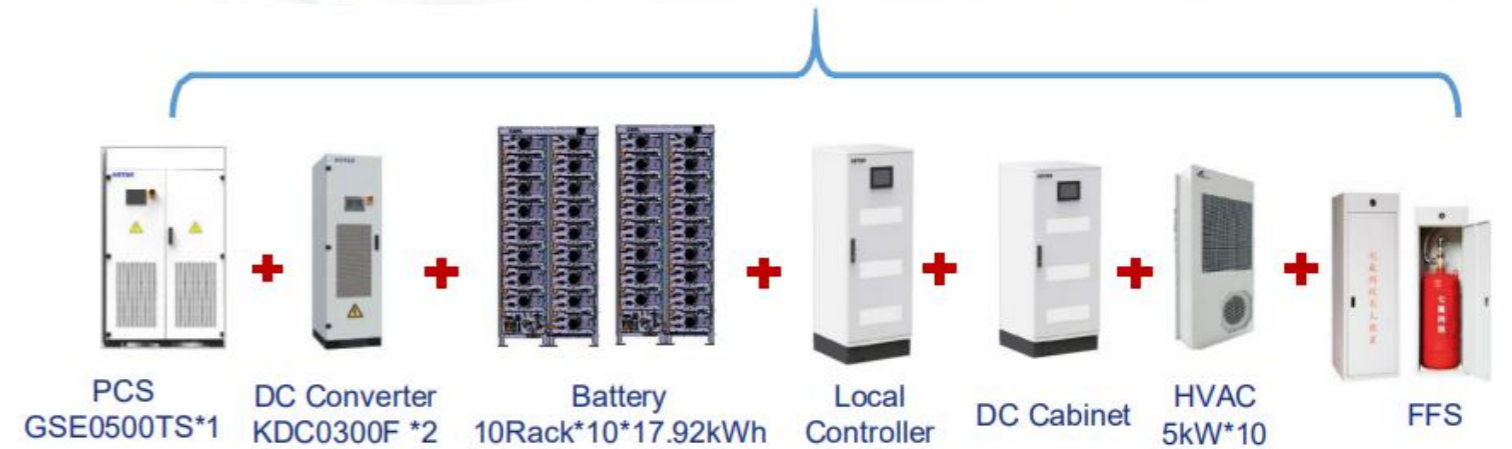
| Item                     | 1KW-1280WH                                | 1KW-2560WH                    |
|--------------------------|---|-------------------------------|
| <b>General</b>           |   |                               |
| AC nominal output power  | 1000W(Pure sine wave)                     |                               |
| AC nominal voltage range | 230VAC 50HZ/110VAC 60HZ                   |                               |
| AC nominal current       | 4.5A/9.1A                                 |                               |
| Operate mode             | On-grid/ Off-grid                         |                               |
| Working temperature      | -22°F (-30°C) to 122°F (50°C)             |                               |
| Dimension                | 44*58*26cm                                |                               |
| Weight                   | 28.6kg                                    | 37.6kg                        |
| <b>Battery</b>           |   |                               |
| Built in AC charger      | 1280WH                                    | 2560WH                        |
| Battery type             | LiFePO4 lithium battery                   |                               |
| Components               | Battery cell+ BMS+protection device(fuse) |                               |
| Life Expectancy (years)  | 10 years @25°C in 80%DOD (4000 times)     |                               |
| <b>Inverter</b>          |   |                               |
| Output                   | AC power                                  | 1000W 50/60HZ (2 channels)    |
|                          | DC power                                  | 12V/10A (4 channels)          |
|                          | USB power                                 | 5V/3A (4 channels)            |
| Input                    | Solar power                               | 18V/12A/80W-250W (1 channels) |
|                          | AC power                                  | 220V (1 channels)             |
|                          | DC power                                  | 12V (4 channels) (1 channels) |

5KW/20KWH ALL IN ONE RESS SYSTEM (KH-A5000W)

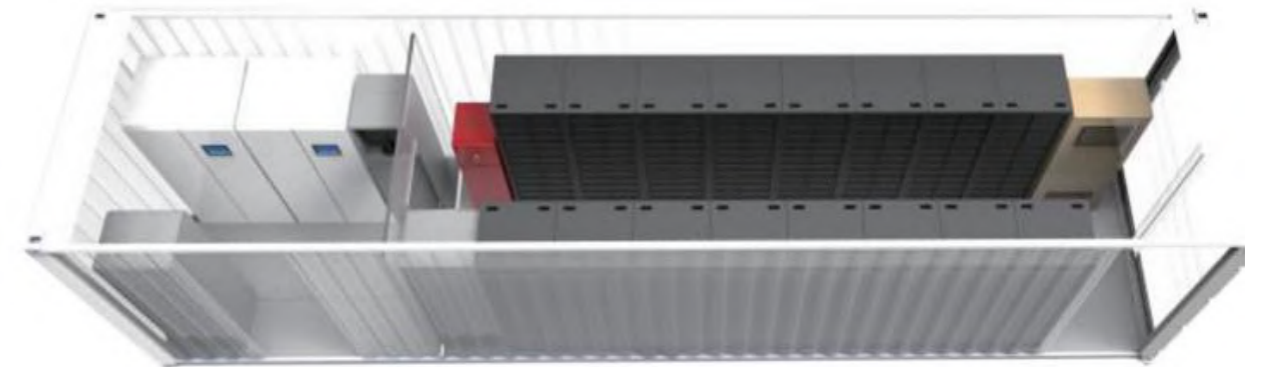
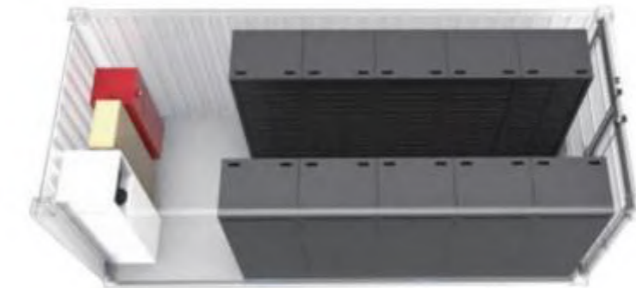
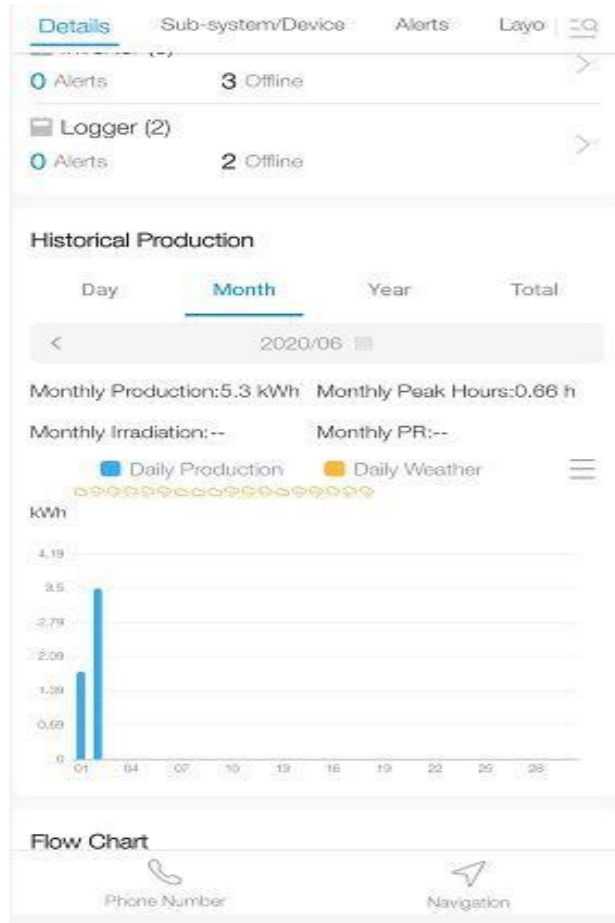


| Items                             | Specification  | Items                             | Specification   | Items                          | Specification      |
|-----------------------------------|--|-----------------------------------|-----------------|--------------------------------|--------------------|
| <b>Ac Mains Mode</b>              |  | Peak Power                        | 10000VA         | PV operating voltage range     | 60-145Vdc          |
| Rated Input Voltage               | 220/230Vac   | Output short circuit protection   | Breaker         | MPPT voltage range             | 60-115Vdc          |
| Voltage Range                     | 170-280Vac / ± 2%  | By-pass circuit breaker           | 63A             | Battery voltage range          | 40-60Vdc           |
| Frequency                         | 50Hz/60Hz  | Rated voltage input               | 48V             | maximum power output           | 4200W              |
| Overload short circuit protection | Breaker  | Battery voltage range             | 40-60Vdc        | Solar maximum charging current | 0-80A              |
| Transfer Efficiency               | >95%   | <b>Ac Mains Charging Mode</b>     |                 | <b>Other Information</b>       |                    |
| Transition Time                   | 10ms   | Max Charge Current                | 60A             | Specification authentication   | CE ( EN62109 )     |
| Ac backirrigation protection      | Y  | Charging current error            | ± 5ADC          | EMC Certification level        | EN61000.C2         |
| Maximum bypass current            | 40A  | Charging voltage range            | 40-58Vdc        | Operating Temperature range    | -15-55             |
| <b>Inverter Operating Mode</b>    |  | Overload short circuit protection | Breaker , AC63A | Storage Temperature            | -25-60             |
| Output Voltage Waveform           | pure sine wave   | <b>Solar Charging Mode</b>        |                 | Cooling way                    | Forced air cooling |
| output Rating ( VA )              | 5000   | Maximum open circuit voltage      | 145Vdc          | Communication                  | USB/RS485/WiFi     |
| output Rating ( W )               | 5000   | PV Voltage Range                  | 60-145Vdc       | Net weight ( kg )              | 13.5               |
| Rated Output Voltage ( Vac )      | 230Vac   |                                   |                 |                                |                    |
| Overload Protection               | 102% load <125% ± 10%, alarm and shut down after 5 minutes |                                   |                 |                                |                    |

CUSTOMIZED BESS SYSTEM(500KW/1750KWH)



REMOTE MONITORING BY MOBIL PHONE



KEHENG NEW ENERGY

-----SPECIALIZES IN NEW ENERGY FIELD