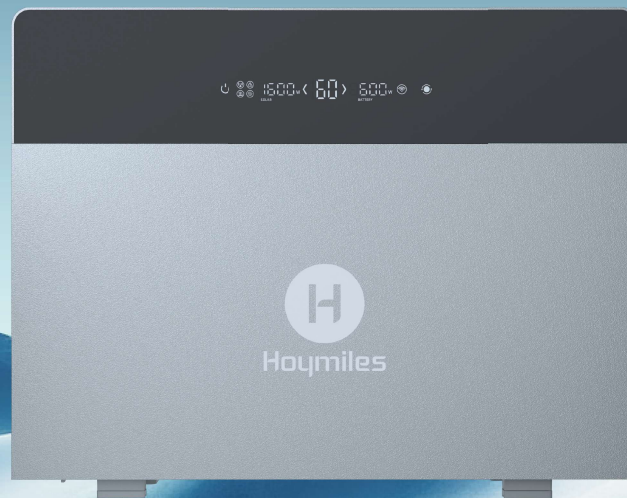




# HiBattery 4020 X

HB-4020-X  
HB-4020-S



## Features

01

### Enhanced Performance & Higher Returns

- 4 kWh built-in battery, expandable up to 16 kWh
- 4 MPPT + 4 kW PV input for maximum solar energy utilization
- Built-in 2500 W inverter
- Maximum DC/AC efficiency 96.5%

02

### Easy Installation

- Plug-and-play connection, home system setup in 1 minute
- Flexible stackable battery expansion

03

### Open Compatibility

- Compatible with Hoymiles and third-party (Shelly, Everhome) meters
- Open MQTT protocol, compatible with third-party EMS

04

### Ultimate Safety

- 314 Ah LiFePO4 battery cells with > 8000 charge-discharge cycles
- Hoymiles BMS integrates 48 built-in protection functions
- Intelligent cell balancing to extend battery life
- Intelligent self-heating for low-temperature environments
- Built-in aerosol fire suppression, pressure relief valve and DC terminal over-temperature protection
- IP66 waterproof & dustproof
- Pack-level DC/DC balancing

## Technical Specifications - HiBattery

| Model                                      | HB-4020-X |  | HB-4020-XM                                 |  |
|--------------------------------------------|-----------|--|--------------------------------------------|--|
| DC Port                                    |           |  |                                            |  |
| Number of inputs                           |           |  | 4                                          |  |
| Number of MPPTs                            |           |  | 4                                          |  |
| Maximum number of PV modules               |           |  | 8                                          |  |
| Maximum input power (W)                    |           |  | 1000 × 4                                   |  |
| Maximum input voltage (V)                  |           |  | 60                                         |  |
| Maximum input current (A)                  |           |  | 32 × 4                                     |  |
| Maximum short circuit current (A)          |           |  | 40 × 4                                     |  |
| Minimum/Maximum start voltage (V)          |           |  | 18/60                                      |  |
| MPPT voltage range (V)                     |           |  | 16 to 60                                   |  |
| AC On-Grid Port                            |           |  |                                            |  |
| Rated output power (W)                     | 800       |  | 2500                                       |  |
| Rated output current (A)                   | 3.48      |  | 10.87                                      |  |
| Maximum output power (W)                   | 800       |  | 2500                                       |  |
| Maximum output current (A)                 | 3.48      |  | 10.87                                      |  |
| Maximum input power (W)                    |           |  | 2500                                       |  |
| Maximum input current (A)                  |           |  | 10.87                                      |  |
| Rated voltage/range (V)                    |           |  | 230 / 180 to 270                           |  |
| Rated frequency/range (Hz)                 |           |  | 50 / 45 to 55                              |  |
| Adjustable power factor (@nominal power)   |           |  | >0.99 default; 0.8 leading ... 0.8 lagging |  |
| Total harmonic distortion (@nominal power) |           |  | <3%                                        |  |
| AC Off-Grid Port                           |           |  |                                            |  |
| Maximum output power (W)                   |           |  | 2500                                       |  |
| Rated voltage (V)                          |           |  | 230                                        |  |
| Rated frequency (Hz)                       |           |  | 50                                         |  |
| Maximum output current (A)                 |           |  | 10.87                                      |  |
| Maximum input power (W)                    |           |  | 2500                                       |  |
| Maximum input current (A)                  |           |  | 10.87                                      |  |
| Power factor                               |           |  | >0.99 default; 0.8 leading ... 0.8 lagging |  |
| Battery                                    |           |  |                                            |  |
| Battery type                               |           |  | LFP                                        |  |
| Cycle life                                 |           |  | ≥8000 @70% SOH                             |  |
| Rated capacity (Ah)                        |           |  | 314                                        |  |
| Rated energy (Wh)                          |           |  | 4020                                       |  |
| Rated voltage (V)                          |           |  | 12.8                                       |  |
| Charging/discharging temperature (°C)      |           |  | -20 to 55                                  |  |
| Maximum charging/discharging power (W)     |           |  | 2000                                       |  |
| Rated charging/discharging power (W)       |           |  | 2000                                       |  |
| DC/DC voltage (V)                          |           |  | 48                                         |  |
| General                                    |           |  |                                            |  |
| Dimensions (W × H × D [mm])                |           |  | 520 × 384 × 199                            |  |
| Weight (kg)                                |           |  | 42                                         |  |
| Operating temperature (°C)*                |           |  | -20 to 55                                  |  |
| Storage temperature (°C)                   |           |  | -30 to 60                                  |  |
| Humidity                                   |           |  | 5 to 100%                                  |  |
| Altitude (m)                               |           |  | 4000                                       |  |
| Noise (dB)                                 |           |  | <20                                        |  |
| Cooling                                    |           |  | Natural convection                         |  |
| Warranty                                   |           |  | 10 years                                   |  |
| Ingress protection                         |           |  | IP66                                       |  |
| Inverter topology                          |           |  | Isolated                                   |  |
| Display Interaction                        |           |  |                                            |  |
| Display screen                             |           |  | LED                                        |  |
| Communication                              |           |  | Bluetooth, 2.4 GHz Wi-Fi                   |  |
| Monitoring                                 |           |  | S-Miles Home                               |  |

\* Below 0 °C, the heating film will automatically activate to bring the device within the charging temperature range.

## Technical Specifications - Battery Pack

|                                        |                    |
|----------------------------------------|--------------------|
| Model                                  | HB-4020-S          |
| Battery                                |                    |
| Battery type                           | LFP                |
| Cycle life                             | ≥8000 @70% SOH     |
| Rated capacity (Ah)                    | 314                |
| Rated energy (Wh)                      | 4020               |
| Rated voltage (V)                      | 12.8               |
| Voltage range (V)                      | 11.2 to 14.6       |
| Rated charging/discharging power (W)   | 2000               |
| Maximum charging/discharging power (W) | 2000               |
| General                                |                    |
| Dimensions (W × H × D [mm])            | 520 × 275 × 199    |
| Weight (kg)                            | 35                 |
| Operating temperature (°C)*            | -20 to 55          |
| Humidity                               | 5 to 100%          |
| Altitude (m)                           | 4000               |
| Cooling                                | Natural convection |
| Warranty                               | 10 years           |
| Ingress protection                     | IP66               |

\* Below 0 °C, the heating film will automatically activate to bring the device within the charging temperature range.