

# Haier

V 1.0 LUMENIA

# Smart Balcony Solar Kit

HMK1P-800D-FB

## Haier | NAHUI

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Suitable For



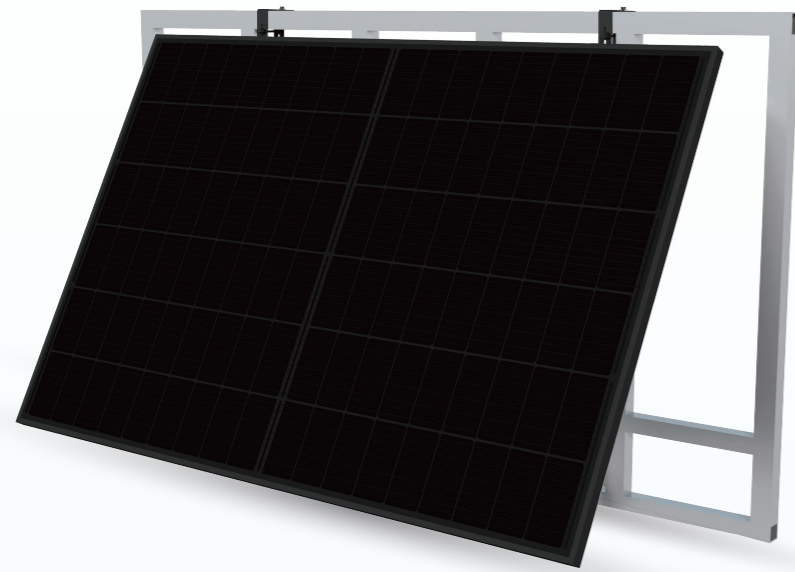
Balconies



Gardens



Fences



## FEATURES

### Multi angle adjustment

The angle of the of the bracket can be adjusted to achieve maximum power generation

### Save Your Bill

Payback period less than 1 year combine with government subsidies

### Guaranteed Quality

10 year product warranty for the inverters  
15 years product warranty for the solar panels

### Easy Installation

Plug & play connection, no requirement for professional installation, saving installation costs.

### Super Safe Design

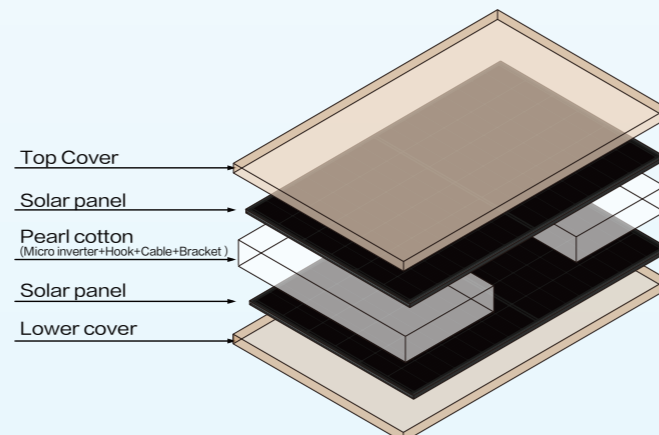
Low PV voltage (<60 VDC); Patented bracket can bear force @ 12 typhoon

### All-in-one Design

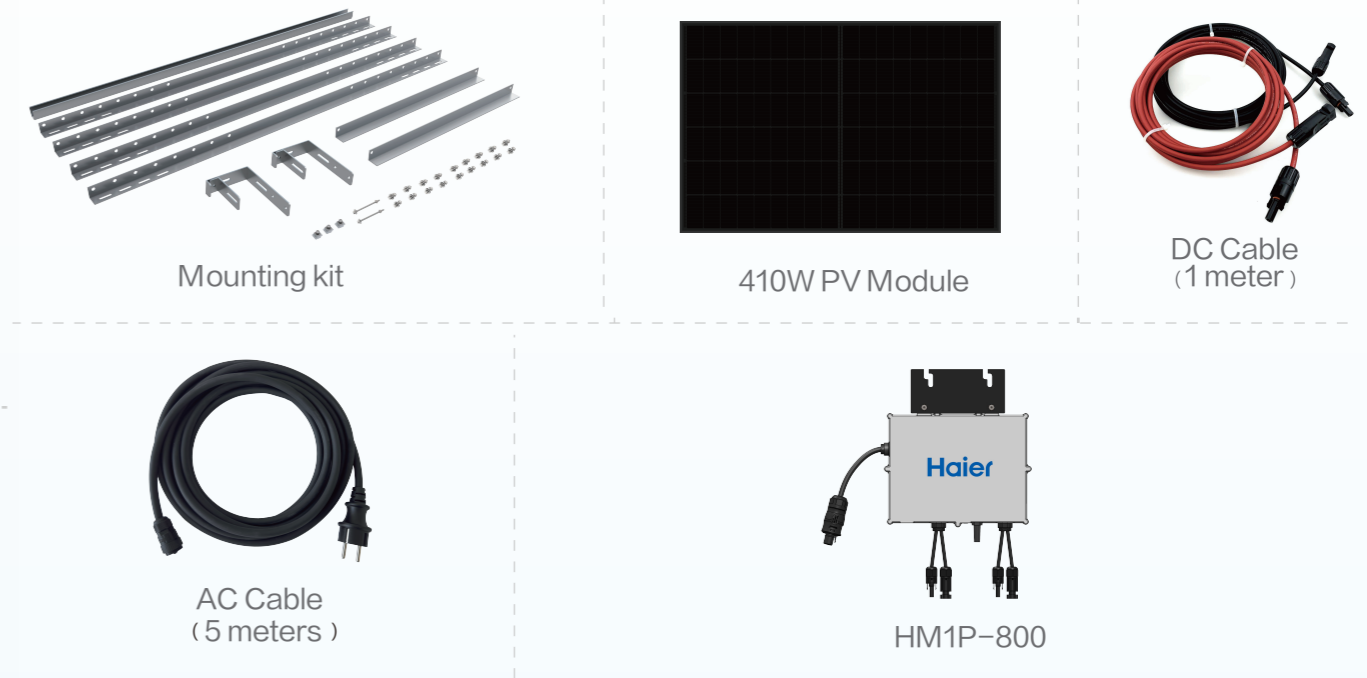
The box includes solar panels, inverters and cables.

## ORDERING INFORMATION

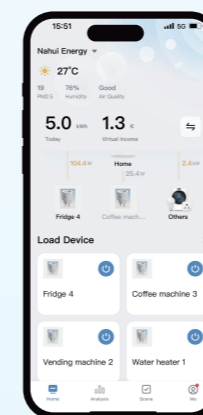
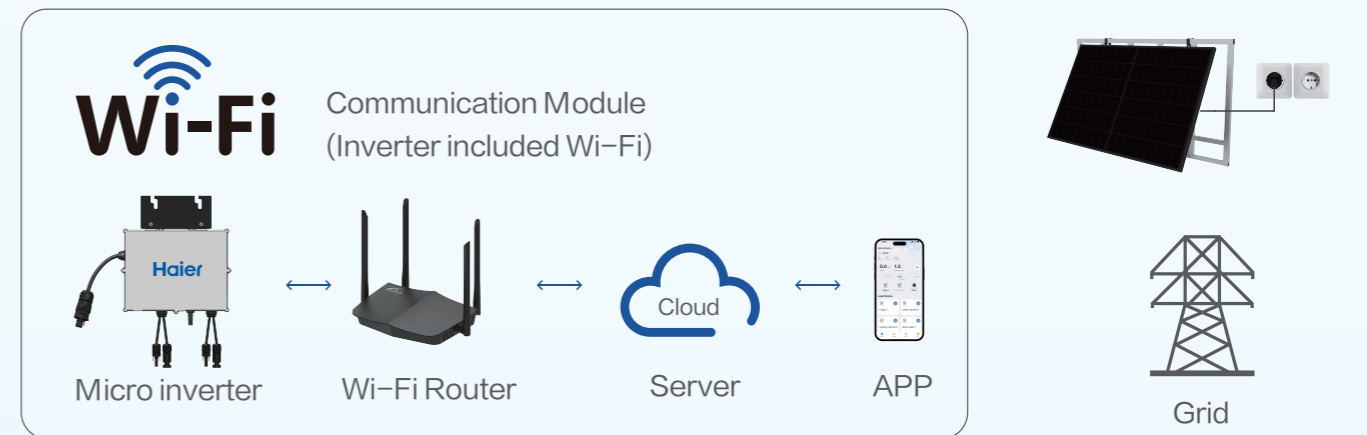
| Ordering NO.   | Description   |
|----------------|---|
| HMKIP-800D-FB  | 1 x 600/800W micro inverter<br>2 x solar panels<br>1 x 5m AC cable<br>1 x 1m DC cable<br>1 x mounting kit |
| Container size | Packing quantity  |
| 40' HQ         | 364 kits  |



## STANDARD CONFIGURATION



## MONITORING PLATFORM



## Monitoring Platform

Nahui Energy is a mobile energy monitoring application software. Users can use Nahui Energy to monitor the real-time operation of the photovoltaic system, historical power generation data and environmental benefits generated by the system.

## Balcony Solution

# HM1P-800

Micro Inverter

Built-in WiFi  
Instant PV



## Robust, reliable, and Durable



IP66 / IP67 isolation



Top-tier components



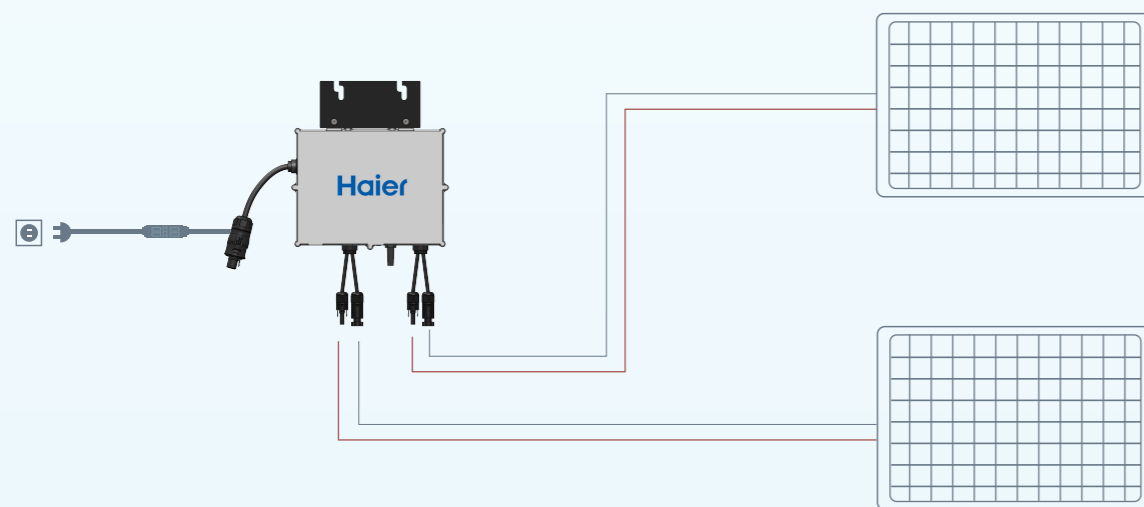
Ten years standard warranty



Dual grounding, dual safety



Low voltage PV system



## CERTIFICATE



## HM1P-800

### INPUT | DC

|                                       |         |
|---------------------------------------|---------|
| Recommended PV Module Power Range / W | 600 x 2 |
| MPPT Voltage Range / V                | 22-55   |
| Startup Voltage / V                   | 24      |
| Max. Input Voltage / V                | 60      |
| Max. Input Current / A                | 17 x 2  |
| Oversvoltage Protection Category      | II      |

### OUTPUT | AC

|   |                                 |
|---|---------------------------------|
| Peak Output Power / VA                    | 800                             |
| Max. Continuous Output Power / VA         | 800                             |
| Rated Output Voltage / V                  | 230                             |
| Nominal Output Voltage Range / V          | 230 / Configurable              |
| Max. Continuous Output Current / A        | 3.48                            |
| Nominal Frequency / Range / Hz            | 50 / Configurable               |
| Power Factor (Nominal / Adjustable Range) | 1.0 / 0.8 leading...0.8 lagging |
| THDi@Rated Power                          | <3%                             |
| Oversvoltage Protection Category          | III                             |

### EFFICIENCY

|                              |        |
|------------------------------|--------|
| Peak Efficiency              | 97.3%  |
| MPPT Efficiency              | >99.5% |
| Night Power Consumption / mW | 110    |

### GENERAL DATA

|  |                           |
|--|---------------------------|
| Operating Ambient Temperature Range / °C | -40~65                    |
| Relative Humidity Range                  | 0-100%                    |
| Dimensions (W x H x D) / mm              | 268 x 250 x 42            |
| Weight / kg                              | 2.9                       |
| Communication Method                     | WiFi (Frequency: 2.4 Ghz) |
| Protection Class                         | IP66 / IP67               |

## Balcony Solution

# 410W

(Full Black)

### High Efficiency Half-Cell Mono PERC Module

## NAHUI



Excellent low irradiance performance.



Optimized electrical design and lower operating current for reduced hot spot



Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



Better light trapping and current collection to improve module power output and reliability.

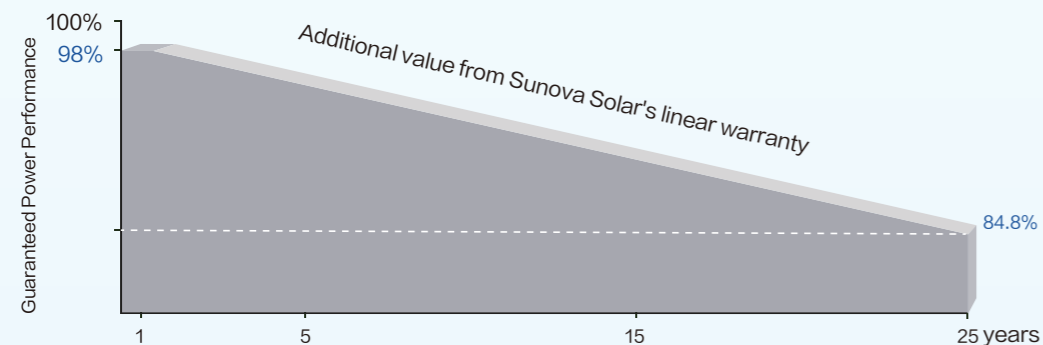


Industry leading lowest thermal co-efficient of power



100% triple EL test enabling remarkable reduction of hidden crack rate of modules

## LINEAR PERFORMANCE WARRANTY



15 years

Product quality & process guarantee

25 years

Linear power guarantee

0.55%

Annual Degradation Over 25 years

## COMPREHENSIVE CERTIFICATES



\*Different markets have different certification requirements.

Also, the products are under rapid innovation.

Please confirm the certification status with regional sales representatives.

## ELECTRIC CHARACTERISTICS

108cells

Model of modules

NPP-410-54MD

|                                      | STC       | NOCT  |
|--------------------------------------|-----------|-------|
| Maximum power - $P_{mp}$ (W)         | 410       | 305   |
| Open-circuit voltage - $V_{oc}$ (V)  | 37.68     | 35.42 |
| Short-circuit current - $I_{sc}$ (A) | 13.59     | 11.01 |
| Maximum power voltage - $V_{mp}$ (V) | 31.84     | 29.61 |
| Maximum power current - $I_{mp}$ (A) | 12.88     | 10.31 |
| Module efficiency - $\eta_m$ (%)     | 21.0      |       |
| Power tolerance (W)                  | ±3%       |       |
| Maximum system voltage (V)           | 1500      |       |
| Maximum rated fuse current (A)       | 25        |       |
| Current operating temperature (°C)   | -40~+85°C |       |

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C, Spectra atAM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra atAM1.5, Wind at 1m/s

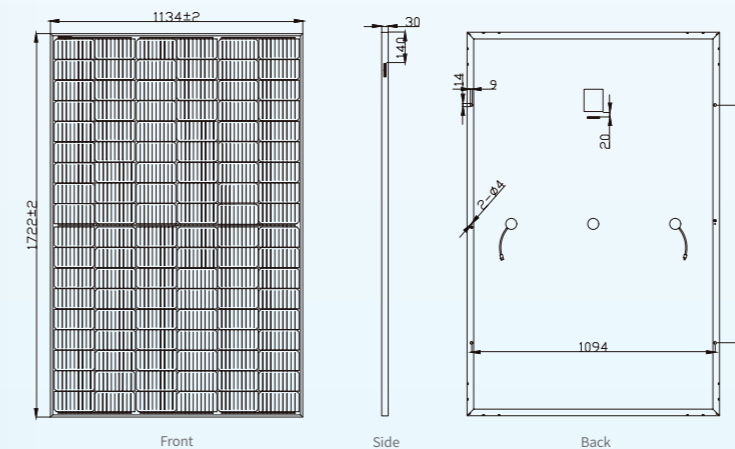
## STRUCTURAL CHARACTERISTICS

|                               |  |
|-------------------------------|--|
| Module dimensions (L * W * H) | 1722 x 1134 x 30 mm  |
| Weight                        | 21.5 kg  |
| Number of cells               | 108 cells  |
| Cell                          | PERC Monocrystalline 182 x 91mm                                |
| Glass                         | Tempered, 3.2 mm AR, High transmittance, Low iron              |
| Frame                         | Black Anodized aluminum alloy                                  |
| Junction box                  | IP68, 3 diodes   |
| Output wire                   | 4.0 mm <sup>2</sup> , wire length: 300mm / 1200mm / customized |
| Connector                     | MC4 Compatible   |
| Mechanical load               | Snow load: 5400 Pa / Wind load: 2400 Pa                        |

## TEMPERATURE RATINGS

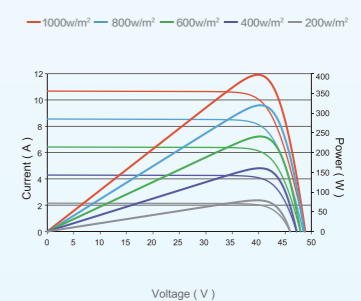
|                                       |             |
|---------------------------------------|-------------|
| Temperature coefficient ( $P_{max}$ ) | -0.35% / °C |
| Temperature coefficient ( $V_{oc}$ )  | -0.28% / °C |
| Temperature coefficient ( $I_{sc}$ )  | +0.05% / °C |
| Nominal operating cell temperature    | 43±2°C      |

## MODULE DIMENSIONS (MM)

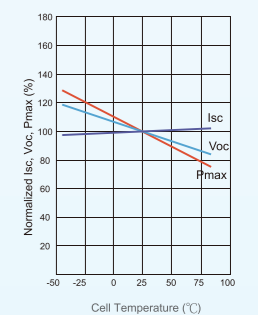


\* The unbalance is ±1 mm  
Length shown in mm

Current-Voltage & Power-Voltage Curves (400W)



Temperature Dependence of  $I_{sc}$ ,  $V_{oc}$ ,  $P_{max}$



SD202307001EN