



# Next Level Residential Energy Solution Force H3X

Hybrid Solution



**On-Demand  
Versatility**



**One-Stop Solution &  
Effortless Installation**



**Trustworthy Safety  
Design**



**Extraordinary  
Performance**



**Intelligent  
Solutions**

# From Heart to Your Home

## On-Demand Versatility

Single Phase/ Three Phase

Wide power range **3.6** kW to **15** kW    Single group **10-35** kWh    Max. 6 groups **210** kWh

Suitable for both residential and small-scale C&I



## One-Stop Solution & Effortless Installation

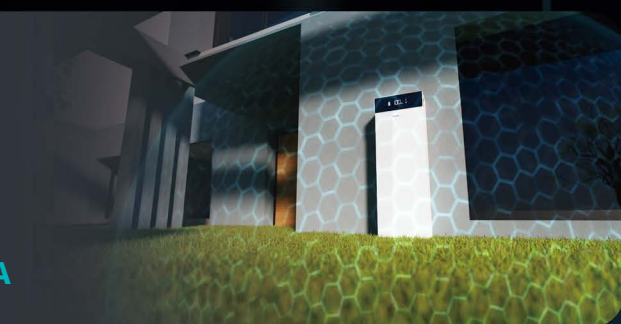
**BMS+Inverter+EMS** Highly integrated

**15** min Installation & commissioning  
Automatic paralleling, easy set-up



## Trustworthy Safety Design

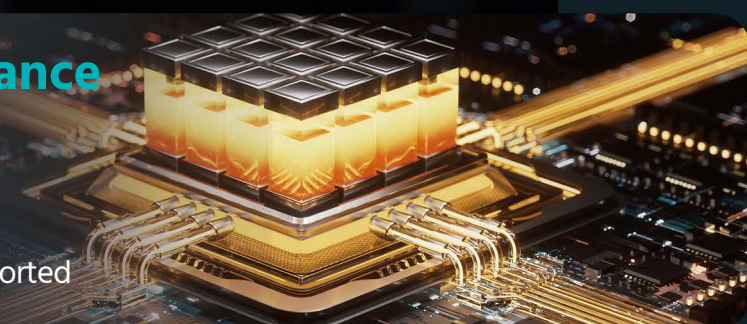
- Vertical integrated manufacturing
- Reliable product safety design
- Ai-driven smart protection
- Various safety certifications, unit level **UL9540A**



## Extraordinary Performance

**1C** Rate    **97%** Efficiency    **8000+** Life cycles

**100%** three phase load unbalance Supported



## Intelligent Solutions

- **Dynamic control:** Optimized energy usage strategy
- Fault diagnosis system
- Remote control of pv and heat pump



\*Product specifications are subject to specific conditions. Please reach out to PylonTech's technical service for further details.

# Force H3X Hybrid

## Single Phase

### Module

FH3X3.6K-HY-1P  
5/10/15/20FH3X5K-HY-1P  
5/10/15/20FH3X6K-HY-1P  
5/10/15/20FH3X8K-HY-1P  
5/10/15/20

#### Main System Data

|                               |                        |   |   |   |
|-------------------------------|------------------------|---|---|---|
| Battery Module                | FH10050                |   |   |   |
| Number of Battery Modules     | 1/2/3/4                |   |   |   |
| System Nominal Capacity (kWh) | 5.12/10.24/15.36/20.48 |   |   |   |
| System Nominal Power (kW)     | 3.6                    | 5 | 6 | 8 |

#### DC Parameter (PV Side)

|                                    |         |   |     |      |
|------------------------------------|---------|---|-----|------|
| Maximum Power (kW)                 | 5.7     | 8 | 9.6 | 12.8 |
| Maximum Input Voltage (Vdc)        | 600     |   |     |      |
| Start Up Voltage (Vdc)             | 80      |   |     |      |
| MPPT Voltage Range (Vdc)           | 80~550  |   |     |      |
| MPPT Full Load Voltage Range (Vdc) | 190~520 |   |     |      |
| Number of MPPT                     | 2       | 2 | 2   | 3    |
| Number of PV Strings Per MPPT      | 1       |   |     |      |
| Maximum Current (A)                | 16      |   |     |      |
| Short Circuit Current Per MPPT (A) | 25      |   |     |      |
| Surge Protection                   | Type II |   |     |      |

#### DC Parameter (Battery Side)

|   |     |   |   |   |
|---|-----|---|---|---|
| Maximum Continuous Charge/Discharge Current (A)                         | 40  |   |   |   |
| Maximum Charging Power of the Single-Phase Module with One Battery (kW) | 2.5 |   |   |   |
| Maximum Discharging Power with One Battery (kW)                         | 2.5 |   |   |   |
| Maximum Charging Power with More Than One Battery (kW)                  | 8   |   |   |   |
| Maximum Discharging Power with More Than One Battery(kW)                | 3.6 | 5 | 6 | 8 |

#### AC Parameter (Grid Side)

|  |                   |      |      |       |
|--|-------------------|------|------|-------|
| Nominal Grid Voltage                           | 1/N/PE a.c. 230 V |      |      |       |
| Nominal Grid Frequency (Hz)                    | 50/60             |      |      |       |
| Maximum Nominal Continuous Current to Grid (A) | 15.7              | 21.7 | 26.1 | 34.8  |
| Nominal Active Power to Grid (W)               | 3600              | 5000 | 6000 | 8000  |
| Maximum Nominal Apparent Power to Grid (VA)    | 3600              | 5000 | 6000 | 8000  |
| Maximum Nominal Continuous Current from Grid   | 23.5              | 32.6 | 39.1 | 52.2  |
| Nominal Active Power from Grid (W)             | 5400              | 7500 | 9000 | 12000 |
| Maximum Nominal Apparent Power from Grid (VA)  | 5400              | 7500 | 9000 | 12000 |
| Power Factor Range                             | -0.8~+0.8         |      |      |       |
| THDi   | < 3%              |      |      |       |

#### AC Parameter (Back-up Side)

|   |                   |      |      |      |
|---|-------------------|------|------|------|
| Nominal Voltage                         | 1/N/PE a.c. 230 V |      |      |      |
| Nominal Output Frequency (Hz)           | 50/60             |      |      |      |
| Maximum Nominal Continuous Current (A)  | 15.7              | 21.7 | 26.1 | 34.8 |
| Maximum Nominal Apparent Power (VA)     | 3600              | 5000 | 6000 | 8000 |
| Peak Off-Grid Power (60s)/Estimate (VA) | 4320              | 6000 | 6200 | 9600 |
| Power Factor Range                      | -0.8~+0.8         |      |      |      |
| ON/Off-Grid Switching Time (ms)         | ≤10               |      |      |      |
| THDv                                    | < 3%              |      |      |      |

# Force H3X Hybrid

## Single Phase

### Module

FH3X3.6K-HY-1P  
5/10/15/20FH3X5K-HY-1P  
5/10/15/20FH3X6K-HY-1P  
5/10/15/20FH3X8K-HY-1P  
5/10/15/20

### Efficiency

|                     |       |
|---------------------|-------|
| Maximum Efficiency  | 98%   |
| European Efficiency | 97.5% |

### Protection

|                                  |              |
|----------------------------------|--------------|
| Anti-Islanding protection        | Yes          |
| AFCI                             | 2.0@IEC63027 |
| Insulation Resistor Detection    | Yes          |
| Residual Current Monitoring Unit | Yes          |
| Output Over Current Protection   | Yes          |
| Output Short Protection          | Yes          |
| Output Overvoltage Protection    | Yes          |
| DC Switch                        | Yes          |
| DC Reverse Polarity Protection   | Yes          |
| DC/AC Surge Protection           | Type II      |
| PV Overvoltage Protection        | Yes          |

### General Data

|                                   |                           |
|-----------------------------------|---------------------------|
| Dimensions (W/H/D, mm)            | 540*665/835/1005/1175*350 |
| Weight (kg)                       | 77/116/155/194            |
| Topology                          | Transformerless           |
| Operating Temperature Range (°C)* | -10~55                    |
| System Working Humidity Range     | 0~100%                    |
| System Working Altitude (m)*      | <4000                     |
| Common Noise Level (1 meter) (dB) | <29                       |
| Maximum Parallel                  | 6                         |
| Protective Class                  | I                         |
| Overvoltage Category              | DC II /AC III             |
| Ingress Protection                | IP55                      |
| System Salt Spray Level           | C5-M                      |
| Cooling                           | Natural Cooling           |
| Standby Consumption (Night)       | <15W                      |
| Communication Portal              | WIFI/WLAN/Bluetooth       |
| Display                           | LED                       |
| EPO                               | Installed                 |

### Standard Compliance

UN38.3/IEC61000-6/VDE-AR-E-2510-50 2017-05/IEC62619: 2022/IEC60730-1/ISO13849/IEC62477-1: 2022  
EN 62477-1: 2012+A12: 2021/IEC62109-1: 2010/IEC62109-2: 2011

VDE-AR-N-4105: 2018/DIN VDE V 0124-100: 2020/EN50549-10/EN50549-1/PPDS Annex: 2022+EN50549-10/C10/11+EN50549-10/EIFS+EN50549-10/  
CEI0-21/RD1699 RD661 RD413/UNE 217002: 2020/NTS Version 2.1: 2021/UNE 217001: 2021/AS 4777. 2/AS60947. 3/G98/G99/TOR

\* When the ambient temperature exceeds 45°C, the PCS will reduce the power

\* When the altitude exceeds 2000m, the PCS will degrade the power

# Force H3X Hybrid

## Three Phase

### Module

FH3X-8K-HY-3P    FH3X-10K-HY-3P    FH3X-12K-HY-3P    FH3X-15K-HY-3P  
10/15/20/25/30/35    10/15/20/25/30/35    10/15/20/25/30/35    10/15/20/25/30/35

#### Main System Data

|                               |                                    |    |    |    |
|-------------------------------|------------------------------------|----|----|----|
| Battery Module                | FH10050                            |    |    |    |
| Number of Battery Modules     | 2/3/4/5/6/7                        |    |    |    |
| System Nominal Capacity (kWh) | 10.24/15.36/20.48/25.6/30.72/35.84 |    |    |    |
| System Nominal Power (kW)     | 8                                  | 10 | 12 | 15 |

#### DC Parameter (PV Side)

|                                    |         |    |      |    |
|------------------------------------|---------|----|------|----|
| Maximum Power (kW)                 | 12.8    | 16 | 19.2 | 24 |
| Maximum Input Voltage (Vdc)        | 1000    |    |      |    |
| Start Up Voltage (Vdc)             | 200     |    |      |    |
| MPPT Voltage Range (Vdc)           | 200~850 |    |      |    |
| MPPT Full Load Voltage Range (Vdc) | 280~850 |    |      |    |
| Number of MPPT                     | 3       |    |      |    |
| Number of PV Strings Per MPPT      | 1       |    |      |    |
| Maximum Current (A)                | 20      |    |      |    |
| Short Circuit Current Per MPPT (A) | 30      |    |      |    |
| Surge Protection                   | Type II |    |      |    |

#### DC Parameter (Battery Side)

|  |    |    |    |    |
|--|----|----|----|----|
| Maximum Continuous Charge/Discharge Current (A)                                      | 50 |    |    |    |
| Maximum Charging Power of the Three-Phase Module with Two Batteries (kW)             | 10 |    |    |    |
| Maximum Charging Power of the Three-Phase Module with Two Batteries (kW)             | 8  | 10 | 10 | 10 |
| Maximum Charging Power of the Three-Phase Module with More Than Two Batteries (kW)   | 15 |    |    |    |
| Maximum Discharging Power of the Three-Phase Module with More Than Two Batteries(kW) | 8  | 10 | 12 | 15 |

#### AC Parameter (Grid Side)

|  |                   |       |       |       |
|--|-------------------|-------|-------|-------|
| Nominal Grid Voltage                           | 3/N/PE a.c. 400 V |       |       |       |
| Nominal Grid Frequency (Hz)                    | 50/60             |       |       |       |
| Maximum Nominal Continuous Current to Grid (A) | 11.6              | 14.5  | 17.4  | 21.7  |
| Nominal Active Power to Grid (W)               | 8000              | 10000 | 12000 | 15000 |
| Maximum Nominal Apparent Power to Grid (VA)    | 8000              | 10000 | 12000 | 15000 |
| Maximum Nominal Continuous Current from Grid   | 17.4              | 21.7  | 26.1  | 32.6  |
| Nominal Active Power from Grid (W)             | 12000             | 15000 | 18000 | 22500 |
| Maximum Nominal Apparent Power from Grid (VA)  | 12000             | 15000 | 18000 | 22500 |
| Power Factor Range                             | -0.8~+0.8         |       |       |       |
| THDi   | < 3%              |       |       |       |

#### AC Parameter (Back-up Side)

|   |                   |       |       |       |
|---|-------------------|-------|-------|-------|
| Nominal Voltage                         | 3/N/PE a.c. 400 V |       |       |       |
| Nominal Output Frequency (Hz)           | 50/60             |       |       |       |
| Maximum Nominal Continuous Current (A)  | 11.6              | 14.5  | 17.4  | 21.7  |
| Maximum Nominal Apparent Power (VA)     | 8000              | 10000 | 12000 | 15000 |
| Peak Off-Grid Power (60s)/Estimate (VA) | 12000             | 15000 | 18000 | 22500 |
| Power Factor Range                      | -0.8~+0.8         |       |       |       |
| ON/Off-Grid Switching Time (ms)         | ≤10               |       |       |       |
| THDv                                    | < 3%              |       |       |       |

# Force H3X Hybrid

## Three Phase

### Module

FH3X-8K-HY-3P    FH3X-10K-HY-3P    FH3X-12K-HY-3P    FH3X-15K-HY-3P  
10/15/20/25/30/35    10/15/20/25/30/35    10/15/20/25/30/35    10/15/20/25/30/35

### Efficiency

|                     |       |
|---------------------|-------|
| Maximum Efficiency  | 98%   |
| European Efficiency | 97.5% |

### Protection

|                                  |              |
|----------------------------------|--------------|
| Anti-Islanding protection        | Yes          |
| AFCI                             | 2.0@IEC63027 |
| Insulation Resistor Detection    | Yes          |
| Residual Current Monitoring Unit | Yes          |
| Output Over Current Protection   | Yes          |
| Output Short Protection          | Yes          |
| Output Overvoltage Protection    | Yes          |
| DC Switch                        | Yes          |
| DC Reverse Polarity Protection   | Yes          |
| DC/AC Surge Protection           | Type II      |
| PV Overvoltage Protection        | Yes          |

### General Data

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| Dimensions (W/H/D, mm)            | 540*705/875/1045/1215/1385/1555*350 |
| Weight (kg)                       | 86/125/164/203/242/281              |
| Topology                          | Transformerless                     |
| Operating Temperature Range (°C)* | -10~55                              |
| System Working Humidity Range     | 0~100%                              |
| System Working Altitude (m)*      | < 4000                              |
| Common Noise Level (1 meter) (dB) | < 29                                |
| Maximum Parallel                  | 6                                   |
| Protective Class                  | I                                   |
| Overvoltage Category              | DC II /AC III                       |
| Ingress Protection                | IP55                                |
| System Salt Spray Level           | C5-M                                |
| Cooling                           | Natural Cooling                     |
| Standby Consumption (Night)       | <15W                                |
| Communication Portal              | WIFI/WLAN/Bluetooth                 |
| Display                           | LED                                 |
| EPO                               | Installed                           |

### Standard Compliance

UN38.3/IEC61000-6/VDE-AR-E-2510-50 2017-05/IEC62619: 2022/IEC60730-1/ISO13849/IEC62477-1: 2022  
EN 62477-1: 2012+A12: 2021/IEC62109-1: 2010/IEC62109-2: 2011

VDE-AR-N-4105: 2018/DIN VDE V 0124-100: 2020/EN50549-10/EN50549-1/PPDS Annex: 2022+EN50549-10/C10/11+EN50549-10/EIFS+EN50549-10/  
CEIO-21/RD1699 RD661 RD413/JUNE 217002:2020/NTS Version 2.1: 2021/JUNE 217001: 2021/AS 4777. 2/AS60947. 3/G98/G99/TOR/ PTPIREE/NA-EEA-NE7-CH 2020/

\* When the ambient temperature exceeds 45°C, the PCS will reduce the power

\* When the altitude exceeds 2000m, the PCS will degrade the power