



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 Single group Max. 6 groups

3.6 kW to **15** kW **10-35** kWh **210** kWh

Suitable for both residential and small-scale C&I



One-Step Solution & Effortless Installation

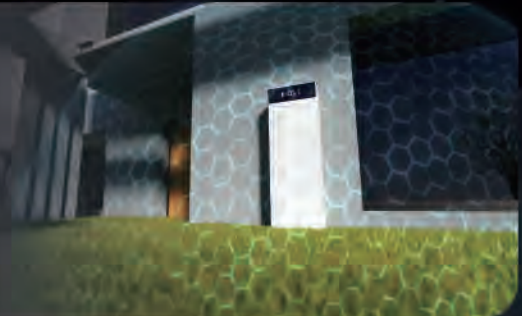
BMS+Inverter+EMS Highly intergrated

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



Trustworthy Safety Desgin

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

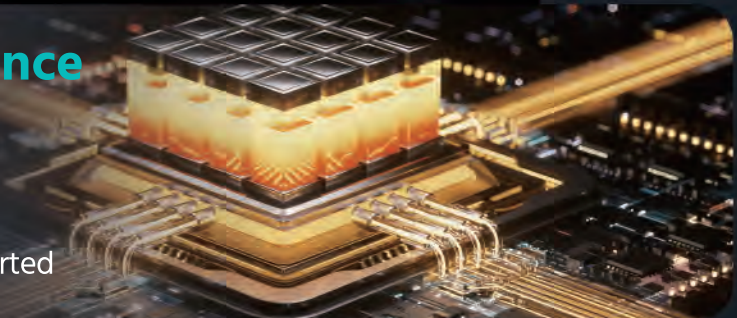


Extraordinary Performance

1C **97%** **8000+**

Rate Efficiency 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



Force H3X Hybrid

HY-1P-EU

Single Phase

Module

FH3X3.6K-HY-1P
EU-5/10/15/20

FH3X5K-HY-1P
EU-5/10/15/20

FH3X6K-HY-1P
EU-5/10/15/20

FH3X8K-HY-1P
EU-5/10/15/20

Main System Data

Battery Module	FH10050			
Number of Battery Modules	1/2/3/4			
Maximum PV Power (kW)	9.6	9.6	9.6	9.6
System Rated Capacity (kWh)	5.12/10.24/15.36/20.48			
Nominal Power (kW)	3.6	5	6	8
IP Rate	IP55			

Inverter Data

Maximum Power (kW)	9.6	9.6	9.6	12.8
Maximum DC Input Voltage (Vdc)	600			
Start Up Voltage (Vdc)	80			
Number of MPPT	2	2	2	3
DC Input Number of PV Strings Per MPPT	1			
(From PV) MPPT Voltage Range (Vdc)	80~550			
MPPT Full Load Voltage Range (Vdc)	190~520			
Maximum Current (A)	16			
Short Circuit Current Per MPPT (A)	25			
Surge Protection	Type II			
Nominal AC Voltage/Frequency (Vac)	230@50/60Hz			
Grid Voltage Range (Vac)	172.5~264.5			
On-Grid Grid Connection	L/N/PE			
Nominal AC Power (kW)	3.6	5	6	8
Maximum Grid Input Power (kW)	5.7	7.5	9.6	12
Rated Output Voltage (Vac)	230±1%			
ON/Off-Grid Switching Time (ms)	≤10			
Off-Grid Rated Off-Grid Power (kVA)	3.6	5	6	8
Peak Off-Grid Power (60s)/Estimate (kVA)	4.32	6	7.2	9.6
Maximum Parallel	6			
Efficiency Maximum Efficiency	(400V PV) 97%			
European Efficiency	97%			

General Data

System Battery Voltage (Vdc)	100~500			
Maximum Charge and Discharge Current (A)	40	50	50	50
System Dimensions (Width*Depth*Height, mm)	540*350*(565/735/905/1075)			
System Weight (kg)	69/108/147/186			
System Installation Method	Floor Installation (Wall-Mounted Optional for 5/10/15 Series)			
System Operating Temperature Range (°C)	-10~55			
System Working Humidity Range	0~95%			
System Salt Spray Level	C5M			
System Working Altitude (m)	≤3000			
Common Noise Level (@ 1 meter *In Nominal Condition, dB)	<29			
Cooling	Air Cooling			
Communication Portal	WIFI/WLAN/Bluetooth			
EPO	Installed			
AFCI	2.0@IEC 63027			

Battery Data

Battery Module	FH10050			
Battery Module Capacity (kWh)	5.12			
Depth of Discharge	95%			
Charge/Standard (A)	10			
Discharge/Normal (A)	50			
MAX (A)	55@15min			
Cycle Life (@25°C)	>8000			
Multi-Group	Max.6 Systems in Parallel			

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/T1+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

Force H3X Hybrid

Three Phase

HY-3P-EU

Module

FH3X8K-HY-3P EU-10/15/20/25/30/35 FH3X10K-HY-3P EU-10/15/20/25/30/35 FH3X12K-HY-3P EU-10/15/20/25/30/35 FH3X15K-HY-3P EU-10/15/20/25/30/35

Main System Data

Battery Module	FH10050			
Number of Battery Modules	2/3/4/5/6/7			
Maximum PV Power (kW)	24			
System Rated Capacity (kWh)	10.24/15.36/20.48/25.6/30.72/35.84			
Nominal Power (kW)	8	10	12	15
IP Rate	IP55			

Inverter Data

Maximum Power (kW)	24			
Maximum DC Input Voltage (Vdc)	1000			
Start Up Voltage (Vdc)	200			
Number of MPPT	3			
DC Input Number of PV Strings Per MPPT	1			
(From PV) MPPT Voltage Range (Vdc)	200~850			
MPPT Full Load Voltage Range (Vdc)	280~850			
Maximum Current (A)	20			
Short Circuit Current Per MPPT (A)	30			
Surge Protection	Type II			
Nominal AC Voltage/Frequency (Vac)	400@50/60Hz			
Grid Voltage Range (Vac)	320~480			
On-Grid Grid Connection	3W/N/PE			
Nominal AC Power (kW)	8	10	12	15
Maximum Grid Input Power (kW)	12	15	18	22.5
Rated Output Voltage (Vac)	400			
ON/Off-Grid Switching Time (ms)	≤10			
Off-Grid Rated Off-Grid Power (kVA)	8	10	12	15
Peak Off-Grid Power (60s)/Estimate (kVA)	9.6	12	14.4	18
Maximum Parallel	6			
Efficiency Maximum Efficiency	(600V PV) 97%			
European Efficiency	97%			

General Data

System Battery Voltage (Vdc)	120~850			
Maximum Charge and Discharge Current (A)	40	50	50	50
System Dimensions (Width*Depth*Height, mm)	540*350*(780/950/1120/1290/1460/1630)			
System Weight (kg)	118/157/196/235/274/313			
System Installation Method	Floor Installation (Wall-Mounted Optional for 5/10/15 Series)			
System Operating Temperature Range (°C)	-10~55			
System Working Humidity Range	0~95%			
System Salt Spray Level	C5M			
System Working Altitude (m)	≤3000			
Common Noise Level (@ 1 meter *In Nominal Condition, dB)	<29			
Cooling	Air Cooling			
Communication Portal	WIFI/WLAN/Bluetooth			
EPO	Installed			
AFCI	2.0@IEC 63027			

Battery Data

Battery Module	FH10050			
Battery Module Capacity (kWh)	5.12			
Depth of Discharge	95%			
Charge/ Standard (A)	10			
Discharge Normal (A)	50			
MAX (A)	55@15min			
Cycle Life (@25°C)	>8000			
Muti-Group	Max.6 Systems in Parallel			

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

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