



Next Level Residential Energy Solution Force H3X

AC- Coupled Solution
Hybrid Solution



**On-Demand
Versatility**



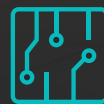
**One-Stop Solution &
Effortless Installation**



**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

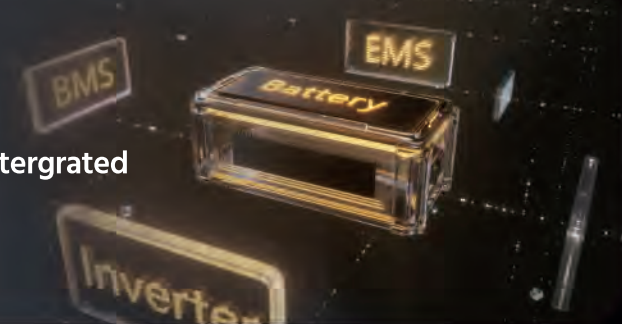
Suitable for both residential and small-scale C&I



One-Stop Solution & Effortless Installation

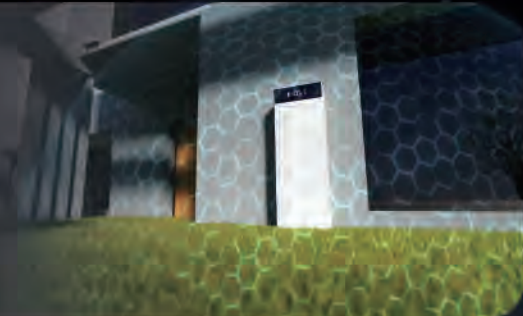
BMS+Inverter+EMS Highly intergrated

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



Trustworthy Safety Desgin

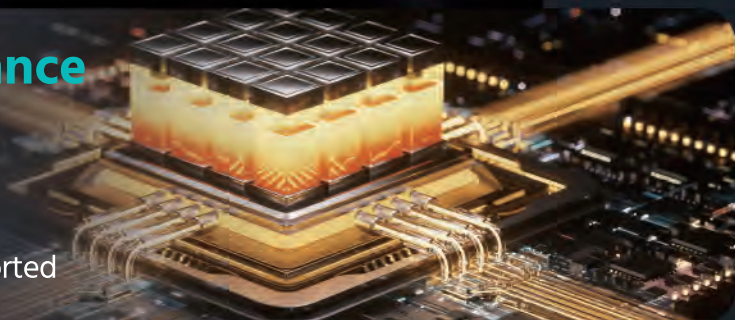
- ◆ Vertical integrated manufacturing
- ◆ Reliable product safety design
- ◆ Ai-driven smart protection
- ◆ Various safety certifications, unit level **UL9540A**



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 AC- Coupled

Single Phase

Module

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

Main System Data

Battery Module	FH10050			
Number of Battery Modules	1/2/3/4			
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

	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		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			
	Normal (A)		50			
Discharge	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/C10/11+EN50549-10/EIFS+EN50549-10/CEI0-21/RD1699 RD661 RD413/JUNE 217002: 2020/NTS Version 2.1: 2021/UNE 217001: 2021/AS 4777. 2/AS60947. 3/G98/G99/TOR

Force H3X AC- Coupled

Three Phase

Module

	FH3X8K-ACC-3P EU-10/15/20/25/30/35	FH3X10K-ACC-3P EU-10/15/20/25/30/35	FH3X12K-ACC-3P EU-10/15/20/25/30/35	FH3X15K-ACC-3P EU-10/15/20/25/30/35
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Main System Data

Battery Module	FH10050			
Number of Battery Modules	2/3/4/5/6/7			
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

	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				50	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			
	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/C10/11+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/ PTPIREE/NA-EEA-NE7-CH 2020/

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

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/CEIO-21/RD1699 RD661 RD413/UNE 217002:2020/NTS Version 2.1: 2021/UNE 217001: 2021/AS 4777. 2/AS60947. 3/G98/G99/TOR/ PTPIREE/NA-EEA-NE7-CH 2020/