T-BAT H 3.0 V2

	T-BAT H 3.0 T-BAT H 3.0 V2	T-BAT H 6.0 T-BAT H 6.0 V2	T-BAT H 9.0 T-BAT H 9.0 V2	T-BAT H 12.0 T-BAT H 12.0 V2
Rated voltage	102.4 V	204.8 V	307.2 V	409.6 V
Operation voltage range	90 ~ 116 V	180 ~ 232 V	270 ~ 348 V	360 ~ 464 V
Total energy	3.1 kWh	6.1 kWh	9.2 kWh	12.3 kWh
Usable energy[1]	2.8 kWh	5.5 kWh	8.3 kWh	11.0 kWh
Rated capacity	30 Ah			
Rated power	2.5 kW	5.1 kW	7.6 kW	10.2 kW
Max. power	3.1 kW	6.1 kW	9.2 kW	12.3 kW
Recommend charge / discharge current	25 A			
Max. charge / discharge current[2]	30 A			
Battery roundtrip efficiency	95%			
Cycle life [90% DOD]	> 6000 cycles			
Warranty	10 years			
Charge temperature	-30 ~ +50°C (with heating function) 0 ~ +50°C (without heating function)			
Discharge temperature	-30 ~ +50°C (with heating function) -20 ~ +50°C (without heating function)			
Storage temperature	-20 ~ 30°C (12 months) 30 ~ 50°C (6 months)			
Relative humidity	4 ~ 100% RH (condensing)			
Max. operation altitude	3000 m			
Ingress protection	IP65			
Battery to Inverter	RS485 / CAN2.0			
Battery to battery / BMS	CAN2.0			
Master control capacity indicator	4 LED (25%, 50%, 75%, 100%)			
Master control LED indicator (working mode)	1 LED			
System switch (on / off)	Button × 1 + Breaker × 1			
Certifications	CE, IEC62619, IEC62040, UKCA, VDE2510, RoHS			
UN number	UN3480			
Hazardous materials classification	Class 9			
UN transportation testing requirements	UN 38.3			
Dimensions (W × H × D)	MC0600: 482.5 ×173.5 × 153 mm HV10230: 482.5 × 471.5 × 153 mm			
Net weight	MC0600: 7.5 kg + HV10230: 34.5 kg	MC0600: 7.5 kg + 2 × HV10230: 69 kg	MC0600: 7.5 kg + 3 × HV10230: 103.5 kg	MC0600: 7.5 kg + 4 × HV10230: 138 kg

① Test conditions: 90% DOD, 0.2C charge & discharge @25 °C
② Max. charge / discharge current may be variant with different inverter models

Features

Smart Management

- Real-time monitoring via SolaXCloud
- Global MPP scan for optimal energy harvest
- Smart loads management (e.g. heat pump, smart EV charger)
- Intelligent ToU-driven energy management

Assured Reliability

- IP65 protection degree
- Support three-phase unbalance output

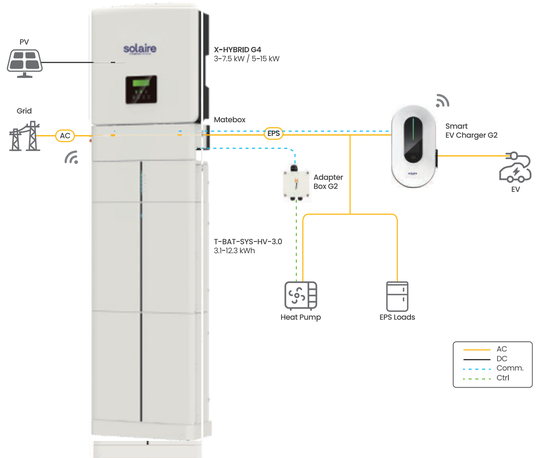
High Performance

- 200% PV oversizing and up to 110% AC output
- Max. 16A DC single string input current
- Max. 30A charging / discharging current

Flexible Adaptability

- All-in-one, plug-and-play design
- Quick installation by one person in 30 minutes
- Compatible with EV charger and heat pump

X-ESS G4 | The 4th Generation Energy Storage System



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X-ESS G4

3-7.5 kW / 5-15 kW
3~12kWh
All-in-one Residential ESS

THE OPTIMAL SOLUTION FOR ENERGY STORAGE

The SolaX X-ESS G4 is an all-in-one smart energy storage system that combines an inverter, battery, and Matebox, streamlining installation for maximum ease and efficiency. The modular design offers flexible configurations, allowing the system to scale according to energy needs.

X-Hybrid G4

Available in single-phase (3~7.5 kW) and three-phase (5~15 kW) options, the X-Hybrid G4 system supports parallel operation of up to 10 inverters, delivering a maximum power output of 150 kW. It includes integrated fault management and emergency power output, with a rapid switching time of less than 10 ms for uninterrupted power.

Matebox

The Matebox comes with pre-installed components and cabling, significantly reducing installation time. For enhanced functionality, an advanced X3-Matebox version is available, providing whole-house backup power capabilities.

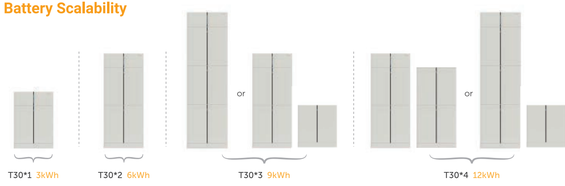
Battery T30

The T30 battery is scalable from 3 kWh to 12 kWh, adapting to different energy storage requirements. With built-in temperature control, it operates reliably within a wide temperature range of -30°C to 50°C, ensuring optimal performance in various environmental conditions.

SolaXCloud

Real-time monitoring and analytics with SolaXCloud: providing insights to optimize energy consumption and enhance overall system performance.

Battery Scalability



	X1-HYBRID-3.0-D	X1-HYBRID-3.7-D	X1-HYBRID-5.0-D	X1-HYBRID-6.0-D	X1-HYBRID-7.5-D
PV INPUT					
Max. recommended PV array power	6.0 kWp	7.4 kWp	10.0 kWp	12.0 kWp	15.0 kWp
Max. PV input voltage①	600 V				
Rated PV input voltage	360 V				
Operation voltage range	70 ~ 550 V				
MPPT voltage range②	70 ~ 550 V				
Start-up voltage	90 V				
No. of MPP trackers / Strings per MPP tracker	2 (1 / 1)				
Max. input current per MPPT	16 A / 16 A				
Max. input short circuit current per MPPT	20 A / 20 A				
AC INPUT & OUTPUT (ON-GRID)					
Rated output power	3000 W	3680 W	5000 W (Germany 4600 W,AU 4999 W)	6000 W	7500 W
Max. output apparent power	3300 VA	3680 VA	5500 VA (4600 VA for VDE4105, 4999 VA for AS4777)	6600 VA	7500 VA
Max. output continuous current	14.4 A	16.0 A	23.9 A (Germany 20 A, AU 21.7 A)	28.6 A	32.6 A
Rated AC voltage	1 / N / PE, 220 / 230 / 240 V				
Max. AC input apparent power	6300 VA	7360 VA	9200 VA	9200 VA	9200 VA
Max. AC input current	27.4 A	32.0 A	40.0 A	40.0 A	40.0 A
Nominal AC frequency	50 Hz / 60 Hz				
THDi (rated power)	< 2%				
BATTERY					
Battery type	Lithium / Lead - acid				
Battery voltage range	80 ~ 480 V				
Max. charge / discharge current	30 A				
EPS (OFF-GRID) OUTPUT (WITH BATTERY)					
Rated EPS output voltage, frequency	230 V, 50 Hz / 60 Hz				
Rated EPS output power	3000 VA	3680 VA	5000 VA	6000 VA	7500 VA
Peak EPS output power	6000 VA, 10 s	6000 VA, 10 s	7500 VA, 10 s	9000 VA, 10 s	11250 VA, 10 s
Switchover time	< 10 ms				
EFFICIENCY					
Max. efficiency	97.6%				
European efficiency	97.0%				
ENVIRONMENT LIMIT					
Ingress protection	IP65				
Operation temperature range	-35 ~ 60°C (> 45°C derating)				
Max. operation altitude	3000 m				
Relative humidity	4 ~ 100% RH (condensing)				
GENERAL					
Dimensions (W × H × D)	482 × 417 × 181 mm				
Net weight	24 kg				25 kg
Cooling concept	Natural cooling				Smart air cooling
Communication interfaces	CT / Meter (optional), External control RS485, Dongle interface, DRM, NTC (optional)				
Certification	VDE-AR-N 4105, G99, G98, AS/NZS4777, EN50549, CEI 0-21, C10/11 IEC61727, RD1699, NRS 097-2-1, PEA/MEA, VFR2019, PPDS				
PROTECTION					
Protections	Over / under voltage protection, DC isolation protection, DC reverse-polarity protection				
Active anti-islanding method	Frequency shift				
Surge protection	DC: Type Ⅱ , AC: Type Ⅱ				
Arc-fault circuit interrupter (AFCI)	Optional				

① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter
② Input voltage exceeding the MPPT voltage range may trigger inverter protection

	X3-HYBRID-5.0-D	X3-HYBRID-6.0-D	X3-HYBRID-8.0-D	X3-HYBRID-10.0-D	X3-HYBRID-12.0-D	X3-HYBRID-15.0-D
PV INPUT						
Max. recommended PV array power	10 kWp	12 kWp	16 kWp	20 kWp	24 kWp	30 kWp
Max. PV input voltage①	1000 V					
Rated PV input voltage	640 V					
MPPT voltage range②	180 ~ 950 V					
Start-up voltage	200 V					
No. of MPP trackers / strings per MPP tracker	2 (1 / 1)		2 (2 / 1)			
Max. input current per MPPT③	16 A / 16 A		28 A / 16 A			
Max. input short circuit current per MPPT	20 A / 20 A		35 A / 20 A			
AC INPUT & OUTPUT (ON-GRID)						
Rated output power	5 kW	6 kW	8 kW	10 kW	12 kW	15 kW
Rated output current	7.2 A	8.7 A	11.6 A	14.5 A	17.5 A	21.8 A
Max. output apparent power	5.5 kVA	6.6 kVA	8.8 kVA	11.0 kVA	13.2 kVA	15.0 kVA
Max. output continuous current	8.1 A	9.7 A	12.9 A	16.1 A	19.3 A	24.1 A
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V					
Max. AC input apparent power	10 kVA	12 kVA	16 kVA	20 kVA	20 kVA	20 kVA
Max. AC input current	16.1 A	19.3 A	25.8 A	32.0 A	32.0 A	32.0 A
Rated AC frequency	50 Hz / 60 Hz					
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)					
THDi (rated power)	< 3%					
BATTERY						
Battery type	Lithium / Lead-acid					
Battery voltage range④	120 ~ 800 V					
Max. charge / discharge current	30 A					
EPS (OFF-GRID) OUTPUT (WITH BATTERY)						
Rated EPS output voltage, frequency	230 V / 400 V, 50 Hz / 60 Hz					
Rated EPS output power	5 kVA	6 kVA	8 kVA	10 kVA	12 kVA	15 kVA
Peak EPS output power	12.0 kVA, 10 s	12.0 kVA, 10 s	18.0 kVA, 10 s	18.0 kVA, 10 s	22.5 kVA, 10 s	22.5 kVA, 10 s
Switchover time	< 10 ms					
EFFICIENCY						
Max. efficiency	98.0%					
European efficiency	97.7%					
ENVIRONMENT LIMIT						
Ingress protection	IP65					
Operation temperature range	-35 ~ 60°C (> 45°C derating)					
Max. operation altitude	3000 m					
Relative humidity	4 ~ 100% RH (condensing)					
Overvoltage category	Mains: Ⅲ, Battery: Ⅱ, PV: Ⅱ					
GENERAL						
Dimensions (W × H × D)	503 × 503 × 199 mm					
Net weight	30 ± 1 kg					
Cooling concept	Natural cooling				Smart air cooling	
Communication interfaces	CT / Meter (optional), External control RS485, Pocket WiFi (Optional- Pocket LAN/4G), DRM, NTC (optional)					
Power consumption (night)	< 40 W for standby, < 5 W for idle					
Topology	Non-isolated					
Certifications	EN/IEC62109-1/-2, VDE4105, G99, G98, AS4777, EN50549, CEI 0-21, IEC61727, PEA/MEA, NRS-097-2-1, RD1699, TOR					
PROTECTION						
Protections	DC reverse-polarity protection, DC isolation protection, Residual current detection, AC overcurrent protection, AC short-circuit protection, Over / under voltage protection, Grid monitoring, DC injection monitoring, Back feed current monitoring, Over temperature protection					
Active anti-islanding method	Frequency shift					
Surge protection	DC: Type Ⅱ , AC: Type Ⅱ					
Arc-fault circuit interrupter (AFCI)	Optional					

① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter
② Input voltage exceeding the MPPT voltage range may trigger inverter protection
③ When PV1 is connected to 2 strings, the maximum input current is 28A; when PV1 is connected to 1 string, the maximum input current is 20A
④ Compatible with a minimum of 3 units of HS2S/HS3S batteries, but if the total voltage of the 3 batteries is less than 127V and there is no PV input, the system will not able to startup

MATEBOX

In the X-ESS G4 system, we have eliminated the complicated wiring work by pre - routing all the cables inside the Matebox. The installation process is straightforward and only involves two steps: firstly, stack one module on top of another in a vertical arrangement; secondly, connect the cables that have already been neatly organized within the Matebox to their corresponding ports.

X1-MATEBOX

X1-MATEBOX	
PV	
Max. input voltage	600 Vdc
Max. short circuit current (A / B)	20 / 20 A
BATTERY	
Battery voltage range	80 ~ 480 V
Max. charge / discharge current	30 A
ON-GRID (INVERTER)	
Rated voltage, frequency	220 / 230 / 240 Vac, 50 / 60 Hz
Max. on-grid current	32.6 A
OFF-GRID (INVERTER)	
Rated voltage, frequency	230 Vac, 50 / 60 Hz
Rated current	32.6 A
GRID (UTILITY)	
Rated grid voltage, frequency	220 / 230 / 240 Vac, 50 / 60 Hz
Max. input current	60 A
LOAD	
Rated voltage, frequency	220 / 230 / 240 Vac, 50 / 60 Hz
Max. current	60 A
ENVIRONMENT LIMIT	
Ingress protection	IP54
Protection class	Class Ⅰ
Operation temperature range	-35 ~ 60°C
Storage temperature	-40 ~ 70°C
Relative humidity	0 ~ 100% (condensing)
Max. operation altitude	< 3000 m
Overvoltage category	Ⅲ (AC), Ⅱ (DC)
OTHER	
Cooling concept	Nature cooling
DIMENSION AND WEIGHT	
Dimensions (W × H × D)	482 × 437 × 185 mm
Net weight	10.5 kg

X3-MATEBOX BASIC

X3-MATEBOX ADVANCED

solaire

X3-MATEBOX BASIC

PV	
Max. input voltage	1000 Vdc
Max. short circuit current (A / B)	30 / 20 A
BATTERY	
Battery voltage range	180 ~ 500 V
Max. charge / discharge current	30 A
ON-GRID (INVERTER)	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. Grid (INV) input / output current	32 / 32 A
OFF-GRID (INVERTER)	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. current	24.1 A
GRID (UTILITY)	
Rated grid voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. input / output current	32 / 32 A
LOAD	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. current	24.1 A
ENVIRONMENT LIMIT	
Ingress protection	IP54
Protection class	Class Ⅰ
Operation temperature range	-35 ~ 60°C
Storage temperature	-40 ~ 70°C
Relative humidity	0 ~ 100%
Max. operation altitude	< 3000 m
Overvoltage category	Ⅲ (AC), Ⅱ (DC)
OTHER	
Cooling concept	Nature cooling
DIMENSION AND WEIGHT	
Dimensions (W × H × D)	533 × 397 × 204 mm
Net weight	7.5 kg

X3-MATEBOX ADVANCED

PV	
Max. input voltage	1000 Vdc
Max. short circuit current (A / B)	30 / 20 A
BATTERY	
Battery voltage range	180 ~ 500 V
Max. charge / discharge current	30 A
ON-GRID (INVERTER)	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. Grid (INV) input/output current	24.1 / 24.1 A
OFF-GRID (INVERTER)	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. current	24.1 A
GRID (UTILITY)	
Rated grid voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. input / output current	63 / 24.1 A
LOAD	
Rated voltage, frequency	380 / 400 / 415 Vac, 50 / 60 Hz
Max. current	63 A
ENVIRONMENT LIMIT	
Ingress protection	IP54
Protection class	Class Ⅰ
Operation temperature range	-35 ~ 60°C
Storage temperature	-40 ~ 70°C
Relative humidity	0 ~ 100%
Max. operation altitude	< 3000 m
Overvoltage category	Ⅲ (AC), Ⅱ (DC)
OTHER	
Cooling concept	Nature cooling
DIMENSION AND WEIGHT	
Dimensions (W × H × D)	551 × 512 × 204 mm
Net weight	14.5 kg