



WARRANTY TERMS & CONDITIONS (V1.6)
(For Middle East version)

ABSTRACT

This document described details of warranty terms and conditions of Solax brand Inverters and accessories from the date August 25th, 2025. For any other Inverters or accessories that sold or installed before the date, please refer to previous version of warranty documents accordingly.

CATALOGUE

1. Warranty Products
2. Warranty Period
3. Performance Warranty of battery
4. Extend additional batteries
5. Warranty Claim Procedure
6. Warranty Terms
7. Transportations costs
8. Warranty Registration
9. Warranty Extension
10. Warranty Limitations
11. Limitation of Liability
12. Service after Warranty Expiration
13. Assignment
14. Geographical Scope
15. MISCELLANEOUS

Warranty Terms & Conditions
(For Middle East version)

Solax products (as specified collectively in Table 1 and Table 2) are manufactured by SolaX Power Network Technology (Zhejiang) Co., Ltd. The company (hereinafter referred to as SolaX) provides this Limited Warranty to the customers of Products (Customer), who purchased from SolaX or its authorized distributors (Distributors), and have them installed, energized, commissioned, registered and activated by authorized installers on or after August 25th, 2025.

This Limited Warranty takes effect on August 25th 2025 and shall remain valid unless a newer limited warranty is subsequently posted which applies to covered Product's Warranty Start Date.

*Applicable countries: United Arab Emirates/Oman/Palestine/Katar/Kuwait/Lebanon/Saudi Arabia/Syria/Yemen/Iraq/Iran/Israel/Jordan

Other Middle Eastern countries not listed herein shall refer to the global version.

1. Warranty Products

This warranty only applies when Products are purchased from an authorized reseller, and installed and activated by an installer who is certified by SolaX or its distributors.

All external and ancillary parts and units (eg. Monitoring/Comm devices, batteries, hardware/software controllers etc) installed with inverters by third-parties are excluded from the warranty.

2. Warranty Period

Solax warrants, on the terms and conditions set out below, that:

Table 1: Product and Warranty Period

Product	Warranty Period
X1/X3-Hybrid-G4; X1/X3-Fit-G4; X1/X3-IES; X3-ultra; X3-HYB-G4 PRO; X1-VAST;	5 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production; Note: <i>If an inverter connected to Solax cloud and generation data been successfully uploaded to Solax server, the inverter warranty will be freely upgraded to 10 years standard warranty ;</i>
X1-Hybrid-LV; X1-HYB-Lite; X3-NEO-LV;	5 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production; Note: <i>If pair with Solax battery, and connected to Solax cloud and generation data been successfully uploaded to Solax server, the inverter warranty will be freely upgraded to 10 years standard warranty ;</i>

X1-MINI G3 & G4; X1-MINI G4 PLUS; X1-Boost G3 & G4; X1-SMART G2; X3-MIC G1 & G2; X3-Pro & X3-Pro G2; X1-Hybrid G3/X1-Fit G3; X3-Hybrid G2/X3-Fit G2; X3-MAX; X3-MEGA G1 & G2; X3-Forth & X3-Forth PLUS; X3-GRAND;	5 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production;
X1-Micro 2 in 1; X1-Micro 2 in 1 G2; X1-Micro 4 in 1; X1-Micro 4 in 1 G2;	7 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production; Note: <i>If an inverter connected to Solax cloud and generation data been successfully uploaded to Solax server, the inverter warranty will be freely upgraded to 12 years standard warranty</i>
RSD: XRSD-1C; XRSD-2C;	10 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 9 months after the date of production;
RSD: XRSD-Core Kit;	3 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 9 months after the date of production;
Accessories-1: Meter/CT; Pocket/Lan/4G; V1000; DataHub; X1/X3-EPS Box; X1/X3-Mate Box; Adapter Box, T-BAT-Charger; ECC; X-PID BOX;	2 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production;
Accessories-2: Eps Parallel Box; BMS Parallel Box;	5 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production;

EV Charger		3 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production;	
Fast DC Charger		2 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production;	
Battery series	BMS	Battery	Warranty Period
T-BAT-SYS-HV-3.0	TBMS-MC0600	HV10230	10 years standard warranty, starting from the earlier one of the following two dates: • The date on which the product was first installed; • 6 months after the date of production; This warranty does not include any accessories and tool kit items provided with the product.
T-BAT-SYS-HV-S2.5	TBMS-MCS0800	TP-HS2.5	
T-BAT-SYS-HV-S3.6	TBMS-MCS0800	TP-HS3.6	
T-BAT-SYS-HV-S50E	TBMS-MCS0800E	TP-HS50E	
T-BAT-SYS-HV-5.8	T-BAT H 5.8 Master battery integrated with BMS	HV11550	
T-BAT-SYS-LV-R2.5	T-BAT LR25		
T-BAT-SYS-LV-R3.6	T-BAT LR36		
T-BAT-SYS-HV-R2.5	TBMS-MCR0800	TP-HR25	
T-BAT-SYS-HV-R3.6	TBMS-MCR0800	TP-HR36	
T-BAT-SYS-LV D53	T-BAT LD53		
T-BAT-SYS-HV-S50E-D	TBMS-MCS0800E-D	TP-HS50E	
T-BAT-SYS-HV-S51	TBMS-S8-1	TB-HS51	
T-BAT-SYS-LV-D150	TP-LD150		
TSYS-LD51	TB-LD51（LCL）		
	TB-LD51		
TSYS-LD160	TB-LD160		
	TB-LD143		
TSYS-LD117	TB-LD117		

In the event of product replacement, the remaining warranty period shall be transferred to the substitution product. Solax will automatically register such replacement, and you will not be provided a new certification. If the remaining warranty period is less than 1 year, the warranty period of the device and its substitute will be extended to 1 year automatically.

3. Performance Warranty of battery

Solax warrants and represents that the product retains at least 70% of Nominal Energy for either Warranty Period after the commissioning date or for a minimum Energy Throughput as per the table indicated below (whichever comes first) when the battery system is operated under a normal use specified in Product Documents.

The term “Nominal Energy” herein means the initially rated capacity of the product as indicated on the label of the products. The precondition warranty shall be as follows:

The energy throughput is within the value indicated on the table below:

Product	Nominal Energy	Energy Throughput (for 70% SOH)
HV10230	3.1kWh	9.6MWh
TP-HS2.5	2.5kWh	7.8MWh
TP-HS3.6	3.6kWh	11.2MWh
T58-M(T-BAT H 5.8)	5.76kWh	17.9MWh
T58-S(HV11500)	5.76kWh	17.9MWh
TP-HS50E	5.1 kWh	15.9 MWh
T-BAT LR25	2.5 kWh	7.8 MWh
T-BAT LR36	3.6 kWh	11.2 MWh
TP-HR25	2.5 kWh	7.8 MWh
TP-HR36	3.6 kWh	11.2 MWh
T-BAT LD53	5.3 kWh	16.8 MWh
TP-LD150	15 kWh	49.5 MWh
TB-HS51	5.1 kWh	16.8 MWh
TB-LD51(LCL)	5.12 kWh	11.2 MWh
TB-LD51	5.12 kWh	8.4 MWh
TB-LD160	16 kWh	70.4 MWh
TB-LD143	14.33 kWh	62.8 MWh
TB-LD117	11.77 kWh	38.7 MWh
HV11550 V3	5.8 kWh	18.9 MWh

For Capacity measurement conditions:

Initial battery temperature from BMS: 25-30°C, charge/discharge rate of 0.5 C. Battery Capacity may vary depending on the inverter brand.

4. Extend additional batteries

It is suggested to add extra batteries to the existing system within 1 year after the installation. Before extending the system, electrician shall follow every step on the Battery Extension SOP provided by Solax Power to ensure the batteries are at the same voltage level. And the warranty information can be added on the warranty registration session on the website.

5. Warranty Claim Procedure

For the claimant, please contact the local distributor where the product was purchased, or the installer who installed the inverter, they will contact with Solax if necessary. If the claimant was unable to obtain service from them, or was NOT satisfied with their service, the claimant can escalate their service request by contacting with Solax service team (service.global@solaxpower.com) or contacting via Solax official website

<https://www.solaxpower.com/contact/> accordingly.

Please note, in order to deliver a friendly and timely service, Solax cooperates with several distributors and installers all over the world. As such, please treat them as the default service channel of Solax and use these service channels to make your warranty claim; Solax will support and audit service channels to ensure good service to customers.

For a warranty claim, the following information needs to be provided:

- 1). Contact information of claimant, including name of the person, phone number, email address and shipment address.
 - 2). Information regarding all defective product(s), including product(s) model(s), serial number(s), installation date and failure date. Any claims shall be made within one month of failure date to be considered under the warranty.
 - 3). Installation information, including brand, model, and number of PV panels; if the defective product is an energy storage system, the brand and model of batteries are also needed.
 - 4). Error message on LCD screen (if applicable) and additional information regarding the fault/error.
 - 5). Description of actions taken before the failure and detailed information of previous claims (if applicable)
- Solax may arrange an on-site inspection to find out the root of the faults. The claimant is responsible for granting access, making time, and ensuring the safety of the inspection by a technician from Solax or an authorized third-party company. Solax reserves the right not to enter the site should the Solax technician consider it unsafe to do so.

While we processing the replacement action, the following information needs to be provided:

A completed warranty claim form (Solax RMA form);

A copy of your original invoice, receipt, commissioning report, or any other document which can prove the purchase of the inverter or accessory and/or extended warranty, or the date of installation;

Solax reserves the right to reject the warranty claim:

- If you fail to provide the above-mentioned information;
- If the product (Solax inverter or/and accessory) is replaced without the prior consent of Solax;
- If the defect that is claimed is not caused by defective materials or workmanship;

Solax will seek reimbursement of all costs (labour, travel, delivery, and/or replacement units that have been sent) incurred from the claimant if the product of replacement is found to be free from defects in materials or workmanship, or the product is found not to be covered by this Limited Warranty.

6. Warranty Terms

Solax warrants all goods to be free from defects in materials or workmanship under normal use, and in the event of the occurrence of a defect for which Solax is responsible during the agreed warranty period, Solax will, at its discretion:

- Fix the problem by updating the software or change the configurations; or
- Repair the defect on the premises of Solax or on the customer's site; or
- Provide an equivalent substitute (repaired, refurbished, or upgraded model with at least equivalent functions) or a new device, For every single inverter exchange case, the claimant must gather the necessary information and send the RMA report (by following Solax's RMA template) to Solax to confirm the RMA request, prior to the inverter being exchanged.
- These services will be performed by Solax service partners who have undertaken proper training.
- Defect refers to Products with performance significantly below their specifications in Product Documents.
- Product Documents include datasheet, User manual, Installation Guide.
- If it is proven that the problem was caused by faulty installation, Solax reserves the right to contact the original installer and request that they provide a solution to fix the issue before Solax's

intervention and may charge the subsequent cost to the original installer if they fail to provide a proper solution to fix this issue.

7. Transportations costs

Unless there are some unique agreements signed between Solax and the customers (the distributors), the warranty covers only the cost of materials that makes the products functional.

In some cases, the claimant needs to organize the return of the allegedly defective product to Solax and should confirm with Solax for the shipment schedule in advance. As products need to be packaged in a reasonable condition, Solax suggests using packaging material that is the same size as the product package at the time of purchase. If the allegedly defective product is no damage found after checking the returned product, Solax will invoice the claimant for the replacement unit in addition to the delivery and associated service charges.

8. Warranty Registration

The direct customers who have purchased Solax products (Solax inverters and EV Chargers and Batteries) shall register these products and upload the information within 90 days from the date of commissioning of the products.(register online: <https://www.eu.solaxcloud.com/user-center/>). If a customer fails to register a Solax product, the product warranty period will be obtained standard warranty, and counted automatically after the manufacturing date, and additional 6 months.

Your local distributor can help you to register the product warranty too.

9. Warranty Extension

Some products that support extended warranty, A warranty extension can be purchased from Solax's authorized distributors for the mentioned of products no later than 6 months after its first installation date (or 12 months after production date), or end users can purchase via Solax cloud website after finish online monitoring registration. The new warranty period of the units will automatically include the extended warranty and the remaining warranty. Solax has the rights to increase the payment standard for warranty extension or reject any application received at a later point of time.

Note: The warranty extension covers only the cost of hardware material required to get the device functioning again. It excludes any inbound/outbound transportation costs or labor costs of replacement/on-site service.

10. Warranty Limitations

The defective parts or units replaced under a warranty claim become the properties of Solax, and must be returned to Solax or Authorized Cooperated Partners (distributors) for inspection with the original or equivalent packaging.

The product is not covered by warranty in the following cases:

- A. The product is out of the warranty period;
- B. Product failure is not reported to Solax within 4 weeks of appearance;
- C. Failed to comply with Solax installation manual or maintenance instructions for the inverter or accessory;
- D. Failed to comply with the safety rules and regulations in respect of the inverter or accessory;
- E. The inverter or accessory is damaged during transportation but the claimant has signed the delivery receipt (which requests the claimant to double check the outside & inside of the package and take pictures as evidence before signing the delivery receipt);
- F. The defect is caused by improper usage of the product or failure to comply with the usage of the product for purposes other than those for which the product was designed or intended;

- G. The product is moved for any reason after it has been installed (regardless of whether it has been reinstalled subsequently or moved back to the same location) unless it is reinstalled at the same address by a qualified installer who has provided a test report to Solax.
- H. The damage or defect is caused by lightning, flood, fire, power surge, corrosion, pest damage, actions of a third-party, or any other force majeure factors;
- I. The damage or defect is caused by embedded or external software or hardware (eg. the devices to control the inverters or the devices to control battery charging or discharging) from third parties without authorization (agreement in writing) from Solax;
- J. The product is modified or altered (including the cases in which the product series number or product label is altered, removed, or defaced);
- K. Flaws (eg. any external scratch or stain, or nature material wearing which does not represent a defect) that do not adversely affect the proper functioning of the inverter or accessory
- L. Normal wear or tear;
- M. Travel and subsistence expenses as well as on-site installation, modification and normal maintenance costs;
- N. Duties, import/export fees or costs and other general administrative costs;
- O. Products purchased from nonofficial channels (eg. Not authorized distributors and their cooperated partners);

The substitute inverter or accessory with technical improvement may not be entirely compatible with the remaining components of the photovoltaic system. The costs incurred as a consequence will not be covered by the warranty or extended warranty.

Furthermore, all other costs including but not limited to compensation from direct or indirect damages arising from the defective device or other facilities of the PV system, or loss of power generated during the product downtime are not covered by this warranty.

11. Limitation of Liability

SOLAX SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES ARISING OUT OF OR RELATED TO THIS LIMITED WARRANTY, REGARDLESS OF THE FORM OF ACTION AND REGARDLESS OF WHETHER SOLAX HAS BEEN INFORMED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED, THE POSSIBILITY OF SUCH DAMAGES. SOLAX'S LIABILITY ARISING OUT OF A CLAIM UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE AMOUNT PAID BY CUSTOMER FOR THE PURCHASE. EXCEPT FOR THE WARRANTY PRODUCTS, THE CUSTOMER UNDERTAKES TO WAIVE COMPENSATION FOR ALL OTHER DIRECT OR INDIRECT DAMAGES.

12. Service after Warranty Expiration

For products which are out of warranty or invalidation, Solax provides an additional charge service, which includes the on-site service fee, materials fee, labor cost, and logistic fee:

- **On-site service fee:** Travel cost and time for the technician to deliver on-site services and the cost of labor time for the technician to install, analyse, repair, test and maintain faculty products;
- **Materials fee:** Cost of replacing the parts or units or any other relevant materials;
- **Logistic fee:** Cost of delivery, including the costs of sending the defective products from end users to Solax, or/and the costs of sending the repaired products from Solax to end users;

13. Assignment.

Solax expressly reserves the right to novate or assign its rights and obligations under this Limited Warranty to a third party with the demonstrated expertise and requisite resources needed to effectively discharge the obligations hereunder. Customer may transfer this Limited Warranty to successors and assigns, this Limited Warranty will remain in effect for the time period remaining under the foregoing warranties.

14. Geographical Scope

This Limited Warranty terms and conditions only apply for the products which are originally purchased from Solax's authorized channels and installed in the destination defined (refer to Commercial Contract with Solax). For any units sold for one country/region but installed in another country/region, the warranty will become invalid if there is no written confirmation/approval from Solax prior to the installation.

15. MISCELLANEOUS

A. Severability

If any provision of this Limited Warranty is held by a court or other tribunal of competent jurisdiction to be invalid, void, or unenforceable, such provision shall be limited or eliminated to the minimum extent necessary and replaced with a valid provision that best embodies the intent of the parties so that this Limited Warranty shall remain in full force and effect. The invalidity or unenforceability of any provision of this Limited Warranty in any jurisdiction shall not affect its validity or enforceability in any other jurisdiction or the validity or enforceability of any other provision of this Limited Warranty.

B. Governing Law and Jurisdiction

This Limited Warranty shall be governed by and construed in accordance with the laws of P.R. China (excluding Hong Kong, Macao and Taiwan). Any controversy or claim arising out of or relating to this Limited Warranty or the breach thereof shall be settled in SHIAC (Shanghai International Arbitration Center) in accordance with the Arbitration Rules for the time being in force for arbitration. The Place of arbitration shall be Shanghai, P.R. China. The arbitration proceedings shall be conducted in English. The arbitral award shall be final and binding to the Parties. All costs of arbitration (including but not limited to arbitration fees, costs of arbitrators and legal fees and disbursements) shall be borne by the losing party unless otherwise determined by the arbitration tribunal.

Special Point Out

Regarding HYBRID INSTALLATION

I. For Hybrid inverters installed with Triple Power batteries:

- The default minimum capacity is 10% (can be changed to a higher level). During night time (no PV), when the battery is discharged to the minimum capacity, usually it will go into the “Idle mode” or “Standby mode”. However, the whole hybrid system is still consuming power. Therefore, you may see that the battery capacity sometimes goes down to low than 10%. When the battery capacity is down to 5% (protection level), it will trigger a charging demand, which requests charging from grid until it goes back to the normal minimum capacity level, it may happen in the night time or during winter time when there is no enough PV production or during bad weather days. This is a normal behaviour and won't affect the battery life.
- It is recommended to force charging battery from grid timely during bad weather (like continuous snowstorm, raining, cloudy days), so as to ensure that the battery won't be fully discharged (0 capacity) under such situations. Besides, manually switching off the whole system is a good choice as well when under such conditions.
- When adding a new extra battery to the existing system, it is requested that the new battery has the same capacity level with the existing battery system before it is added (pre-charge the original battery system and new battery to the full capacity, and then install them together), please check triple power battery user manual regarding this point;
- When charging a battery from grid, consider its self-consumption during this process. The total energy taken from grid won't be completely the same as the total energy discharged from the battery system. Hence, the warranty claim under such conditions will not be accepted.

II. For Hybrid inverters installed in completely off-grid settings:

- It is requested that off-grid installation is inspected annually by a qualified electrician and recorded in form of documentation (See Table 2 for details) . Failure to comply with the described requirement to maintain the equipment may invalidate any warranty claims;
- For better analysis and troubleshooting in case of a warranty claim, it is recommended that the customer register the inverter system online; otherwise, the customer will need to provide detailed information in Solax RMA form for the warranty claim;
- The load installed with an off-grid system shall be calculated on the basis of its rated power; otherwise, it may have EPS Overload fault during night time or when there is not enough production from PV and battery, especially for inductive loads. Damages to inverters caused by incorrect installation will not be covered by the warranty.

*This Limited Warranty is a basic warranty promise from Solax to the end users. In certain countries/regions, end users may receive an additional warranty promise (should be at least equivalent to the manufacturer's warranty) which is provided by Solax's local distributors; should any claims arise in this respect, please direct them to the local distributor. Please note this limited warranty statement may NOT be the latest version, if any needs, please contact with Solax to get the latest version.

Appendix:

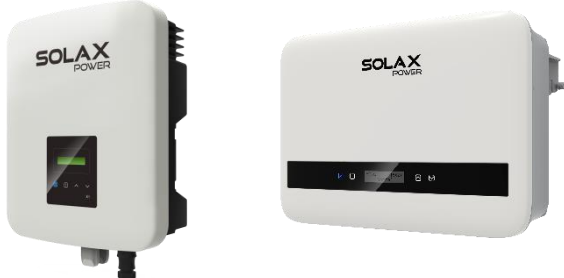
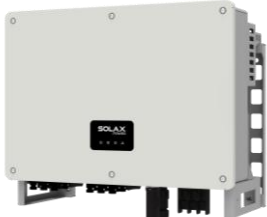
Table 2: Annual Inspection Checklist

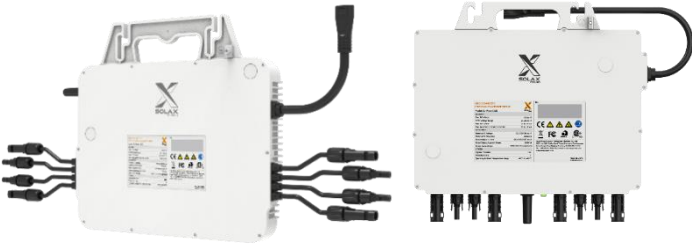
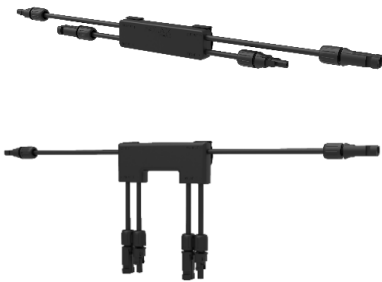
Annual Inspection Checklist		
Inspection Items	Confirm compliance with printing ✓, Not involving item printing /	Exception Handling
Photovoltaic module configuration, PV open circuit voltage < 500V		Feedback to the installer for handling
There is no deformation, corrosion, looseness, or damage to the cables and wiring terminals		Feedback to the installer for handling
There is an external fan, please confirm that there is no blockage in the fan		Feedback to the installer for handling
Does the EPS port output voltage meet 230V ± 10V		Feedback to the installer for handling
EPS port output frequency, please check the set value. If 50HZ is set, output 50HZ ± 0.5HZ. If 60HZ is set, output 60HZ ± 0.5HZ		Feedback to the installer for handling
Is there any situation where the load cannot be carried		If so, confirm whether EPS is connected to inductive loads with high starting current, such as water pumps, fixed frequency air conditioners, motors, etc. When this type of load is started, it may cause EPS overload. It is recommended not to connect it to the EPS port
The battery is running normally		Feedback to the installer for handling
When connecting the Triple Power battery, it is recommended to set the min SOC of the battery to be higher than 10%		Due to off grid operation, if SOC ≤ min SOC, the inverter cannot enter EPS mode, and the battery needs to be charged to SOC of 31% to restore EPS output
If the system is connected to lead-acid batteries, the NTC wiring should be firmly and reliably connected to the battery		Feedback to the installer for handling

Table 3: Product and Appearance

Product	Appearance
X1-Hybrid/Fit-G4;	
X3-Hybrid/Fit-G4;	
X1/X3-IES series inverter;	
X3-Ultra;	
X3-HYB-G4 PRO;	
X1-VAST;	

X1-Hybrid-LV;	
X1-HYB-Lite;	
X3-NEO-LV;	
X1-Hybrid/Fit;	 
X3-Hybrid/Fit;	 
X3-MAX;	

X3-MEGA-G1;	
X1-MINI G3; X1-MINI G4 & G4 PLUS;	
X1-Boost G3 & G4;	
X1-SMART G2;	
X3-MIC-G1 & G2;	
X3-Pro & X3-Pro G2;	
X3-MEGA-G2;	

X3-Forth & X3-Forth PLUS;	
X3-GRAND;	
X1-Micro 2 in 1; X1-Micro 2 in 1 G2;	
X1-Micro 4 in 1; X1-Micro 4 in 1 G2;	
XRSD-1C; XRSD-2C;	

XRSD-Core Kit;



Meter/CT;



Pocket Wifi/Lan;



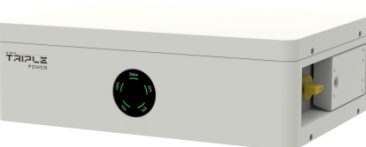
V1000, DataHub;

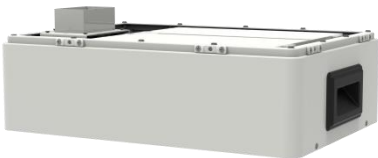


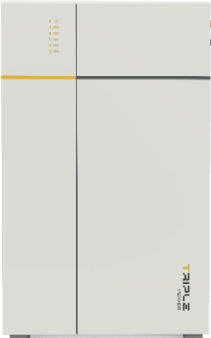
X1/X3-EPS Box; X1/X3-Mate Box;	
Adapter Box;	
T-BAT-Charger;	
ECC;	
X-PID BOX;	
Eps parallel Box; BMS Parallel Box;	

EV Charger;	
Fast DC Charger;	

Battery series

Product	Appearance
T-BAT-SYS-HV-3.0 BMS; (TBMS-MC0600)	
T-BAT-SYS-HV-3.0 battery; (HV10230)	
TBMS-MCS0800;	

TP-HS2.5/ TP-HS3.6;	
TBMS-MCS0800E;	
TP-HS50E;	
T58 Master battery; (T-BAT H5.8, T58 Master battery integrated with BMS)	
T58 Slave battery; (HV11550, Only battery module, no BMS integrated)	
T-BAT LR25/ LR36;	
TBMS-MCR0800;	
TP-HR25/ TP-HR36;	

T-BAT LD53;	
TBMS-MCS0800E-D;	
TBMS-S8-1;	
TB-HS51;	
TP-LD150;	
TSYS-LD51	

TSYS-LD160



TSYS-LD117

