

TommaTech GmbH
Angerlweg 14 - 85748 Garching
Munich/Germany
Phone: +49 89 1250 36 860
Email: mail@tommatech.de



Warranty Terms & Conditions

for TommaTech High Voltage Lithium-Ion Batteries

V2305.17

Introduction

1. This limited warranty* (hereinafter referred to as Warranty) specified below applies to TommaTech High Voltage battery systems (hereinafter referred to as TT-Batteries or Products), which are sold by TommaTech GmbH (hereinafter referred to as TommaTech) or authorised distributors to a dealer, end-Customer, or installer (hereinafter referred to as Customer)

Purpose

2. The primary purpose of this document is to clearly define matters related to the warranty policy of TT-Batteries.

Products under the Warranty

3. This warranty applies to the following products:
 - a. TommaTech General Pack (Master), Booster Pack (Slave), Solar Storage 5.8T, Solar Storage 11.5T, Solar Storage 17.3T, Solar Storage 23.0T
 - b. TommaTech Storage Manager, TT-3.0kWh, HV Solar Storage, Solar Storage 3.0, Solar Storage 6.0, Solar Storage 9.0, Solar Storage 12.0
4. Please note: This warranty does not include any accessories and tool kit items provided with TT-Batteries.

Warranty Period

5. The product warranty period of TT-Batteries is 120 Months starts with delivery. Delivery occurs on the day when the price has been paid in full and the customer has taken the goods from TommaTech or its distributor, unless TommaTech is responsible for the transport. Replacing or repairing TT-Batteries under warranty does not extend the current warranty period. Replaced or repaired TT-Batteries shall be warranted for the remainder of the original period of warranty. No replacement warranty period is given for repaired or replaced TT-Batteries.

Performance Warranty

6. TommaTech warrants that the TT-Battery retains at least 60% of its nominal energy for either 120 months after the date of sale, 126 months after manufacturing or until the product reaches an energy throughput as listed in the table below (whichever comes first), provided that the battery system is stored, handled and operated according to the specifications as outlined in the manual and used in accordance with the issues specified in this document and the user manual.

Energy throughput

7. The term “nominal energy” herein after means the initially rated capacity of the TT-Battery as indicated on the label of the TT-Battery.
8. The conditions for the performance warranty shall be as outlined below:
 - a. The ambient temperature during the battery operation shall not fall below - 10°C or exceed +45°C.
 - b. The energy throughput is within the value indicated in the table below:

Product	Nominal Energy	Energy Throughput
TT5.8kWh General Pack	5.76kWh	14.77MWh
TT5.8kWh Booster Pack	5.76kWh	14.77MWh
TT3.0kWh HV Solar Storage	3.1kWh	9.3MWh

- c. The capacity measurement conditions for TT5.8kWh are thereby as follows:
 - i. Ambient temperature: 25-30°C
 - ii. Initial battery temperature from Battery Management System (BMS): 25-30°C
 - iii. Current and voltage measurement at battery DC side
 - iv. Charging/discharging method:
 - Charge: 0.2CC/CV (Constant voltage 128V, Cut-off current 0.05C)
 - Discharge: 0.2CC/CV, (Cut-off voltage 100V)
 - Current at 0.2C: 10A
- d. The capacity measurement conditions for TT3.0kWh are thereby as follows:
 - i. Ambient temperature: 25-30°C
 - ii. Initial battery temperature from Battery Management System (BMS): 25-30°C
 - iii. Current and voltage measurement at battery DC side
 - iv. Charging/discharging method
 - Charge: 0.2CC/CV (Constant voltage 116V, Cut-off current 0.05C)
 - Discharge: 0.2CC/CV, (Cut-off voltage 85V)
 - Current at 0.2C: 6A

Product Warranty

9. TommaTech warrants that TT-Batteries will be free of defects caused by improper design, workmanship, or defective materials. The warranty is valid for 120 months from the delivery date. After the warranty period expires, TommaTech has no obligations to provide spare parts or batteries.

Exclusions from Warranty

10. Except for defects and malfunctions arising from the manufacturing of TT-Batteries, no problems, damages, or malfunctions are covered under this warranty. Furthermore, and in the event of damages related but not limited to one of the causes listed below, no warranty claims will be acknowledged or accepted and are not part of TommaTech’s warranty obligations:
 - a. Problems, defects and malfunctions caused by outer forces such as but not limited to these, power outages, power surges, lightning, explosion, fire, flood, earthquake, typhoon, hurricane, tornado, volcano explosion, tsunami, lightning strikes in or around the TT- Batteries and accessories, problems, defects and malfunctions caused by snow and salt damages, weather and natural events, natural disasters, acid rain, smoke, air pollution or other impurities, dirt or dust on the inverters and accessories, vandalism (regardless of

whether the damage is caused by intent or negligence and is caused by the buyer or user of the TT-Batteries or any third parties), negligence or deliberate accident, problems, defects and malfunctions caused by external factors and unforeseen situations such as civil disobedience, force majeure, etc. and problems, defects and malfunctions outside the control of TommaTech.

- b. Improper or noncompliant use and damages caused by negligence or intention, including but not limited to discharging the battery below 10% on a regular basis.
- c. Improper installation, commissioning, start up or operation contrary to the guidance detailed in the installation manual.
- d. Inadequate ventilation and air circulation resulting in reduced cooling and natural air flow.
- e. Installation in a corrosive environment.
- f. Damage during transportation or movement of TT-Batteries as well as their storage under unsuitable conditions.
- g. Unauthorized repair, change, maintenance, operation and incorrect installation, mounting and applications attempts.
- h. Failure to adequately maintain the equipment. An on-site inspection by a suitably qualified technician is required following 60 months of continuous use. Warranty claims made beyond 60 months from the date of commissioning may be declined if it cannot be demonstrated that the equipment has been maintained adequately.
- i. External influences including unusual physical or electrical stress such as power failure surges, inrush current, etc.
- j. Breakage, cracking, or damage in any way due to external impacts and effects.
- k. In case of the model, type, label, or serial number being changed or deleted, or made unreadable.
- l. Use in a way that violates the intellectual property rights of TommaTech or third parties such as patents, utility models, trademarks, copyrights, design rights, etc.
- m. Errors, problems, and malfunctions caused by the installation and application or other products and materials.
- n. Use of an incompatible inverter or devices.
- o. Problems, defects, and malfunctions caused by other products and materials in the solar system.
- p. Errors or defects caused by third party embedded or external software or hardware (e.g., devices controlling inverters or devices that control the charge or discharge of the battery) which were installed without the written consent of TommaTech.
- q. Modification or alteration of TT-Batteries, including if the serial number or label of the product has been altered, removed, or defaced.
- r. Usual wear or tear.

Warranty Limitation

11. TommaTech's liability under this warranty shall be limited to replacement with a new or equivalent battery, or repair, or financial compensation. TommaTech will, after a proper claim is received from the Customer within the warranty period, at its own discretion replace or repair the TT-Batteries or offer a discount. Any claims for defects require that the Customer has complied with its statutory obligations to examine the goods and to make the complaint immediately on receipt of the goods.

12. Furthermore, TommaTech's total liability under these warranty terms may not exceed the purchase price of the TT-Battery claimed as defective. TommaTech shall be under no liability under this warranty (or any other warranty condition or guarantee) if the total price for the goods has not been paid by the due date for payment.
13. The special statutory provisions applying in the case of delivery of the goods to an end user shall remain unaffected.

Defective Parts

14. If a defective TT-Battery is discovered, TommaTech or TommaTech's authorized distributors must be notified immediately and use of the defective TT-Battery must be discontinued. If a defective TT-Battery is discovered, the product packaging must not be thrown away and the return instructions from TommaTech or TommaTech's authorized distributors must be followed for the return procedure.
15. The defective TT Battery, its parts or units replaced under a warranty claim become the properties of TommaTech and must be returned to TommaTech or TommaTech's authorized distributors for inspection with the original or equivalent packaging and with the accompanying documentation within a reasonable period of time, not exceeding fifteen (15) days.

Replacement and Repair Service

16. TommaTech may use new or refurbished batteries as replacement, which performances are equal to or higher than the defective TT-Battery. If the TT-Battery model is no longer available in the market, TommaTech may upon its own discretion, replace it with a different model with equivalent functions and performances or refund the remaining annually depreciated value of the purchase price of the TT-Batteries.

Transportation Costs

17. Unless there are unique agreements signed between TommaTech and the Customer, the warranty covers only the cost of materials and labor work to make the defect TT-Battery functional again. Generally, TommaTech is not responsible for the transport of goods. Transportation costs including shipments, insurance, duties as well as import & export fees are borne by the Customer. TommaTech has no warranty obligation in this respect. However, and in case that a defect was accepted to be caused by manufacturing, TommaTech may, at its own discretion, cover the costs of transporting the TT-Batteries which have been replaced or repaired under the warranty to their respective location.

Service after Warranty Expiration or for Products not covered by this Document

18. For faulty TT-Batteries not covered by this warranty, TommaTech shall provide charged services, whereby all expenses including but not limited to material cost, labor cost, warehouse cost, transportation cost, custom duties, analysis cost, management cost, corporate profits, disposal expenses, etc. will be covered by the Customer. However, these warranty terms do not limit applicable consumer protection laws relating to defects in equipment purchased by Consumers.

Warranty Claim

19. In case of any defects, faulty TT-Batteries, or a suspicion thereof, the Customer has to submit a proper claim to TommaTech immediately after its discovery including the followings:
 - a. Completed faultreport including the product information such as serial number, etc., solar solution configuration, description of defect, installed protection devices, etc.
 - b. A documentation including:
 - i. Detailed information about the entire systems (e.g., system schematic)
 - ii. Documentation of previous claims/exchanges (if applicable)
 - c. Commissioning report proving the installation according to the user manual.
 - d. Copy of the original invoice, receipt, and any other document which can prove the purchase of the TT-Batteries, and the date of installation.
 - e. Battery data including:
 - i. Product model
 - ii. Product serial number
 - iii. Indicator status
 - iv. Test Report
20. Upon approval from TommaTech, the claimant needs to send the defect claimed TT-Batteries to TommaTech packed in its original packaging or equivalent but in such a way that it will not be damaged during transportation including accompanying documentation as specified by TommaTech within fifteen (15) business days. Please note that defective parts or units replaced under a warranty claim become the properties of TommaTech.
21. After receipt of the defect claimed TT-Battery as specified and if TommaTech's due inspection concludes that the claimed defect in the TT-Battery should be covered by the warranty, TommaTech may repair the TT-Battery, change defective part(s), replace the TT-Battery with a new or equivalent solution, or compensate the customer financially at its own discretion and depending on the defect of the TT-Battery.
22. Please note that TommaTech will seek reimbursement of all incurred costs (labor, travel, delivery, and/or replacement units that have been sent, etc.) from the claimant if the TT-Battery is found to be free from defects in materials or workmanship, or if the TT-Battery is found not to be covered by this Limited Warranty.
23. Furthermore, please note that:
 - a. TommaTech may contact the customer for further information regarding the defect.
 - b. TommaTech may require the customer to complete root analysis testing of the TT-Battery as well as the corresponding solar solution to provide evidence supporting the claim.
 - c. Final verification of the claim will be made by TommaTech.
 - d. TommaTech reserves the right to refuse exchange requests where adequate information is not provided.
 - e. This warranty applies without prejudice to mandatory statutory liability regulations.

Geographical scope of the Warranty

24. This Limited Warranty terms and conditions only apply for TT-Batteries which are originally purchased from TommaTech's authorized channels and installed in a destination defined within the European Union countries, Scotland, Norway, Switzerland, excluding affiliated islands and

overseas territories unless there are special agreements signed between TommaTech and the direct purchaser. 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 TommaTech prior to the installation.

Special Amendment for TT-Batteries installed with TommaTech Hybrid Inverters

25. The default minimum capacity is 10% (can be changed to a higher level). During nighttime (no PV), when the battery is discharged to the minimum capacity, usually the inverter will enter "Idle mode" or "Standby mode". However, the hybrid system is still consuming power. Therefore, you may see that the battery capacity sometimes decreases below 10%. When the battery capacity is down to 5% (protection level), it will trigger a charging demand, which requests charging from grid until it reaches the minimum capacity level. This may happen especially in the night or during winter and bad weather periods with limited PV generation. Please note that this is a normal behavior which will extend the battery life.
26. Consequently, it is recommended to force charging of the batteries from grid timely during bad weather (like continuous snowstorm, raining, cloudy days), to ensure that the battery won't be fully discharged (0% capacity) under such situations. Besides this, manually switching off the whole system can be an alternative under such conditions.
27. When adding a new battery to the existing system, it is required that the new battery has the same capacity level with the existing battery system before it is added (for example pre-charge the original battery system and new battery to the full capacity, and then install them together), please check the corresponding TommaTech battery user manual regarding this topic.
28. When charging a battery from grid, please 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, a warranty claim under such conditions will not be accepted.

Special Amendment for TT-Batteries installed completely Off-Grid

29. It is requested that off-grid installations are inspected annually by a qualified electrician which is to be documented with a test protocol. Failure to comply with this or any requirement to maintain the equipment may invalidate any warranty claims.
30. For better analysis and troubleshooting in case of a warranty claim, it is recommended that the Customer register the inverter online; otherwise, the Customer will need to provide detailed information in the TommaTech RMA form for a warranty claim.
31. The total load connected to an off-grid system shall be calculated based on its rated power. Wrong calculation, especially for inductive loads, may cause EPS Overload fault during nighttime or when there is not sufficient PV power generation and remaining battery capacity. Damages to inverters caused by incorrect installation will not be covered by the warranty.

*This Limited Warranty is a basic warranty promise from TommaTech to its Customers. TommaTech reserves the right to adapt the warranty terms in line with technological progress. In certain countries/regions, end Customers may receive an additional warranty promise (should be at least equivalent to the manufacturer's warranty) which is provided by TommaTech's authorized, local distributors. Should any claims arise in this respect, please direct them to TommaTech's authorized local distributors. Please note that this limited warranty statement may NOT be the latest version. If any needs, please contact TommaTech to get the latest version.