

MANUFACTURER'S GUARANTEE

for stationary lithium battery storage of TESVOLT GmbH (TS 48, TS HV, TPS series)

Content

Preamble 1

1. Which products are covered by the guarantee? 2

2. Who can claim rights under this guarantee? 2

3. Where does the guarantee apply? 2

4. How is the guarantee contract concluded? 2

5. How does the guarantee relate to other claims of the person entitled to the guarantee? 2

6. How long is the guarantee period? 2

7. What is the content of the performance guarantee? 3

8. What is the content of the system guarantee? 4

9. When does the guarantee case occur and how is it verified? 4

10. What guarantee services does TESVOLT have to provide? 4

11. What must be taken into account when making a claim under the guarantee? 5

12. When are the costs of the inspection to be borne by the person entitled to the guarantee? 5

13. How does the person entitled to the guarantee have to contribute to the verification of the guarantee case? 6

14. When are guarantee claims excluded? 6

15. What are the limits of the liability of TESVOLT under this guarantee? 7

16. May the guarantee be transferred to a third party? 8

17. When do claims under this guarantee expire? 8

18. Which law and which place of jurisdiction do apply? 8

Preamble

TESVOLT GmbH ("TESVOLT") develops and manufactures high-quality battery storage systems based on lithium ions ("TESVOLT storage system"). TESVOLT storage systems include the housing, the battery modules consisting of several battery cells, the wiring and fuses, the Active Battery Optimizer (ABO) and the Active Power Unit (APU) as well as the operating software installed on the TESVOLT storage system. Exceeding components that are possibly included in the scope of delivery of the seller of the TESVOLT storage system, e.g. the battery inverter, are not part of the TESVOLT storage system. TESVOLT grants a manufacturer's guarantee ("guarantee") under the following conditions. The guarantee covers the capacity of the battery modules for a period of ten years ("performance guarantee") as well as the functionality of the TESVOLT storage system over a period of five years ("system guarantee").

1. Which products are covered by the guarantee?

- 1.1 The guarantee applies exclusively to TESVOLT storage systems of the TS 48, TS HV and TPS series ("products entitled to the guarantee") distributed by TESVOLT since April 1, 2017.

2. Who can claim rights under this guarantee?

- 2.1 TESVOLT only provides this guarantee to end customers of TESVOLT storage systems who are operating the respective TESVOLT storage system themselves at the time of asserting guarantee claims ("person entitled to the guarantee"). Traders of TESVOLT storage systems, regardless of type and level of trade, cannot derive any claims against TESVOLT from the guarantee.

3. Where does the guarantee apply?

- 3.1 The guarantee is applicable worldwide.
- 3.2 The guarantee services differ in individual countries within the geographical area of application. The scope of the guarantee services is set out in Section [10](#).

4. How is the guarantee contract concluded?

- 4.1 The guarantee is an offer made by TESVOLT to the person entitled to the guarantee to conclude a guarantee contract under these conditions.
- 4.2 The guarantee contract is concluded directly between TESVOLT and the person entitled to the guarantee as soon as the person entitled to the guarantee accepts the offer. The acceptance does not have to be declared explicitly. For example, the assertion of claims by the person entitled to the guarantee against TESVOLT constitutes an acceptance of the offer.

5. How does the guarantee relate to other claims of the person entitled to the guarantee?

- 5.1 The guarantee grants the person entitled to the guarantee direct claims to the extent and in accordance with the provisions of this guarantee against TESVOLT. TESVOLT grants these direct claims in addition to statutory warranty claims.
- 5.2 Warranty claims against the respective seller of the TESVOLT storage system as well as other legal claims, e.g. from the German Product Liability Act (ProdHaftG), remain unaffected by the guarantee. This shall also apply if the seller of the TESVOLT storage system is TESVOLT itself. The special requirements for the assertion of claims of this guarantee do not apply with regards to the assertion of warranty claims from the purchase contract against the seller.

6. How long is the guarantee period?

- 6.1 The guarantee period of the performance guarantee for the battery modules referred to in Section [7](#) shall be ten years. It starts with the initial commissioning of the TESVOLT storage system.
- 6.2 The guarantee period of the system guarantees according to Section [8](#) is five years. It also starts with the initial commissioning of the TESVOLT storage system.
- 6.3 With the handover of the TESVOLT energy storage system to the person entitled to the guarantee, TESVOLT shall make available to the person entitled to the guarantee the draft of a commissioning protocol in electronic (e.g. USB stick) and written form. The guarantee shall only be granted if the commissioning protocol is completed, signed and sent to TESVOLT by post, fax or e-mail immediately after commissioning.

7. What is the content of the performance guarantee?

- 7.1. TESVOLT guarantees that the capacity of the battery modules of the TESVOLT storage system will be at least 70 percent of the nominal capacity until the minimum number of full charge cycles guaranteed in accordance with the following provisions has been reached, but not later than the end of the guarantee period in accordance with Section [6.1](#).
- 7.2. The lifetime of the battery modules of the TESVOLT storage system depends on the so-called C-rate and the operating temperature of the TESVOLT storage system. Against this background, TESVOLT guarantees a certain minimum number of full charge cycles, depending on the C-rate and the operating temperature, according to Sections [7.3](#) to [7.5](#).
- 7.3. The following conditions apply:
 - 7.3.1. The operating temperature is the average temperature of all battery modules of the TESVOLT storage system which is measured by a temperature sensor in the battery modules and continuously recorded in the logging file.
 - 7.3.2. The C-rate corresponds to the strength of the charging and discharging current in relation to the nominal capacity of the TESVOLT storage system. The strength of the charging and discharging current is continuously recorded in the logging file of the TESVOLT storage system. The classification of the relevant C-Rate in the table in Section [7.4](#) is based on the highest recorded C-rate during the period from the initial installation of the TESVOLT storage system until the occurrence of the guarantee case (“operating -period”).
 - 7.3.3. A full charge cycle corresponds to charging and discharging the entire capacity of the battery modules with a depth of discharge (DoD) of 100 percent. Partial cycles are counted on a pro rata basis.
- 7.4. In the case of a continuous operation of the TESVOLT storage system with an operating temperature according to the second column of the following table, TESVOLT guarantees, based on the C-rate indicated in the first column, the number of full charge cycles indicated in the third column:

C-rate (max.)	operating temperature	Guaranteed minimum number of full charge cycles
up to 0.50	from 10°C to 17,9°C	6,500
up to 0.50	from 18°C to 28,9°C	6,000
up to 0.50	from 29°C to 45°C	3,900
from 0.51 to 1.00	from 10°C to 17,9°C	5,000
from 0.51 to 1.00	from 18°C to 28,9°C	4,500
from 0.51 to 1.00	from 29°C to 45°C	3,000

- 7.5. If a TESVOLT storage system is temporarily operated in another operating temperature range during the operating period, the following applies. The operating hours in the respective operating temperature range are multiplied by the minimum number of full charge cycles guaranteed for the operating temperature range in question in the third column of the table in Section [6.4](#). The sum of these hourly values is then divided by the sum of all operating hours in the operating period. TESVOLT guarantees the resulting value of full charge cycles.

Example of a TESVOLT storage system with a C-rate (max.) of 0.50:

operating hours	operating temperature	Guaranteed minimum number of full charge cycles
61,212	from 10°C to 17,9°C	6,500
23,967	from 18°C to 28,9°C	6,000
643	from 29°C to 45°C	3,900

Guaranteed number of full charge cycles in this example:

$$(61,212 \text{ h} * 6,500 + 23,967 \text{ h} * 6,000 + 643 \text{ h} * 3,900) / 85,822 \text{ h} = 6,341 \text{ (rounded)}$$

8. What is the content of the system guarantee?

- 8.1. TESVOLT guarantees that during the guarantee period as defined in Section 6.2 the TESVOLT storage system is free from material and manufacturing defects which significantly impair the functionality of the TESVOLT storage system.

9. When does the guarantee case occur and how is it verified?

- 9.1. The guarantee case under Section 7 (performance guarantee) occurs if the capacity of the respective battery module falls below 70 percent of the nominal capacity (end of life) before the number of full charge cycles guaranteed under Section 7 is reached within the respective guarantee period. TESVOLT shall test the capacity of the battery module under the following standard test conditions to determine whether a guarantee case according to Section 7 exists:
 - 9.1.1. Room temperature during the test: 18°C to 28°C
 - 9.1.2. To achieve a balanced initial state, the battery module is discharged to the final discharge voltage according to the data sheet and put into a rest state for one day.
 - 9.1.3. The battery module is then charged with a charging current of C/3 (C is the nominal capacity of the battery module in ampere hours (Ah)) up to the maximal charging voltage according to the data sheet. This voltage is maintained while simultaneously reducing the current to a charging current of less than C/20 or over a period of 4 hours, following a rest state for 10 minutes.
 - 9.1.4. To measure the stored energy, the battery module is finally discharged with a constant discharge current of C/3 until the final discharge voltage of one battery cell according to the data sheet is reached.
- 9.2. The guarantee case under Section 8 (system guarantee) occurs if a material or manufacturing defect occurs in the TESVOLT storage system which does significantly impair the functionality of the TESVOLT storage system. Deviations of the capacity of the battery modules from the nominal capacity are to be assessed solely according to the provisions of Section 7 (performance guarantee) and do not constitute a guarantee case under Section 8 (system guarantee).

10. What guarantee services does TESVOLT have to provide?

- 10.1. In the event of a guarantee case, TESVOLT shall, at its own discretion
 - 10.1.1. repair the product entitled to the guarantee or the affected component of the product entitled to the guarantee at the location of the product entitled to the guarantee,
 - 10.1.2. repair the product entitled to the guarantee or the affected part of the product entitled to the guarantee at the site of TESVOLT or a third party, or

- 10.1.3. supply and install an equivalent replacement product or an equivalent component at the location of the product entitled to the guarantee.
- 10.2. If a guarantee service by TESVOLT fails, TESVOLT shall be entitled to provide the same or another form of guarantee service repeatedly, unless this is intolerable for the person entitled to the guarantee.
- 10.3. If the original product or component is no longer available or can only be procured or manufactured at a disproportionate expense, TESVOLT reserves the right to supply a replacement product or component that is functionally equivalent to the product entitled to the guarantee.
- 10.4. With the installation of the replacement product or the replacement component, the original product or the original component becomes the property of TESVOLT. Components exchanged by way of repair shall also become the property of TESVOLT.
- 10.5. TESVOLT may commission a sales or service partner to carry out the guarantee services.
- 10.6. If the TESVOLT storage system is not located in a country which is a TESVOLT Support Country pursuant to Section [10.7](#) at the time of the guarantee case or which was a TESVOLT Support Country at the time of the commissioning of the TESVOLT storage system, the person entitled to the guarantee may only request guarantee services by TESVOLT if
 - 10.6.1. the person entitled to the guarantee undertakes to bear all additional costs, if any, incurred by TESVOLT due to the provision of the guarantee services at the location of the TESVOLT storage system in comparison to the provision of the guarantee services in the nearest TESVOLT Support Country, and
 - 10.6.2. the person entitled to the guarantee has paid TESVOLT an advance which fully covers the anticipated additional costs incurred by TESVOLT in accordance with Clause 10.6.1.
- 10.7. The countries in which TESVOLT currently offers support (TESVOLT Support Countries) are listed on TESVOLT's website at <https://www.tesvolt.com/de/downloads.html>. At the request of the person entitled to the guarantee, TESVOLT shall provide the status of the list of TESVOLT Support Countries at the time of the commissioning of the TESVOLT storage system.

11. What must be taken into account when making a claim under the guarantee?

- 11.1. Manufacturer of the TESVOLT storage systems, issuer of this guarantee and contact for all questions and the assertion of guarantee claims is TESVOLT GmbH, Am Heideberg 31, D 06886 Lutherstadt Wittenberg, registered at the Stendal local district court with the registration number HRB 20947.
- 11.2. TESVOLT must be notified in writing of the assertion of guarantee claims within the guarantee period.
- 11.3. In its notification, the person entitled to the guarantee must provide TESVOLT with the following data and documents:
 - 11.3.1. Serial number of the product:
 - 11.3.2. Original invoice, unless the person entitled to the guarantee has purchased the TESVOLT storage system himself from TESVOLT or a distribution partner of TESVOLT; and
 - 11.3.3. suitable proof of the time of the initial installation of the TESVOLT storage system, e.g. a commissioning report or the logging file.

12. When are the costs of the inspection to be borne by the person entitled to the guarantee?

- 12.1. Insofar as no claim of guarantee is determined in the inspection by TESVOLT or a third party commissioned by TESVOLT or it is determined that the guarantee claim is excluded in accordance with Section [14](#), TESVOLT may demand reimbursement from the person entitled to the guarantee for the expenses incurred for the inspection. Working time spent is calculated at an hourly rate of 95.00 EUR,

whereby the maximum rate per day is 760.00 EUR in the case of an inspection in Germany and 920.00 EUR in the case of an inspection in another country. For the arrival and departure at the site of the TESVOLT Storage System 0.30 Euro per km will be charged. Other travel expenses incurred shall be calculated in accordance with the provisions of the Federal Travel Expenses Act (BRKG). All amounts stated are exclusive of the applicable value added tax.

- 12.2. If the person entitled to the guarantee is a consumer within the meaning of § 13 of the German Civil Code (BGB), TESVOLT's claim for reimbursement of the expenses according to Section [12.1](#) shall be excluded unless the consumer, due to gross negligence, has failed to recognize that there was no guarantee case or that the guarantee claim according to Section [14](#) was excluded.

13. How does the person entitled to the guarantee have to contribute to the verification of the guarantee case?

- 13.1. The person entitled to the guarantee shall, according to the possibilities at his disposal, transfer the logging file of the TESVOLT storage system to TESVOLT or the distribution partner commissioned by TESVOLT, provide TESVOLT or the distribution partner commissioned by TESVOLT with access to the logging file or make all necessary declarations to third parties so that TESVOLT or the distribution partner commissioned by TESVOLT can receive the logging file or get access to the logging file from the third party.
- 13.2. The person entitled to the guarantee shall provide TESVOLT or the distribution partner commissioned by TESVOLT with remote access to the TESVOLT monitoring software contained in the TESVOLT storage system, e.g. BATMON. TESVOLT or the distribution partner commissioned by TESVOLT shall instruct the person entitled to the guarantee how to do so.
- 13.3. The person entitled to the guarantee shall provide TESVOLT, upon request, with information, such as maintenance protocols on repair, care and maintenance measures carried out on the TESVOLT storage system.
- 13.4. For the purpose of the verification whether a guarantee case has occurred and for the purpose of performing guarantee services, the person entitled to the guarantee shall grant TESVOLT unrestricted access to the product entitled to the guarantee.

14. When are guarantee claims excluded?

- 14.1. The guarantee does not cover TESVOLT storage systems or their components that have been impaired, damaged or destroyed due to one or more of the following circumstances:
 - 14.1.1. They have not been stored, transported, set up or installed in an appropriate and professional manner, in accordance with technical standards and regulations, in accordance with the respective installation manual of the TESVOLT storage system or in accordance with instructions of TESVOLT sent to the person entitled to the guarantee.
 - 14.1.2. They have been operated contrary to their intended use or contrary to the instructions in the respective installation manual for the TESVOLT storage system.
 - 14.1.3. They have been operated in conjunction with battery inverters that are not foreseen in the respective installation manual of the TESVOLT storage system, unless the use of the battery inverters has been approved by TESVOLT prior to the initial installation of the TESVOLT storage system.
 - 14.1.4. They have not been operated for a period of more than six months from the date of the dispatching by TESVOLT (ex factory).

- 14.1.5. They were constantly out of service for a period of more than six months after their initial installation.
- 14.1.6. They have not been serviced properly and professionally or according to technical standards, in particular not in accordance with the maintenance instructions of the respective installation manual of the TESVOLT storage system.
- 14.1.7. They have been exposed, even temporarily, to one or more of the following conditions:
 - 14.1.7.1. a power of more than 1C,
 - 14.1.7.2. a cell-voltage of less than 2.7 V or more than 4.23 V,
 - 14.1.7.3. a temperature of more than 50°C or less than -10°C, or
 - 14.1.7.4. vibrations that not only insignificantly exceed the usual extent of vibrations caused by transport and installation.
- 14.1.8. Software updates or upgrades provided and recommended by TESVOLT or a distribution partner have not been installed.
- 14.1.9. They have been improperly altered or otherwise tampered with by the person entitled to the guarantee or third parties.
- 14.1.10. An overvoltage has occurred in the power grid to which they are connected.
- 14.1.11. They have been exposed to force majeure (in particular lightning, fire, earthquakes, natural disasters) or harmful environmental conditions such as air pollution, salt water or sulphur corrosion.
- 14.2. Claims under this guarantee are also excluded,
 - 14.2.1. if the commissioning protocol is not sent to TESVOLT by letter mail, fax or e-mail immediately after commissioning,
 - 14.2.2. if the guarantee claim has not been notified to TESVOLT pursuant to Sections [11.2](#) and [11.3](#) within the respective guarantee period pursuant to Section [6](#),
 - 14.2.3. if the guarantee claim has not been notified to TESVOLT pursuant to Sections [11.2](#) and [11.3](#) within six months after the person entitled to the guarantee has gained knowledge of the guarantee claim or should have gained knowledge without gross negligence,
 - 14.2.4. if the person entitled to the guarantee refuses TESVOLT or a third party authorized by TESVOLT access to the logging file of the TESVOLT storage system or access to the monitoring software of TESVOLT, or if the person entitled to the guarantee or a third party has manipulated or deleted the logging file, the monitoring software of TESVOLT or data relevant for the examination of the guarantee case, or
 - 14.2.5. if the serial number on the TESVOLT storage system can no longer be identified or has been modified.

15. What are the limits of the liability of TESVOLT under this guarantee?

- 15.1. Any claims in excess of the guarantee claims according to Section [10](#), in particular claims for damages and reimbursement of expenses against TESVOLT, shall be excluded from the liability of TESVOLT under this guarantee.
- 15.2. In particular, TESVOLT shall not be liable under this guarantee for damage caused by the product to other legal interests of the person entitled to the guarantee, for loss of profit or turnover, loss of use and production, business interruption, loss of data, financing costs, consequential damage or indirect damage. This shall also apply if such damage occurs to a third party.

- 15.3. The aforementioned exclusions and limitations of liability shall not apply in the event of liability on the part of TESVOLT due to a grossly negligent or intentional breach of duty, due to culpable injury to life, body or health or due to the violation of essential contractual obligations, i.e. obligations whose fulfilment is a prerequisite for the proper performance of the contract and whose observance the person entitled to the guarantee regularly relies on and may rely on. Damages for the breach of essential contractual obligations shall, however, be limited to the foreseeable damage typical for this type of contract, unless intent or gross negligence is involved or liability is assumed for injury to life, limb or health.

16. May the guarantee be transferred to a third party?

The guarantee including the resulting guarantee claims can only be transferred to a third party by a person entitled to the guarantee with the prior written consent of TESVOLT.

17. When do claims under this guarantee expire?

Claims under the guarantee shall become statute-barred twelve months after TESVOLT has definitively refused to fulfil the claims asserted by the person entitled to the guarantee.

18. Which law and which place of jurisdiction do apply?

- 18.1. This guarantee agreement shall be governed by and construed in accordance with the laws of the Federal Republic of Germany. The UN Convention on Contracts for the International Sale of Goods (CISG) shall not apply.
- 18.2. The exclusive place of jurisdiction for all disputes arising from or in connection with this agreement shall be the registered office of TESVOLT, provided that the party entitled to the guarantee is a merchant, an entrepreneur within the meaning of § 14 of the German Civil Code (BGB) or a private individual without a general place of jurisdiction within the Federal Republic of Germany. Otherwise it shall remain the place of jurisdiction of the German Code of Civil Procedure (ZPO).
- 18.3. Should one or more provisions of this guarantee agreement be or become invalid or unenforceable, this shall not affect the validity and enforceability of the remaining provisions of this agreement.