Tesla Solar Inverter

Safety Instructions
Notices

The information in this document is believed to be reliable, but does not constitute an express or implied warranty. Tesla reserves the right to make changes to its Solar Inverter, PV Modules, and other products, their specifications, or this document without prior notice. This document applies to Tesla Solar Inverter and Tesla Solar Shutdown Device, and electrical wiring elements manufactured by Tesla. It is explicitly written for qualified professionals ("Installer" or "Installers"), including without limitation licensed electricians and NABCEP-Certified PV Installers.

For the latest Solar Inverter installation documents in all supported languages, visit www.tesla.com/support/energy/solar-inverter.

To secure the full 12.5-year product warranty, the Tesla Solar Inverter must be registered by completing the commissioning process and sending system information to Tesla.

Product Specifications

This manual applies to the following products:

- Tesla Solar Inverter (1538000-xx-x or 1534000-xx-x)
- Tesla Solar Shutdown Device (1550379-xx-x or MCI-1)

All specifications and descriptions contained in this document are verified to be accurate at the time of printing. However, because continuous improvement is a goal at Tesla, we reserve the right to make product modifications at any time.

The images provided in this document are for demonstration purposes only. Depending on product version and market region, details may appear slightly different.

Errors or Omissions

To communicate any inaccuracies or omissions in this document, send an email to energypubs@tesla.com.

©2021 TESLA, INC. All rights reserved.

All information in this document is subject to copyright and other intellectual property rights of Tesla, Inc. and its licensors. This material may not be modified, reproduced or copied, in whole or in part, without the prior written permission of Tesla, Inc. and its licensors. Additional information is available upon request. The following are trademarks or registered trademarks of Tesla, Inc. in the United States and other countries:

| TESLA | Tesla | Tesla Motors |

All other trademarks contained in this document are the property of their respective owners and their use herein does not imply sponsorship or endorsement of their products or services. The unauthorized use of any trademark displayed in this document or on the product is strictly prohibited.
IMPORTANT SAFETY INSTRUCTIONS

Tesla Solar Inverter installation and service require knowledge of high voltage electricity and should only be performed by Tesla Certified Installers. A risk assessment should be completed by the person(s) working on the equipment prior to installation, operation, or service tasks. Tesla assumes no liability for injury or property damage due to repairs attempted by unqualified individuals or a failure to properly follow these instructions. These warnings and cautions must be followed when using Tesla Solar Inverter.

- Use qualified personnel for installation. Installing a solar electric system requires specialized skills and knowledge.
- Abide by local, regional, and national statutory regulations when installing the system, and obtain a building permit if necessary.
- Use equipment, connectors, and wiring suitable for solar electric systems.
- Work under dry conditions and use dry tools.
- Use fall protection when working from heights. Always follow Occupational Safety and Health Act (OSHA) or local governing safety regulations regarding fall protection.
- Use insulated tools that are approved for working on electrical installations.
- Wear suitable personal protection equipment (PPE) to prevent the risk of personal injury, such as fall hazards or electrical hazards.
- Consult your local authority for guidelines and requirements for building or structural fire safety.

Note to Trained Professionals

In the event of a fire at the premises, rapid shutdown equipment in the array will reduce voltages and control the hazard for firefighter operations. Nevertheless the array wiring should be treated as potentially dangerous, especially if it is damaged by heat or flames. Inform the fire crew about the particular hazards from the PV system, and stay away from all elements of the PV system during and after a fire until the necessary steps have been taken to make the PV system safe.

Symbols Used

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>CAUTION: indicates a hazardous situation which, if not avoided, could result in minor injury or damage to the equipment.</td>
</tr>
<tr>
<td>!</td>
<td>WARNING: indicates a hazardous situation which, if not avoided, could result in injury or death.</td>
</tr>
<tr>
<td>!</td>
<td>NOTE: indicates an important step or tip that leads to best results, but is not safety or damage related.</td>
</tr>
<tr>
<td>!</td>
<td>REFER TO OPERATING INSTRUCTIONS: indicates that user should refer to operating or installation instructions before proceeding.</td>
</tr>
<tr>
<td>!</td>
<td>RISK OF ELECTRIC SHOCK: indicates components that present risk of electrical shock.</td>
</tr>
</tbody>
</table>
General Compliance Information

⚠️ **WARNING:** Tesla Solar Inverter installation must be carried out only by Tesla Certified Installers who have been trained in dealing with high voltage electricity.

⚠️ **WARNING:** Do not touch non-insulated cable ends.

⚠️ **WARNING:** Do not touch the DC conductors when energized.

⚠️ **WARNING:** Do not touch any live components of the inverter.

⚠️ **WARNING:** Have the inverter mounted, installed and commissioned only by qualified persons with the appropriate skills.

⚠️ **WARNING:** If an error occurs, have it rectified by qualified persons only.

⚠️ **WARNING:** Prior to performing any work on the inverter, disconnect it from all voltage sources as described in the installation manual (available on Partner Portal to Tesla Certified Installers).

⚠️ **WARNING:** Connect and ground the PV modules, array frame, and non-current carrying electrically conductive components so that there is continuous conduction. Observe the applicable local regulations.

⚠️ **WARNING:** This Photovoltaic Rapid Shutdown System (PVRSS) incorporates one or more pieces of equipment that exercise the rapid shutdown control of PV system conductors required by section 690.12 of the NEC (NFPA 70). Other equipment installed in or on this PV system may adversely affect the operation of this PVRSS. It is the responsibility of the installer to ensure that the completed PV system meets the applicable rapid shutdown functional requirements. This equipment must be installed according to the manufacturer’s installation instructions.

⚠️ **WARNING:** Risk of electric shock and fire. Use only with PV modules with a maximum system voltage of rating of 600 V or higher.

⚠️ **WARNING:** Do not use Tesla Solar Inverter if it is defective, appears cracked, broken, or otherwise damaged, or fails to operate.

⚠️ **WARNING:** Use Tesla Solar Inverter only as directed

⚠️ **WARNING:** Do not attempt to open, disassemble, repair, tamper with, or modify Tesla Solar Inverter. Solar Inverter and its components are not user serviceable. Contact the Tesla Certified Installer who installed the system for any repairs.

⚠️ **WARNING:** Do not insert foreign objects into any part of Tesla Solar Inverter.

⚠️ **WARNING:** Do not expose Tesla Solar Inverter or its components to direct flame.

⚠️ **WARNING:** Do not install Tesla Solar Inverter near heating equipment.

⚠️ **WARNING:** Do not immerse Solar Inverter or its components in water or other fluids.

⚠️ **CAUTION:** Do not use cleaning solvents to clean Tesla Solar Inverter, or expose Tesla Solar Inverter to flammable or harsh chemicals or vapors.

⚠️ **CAUTION:** Do not use fluids, parts, or accessories other than those specified in the installation manual, including use of non-genuine Tesla parts or accessories, or parts or accessories not purchased directly from Tesla or a Tesla-certified party.

⚠️ **CAUTION:** Do not paint any part of Tesla Solar Inverter, including any internal or external components such as the exterior shell or door.
Environmental Conditions

⚠️ **WARNING:** Operating or storing Tesla Solar Inverter in temperatures outside its specified range might cause damage to Solar Inverter.

⚠️ **WARNING:** Do not expose Tesla Solar Inverter to ambient temperatures above 113°F (45°C) or below -22°F (-30°C).

⚠️ **CAUTION:** Ensure that no water sources are above or near Tesla Solar Inverter, including downspouts, sprinklers, or faucets.

⚠️ **CAUTION:** Ensure that snow does not accumulate around Tesla Solar Inverter.