

SOLIBRO GMBH OT Thalheim, Sonnenallee 32-36, 06766 Bitterfeld-Wolfen, Germany



SOLIBRO GMBH
OT Thalheim
Sonnenallee 32-36
06766 Bitterfeld-Wolfen
Germany

PHONE +49 (0) 3494 3840 - 93000
FAX +49 (0) 3494 3840 - 93100
EMAIL info@solibro-solar.com
WEB www.solibro-solar.com

Geschäftsführung / Management Board
Dr. Ingo Engelmann (Managing Director)

Sitz: Thalheim
Amtsgericht Stendal
HRB 5909

To Whom it May Concern

Thalheim, March 12, 2014

Important Information for the Use of Solibro Solar Panels in Combination with Solar Inverters, that are not negatively grounded

Dear valued Customer,

As a leading manufacturer of high-quality thin-film panels, we continually develop our products. We also subject our solar panels that are already on the market to ongoing product monitoring. This includes studies that simulate the development of the panels' performance over a usage period of up to twenty-five years under laboratory conditions.

During our investigations, we have discovered that the solar panels we manufacture can lose power in combination with a particular inverter topology. This power loss (degradation) is related to a negative electric field at the generator pole of the solar panel (Potential Induced Degradation, PID). The power loss can occur if the inverters used are not negatively grounded.

The degree of degradation risk also depends on the climatic conditions in which the photovoltaic systems are installed. In temperate climate zones, the susceptibility to degradation is lower than in subtropical climate zones. The greatest likelihood of power loss is found in tropical climate zones with permanently high air humidity. The way the negative potential is applied also plays a role: If there is conductive material directly adjacent to the back of the panel (e.g. metal bars or condensation), it is more susceptible to degradation, unless the inverter is negatively grounded.

Panel types "SL1", "SL1F" and "SL2" are affected by the possible power loss detected. These were also marketed under the brand names "Q.SMART", "Q.SMART UF" and "Q.SMART UF L".

The product types affected are "SL1", "SL1F" (or "Q.SMART UF", "Q.SMART"), product batch "SL1" to "Q.SMART UF G1.3" or "SL1-F" to "Q.SMART G1.3" with serial numbers 1080501000000000100 to 1110724001028475100. This corresponds to the production period May 2008 to July 2011.

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For type "SL2" (or "Q.SMART UF L") products, the affected production period is October 2009 to September 2012. This comprises solar panels with the serial numbers 209100100000000100 to 2120924001450559100, i.e. the product batches "SL2A" to "Q.SMART UF L G1.3".

Information on the components used in your photovoltaic system can be found in the documentation (e.g. the datasheet) provided by, or which can be obtained from, the installer of your system.

The risk of power loss means a higher probability of individual solar panels becoming subject to degradation and therefore reducing the overall yield of the photovoltaic system.

Recommended course of action:

The risk of Potential Induced Degradation can be prevented for the future by installing negatively grounded inverters in place of inverters that are not negatively grounded. If degradation has already occurred, the damaged solar panels must be replaced. Alternatively, it may be worth considering replacing only the inverter, because a limited reversibility of the degradation has been demonstrated, if an only positive potential is applied. Since not all panels in a photovoltaic system are subject to power loss due to the degradation effect described, it is impossible to predict to what extent the overall performance of the photovoltaic system will be affected by this and whether replacing the inverters will turn out to be economically worthwhile. When replacing the inverters, please follow the installation recommendations in our installation manual, which can be downloaded from www.solibro-solar.com.

If you have the solar panels listed in this product information letter and use inverters which are not negatively grounded, we advise you to have the photovoltaic system checked by an expert who can also take into account the actual conditions on site

If you receive this information letter as wholesaler or PV installer, please forward this information to the final customer concerned.

If you have any further questions, please do not hesitate to contact us.

Tel.: +49 (0)3494 3840 - 93222

E-mail: service@solibro-hitech.com

Yours faithfully

Solibro GmbH



SOLIBRO GMBH

OT Thalheim
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