

**Appendix 1 for plant category A1
not listed on the positive list**

The documentation form must be filled in with data for the *plant* valid at the time of commissioning and sent to the *electricity supply undertaking*.

B1.1.1. Identification

<i>Plant</i>	Description of the <i>plant</i> : Solar inverters X1-3.0-T-D/ X1-3.0-T-N X1-3.3-T-D/ X1-3.3-T-N X1-3.6-T-D/ X1-3.6-T-N Documents: Installation and operation manual DIN VDE V 0124-100 test report EN50438:2013 test report TR 3.2.1 Declaration
GSRN number	N/A
<i>Plant owner</i> name and address	SolaX Power Co., Ltd. 288, Shizhu Road Tonglu Economic Development Zone Tonglu, Zhejiang Province, China
<i>Plant owner</i> tel. no.	+86(571)-56260011
<i>Plant owner</i> e-mail	info@solaxpower.com
Type/model	X1-BOOST
<i>Voltage (nominal)</i>	0,4 kV
<i>Rated power</i> (data sheet)	3000 VA, 3300 VA, 3680VA

B1.1.2. Power quality

For each power quality parameter, indicate how the result was achieved.

B1.1.2.1. Voltage changes

<p>Are the voltage changes for the entire <i>plant</i> below the limit values?</p> <p>Where to find documentation that this requirement has been met? See DIN VDE V 0124-100 test report – page 14</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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B1.1.2.2. DC content

<p>Does the DC content at normal operation exceed 0.5% of the nominal current?</p> <p>Where to find documentation that this requirement has been met? See EN50438:2013 test report – page 57</p>	<p>Yes <input type="checkbox"/></p> <p>No <input checked="" type="checkbox"/></p>
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B1.1.2.3. Asymmetry

<p>Does the asymmetry at normal operation and during faults exceed 16 A?</p> <p>Where to find documentation that this requirement has been met?</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>NA <input checked="" type="checkbox"/></p>
<p>If the <i>plant</i> is made up of single-phase <i>electricity-generating units</i>, have you taken measures to ensure that the above limit is not exceeded?</p> <p>Where to find documentation that this requirement has been met?</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>NA <input checked="" type="checkbox"/></p>

B1.1.2.4. Flicker

<p>Is the <i>flicker</i> contribution for the entire <i>plant</i> below the limit value?</p> <p>Where to find documentation that this requirement has been met? See DIN VDE V 0124-100 test report – page 16</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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B1.1.2.5. Harmonic distortions

<p>Are all <i>harmonic distortions</i> for the entire <i>plant</i> below the limit values?</p> <p>Where to find documentation that this requirement has been met? See DIN VDE V 0124-100 test report – page 18</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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B1.1.3. Connection and synchronisation

<p>Can the <i>plant</i> be started and generate power continuously within the <i>normal production</i> range, limited only by the protective settings?</p> <p>Where to find documentation that this requirement has been met? See TR 3.2.1 Declaration test report</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
<p>Do connection and synchronisation occur three minutes, at the earliest, after voltage and frequency have come within the <i>normal production</i> range?</p> <p>Where to find documentation that this requirement has been met? See TR 3.2.1 Declaration test report</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>

B1.1.4. Active power control at overfrequency

<p>Is the <i>plant</i> equipped with a <i>frequency response</i> function?</p> <p>Is the function activated?</p> <p>Where to find documentation that these requirements have been met? See DIN VDE V 0124-100 test report – page 53</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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B1.1.5. Absolute power constraint function

<p>Is the <i>plant</i> equipped with an <i>absolute power constraint</i> function?</p> <p>Is the function activated?</p> <p>Where to find documentation that these requirements have been met? See DIN VDE V 0124-100 test report – page 51</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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B1.1.6. Ramp rate constraint function

Is the <i>plant</i> equipped with a <i>ramp rate constraint</i> function?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the function activated?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Where to find documentation that these requirements have been met? See DIN VDE V 0124-100 test report – page 54	

B1.1.7. Reactive power control

Reactive power can be controlled by means of	<i>Q control</i> <input checked="" type="checkbox"/> <i>Power factor control</i> <input checked="" type="checkbox"/> <i>Automatic power factor control</i> <input checked="" type="checkbox"/>
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B1.1.7.1. Q control

Is the control function activated with a set point of <u>0%Pn</u> VAR? (Value may not differ from 0 VAR unless agreed with the <i>electricity supply undertaking</i>).	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Where to find documentation that this requirement has been met? See EN50438: 2013 test report-page 37	

B1.1.7.2. Power Factor control

Is the control function deactivated?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Where to find documentation that this requirement has been met? See DIN VDE V 0124-100 test report – page 59	

B1.1.7.3. Automatic Power Factor control

Is the control function deactivated?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Where to find documentation that this requirement has been met? See DIN VDE V 0124-100 test report – page 63	

Protection against electricity system faults

B1.1.7.4. Relay settings

In the table below, indicate the values at the time of commissioning.

Protective function	Symbol	Setting		Trip time	
Overvoltage (step 2)	$U_{>>}$	264,5	V	200	ms
Overvoltage (step 1)	$U_{>}$	253,0	V	60	s
Undervoltage (step 1)	$U_{<}$	195,5	V	50	s
Undervoltage (step 2)	$U_{<<}$	184	V	100	ms
Overfrequency	$f_{>}$	52	Hz	200	ms
Underfrequency	$f_{<}$	47	Hz	200	ms
Change of frequency	df/dt	$\pm 2,5$	Hz/s	80	ms

B1.1.7.5. Central protection

Has a central protection unit been installed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Where is it located?	PCI <input type="checkbox"/> POC <input type="checkbox"/>
Where to find documentation that these requirements have been met?	
Has consumption been connected after the protection unit?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Where to find documentation that this requirement has been met?	

B1.1.8. Signature

Date of commissioning	
Company	
Person responsible for commissioning	Jessica Hu
Signature	2017.8.2