Utility-interconnected photovoltaic inverters – Test procedure for low under voltage ride-through measurements
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC TS 62910, which is a technical specification, has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

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Figure 2  
![Back to Back circuit](optional)  
Grid 

4.3.4  
The test circuit essentially comprises a voltage source with a low internal resistance combined with broadband amplifiers.....  
The test circuit essentially comprises a voltage source with a low internal resistance combined optionally with broadband amplifiers.....

Table 3  
d The test should be carried out under specified K-factor provided by local manufacture.  
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Figure 4  
![LVRT curve](optional)
5.2

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| Prior to the fault simulation tests, the EUT should run in normal operating mode. The selected UVRT curve should be used to identify voltage drop points, including the lowest point and the inflection point, ...... |
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UTILITY-INTERCONNECTED PHOTOVOLTAIC INVERTERS –
TEST PROCEDURE FOR LOW UNDER VOLTAGE
RIDE-THROUGH MEASUREMENTS

1 Scope

This document provides a test procedure for evaluating the performance of Low Under Voltage Ride-Through (LVRT UVRT) functions in inverters used in utility-interconnected Photovoltaic (PV) systems.

This document is most applicable to large systems where PV inverters are connected to utility high voltage (HV) distribution systems. However, the applicable procedures may also be used for low voltage (LV) installations in locations where evolving LVRT UVRT requirements include such installations, e.g. single-phase or 3-phase systems.

The assessed LVRT UVRT performance is valid only for the specific configuration and operational mode of the inverter under test. Separate assessment is required for the inverter in other factory or user-settable configurations, as these may cause the inverter LVRT UVRT response to behave differently.

The measurement procedures are designed to be as non-site-specific as possible, so that LVRT UVRT characteristics measured at one test site, for example, can also be considered valid at other sites.

This document is for testing of PV inverters, though it contains information that may also be useful for testing of a complete PV power plant consisting of multiple inverters connected at a single point to the utility grid. It further provides a basis for utility-interconnected PV inverter numerical simulation and model validation.

2 Normative references

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IEC TS 61836, Solar photovoltaic energy systems – Terms, definitions and symbols
Utility-interconnected photovoltaic inverters – Test procedure for under voltage ride-through measurements
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