

RCD Information for Sungrow Inverters

Hereby confirms, that Sungrow inverters

Single-phase: SG2K-S, SG3K-S, SG3K-D, SG5K-D, SG8K-D

Three-phase: SG5KTL-MT, SG10KTL-MT

comply with RCD Type A (in conformity to the standard IEC62109). The inverters thus meet the requirements specified in IEC60364-7-712 that they are not able to feed in DC residual currents.

Sungrow has already integrated RCMU (residual current monitoring unit) inside inverter. When the residual current exceeds the preset threshold (see below table), the inverter shall disconnect within the time frame protect against possible electrocution and fire hazard. This value is set according to section 4.8.3.5 in IEC62109-2 as below table.

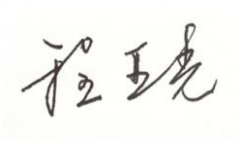
Inverter Capacity	Continuous Residual Current Limit	Time to Disconnect from the Grid
Less than or equal to 30kVA	300mA	0.3s
Greater than 30kVA	10mA/KVA	0.3s

Sudden Current Change	Time to Disconnect the Inverter from the Grid
30mA	0.3s
60mA	0.15s
150mA	0.04s

AS/NZS 3000 requires that additional protection by RCDs with a maximum rated residual current of 30mA shall be provided for all final subcircuits in domestic and residential electrical installations.

If a lower value is required by the specific local electrical codes, the use of lower value is permitted. In Australia, Sungrow inverters listed above can use an additional 30mA RCD in installations. However, according to the values set in inverters, the threshold of additional RCD (30mA) is less than the preset threshold for inverters. In most cases, if unintentional triggering during operation, additional RCD will trip first.

If no local regulations are mandatory, Sungrow recommends the use of a type-A RCD with sensitivity of 300mA.

A handwritten signature in black ink, appearing to read '程玉光' (Cheng Yuguang), is centered on a light yellow rectangular background.

Matt Chan
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Sungrow Power Supply Co., Ltd.
8th Jun 2020