

Declaration for the use of RCD devices

Corresponding with IEC 62109-2: 2011, a residual current monitoring unit (RCMU) is required for inverters without simple separation between the grid and the photovoltaic generator. The ZCS series inverters have such an integrated RCMU. Due to the inverters' circuit design, they can't feed in direct residual current into the grid.

If the standard take as a basis for the building of PV system or the grid company requests a separate RCD, a residual current device RCD type A can be used for all ZCS series inverter.

Regarding the internal RCMU protection limits (which is 300mA or higher according to IEC62109-2: 2011), from ZCS series inverters' point of view, a RCD type A with a limit of 300mA or higher would be fine (as shown on following table). With this limit a premature switch off of the external RCD would not happen.

V3/V4 series inverters with type A RCD limit:

Inverter Type	Type A RCD Limit
ZCS 1100-3300TL-V3	300 mA
ZCS 3K-6KTLM-V3	300 mA
ZCS 3.3K-12KTLM-V3	300 mA
ZCS 15K-24KTLM-V3	300 mA
ZCS 25K-50KTLM-V3	500 mA
ZCS 60K-80KTLM-V3	750 mA
ZCS 100K-125KTLM-V4	1000 mA
ZCS 255KTL-HV	1850 mA
ZCS 330-350KTL-HV	3500 mA

Hybrid and storage series inverters with type A RCD limit:

Inverter Type	Type A RCD Limit
BZT 5000	300 mA
ZCS HYD 3000-6000 ZSS HP	300 mA
ZCS HYD 3000-6000 ZP1	300 mA
ZCS HYD 5000-12000 ZP3	300 mA
ZCS HYD 5000-20000 ZSS	300 mA
ZCS HYD 40000-60000 ZSR	500 mA