

Wels, July 7th, 2015

APPLICATION OF RESIDUAL CURRENT CIRCUIT BREAKER WITH 30mA

Fronius International GmbH

hereby confirms that when installing

/ **Fronius Primo 3.0-1 to 8.2-1**

/ **Fronius Symo 3.0-3 to 8.2-3**

a residual current circuit breakers can be used with a nominal fault current = 30mA, taking into account the following points:

- Only short-time delayed residual current circuit breakers may be used.
- At Fronius Symo inverters the "IDF Compensation Mode" should be activated in the service menu.
- The module field capacitance to ground must be $<1\mu\text{F}$. (For standard modules, this value should not be a problem. In case of special constructions - e.g. foil modules on a tin roof - this must be checked in more detail.)

Residual current circuit breaker types recommended:

Single-phase:

Manufacturer / Model	Type
Eaton FRBDM-C25/1N/003-G/A	A
Eaton FRBDM-D25/1N/003-G/A	A

Three-phase:

Manufacturer / Model	Type
Hager 63/4/003 A/Hi	A+Hi



SHIFTING THE LIMITS

Otherwise transformerless Fronius inverters shall be combined with residual current circuit breaker, taking into account the installation instructions. This means, if an earth leakage circuit breaker is used, the nominal residual current must be $\geq 100\text{mA}$.

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A handwritten signature in blue ink, appearing to read "Thomas Mühlberger".

DI Thomas Mühlberger

Head of Solution Management