

# Declaration by the Manufacturer

For an Integrated Residual Current Monitoring Unit (RCMU)

Test house details: *Tranergy Co., Ltd.*  
Product description: *photovoltaic grid-connected inverter*  
Type reference: *PVI1800TL, PVI2300TL, PVI2700TL,  
PVI3000TL, PVI3200TL, PVI4000TL,  
PVI4600TL, PVI5400TL*

This certifies that of the above units has as standard an integrated residual current monitoring unit (RCMU). At inverters without simple separation between grid and PV-generator, a Residual-Current Monitoring Unit (RCMU) is required. In case of malfunction, the DC and AC part of the residual-current depends on the construction type of the inverters and the DC voltage of the PV-Generator.

When examining these failures in terms of the currently valid installation standards, a danger in combination with an additional residual current device type A cannot occur. Therefore, failure can be excluded that would require the usage of an RCD type B due to the inverter. The integrated all-pole sensitive Residual Current Monitoring Unit (RCMU) provides additional safety. For inverters with protective conductor monitoring, this may not be deactivated.

Due to the circuit topology, transformerless inverters emit residual currents that are the result of the insulation resistance of the generator and its ground potential. Therefore, residual current devices with a rating of at least 100mA must be used.

It was checked whether the residual current resulting from operation could affect the protective function of the RCD type A in case of the above mentioned inverters. For every connected inverter, a rated residual current of 100mA has to be provided. The RCD's rated residual current must be equal to at least the sum of the rated residual currents of the connected inverters.

The integrated RCMU as certified in accordance with VDE0126-1-1

Shanghai, 30.Dec, 2012  
Tranergy Co., Ltd.



William Xu  
(Technical Director)