

Measurement Setup

Deye SUN-30K-SG01HP3-EU-BM3 (signal island mode activated, VDE4105 setup)

On-Grid --> Off-Grid

Main 1086: PE_N relay closing delayed about 114ms. And the voltage rised to 89.9V

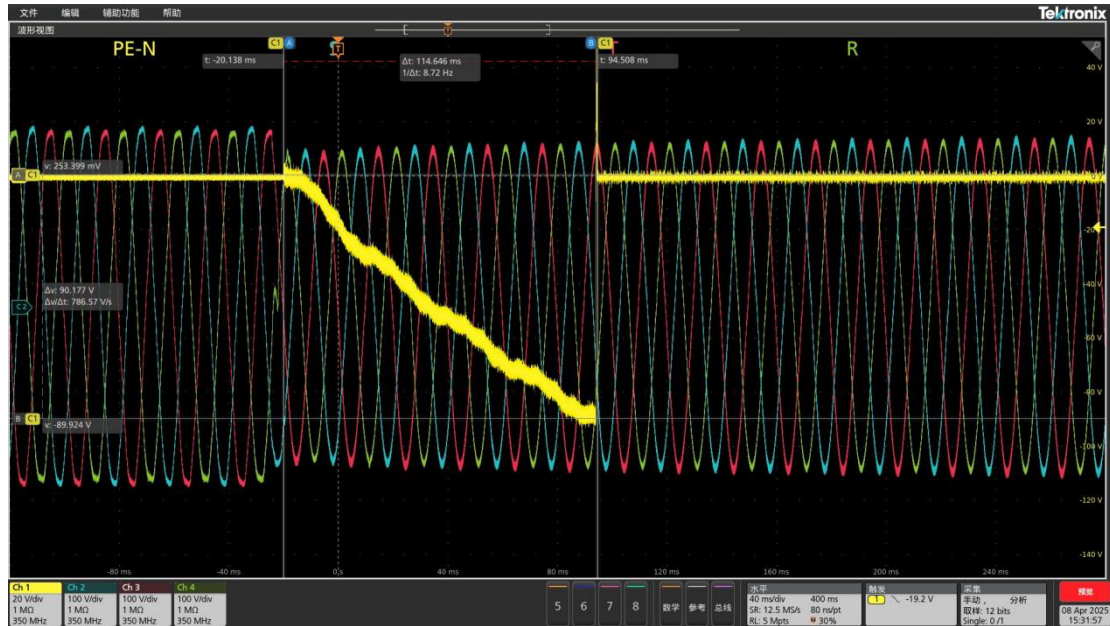


Figure1-firmware: MAIN 1086

Main 1096: PE_N relay closing delayed about 12.2ms. And the voltage rised to 19.4V



Figure2-firmware: MAIN F096

Off-Grid --> On-Grid

Main 1086: PE_N relay opened 1.74s, voltage 246V

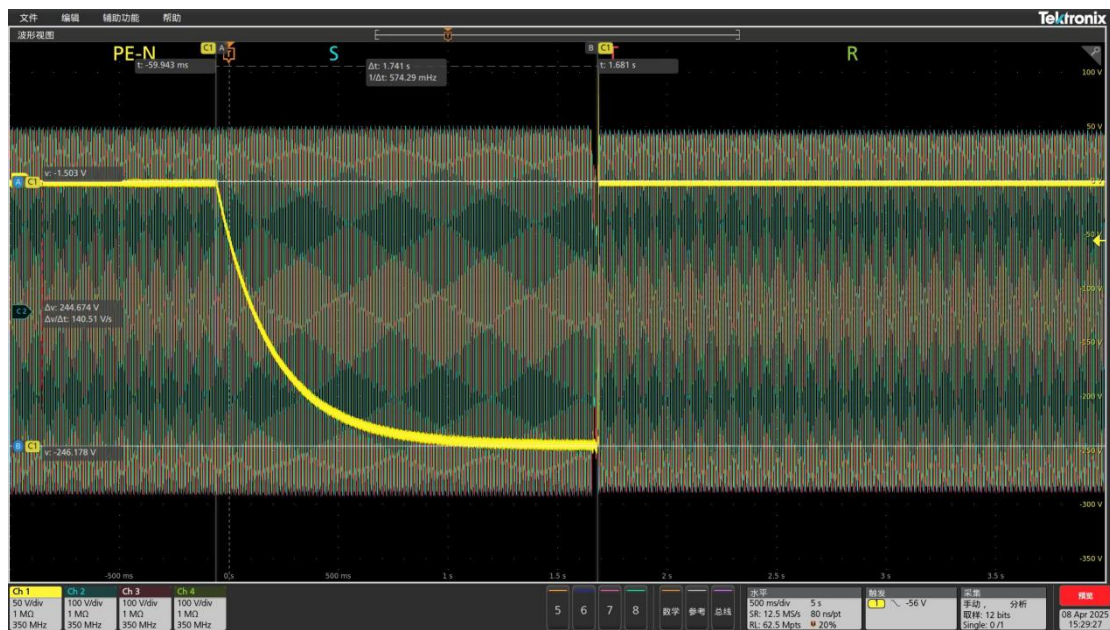


Figure3-firmware: MAIN 1086

Main 1096: PE_N relay opened 14ms, voltage 20-40V(noise)



Figure4-firmware: MAIN F096

Settings change:

by setting 'parallel Bat1&2' option, this will cause inverter restart, at this time the load side

relay(L1 L2 L3 N) are all opened. There has a DC voltage between PE and N. this voltage was caused by leakcurrent inside of inverter (we have about 5-8M register connect between PE and N) 。



1, we connect a 500 Ω register between PE and N. voltage drop to almost zero, and the current was less than 1mA



So according IEC62109-1, the current shall not exceed 3.5mAac or 10mAdc, so when inverter standby, this voltage will not cause harm to the human body or equipment