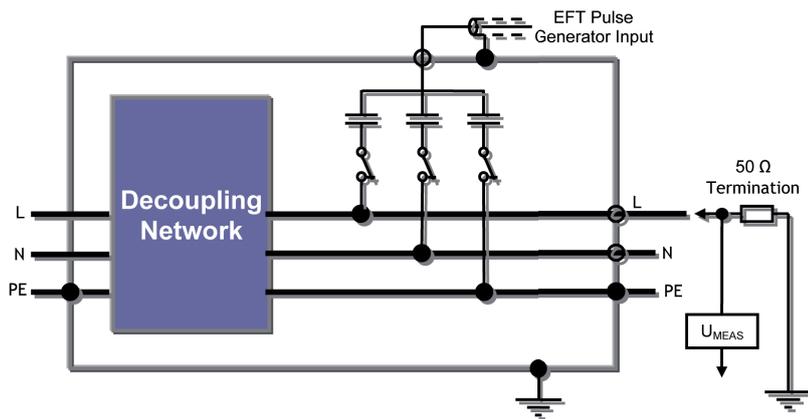


STANDARDS

No worries for Teseq equipment!



What does this mean for Teseq EFT equipments?

The good thing, no worries! Since Eric Dudenhoeffer has been amongst us, we have an active member of the working group MT 12 which is part of the IEC organisation. We knew already two years ago that this will happen. Already at that time we took the necessary action to fulfil the current and nowadays validated standard.

This means all EFT generators with its CDN, which has been sold in the last two years, are confirmed to this published amendment.

Even better, some generator series sold years ago are still compliant to the current amendment. Only a few units' need to be upgraded which can be done at best during a regular calibration request in Teseq CSC calibration labs.

Please find herebelow a list with all EFT generators with its current upgrade status:

New officially published amendment of the IEC 61000-4-4 Am1, Ed 2.0; and its impact!

What has changed?

The actual bestseller of the IEC-Web store page (<http://webstore.iec.ch/>) is the recently published amendment for EFT measurement part. No wonder, there were extensive discussions of the run-up to the measuring and verification procedure of the EFT, especially in combination with the coupler.

The clarification is made in the verification method of the EFT generator which is connected to power line coupler. **The EFT pulse is coupled into all lines** and the verification is made on the output terminal of the CDN, **for each coupling line individually.** Therefore on each line, the voltage waveform and the peak value is measured with a 50 Ohm load while all other lines are open.

Attached you will find a list with all EFT generators with its actual upgrade status:

| Upgrade for full compliance to IEC 61000-4-4 , Amd 1, Ed 2.0: 2004 | | |
|--|---|--|
| Generator/CDN typ | Required for.. | Description |
| NSG 2025 - 1 Phase | All serial numbers below and including 22007 | Modification possible at each TESEQ CSC - |
| NSG 2025 - 3 Phase | All serial numbers below and including 22007 | Modification possible at each TESEQ CSC - |
| CDN 131/151 | All serial numbers below and including 34394 | Modification possible at Factory Luterbach - Switzerland only. |
| CDN 133/153 - CDN 135 - CDN 135 M | All serial numbers below and including 34394 | Modification possible at Factory Luterbach - Switzerland only. |
| NSG 3025 | No upgrade required | |
| NSG 2050/PNW 2225 | No upgrade required | |
| Modula 6100 Series | All serial numbers below and including 34549, excepted 34545, 34546 , 34547 , 34548 | Modification possible in each TESEQ CSC. |
| NSG 3040 | No upgrade required | |
| NSG 3060 | No upgrade required | |
| CDN 3061 | No upgrade required | |
| CDN 3063 | No upgrade required | |

STANDARDS

No worries for Teseq equipment!

What kind of calibration adaptor is needed fore EFT measurement?

Basically there are three important things to follow to reach a reliable EFT measuring results:

- **Standard conform measuring setup**
- **Calibration adaptor INA 3237 or INA 3238**
- **Knowledge about measuring uncertainty (See Annex of new standard)**

With the new amendment, we will develop new calibration adaptors which are calibrated. The adaptors will come with a manual and a calibration certificate. Together with the known CAS 3025 the whole measuring chain will be defined and the uncertainty can properly calculated and be taken into account. Only with a proper measuring setup and such adaptors a reproducible measuring of EFT can be guaranteed.

Hereon once again it's pointed out, that the standard recommends a verification of pulse before and after a test, to guarantee the proper pulse output of a generator. Since the connection of the calibration adaptor is easy and fast to fix, this calibration adaptor can be also used for verification purpose and should always be part of a quote together with an EFT generator.

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(See chart below)

| Type | Pictures | Used for ... | Description | Additional information |
|----------|---|--|--|-----------------------------|
| CAS 3025 |  | Calibration set for Burst/EFT. | Already know. | Used for all EFT measuring. |
| INA 3237 |  | 1-Phase Burst Calibration adapter for NSG 3040 | IEC adaptor to go into EUT plug. Needs a proper contact to reference ground plane. | To be used with CAS 3025. |
| INA 3238 |  | 1-Phase Burst Calibration adapter for CDN 3061 | IEC adaptor to go into EUT plug. Needs a proper contact to reference ground plane. | To be used with CAS 3025. |
| INA 3239 |  | 3-Phase Burst measuring adaptor for NSG 3063. | SHV-Connector with 4 mm single bolt to go into one line of the 3-phase connector with proper earth connection. | To be used with CAS 3025. |