

# How to set harmonics and interharmonics in the C300 Calibrator

03

Calmet

Calibration

Application note

Application manual describe step by step how set harmonics and interharmonics

## 1. Setting harmonics in symmetric configuration of the C300 calibrator:

- run program Calpro C300 by run Calpro C300.exe file (*Calpro300 Basic user manual 2012-11.pdf*),
- setup connection between the C300 Calibrator and computer by pressing button and selecting proper serial port number COM (*Calpro300 Basic user manual 2012-11.pdf* chapter 3.2),
- select the function harmonics, then opens the window us Fig.1.

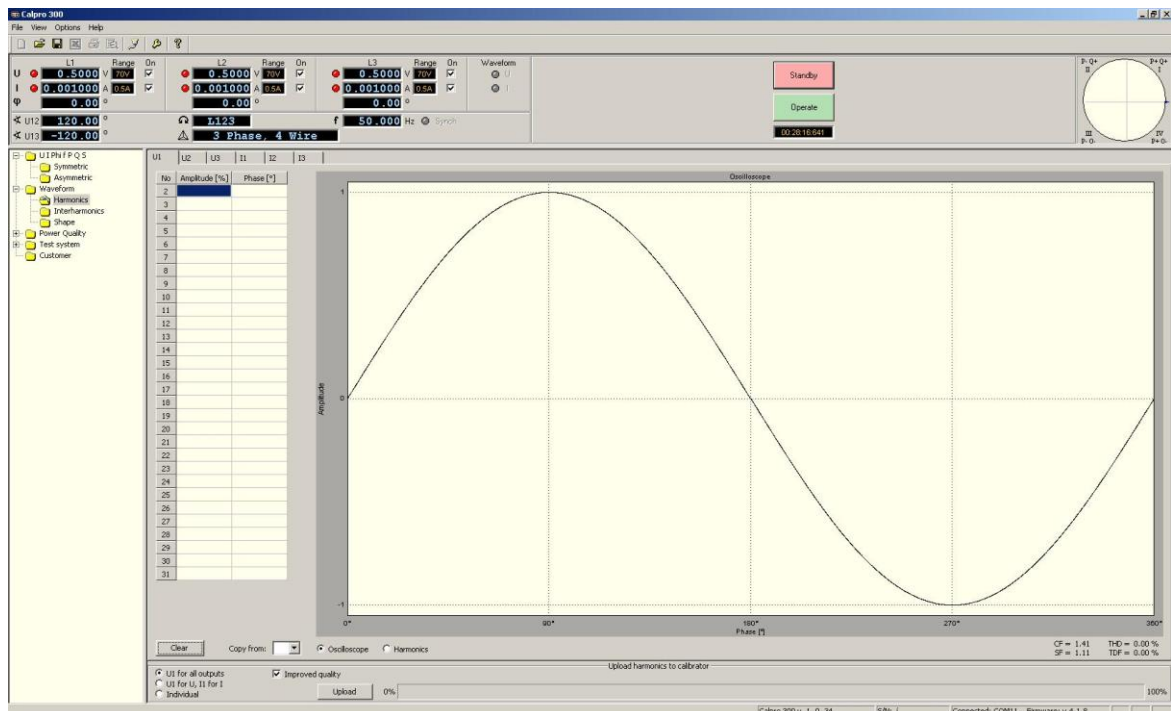
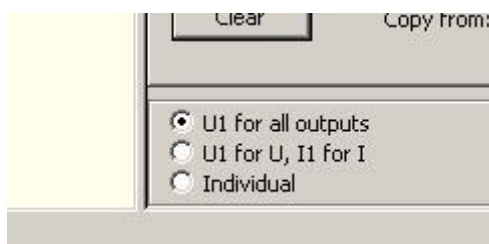


Fig.1. Harmonics window after selecting function “Harmonics”.

- select whether harmonics will be the same in all outputs “U1 for all outputs” or different for voltage and current outputs “U1 for U, I1 for I”,



**Attention!!** For symmetric configuration is impossible to use “Individual” setting harmonics.

- set harmonics, the example is presented on Fig.2,

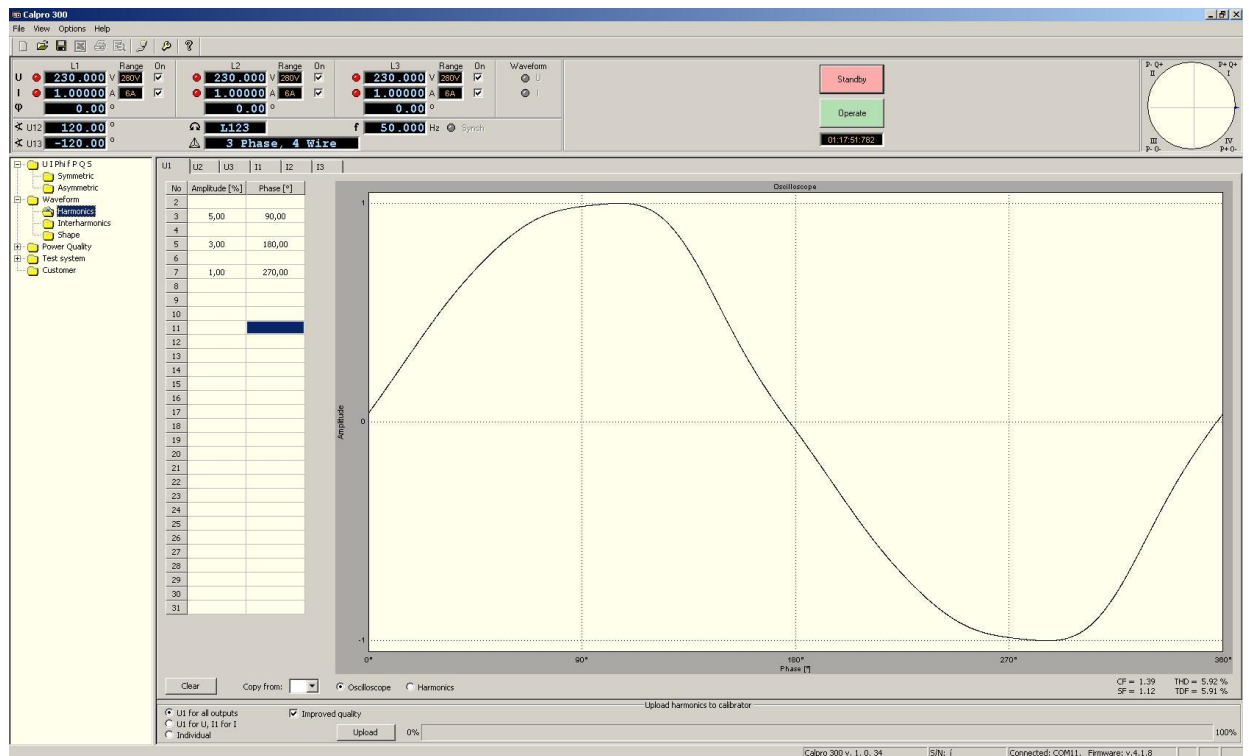


Fig.2. Harmonics window after setting amplitude and phase harmonics.

- press button “Upload”, from this moment harmonics are transmitted from computer to the C300 calibrator. It’s takes a few minutes. When transmission is finished appears statement “Uploading harmonics successful” as on Fig.3,

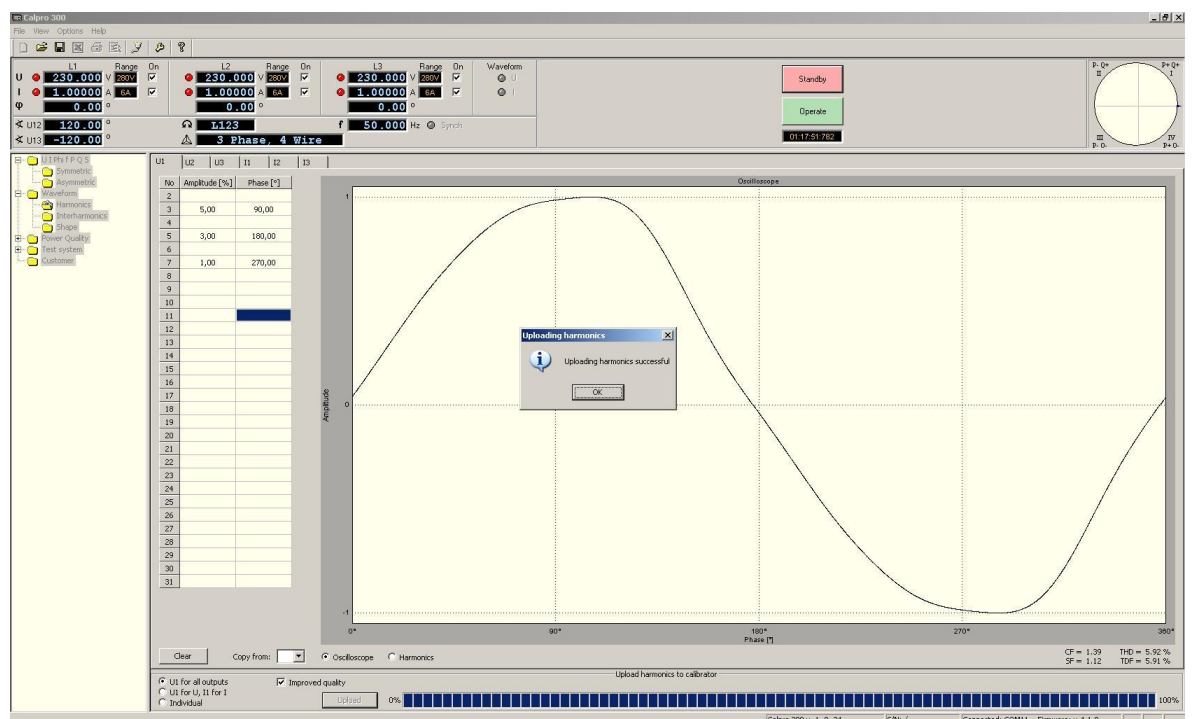


Fig.3. Harmonics window after successful uploading.

- after uploading harmonics need to go back to main window Calpro300, set ranges, voltage and current amplitude and switch on harmonics in voltage and/or current outputs. As on Fig.4. where harmonics were switched on only for voltage outputs

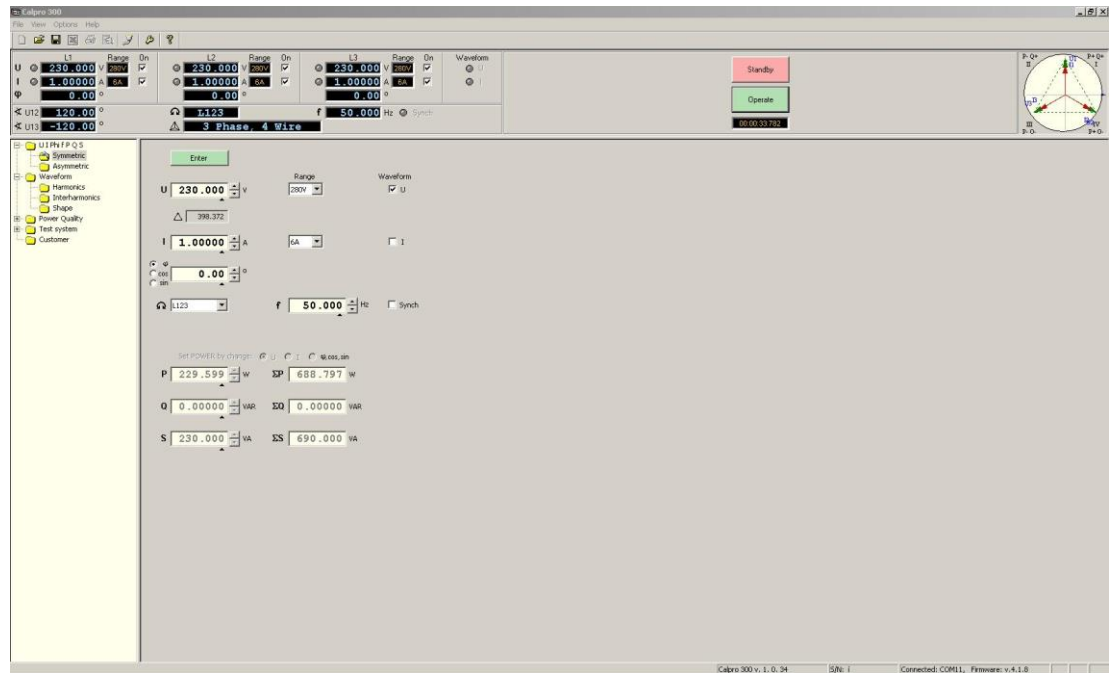


Fig.4. Main window Calpro300 with switched on harmonics in voltage channels.

## 2. Setting harmonics in asymmetric configuration of the C300 calibrator:

- setting harmonics in asymmetric configuration is the same as in symmetric configuration with only one exception. Is possible set different harmonics in each channel. As on Fig.5 where different harmonics is set in each voltage channel.

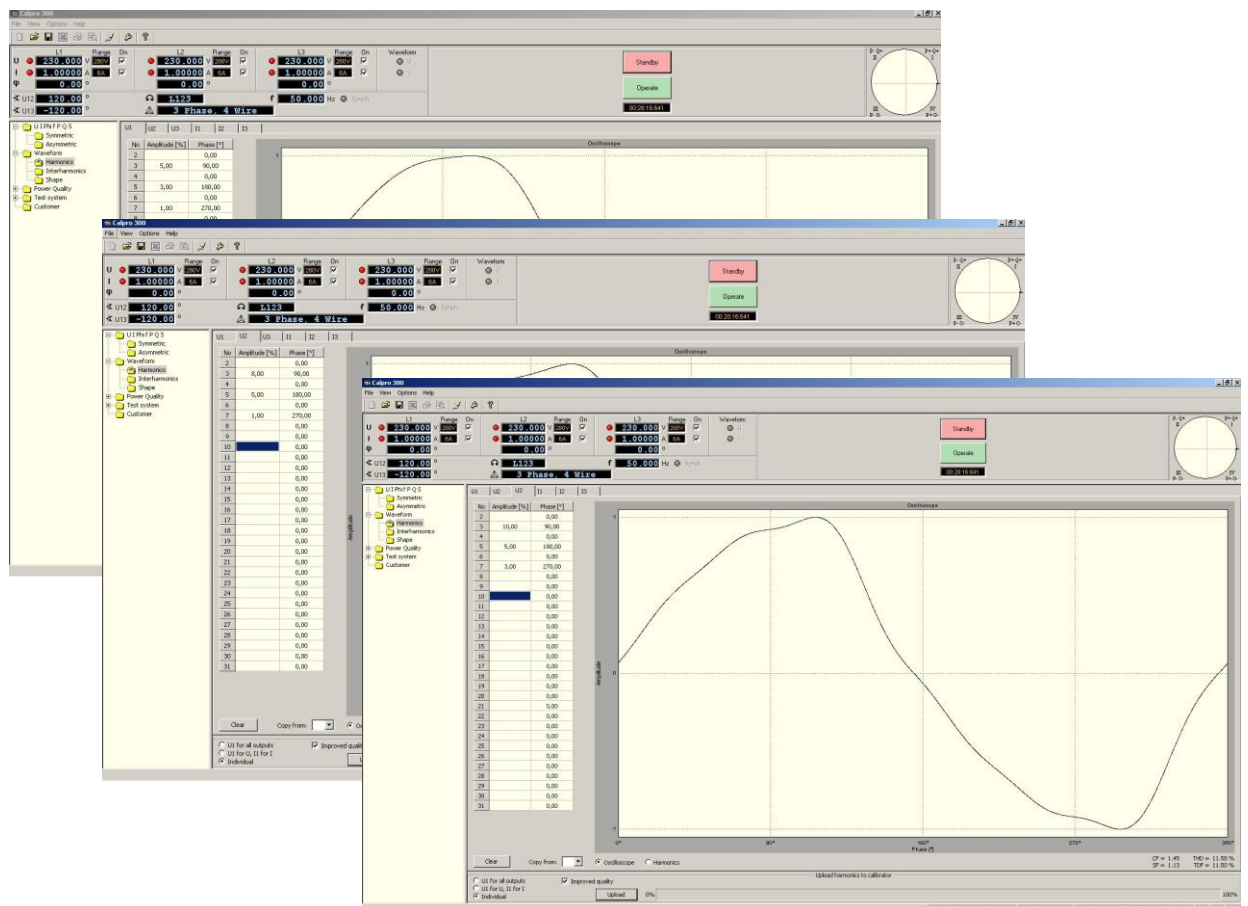


Fig.5 Harmonics setting windows in "individual" mode

### 3. Setting interharmonics in symmetric configuration of the C300 calibrator:

- select the function interharmonics, then opens the window as Fig.6.

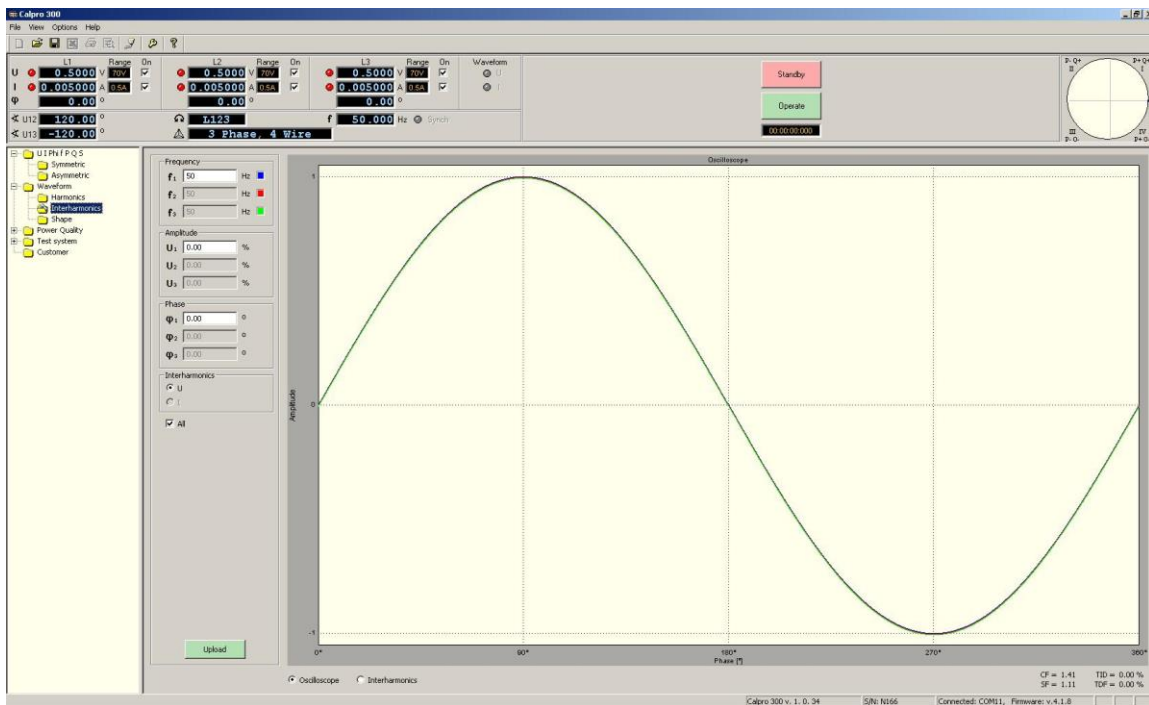


Fig.6. Interharmonics window after selecting function “Interharmonics”.

**Attention!!** At the moment setting interharmonics is possible only for voltage channels.

**Attention!!** For symmetric configuration is possible setting the same interharmonics for all voltage channels (checkbox All)

- set the frequency and phase of the interharmonic, the example is presented on Fig.7,

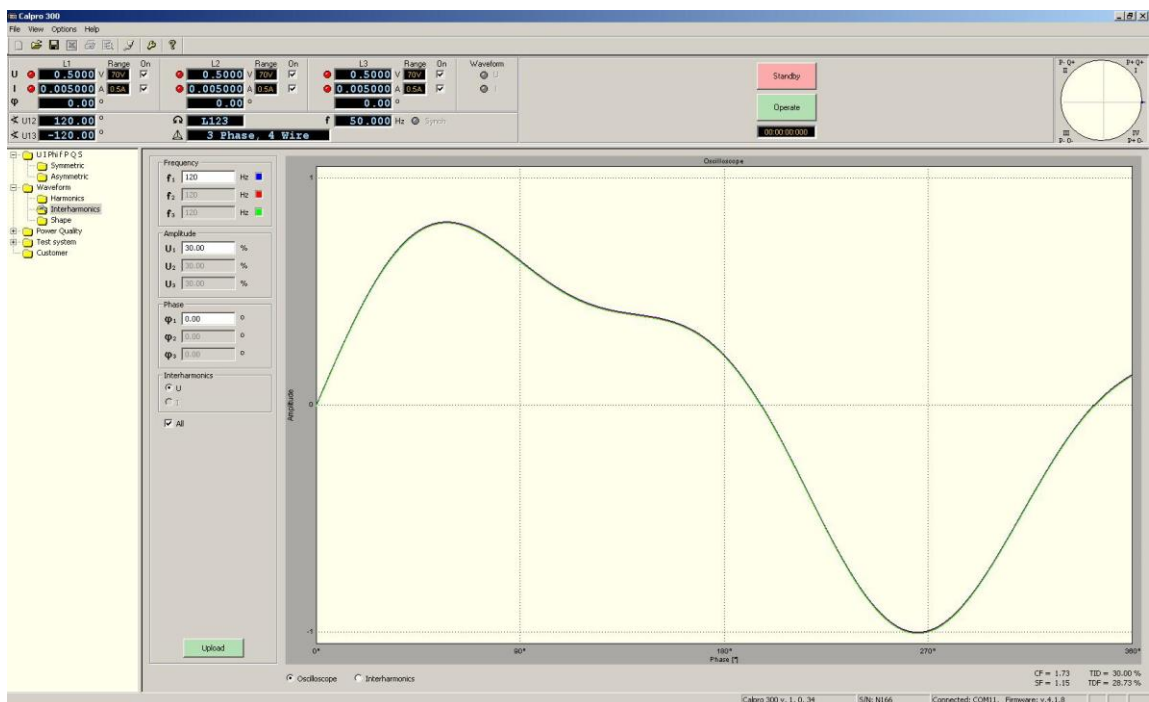


Fig.7. Interharmonics window after setting the frequency and phase of interharmonic.

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- The screenshot displays the Calson 300 software interface. The top menu bar includes 'File', 'View', 'Options', and 'Help'. Below the menu is a toolbar with various icons. The main control panel features three phase settings (L1, L2, L3) for voltage (V), current (A), and phase angle (°). It also includes a frequency (f) setting in Hz and a 'Waveform' section with 'Standby' and 'Operate' buttons. A '3 Phase, 4 Wire' configuration is selected. The bottom status bar shows 'Calson 300 v. 1.0.34', 'S&B N166', 'Connected COM1', and 'Release v. 4.1.8'.

### 3. Setting interharmonics in asymmetric configuration of the C300 calibrator:

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