

Information Note No15

To set the harmonics (amplitude and phase) in the Waveform/Harmonics function of the Calpro300 Software, the user should perform the following steps:



1. Set the value of *Amplitude* in [%] of first harmonic amplitude (pos.1) and *Phase* in [°] with reference to the first harmonic (pos. 2), for example: for the 3rd harmonic at 20% Amplitude and 30° Phase, and for the 9th harmonic at 10% Amplitude and 180° Phase;

2. Mark the checkboxes for selecting channels in which harmonics will be programmed (pos.3):
U1 for all of the outputs – set the same amplitudes and harmonic phase shifts in all

Channels as in the channel U1,

• *U1 for the U, and I1 for the I* – set the same amplitudes and harmonic phase shifts in all voltage Channels as in U1, and the same amplitudes and harmonic phase shifts in all

current channels as in I1,

• Individual - individually set the amplitudes and harmonic phase shifts in each channel;

3. Click the Upload button (pos. 4) for uploading data of harmonics to the calibrator;

4. After the harmonics are uploaded to the calibrator, the user should switch ON the waveform in the voltage and current output by marking the checkboxes of *Waveform U* (pos.5) and *I* (pos.6) in the Symmetric or in the Asymmetric function;



4. After clicking the *Enter* button (pos. 7), the light indicators of *Waveform U I* (pos. 8) will light up, and after clicking the *Operate* button (pos. 9) on the calibrator's voltage and current outputs, the sine signal contains programmed harmonics.