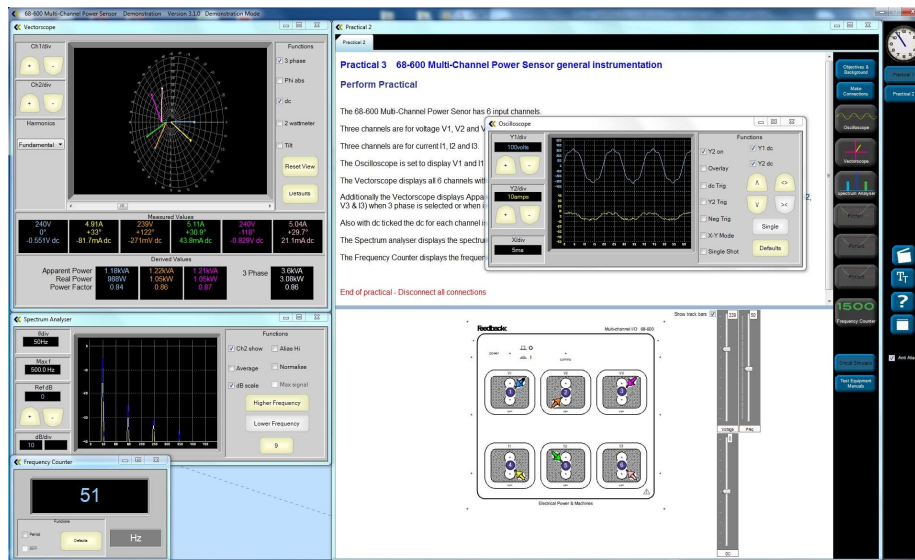


Multi-Channel Power Sensor

68-600



The 68-600 Multi-Channel Power Sensor is a hardware & software package used to capture signals for analysis and display using the integrated instrumentation in Espial and is part of the 60-070 electrical machines range.

It provides numerical, waveform, spectral and vector plots of both direct measurements, such as voltage and current as well as derived functions such as relative phase and power factor. This is available for both single phase and three phase systems.

In order to have clean and stable measurements extensive use is made of digital signal processing, in particular where signals have significant harmonic content or where unavoidable noise is present. It is also possible to examine the parameters associated with individual harmonics. This is of interest in the analysis of non-linear loads and their contribution to system losses.

The direct measurements comprise three voltage and three current channels, each with their own reference so there is complete connection flexibility. Preconfigured displays are available that mean common measurements can be achieved quickly and simply.

Displays:

- Real-time waveform of voltage and current, organised such that relevant traces may be overlaid
- Three D vector display of voltage and current showing both amplitude and phase
- Spectral data in both graphical form, as well as derived functions such as total harmonic distortion
- Numerical data such as frequency
- Data from different displays may be viewed concurrently

All instrumentation has built-in facilities for accurate parameter extraction and display export to stored images.

Specification:

Number of voltage channels	3
Voltage input resistance	>10 k ohms
Number of current channels	3
Maximum differential peak voltage	600 volts, 320 volts with respect to local ground
Maximum current	14 amps
Current input resistance	<0.5 ohms
Computer Interface	usb2
Maximum sampling rate	512 kHz
Maximum sample length	1024
Resolution	12 bits

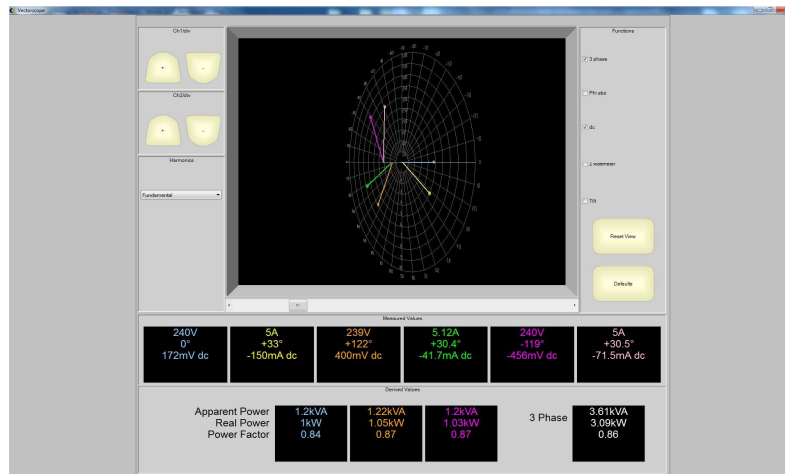
Working System:

The 68-600 Multi-Channel Power Sensor is regarded as a functional replacement of the 68-500-2-USB Multi-Channel I/O Unit and can directly replace it when used solely for data acquisition purposes.

However, due to the technology enhancement, the 68-600 is not compatible with the existing 68-500-2-USB, 67-502 Swinging Field Dynamometer & 68-441-2 Torque & Speed Control Panel, in which case a complete system is formed by combining the 3 new products:

68-600 Multi-Channel Power Sensor
 67-505 Swinging Field Dynamometer
 68-445 Machine Testing System

When operated in conjunction with the **67-505 Swinging Field Dynamometer** and the **68-445 Machine Testing System**, data may be taken from both systems at the same time and hence plots such as torque against power factor may be created. Also while plots such as torque against speed are plotted the user may view the voltage and current vectors.



Virtual Instrumentation Function	68-600
Single or three phase measurement of voltage & current	Yes
Numerical display of values	Yes
Displays numerical phase values	Yes
Digital signal processing to derive values	Yes
Power factor/real & apparent power readout	Yes
Accurate when harmonics or noise present	Yes
Vectorscope display	Yes
3D vectorscope	Yes
Waveform display of voltage and current	Yes
Harmonic spectrum display	Yes
Measures magnitude/phase of individual harmonics	Yes
Total harmonic distortion readout	Yes
Fully compatible with latest operating systems	Yes
Espial based	Yes



Feedback Instruments

5 & 6 Warren Court
 Park Road, Crowborough
 East Sussex
 TN6 2QX
 United Kingdom
 Tel: +44 1892 653322
 Sales: sales@feedback-instruments.com
 Website: www.feedback-instruments.com

For further information on Feedback equipment please contact ...

Feedback reserves the right to change these specifications without notice