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Portable Three-phase Phantom Load

EE-120A-3 + EE-500V-3

General

The Phantom Load consists of two units:

- **Unit 1 – EE-120A-3 – Three-Phase Current Generator up to 120A**
- **Unit 2 – EE-500V-3 – Three-Phase Voltage Generator controlled from unit 1 via RS485**

The Phantom Load is able to generate three-phase voltages and currents with unprecedented stability and measurement accuracy. The amplitude and phase-shift of each current and voltage is individually adjustable. The generated values of voltage, current, power, power factor, phase shift, THD and frequency are indicated on the LCD display. The **Vector Diagram** of the Load can also be displayed.

Advantages

- **Flexible structure** – the current generator EE-120A-3 can be used alone for on-site measurements, generating current synchronized with the available service voltage.
- Two generation modes – **Manual mode and Test Plan mode**.

One Test Plan consists of 12 load values, which are changed automatically within pre-set time or with one keypad button used to move the pointer to another line of load parameters.
100 Test Plans can be predefined by the Operator.

- The **unique stability and measurement accuracy** make the phantom load suitable for testing not only electricity meters, but also other measuring devices in a substation like amp-meters, volt-meters, power and power factor meters.
- The phantom load **can generate harmonics (up to 19th harmonic) without need of a PC.**
- The phantom load **can be controlled from a PC,** using EE Software (operating under Windows XP, 7, 8, 10 and later versions).

Technical Data

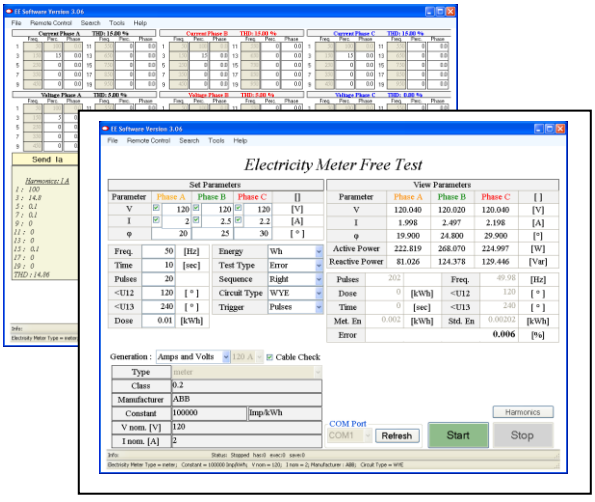
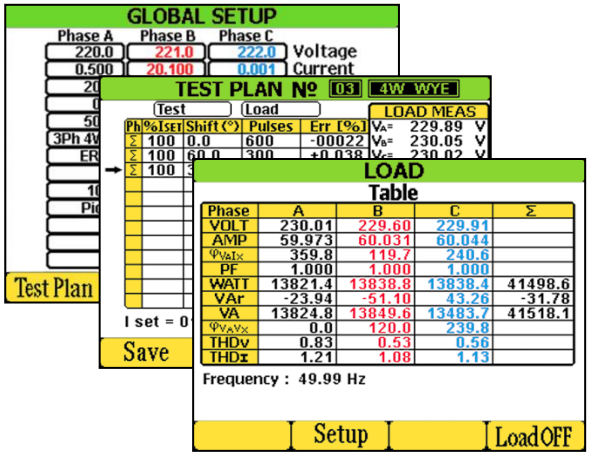
General	EE-120A-3 (Current Source)	EE-500V-3 (Voltage Source)
Power Supply:	85...265 Vac, 47...63Hz	85...265 Vac, 47...63Hz
Power Consumption:	max 300 VA	max 150 VA
Dimensions WxDxH:	465x355x175 mm	400x330x160 mm
Weight:	13.5 kg	10 kg
Housing:	Rugged plastic case	Rugged plastic case
Operation temperature range:	-10°C...+50°C	-10°C...+50°C
Color LCD Display:	640 x 480 pixels	-
Relative humidity:	<95 % non condensing	<95 % non condensing
Safety Tests:	IEC61010-1	IEC61010-1
Degree of protection:	IP-20 (opened), IP-65 (closed)	IP-20 (opened), IP-65 (closed)
Overvoltage Category:	300V, Cat III (600V Cat II)	300V, Cat III (600V Cat II)
Declaration of Conformity:	CE Conform	CE Conform

Three-Phase Load	EE-120A-3 (Current Source)	EE-500V-3 (Voltage Source)
Ranges (per phase):	1 mA...12 A (max.1.5V)	500V (0.06A); 300V (0.12A)
	10 mA....120 A (max.0.6V)	150V (0.24A); 75V (0.48A)
Output Power (per phase):	70VA max.	36VA max.
Accuracy (100%...0.3% of range):	<±0.04 % (of measured value)	<±0.04 % (of measured value)
Accuracy (< 0.3% of range):	<±0.04 % (of max. value)	<±0.04 % (of max. value)
Stability:	<0.03 % (for one hour)	<0.03 % (for one hour)
Harmonic Distortion:	<0.8 %	<0.8 %
Phase Shift (for each phase):	0.0°...359.9° (step 0.1°)	0.0°...359.9° (step 0.1°)
		(V_A is always 0.0°)
Frequency (for all phases):	45...65 Hz (step 0.1Hz)	45...65 Hz (step 0.1Hz)
Bandwidth:	30...2000 Hz	30...2000 Hz

Three-Phase Standard

Measuring Quantities:	Volts, Amps, Phase Shift, P, Q, S, THD, PF, Frequency

PC Screens



LCD Panel Screens