VIP SYSTEM3 KIT FULL OPTIONAL Professional Power & Harmonics Analyser

82 instruments in 1

VIP-SYSTEM3 is a power&harmonics analyser for professional use. Portable, lightweight and with built-in printer, the Vip System3 takes full three-phase measurements and calculates the equivalent three-phase values.

The VIP-SYSTEM3 measures and prints 82 parameters including voltages, currents, power levels, cosø and waveform distortion. It measures total and time-band energy consumption. Further to instantaneous measurement readings it also provides average values and records maximum values for powers and distortion. Using the included BLACK BOX HARMONICS, Vip System3 is capable of performing FT Harmonic Analysis up to the 25th harmonic • AC and DC Measurements order, providing data in graphical, numerical and statistical formats. Further, optional Black Box expansions are available adding further functions to Vip System3, as for example leakage current measurement or cogeneration (4 quadrant) energy counters. All measured parameters can be displayed on the Vip System3's backlit, graphical LCD display. The built-in printer can provide

• Expandable to other measuring functions using special automatic and manual print-outs of parameter trends and alarm states in graph form. Additionally, the measured data can be stored • Black Box Harmonics included into removable MEMORY PACKS for later evaluation using the included • Automatic measurement campaigns programming and PC Software. Memory Packs can also be programmed (locally or remotely) to carry out automatic measurement surveys. • Memory Pack 512k included



- Built-in printer for measurements, alarms and microinterruptions
- Graphic representation of measurements
- Rs232 port for PC connection
- Windows software included
- High accuracy (class 0,5)
- **Black Boxes**
- storage on removable Memory Packs
- MP-PI-1 parallel interface for Memory Pack download
- · 2 Relay alarm outputs

Main Technical Data:

Power supply

Mains: 230 ± 10% at 50 Hz or 60 Hz (115V version available) Internal: Rechargeable 1300mAh Ni-Cd battery.

Expected lifetime: 500 cycles

Recharge time: 48h Autonomy: 3h

Inputs

Voltage: L1 - L2 - L3 - N: 600 Volt AC between phase and neutral @ 20÷ 1000 Hz; or 600 Volt DC

Input Impedance: 4MOhm

Current: L1 - L2 - L3: 1 Volt AC at 20 ÷ 1000 Hz; or 1 Volt DC Auxiliary: AUX 1V/1mA Input Impedance: 6kOhm

Multiplexed LCD with backlight. 256x64pixels; 8 lines, 40 columns.

- Accuracy Class 0.5 (EN 62053-21)
- Overload of voltage inputs: Max 720 Vrms Surge voltage 1200 Volt (cut-out tripped at 720 Vrms)

- Overload of current inputs: 5 times full scale value (cut-out tripped at limit values)
- Relay outputs: 2 Type A Contacts for 30 Volt / 0,5 A / 10 W
- · Number of scales: 4 voltage scales 4 current scales
- Automatic scale change
- · Scale change response time: 1 sec.
- · Display refresh rate: 1 sec.
- Instrument dimensions: 240 x 220 x 115 mm.
- Weight 2.250 Kg.
- Operative temperature range: +5°C +40°C
- Storage temperature range: -20°C +60°C
- Relative Humidity Range (RH%): 20% 80%
- · Condensation: not allowed

F	ТО	u.	2	3_	N
Programe & gight	•	•	•	•	
Raseut Value ge		•	•	•	
Our ren[A]	•	•	•	•	•
		•			
Air le ow [M]	•	•	•	•	
Appar efft ow er	•	•	•	•	
Ready eP ow er	•	•	•	•	
All P ov P all(1)	•	•	•	•	
Apper Ret ov Per (left A)	•	•		•	
Real Perov Peroperation	•	•	•	•	
AverageNov er	•	•	•	•	
AveragApper Sh ow er	•	•		•	
AveragiR eath P ov er	•	•		•	
T hd%	•	•	•	•	
T hd%A vg	•	•	•	•	
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P ow er F actor	•	•	•	•	
Averagiê ow fer abr	•	•	•	•	
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At the (gif)	•	•	•	•	
Real Ever by all	•	•	•	•	
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RKMa via Got(g)a	•	•	•	•	
Timbel ve agGs o	•	•			
TANN ve agTe an					

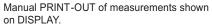


MEASUREMENTS on low/medium voltage single-phase and three-phase

(3-wires and 4-wires) systems
MEASUREMENTS for each phase and

corresp. 3-phase measuremts.
MEASUREMTS on DC systems using Hall-effect CT clamps

MEASUREMENTS of current values from 30 mA to 999 kA with suitable CTs

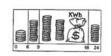


Overall manual PRINT-OUT of all the latest measurements available.

Automatic PRINT-OUT of parameters selected by the operator at preset time intervals. Automatic PRINT-OUT at shorter intervals within preset time bands.

PLOTTER PRINT-OUT in bar-graph form showing trends of two parameters selected by operator.

. Immediate PRINT-OUT of measurements when values cross minimum and maximum alarm thresholds preset by operator. More frequent PRINT-OUT of selected parameters while it remains in alarm state. PRINT-OUT of micro-interruptions and interruptions in line power.



The working day is divided into TIME BANDS programmed by the operator to provide separate measurements of power consumed at different tariffs.

IMMEDIATE PRINT-OUT if average power values for a TIME BAND pass maximum alarm threshold.



TWO OUTPUT RELAYS activated when selected parameters pass a preset maximum



Standards and Regulations

Vi

N/A

THD-1%

Vip System3 conforms to Directive 73/23/CEE (LVD) and 2004/108/CE (EMC). It has been designed with reference to EN 61010-1, EN 61326 including append. A1/A2/A3, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-3/A1, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-5/A1, EN 61000-4-6, EN 61000-4-6/A1, EN 61000-4-8, EN 61000-4-8/A1, EN 61000-4-11, EN 61000-4-11/A1.



PROGRAMMABLE RS232 SERIAL **OUTPUT**:

- For connection to remote printer
- For (on line) connection to HOST COMPUTER for storage and processing of measured data.
- For connection (by MODEM) to a telephone network for connection to remote Computer or Printer.



OPTION of MEMORY PACK for automatic measurement surveys, with recording of data for all parameters.

OPTION of modifying instrument functions using BLACK BOXES.

OPTION of measurement, print-out and alarm monitoring of auxiliary parameters using BLACK BOXES.



VIP-SYSTEM3-KIT

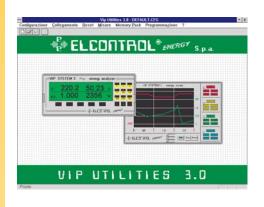
KIT complete with:

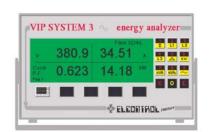
- n.1 VIP SYSTEM3
- n.1 Shock- and Water-proof IP67 carrying case
- n.1 Set of voltage meas. leads with crocodile clips
- n.1 Black Box Harmonics
- n.1 Memory Pack 512
- n.1 MPPI1 parallel interface

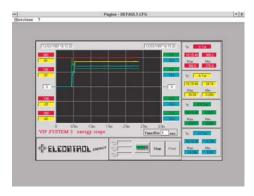
- n.1 VIP SYSTEM3 software Windows
- n.1 power supply cable
- n.1 RS232 PC cable
- n.2 Rolls of printer paper (spare)
- n.1 Ink ribbon (spare)
- n.2 Fuses 5x20 160mA (spare)
- n.1 Warranty certificate
- n.1 Calibration certificate
- n.1 User manual

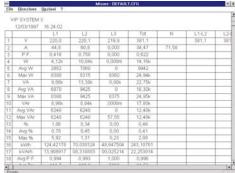


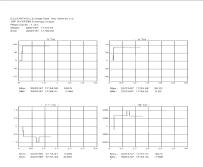
VIP SYSTEM3 SOFTWARE











Vip Utilities3.0 - VIP SYSTEM 3 Management Software for Windows 9X/NT/2000/XP 9x 9x/NT/2000/XP

VIP UTILITIES 3.0 is a software package developed by ELCONTROL ENERGY NET that realizes continuous bi-directional communication between a Personal Computer and the VIP SYSTEM3 power analyzer.

VIP SYSTEM3 is equipped with a RS232 communication port that makes it possible to control the instrument via PC. This operating mode is particularly useful when VIP SYSTEM3 is performing measurements in a point of the installation of difficult access. VIP UTILITIES makes it possible to perform many important operations by transferring all functions of the instrument to the PC's keyboard.

VIP UTILITIES 3.0 can work with VIP SYSTEM3 basing on 2 different operating modes: ON-LINE, OFF-LINE.

ON-LINE:

Complete operative control from PC over RS232 direct connection and MODEM.

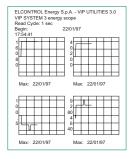
The following operations can be performed:

- o Display of all measurement pages of the "Energy Analyzer" mode (Fig. 2)
- o Display of measurement graphs in "Energy Scope" mode (Fig. 3)
- o Printout of measurement graphs in "Energy Scope" mode (Fig. 4)
- o Display and printout of all measures (Fig. 5)
- o Display and printout of settings
- o Real-time data acquisition and storage on hard disk of the data from automatic measurement campaigns (Fig. 6)
- o Transfer of programming
- o Keyboard enabling / disabling
- o Reset

OFF-LINE:

- o MEMORY PACK transfer
- o Instrument programming
- o Memory Pack campaign programming
- o Measurement campaign processing
- o Configuration

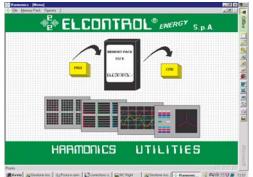
When VIP SYSTEM3 is equipped with MEMORY PACK, VIP UTILITIES can be used to program measurement campaigns; after the campaigns have been performed, all data and measures can be downloaded to PC, displayed, printed and exported to files for further processing. The same functions can be performed remotely on a VIP SYSTEM3 connected to a PC via Modem and telephone line.



	Energy Net	Spa - Vip L	tilities 3.0							
VIP SYST										
Begin - 13	/03/1997 14	:03:02								
ReadCycle	e 00:00:15									
		Hz	V1	V2	V3	VT	V L1-L2	V L2-L3	V L3-L1	A1
13/03/97	14.03.02	50,0	217,30	217,40	217,50	376,50	376,50	376,60	376,50	26,60
13/03/97	14.03.17	50,0	215,50	215,90	215,40	373,40	373,60	373,50	373,20	26,47
13/03/97	14.03.32	50,0	215,50	215,70	215,70	373,50	373,40	373,60	373,40	26,48
13/03/97	14.03.47	50,0	215,60	216,0	215,60	373,70	373,80	373,80	373,40	26,48
13/03/97	14.04.02	50,0	216,10	216,10	215,20	373,80	374,30	373,50	373,50	26,52
13/03/97	14.04.17	50,0	216,0	215,80	215,60	373,80	373,90	373,60	373,80	26,51
13/03/97	14.04.32	49,90	216,30	216,50	216,20	374,70	374,80	374,70	374,60	26,52
13/03/97	14.04.47	49,90	215,30	215,40	214,90	372,80	373,0	372,70	372,60	26,47
13/03/97	14.05.02	50,0	216,0	216,10	215,50	373,90	374,20	373,80	373,70	26,48
13/03/97	14.05.17	50,0	215,90	215,70	215,50	373,60	373,80	373,40	373,60	26,50
13/03/97	14.05.32	50,0	215,90	216,10	215,80	374,0	374,10	374,0	373,90	26,52
13/03/97	14.05.47	49,90	217,60	217,90	217,50	377,0	377,20	377,10	376,80	26,62
13/03/97	14.06.02	49,90	220,60	221,10	220,90	382,60	382,50	382,80	382,40	26,83
13/03/97	14.06.17	49.90	220.30	220.30	220.40	381.70	381.60	381.70	381.70	26.83

VIP SYSTEM3 SOFTWARE

Harmonic Utilities 3.0 - Harmonic Analysis Software for Windows 9X/NT/2000/XP



Elcontrol Energy has released a software package for use with the VIP SYSTEM3 configured as a HARMONICS ANALYZER via the BLACK BOX HARMONICS option with either the 128K or 512K MEMORY PACK.

HARMONICS UTILITIES 3.0 permits a complete elaboration of the data stored on MEMORY PACK.

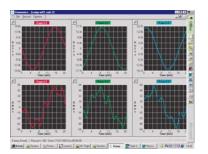
In order to transfer and successively process the data on a PC, it is sufficient to extract the MEMORY PACK from the VIP SYSTEM3 and insert it into the MP-PI-1 parallel interface, connected to a PC by a Centronics cable.

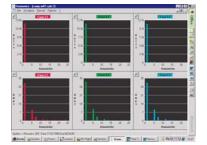
HARMONICS UTILITIES 3.0 can also be used to program automatic measurement surveys.

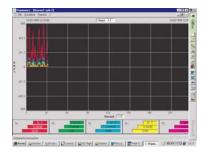
Available functions include:

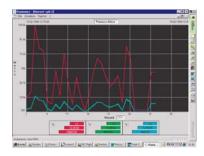


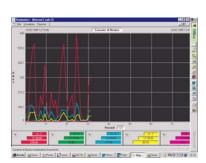
- Transfer of the survey programming to MEMORY PACK.
- Transfer of all the measurement data from MEMORY PACK to PC via MP-PI-1 and saving in a compact data format.
- Exportation (conversion) of the survey data –RMS measures, Harmonics, Statistics, Neutral current, Peak current- into text files.
- Printouts: RMS measures; Harmonics graphs for V, I and Cosphi, Harmonics graphs on record basis, Statistics, Neutral current (RMS total, distortion factor DF% and harmonics),Peak current (with selection of phase and release current).

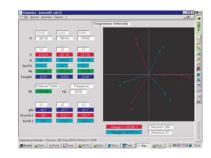












ACCESSORIES

JIRRENT CLAMP		PORTABLE ANALYSERS	Star3 Din	Dmm3	Ed39 Din	0 1	Vip Energy	Star 3	396	96	96 Plus	JUPITER	System3	Microvip3 Plus	Microvip3	Nanovip- Plus
/pes	Ref.	Description	Sta	D	Ed	Sirio	> S	Sta	Λ	Vip	Vip	3	Vip	Mi	Mic	Nan
PINZA-10A/1VAC	4AABM	CLAMP CT 10A/1V-AC										•	•	•	•	•
PINZA-200A/1VAC	4AAR1	Clamp CT 200A/1V-AC										•	•	•	•	•
PINZA-1000A/1VAC	4AAWS	Clamp CT 1000A/1V-AC										•	•	•	•	•
PINZA-3000/1-D6	4AAC3	Clamp CT 3000A/1A-AC (to be used with INTA/1)										•	•	•	•	•
PINZA-400A/0,4V-40A/0,4V-AC-DC	4AABU	Clamp CT 400A/1V-AC/DC (to be used with ADAPTA)											•	•	•	•
PINZA-1000A/1V-100A/1V-AC-DC	4AABW	Clamp CT 1000A/1V-AC/DC (to be used with ADAPTA)											•	•	•	•
AMPFLEX-1000A/1VAC-45CM	4AAQB	Flexible Current Transformer 1000A - length 45 cm										•	•	•	•	•
AMPFLEX-1000A/1VAC-80CM	4AAQC	Flexible Current Transformer 1000A - length 80 cm										•	•	•	•	•
AMPFLEX-3000A/1VAC-80CM	4AAQD	Flexible Current Transformer 3000A - length 80 cm										•	•	•	•	•
AMPFLEX-3000A/1VAC-120CM	4AAQE	Flexible Current Transformer 3000A - length 120 cm										•	•	•	•	•
3 AMPFLEX-1000A/1V	4AABN	Set of three Flexible Current Transformer 1000A L=61cm. one amplifier										•	•	•	•	
PINZA_LMA-DIAM55	4AADM	Clamp CT for leakege current measurement											•			
PINZA-10/1V-AC-DC	4AASA	Clamp CT PR20 (to be used with ADAPTA)									+	\vdash				

INTERFACES AND ADAPTERS FOR MEASURES INPUTS

ADAPTA-1V/1V	4AACQ Clamp CT connectors adapter 1V/1V	•	•	•	•	• •
INTA/1	4AABB Coverter 1A to 1V for CT with 1A output	•	•	•	•	• •
INTA/5	4AABD Converter 5A to 1 V for CT with 5A output	•	•	•	•	• •
SEPA/5X1	4AAER Galvanically isolated converter 5A/1V	•	•	•	•	• •
DSC-400VAC	4AANY Delta Star CONVERTER input max 400V	•	•	•	•	
DSC-MT	4AAC4 Delta Star CONVERTER for input max 100V for PT output	•	•	•	•	
DSCD 2	4AAHG Delta Star CONVERTER input max 700V din rail	•	•	•	•	

ACCESSORIES AND CONVERTERS FOR SERIAL COMMUNICATION

INTERFACE-OF-RS232	4AAFH Kit with 5m of OF fibre+Adapter 25/9 pin + converter OF/232												•	
CONVERT.OF/RS232-9P	4AAFQ MONODIRECTIONAL RS232-OF SIGNAL CONV.												•	
RS485-SIGNAL REPEATER	4AAJY bi-directional amplifier for RS485 serial line	•	•	•	•	•	•	•	•	•	•			
PC-485-BOX 220 VAC	4AAK4 RS232-RS485 signal converter	•	•	•	•	•	•	•	•	•	•			

SOFTWARE

Energy Studio Manager		Software Energy Studo Manager. see description at page 3.	•	•	•	•	•	•	•	•	•	•					Π
STARLIGHT	4AAX9	easy to use monitoring sw. 128 instr. WIN 9.x/2000/XP Italian-English	•	•	•	•	•	•	•	•	•	•					
VIP VISION - 32-IT/UK	4AATG	SCADA sw up to 32 instruments; Win 9.x/NT4	•	•	•	•	•	•	•	•	•	•					
VIP VISION-247- IT/UK	4AATH	SCADA sw up to 247 instruments; Win 9.x/NT4	•	•	•	•	•	•	•	•	•	•					Т
PQ STUDIO	4AAXT	Software for JUPITER Win 9X/NT/2000, 5 languages											•				
VIP SYSTEM3 SOFTWARE	4AATB	Software for VIP SYSTEM3 Win 9X/NT/2000, 5 languages												•			
NANOWIN	4AARQ	Software for NANOVIP PLUS Win 9.X, NT, 2000,XP; 5 Languages														•	•
MICROWIN	4AASK	Software for MICROVIP3PLUS; Win 9.X, NT, 2000,XP; 5 Lang.													•		Т

ACCESSORIES

CABLES			Star3 Din	Dmm3	Ed39 Din	Sirio	Vip Energy	Ctor 3	Stal 3	Vip 96	Vin 96 Plus	JUPITER	Vip System3	Microvip3 Plus	Microvip3	Nanovip- Plus Mem
CONNET. CAVO DISPER.	4AAAM	SHIELDED CONNECTION CABLE for black box Ima											•			
CAVO-MISURA-1000V	4AABG	Voltage LEADSET for meas.up to 1000Vrms without crocodiles											•	•	•	•
CAVI-MISURA-1000+COCCOD	4AAQQ	Voltage LEADSET for meas. up to 1000Vrms with crocodiles											•	•	•	•
CAVO-RS232-EPSON	4AACW	Connection cable System3 to serial printer.											•			
CAVO-RS232-IBM-PC-XT	4AACF	PC Connection cable 25 pin											•	•	•	• (
CAVO-RS232-IBM-PC-AT	4AAL5	PC Connection cable 9pin											•	•	•	• (
CAVO-RS232-MODEM	4AACN	Connection cable VIP SYSTEM 3 with modem											•			
CAVO-ADAPT-25P-9P	4AACM	ADAPTER RS232 9pin female/25 pin male											•	•	•	•
CAVO CENTRONIC	E1ADV	CENTRONICS standard cable											•			

JUPITER ACCESSORIES

COMPACT FLASH 512Mb	4AAXV Compact Flash Memory Card 512Megabyte	•		
COMPACT FLASH 1Gb	4AAXW Compact Flash Memory Card 1Gigabyte	•		
ADD. BATTERY PACK	4AAXU Package of 10 rechargeable NiMh batteries type AA	•		
AMPFLEX 1000A 80CM	4AAXX Flexible Current Transormer 1000A-80cm, with direct connection	•		

BLACK BOXES AND MEMORY PACKS FOR VIP SYSTEM3

MEMORY-PACK-128K	4AABF	Memory for Measurements Surveys				•		
MEMORY-PACK-512K	4AADJ	Memory for Measurements Surveys				•		
MP-PI-1	4AACP	Parallel Interface for Memory Pack Reading from Pc				•		
BLACK-BOX-CENTRONICS	4AACX	Box for Connection To External Parallel Printer				•		
BLACK-BOX-COGENERAT.	4AAES	Measures of Exported Energy Counters (Cogeneration)				•		
BLACK-BOX-HARMONICS	4AADG	Harmonic Analysis				•		
BLACK-BOX-LMA	4AACA	Measures of Leakage Current				•		
BLACK-BOX-GEN.USE	4AAD3	Measurements from the Analog Inputs				•		

OTHER ACCESSORIES

COCCODRILLO-GRIP-C	4AABY	Voltage crocodile probe up to 1000V(AC-DC).									•	•	•	•
CORNICE VIP ENERGY	4AAF2	Flush mounting frame for panel meters 9 din	•	•	•		•							
CORNICE SIRIO	4AAF8	Flush mounting frame for panel meters 4 din				•								
ALIMENTATORE	4AAQI	POWER SUPPLY for Nanovip Plus PLUS MEM												•
FBC2	4AACT	Fast Battery charger 230VAC for Vip System 3								-	•			

CURRENT TRANSFORMERS

CURRENT TRANSFORMERS /5

wide range of current transformers 5 Amps output available. Models: bus bar; cables; split core; summation; miniature.

contact EEN