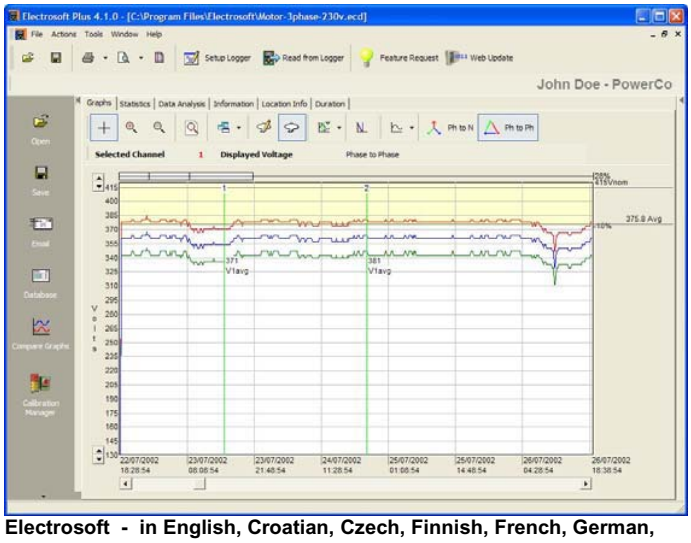
3 Phase Voltage & Current Logger
EC664-VA

- Enables voltage and current or load problems to be highlighted for further investigation.
- Records voltage up to 600Vac & load currents up to 3kAac, model dependent.
- Three voltage input channels L1, L2 & L3, 0 – 600V & Neutral (N).
- Voltage channels record V_{Avg}, V_{Max} & V_{Min} on all 3 channels. Data stored in non-volatile memory.

Photo shows Electrocorder EC664-VA, with Rogowski sensors and voltage leads.

- Three current channels (A1, A2 & A3) 0 – 3kA model dependent.
- Current channels record I_{Avg}, I_{Max} & I_{Min} on all 3 channels. Data stored in non-volatile memory.
- Free software, Electrosoft.
- Recorded data is uploaded to a PC for analysis with Electrosoft.
- Memory capacity of 32,000 (true RMS) values per channel (10 bit), up to 75 days continuous recording.
- Selectable averaging period to suit each situation.
- Kit includes: EC664-VA logger, case, Electrosoft, three 'current transducers', 4 unfused voltage leads & serial lead.
- Three models available:-
  EC664-VA-1K (1 kA range).
  EC664-VA-2K (2 kA range).
  EC664-VA-3K (3 kA range).
- Order code:-
  EC664-VA-xK-50-KIT (50Hz)
  EC664-VA-xK-60-KIT (60Hz)
- IP65 or Nema 4X Order:-
  EC664-VA-xK-50-IP-KIT (50Hz)
  EC664-VA-xK-60-IP-KIT (60Hz)



Electrosoft - in English, Croatian, Czech, Finnish, French, German, Italian, Polish, Portuguese, Spanish, Swedish.

ELECTROCORDER

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Electrocorder EC664-VA

The Electrocorder range is designed to allow electrical distribution companies to cost effectively monitor single and three loads. This product will allow voltage and load problems to be highlighted quickly for further investigation.

Setting up the Electrocorder EC664 is easy, suitable for semi-technical staff. Using the supplied (free) Windows software, Electrosoft; the location's details are input to the unit's memory and stored. Electrosoft will then print documentation allowing users to record and/or pass on delivery instructions to colleagues. All data is also stored in a database of dispatches and returns, which tracks the whereabouts of all units.

Memory modes available: The Electrocorder can be set to start recording when it is connected and stop when the memory is full. Should you have any other needs please contact Acksen Ltd, tel: +44 (0) 870 225 1790 or contact your local distributor.

When recording the Electrocorder will store the average voltage and current over the period chosen (1 sec to 15 min), it will also record the highest (max) & lowest (min) voltage and current cycle values during that period.

The voltage and current levels are stored with dates and times. With the back-up battery, the Electrocorder can continue to record for months.

The stored data is uploaded to a PC via the supplied RS-232 cable. Using Electrosoft, the recorded current levels, dates & times can be viewed in both tabular and graphical form, exported to a spreadsheet or saved to file.

Graphs can be printed showing the recorded levels and the allowable tolerance bands. These results may then be discussed with the customer. **Electrosoft also provides an internal database which effectively manages the distribution of multiple units.**

On the logger, recording is signified by a flashing red light. A green light advises users that the unit has completed recording.

This model is specifically designed to monitor one, two or three current channels, as well as one, two or three voltage channels. Allowing you to monitor the loading and energy consumption of the installation. There are many models of Electrocorder, to suit many logging situations and user's requirements.

The product is supplied with three Rogowski transducers and four unfused voltage leads. The EC664-VA-1K has a range of 1 – 1,000 A, the EC664-VA-2K has a range up to 2,000A and the EC664-VA-3K measures from 0 to 3,000A. Other ranges may be factory set.

TECHNICAL SPECIFICATIONS (subject to change without notice)	
Recorded values	Vavg, Vmax and Vmin on 3 channels and Iavg, Imax & I min on 3 channels.
Voltage Measurement range (Vrms)	0Vac to 600Vrms (Ph – Ph) or 0V to 350Vrms (Ph – N)
Measurement accuracy	±1% of reading, ±1 Volt. (10 bit) within 100Vac - 450Vrms (ph – ph); else ±3%. (50/60Hz ±2%).
Maximum channel input voltage	600Vrms (Ph – Ph), 350Vrms (Ph – N) or 850Vpeak.
Inputs (non-isolated inputs)	Three phase inputs (L1, L2 & L3) & Neutral (N), Non-isolated input channels!
Input socket types	4mm shrouded 'banana' plugs & sockets, each with insulated crocodile clip.
V_{max}, V_{min} I_{max} & I_{min} time resolution	Always one cycle (50/60 Hz), independent of selected averaging period.
Current measurement range (Irms)	EC664-1K-VA is 0 – 1kA, EC664-2K-VA is 0 – 2kA, EC664-3K –VA is 0 – 3kA.
Supplied current sensor accuracy	+/-1% of range.
Current measurement accuracy	2% of range, typically.
Current Input socket types (all channels)	Hard-wired through cable glands.
Sampling frequency (all channels)	16 samples per cycle **800Hz @ 50Hz** or **960Hz @ 60Hz**
Data recorded	Average, max & min voltage & current values during the averaging period
Memory capacity	384kB able to record 32,000 values per channel/phase.
Memory type	Non-volatile SEEPROM
Memory - averaging period & duration	1 sec - 15 mins (1sec average gives 2 hrs of logging, 15min average gives 75 days)
Real-time clock accuracy	Greater than 0.001%
Current Sensor Input Lead Length	**Metric** 1.3 metres **Imperial** 4' (4 feet)
Input Voltage Lead Length	**Metric** 1.2 metres **Imperial** 3' 10" (3 feet, 10 inches)
Battery life while logging	Unlimited when connected to voltage.
Battery Type	Unit contains **three** 9V Alkaline batteries (E-Block, PP3, 1604A).
Communications Interface type	RS-232 serial, baud of 19,200, optically isolated to 5,2kV.
Environmental (temp & sealing)	-10C to +40C **or** +14°F to +104°F – **IP65, NEMA 4X.**
Dimensions & Weight	**Metric** 250 x 175 x 70mm & 1kg **Imperial** - 10" x 6" x 3" & 2lb
Standards	Recording - EN50160: 1994 - CAT III.

WARRANTY & CALIBRATION - All Acksen Ltd products carry a minimum of a one year's warranty covering manufacturing defects and component failures. Each unit is individually calibrated during testing.
CONFORMITY - Emissions EN55022:1994B, (EN50081-1:1992).Immunity EN50082-2:1995, following the provisions of EMC directive 89/336/EEC. Recording std EN50160:1994. LVD 72/23/EEC with respect to EN60065. (IEC-61010). All models CE certified (light industrial, 3V/m).
ORDERING - EC664-VA-xK-xx-KIT – inc. case, software, serial lead, input voltage leads, current transducer & user guide.

	Description	ENVIRONMENTAL SEALING	ORDER CODE
1	**Normal KIT** **EC664-VA-xK-xx (50 or 60Hz)**	None, indoor use only	**EC664-VA-xK-xx-KIT**
2	**IP65/Nema 4X KIT** **EC664-VA-xK-xx (50 or 60Hz)**	IP65/Nema 4X	**EC664-VA-xK-xx-IP-KIT**
3	Replacement – Logger **EC664-VA-xK-xx** (50Hz or 60Hz)	None, indoor use only	EC664-VA-xK-xx
4	Replacement – Logger **EC664-VA-xK-xx-IP** (50Hz or 60Hz)	IP65/Nema 4X	EC664-VA-xK-xx-IP
5	Replacement - Carry Case	None, indoor use only	EC664-VA-CC1
6	Replacement - Serial Lead	None, indoor use only	EC664-VA-SL1
7	Replacement – Batteries (6 per unit)	Internal to logger	EC664-VA-BAT

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