



- Generator Over/Under Voltage Guard, not affected by heavily distorted waveform
- Complies with G59 requirements
- Independent moving iron voltmeter
- Integral true RMS transducer
- Fast analogue output (F-versions)

Specifications

| | | |
|---------------------------------|---|----------------------|
| Monitored voltage range: | 100-120V, 200-240V, 380-415V or 440-460VAC, 40-70Hz | |
| Optional aux. Voltage: | AC | DC |
| (AC versions: E2, H2, F2 & HF2) | 100-120V, 200-240V, 380-415V, 440-460V (Fuse 0.5A) | 24, 110VDC (Fuse 2A) |
| Supply tolerance: | ± 10% | |
| Power rating: | 1.5VA | |
| Voltmeter standard and scale: | 0-150V, 0-300V, 0-500V and 0-600V | |
| Contact rating: | AC: 100VA - 250V/2A max. DC: 50W - 100V/1A max. | |
| Adjustments: | <u>Trip level</u> | <u>Delay</u> |
| Trip level High: | (Vn) 0% to +20% | 0-30secs |
| Trip level Low: | (Vn) 0% to -20% | 0-30secs |
| Analogue outputs: | Up to 20mA, max 500ohm | |
| (F-versions) : | Up to 10V, min 100kohm | |
| Temperature: | -20 to +70°C | |
| Weight: | 0.64kgs | |
| Front protection: | IP52 (IP65 optional) | |

The unit meets EN 61010-1 Cat. III, Pollution degree 2 and the relevant environmental and EMC tests specified in EN 61326-2-4 to comply with the requirements of the major Classification Societies.

Description

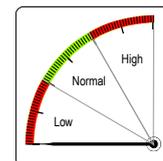
The digitally controlled KEV114x provides precision protection of single-phase generators, motors, pumps etc.

A digitally controlled voltage window discriminator controls operation and delay of the voltage low/high alarm relays. The unit measures the zero point crossing and the true r.m.s. voltage value, and accuracy is independent of any wave form distortion.

The auxiliary voltage is supplied from the unit voltage inputs as standard. A DC or AC auxiliary voltage input is optionally available. A green LED indicates POWER on. Start of monitoring function is delayed when the power is switched on (default 2 secs delay). In this way false tripping during power up is avoided.

High voltage alarm (R1) and Low voltage alarm (R2) operates if either the high or low relays trip. The voltmeter and the triple-zone status LEDs give the clear safety message:

- HIGH (O/V) (red zone)
- NORMAL (green zone)
- LOW (U/V) (red zone)

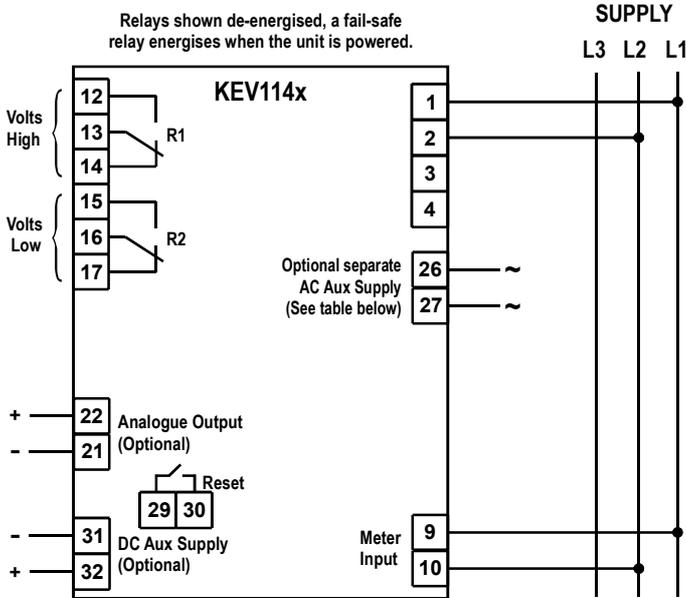


Red alarm lamps LOW (under voltage) and/or HIGH (over voltage) flash instantly (approx. 1 flash per second) on passing the lower and/or upper voltage differential set points. The lamp changes state and the trip relay operates after the pre-set delay. If a fault condition ends during the delay interval, the timer will automatically reset.

The voltage differential set points can be user-adjusted to suit most applications. Trip levels and delays are settable on unit rear. Operation of the status trip relay is inverted (fail safe), i.e. the relays are energised during normal conditions.

The class 1,5 moving iron DIN96 voltmeter must be connected directly to any phase or via a selector switch to read all three phases. The unit has low-reflection glass to ease reading at a distance.

The F-versions have an isolated output proportional to the measured voltage.



Analogue Output

The KEV114F, KEV114F2, KEV114HF and KEV114HF2 have an isolated output proportional to the highest measured voltage at any time.

Add suffix from table below to type designation to specify output required:

| | | | |
|------|-----------------|-------|-------------------|
| O/P1 | 0 - 10mA | O/P6 | N/A |
| O/P2 | 0 - 20mA | O/P7 | N/A |
| O/P3 | 4 - 20mA | O/P8 | 0 - 10V |
| O/P4 | N/A | O/P9 | 0,2 - 10V |
| O/P5 | N/A | O/P10 | 4,3 - 20mA |

Relay Operation

| | O/V | U/V | Fail safe | Latch |
|----|-----|-----|-----------|-------|
| R1 | ✓ | | */✓ | **/✓ |
| R2 | | ✓ | */✓ | **/✓ |

Note:
Relays shown de-energised
*All H-versions have not fail safe relays
**All G-versions have latching relays

| Adjustments | Trip level | Delay |
|----------------------|---------------------|----------|
| High (Over Voltage): | (V nom.) 0% to +20% | 0-30secs |
| Low (Under Voltage): | (V nom.) 0% to -20% | 0-30secs |

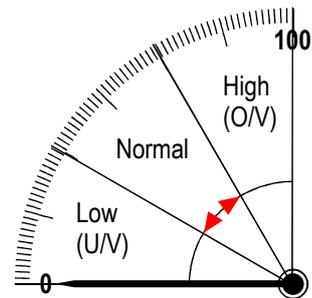
Relay Reset

Any latched relay is reset by linking terminals 29 and 30 or by interrupting the voltage input to terminal 1 or 26 (see models)

Relay Configurations

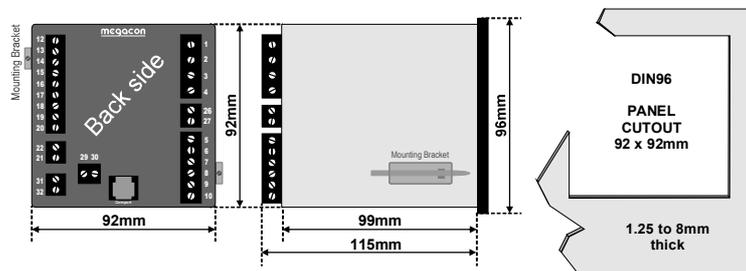
The relay operation is delayed in the arrow direction.

Both trip levels can, independently, individually set over the scale range.



| Model | Latch | Output | Separate Aux. Supply | Fail Safe | System |
|------------|-------|--------|----------------------|-----------|---------|
| KEV114E | - | - | - | X | 1-phase |
| KEV114F | - | X | - | X | 1-phase |
| KEV114E2 | - | - | X | X | 1-phase |
| KEV114F2 | - | X | X | X | 1-phase |
| KEV114G | X | - | - | X | 1-phase |
| KEV114GF | X | X | - | X | 1-phase |
| KEV114G2 | X | - | X | X | 1-phase |
| KEV114GF2 | X | X | X | X | 1-phase |
| KEV114H | - | - | - | - | 1-phase |
| KEV114HF | - | X | - | - | 1-phase |
| KEV114H2 | - | - | X | - | 1-phase |
| KEV114HF2 | - | X | X | - | 1-phase |
| KEV114HG | X | - | - | - | 1-phase |
| KEV114HGF | X | X | - | - | 1-phase |
| KEV114HG2 | X | - | X | - | 1-phase |
| KEV114HGF2 | X | X | X | - | 1-phase |

Dimensions



The MEGAICON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

ORDERING EXAMPLE:

Type: KEV114F
 Aux. Supply: 200-240V
 System Voltage : 230V (nom.)
 Range: 0-300V
 Analogue O/P: O/P3: 4-20mA

