

MAINS VOLTAGE MONITORING RELAY

Type: UAWA

FEATURES

- Separate adjustment for upper and lower limit
- Separate dipswitch setting for upper and lower limit function
- LED indicates the state of the input
- LED indicates the state of relay
- LEDs indicate the timing function
- Time delay separate adjustable

Description:

The voltage relays are designed for applications where a voltage needs to be monitored for deviations from a nominal value U_N . UAWA are combined over- and under voltage relays (window discriminator relays).

The relay can by means of a dipswitch be set to work as either an under voltage relay or as an over voltage relay only.

Operation:

When the supply voltage is applied, the - power up reset - period begins. If the nominal voltage is applied to the input, the internal relay pulls in the end of the reset period.

If the input voltage exceeds the adjusted upper or lower limit the relay drops out.

If the input voltage comes between the lower limit plus the differential and the upper limit minus the differential, the relay pulls in. The differential is fixed 2 % of the nominal input voltage (the center voltage of the window).

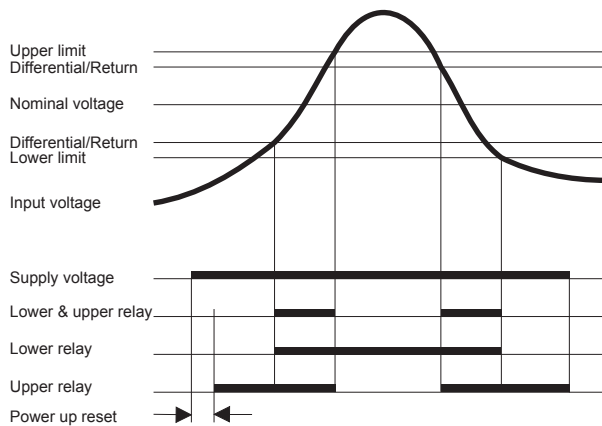
As under voltage relay only, the relay remains energized for input voltages exceeding the upper limit.

As over voltage relay only, the relay remains energized for input voltage under the lower range limit.

Application:

To monitor mains- and generator voltages in emergency power systems. To protect electrical and electronic equipment from damage because of over- or under voltage. On special request, the relay can be modified to monitor the value of any voltage, e.g. from sensors and transmitters.

FUNCTION DIAGRAM

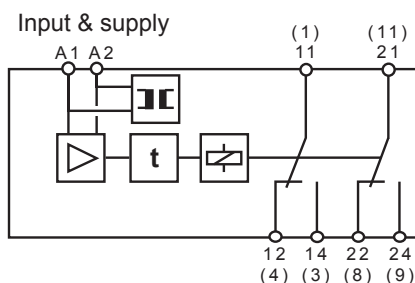


PROGRAMMABLE FEATURES

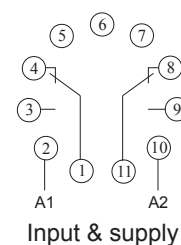
VOLTAGE SETTING				ACTUATOR ■	
TYPE	TYPE	TYPE	TYPE	FUNCTION	
110 V	230 V	400 V	460 V	■	LOWER AND UPPER LI
100 V	220 V	380 V	440 V	■ ■	LOWER LIMIT
110 V	230 V	400 V	440 V	■ ■	UPPER LIMIT
115 V	240 V	415 V	480 V	■ ■	

CONNECTION DIAGRAM

Rail mounting



Socket mounting



SPECIFICATIONS

INPUT

Phase to phase voltage
 Selectable by dipswitch

Type B110: 100, 110 and 115
 Type B230: 220, 230 and 240
 Type B400: 380, 400 and 415
 Type B460: 440, 460 and 480

Adjustable range
 Differential

$0 \pm 20\%$
 $2\% \text{ of } U_N$

PERFORMANCE PARAMETERS

TIMING

Time range during run
 Response time

Separate On and Off delay
 0 - 10 sec. adjustable
 Approx. 200 msec.

ELECTRICAL

Temp. dependency
 Supply dependency

Typ. $\pm 0.02\% / ^\circ\text{C}$
 Typ. $\pm 0.01\% / \% \Delta U$

OUTPUT

Contact rating
 Mechanical life

Relay, 2 C/O
 6 A, 250 VAC, 1250 W
 30 million operations

SUPPLY

AC supply range
 with transformer
 Standard voltage

AC voltage direct from input
 110 V (From 99 to 140 V)
 230 V (From 198 to 264 V)
 400 V (From 342 to 484 V)
 460 V (From 393 to 557 V)

AC frequency range
 Power consumption

45 to 440 Hz
 4 VA, 2 W

GENERAL

Temperature range
 Humidity
 Dielectric test voltage
 Weight

- 25 °C to + 55 °C ambient
 Up to 90 % RH non-condensing
 Coil to relay contacts 4000 VAC
 Pole to pole (45 mm.) 2500 VAC
 0.22 kg



International Standards
 EMC directive 89/336: EN50081 - Emission
 EN50082 - Immunity
 Low voltage directive 73/23: EN60255 - Electrical Relays

ORDERING INFORMATION

EXAMPLE:

TYPE

Voltage monitoring control relay

SUPPLY

AC with transformer

INPUT AND SUPPLY VOLTAGE

100, 110 and 115
 220, 230 and 240
 380, 400 and 415
 440, 460 and 480

ADJUSTMENT

Trimpot and dipswitch adj.

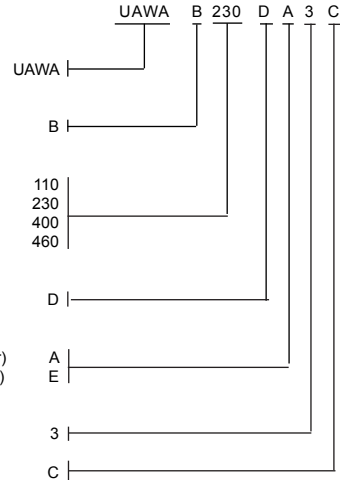
HOUSING

Rail mounting (internal transformer)
 Socket 11 pin (internal transformer)

SIZE

35 mm.

CODE END



On special request, the relay can be modified to monitor the value of any voltage, e.g.