

# 22.

# VOLTAGE RELAYS

### PURPOSE

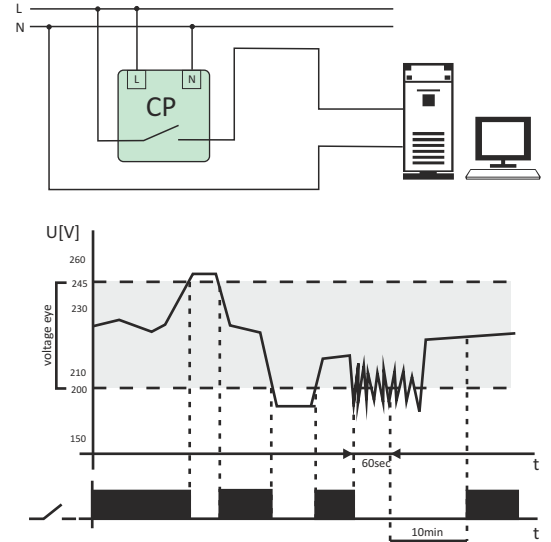
Voltage relays serves to voltage control in single or three phase mains and to protect receiver against the effects of voltage collapse or increase beyond set values.

### ATTENTION!

All types of CP can be supplied with a voltage up to 450V~. This ensures the effective protection of the receiver even in case of a voltage increase beyond allowable standards. Also, in case of supply polarity exchange or when „zero” is switched off (for three-phase types) the relay will not be destroyed („burned”).

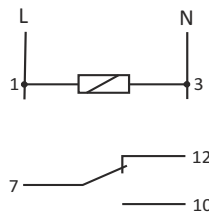
### FUNCTIONING

Lower voltage value (U1) and upper voltage value (U2) are set by means of potentiometers. It is so called eye of voltage, in limits of which can occur changes of phases voltages that do not cause activation of relay. Change of phase voltage on one of phases above or below set voltage thresholds will cause activation of relay. Reactivation follows automatically return of correct voltage value.



## CP-709 WITHOUT TIME-BLOCKADE

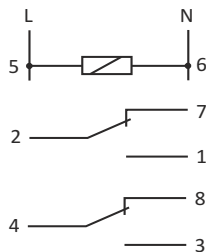
## CP-710 WITH TIME-BLOCKADE



power supply	50÷450V AC
load current	<16A
contact	separated 1×NO/NC
signalling of supply	4×LED
voltage activation threshold	
lower U1	150÷210V
upper U2	230÷260V
return voltage hysteresis	
for U1	5V
for U2	5V
activation time	
for U1	1.5sec
for U2	0.1sec
return time	
for U1	1.5sec
for U2	1.5sec
power consumption	0.8W
terminal	2.5mm <sup>2</sup> screw terminals
working temperature	-25÷50°C
dimensions	1 module (18mm)
mounting	on TH-35 rail
protection level	IP20

**CP-710:** Because of unstable voltage in mains and frequent changes of supply voltage beyond the set thresholds of „eye of voltage” (at least 10 times per 1 minute), relay blocks itself for 10 minutes. This prevents against too frequent, cyclic switching-ON and OFF of the connected receiver.

## CP-721 PROGRAMMABLE



power supply	150÷450V AC
load current (AC-1)	2×[8A]
contact	separated 2×NO/NC
voltage activation threshold / skip	
lower UL	150÷210V / 5V
upper UH	230÷260V / 5V
return voltage hysteresis for UL/UH	5V
activation time / skip	
for UL	2÷10sec / 1sec
for UH	0.1÷1sec / 0.1sec
return time for UL/UH	2sec±9.5min.
setting accuracy	1V
measurement accuracy	±1V
display	3×segment LED 5×9mm
contact signalling activation	yellow RED
power consumption	0.8W
terminal	2.5mm <sup>2</sup> screw terminals
working temperature	-25÷50°C
dimensions	2 modules (35mm)
mounting	on TH-35 rail
protection level	IP20

### FUNCTIONS

- setting voltage window (thresholds U1 and U2)
- separate setting response times for exceeding the limits U1 and U2
- setting the time to return
- continuous indication of the voltage
- indication of the correct voltage and contact closure