# **Voltage relays**

### Purpose

Voltage relays are used to control the voltage of a single-phase or three-phase network and protect the receiver against the effects of voltage drop or rise beyond the set values.



All types of voltage relays can be supplied with voltages up to 450 V. This allows for effective protection of the receiver even if the voltage exceeds the permissible standards. Also in cases of replacing the polarity of the power supply or disconnecting the "zero", it will not destroy (burn) the relay.

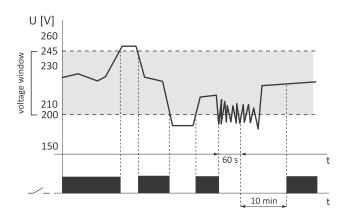
## Operation

The potentiometers are used to set the lower  $(U_1)$  and upper  $(U_2)$  voltage thresholds. It is the so-called "voltage window", within the limits of which there may be changes of power supply voltage that do not cause the relay activation. Changing the supply voltage above or below the set voltage thresholds will switch the contact of the relay. The relay contact will be switched back automatically when the correct voltage is restored.

### Time lock

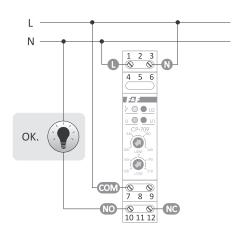


**Applies to CP-710 and CP-730:** As a result of unstable voltage in the mains and frequent changes of supply voltage beyond the set thresholds of the voltage window (minimum 10 times per 1 minute), the relay is locked for a period of 10 minutes. This prevents the connected receiver from being turned on and off too often.



# **CP-709** without time lock





power supply	50÷450 V AC
contact	separated 1×NO/NC
maximum load current (AC-1)	16 A
power control	4×LED
voltage activation threshold	
lower U₁	150÷210 V
upper U₂	230÷260 V
voltage hysteresis	
for threshold U <sub>1</sub>	5 V
for threshold U <sub>2</sub>	5 V
activation time	
for threshold U <sub>1</sub>	1.5 s
for threshold U <sub>2</sub>	0.1 s
return time	
for threshold U <sub>1</sub>	1.5 s
for threshold U <sub>2</sub>	1.5 s
power consumption	0.8 W
working temperature	-25÷50°C
terminal	2.5 mm <sup>2</sup> screw terminals
tightening torque	0.4 Nm
dimensions	1 module (18 mm)
installation	for TH-35 rail
protection level	IP20