

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.

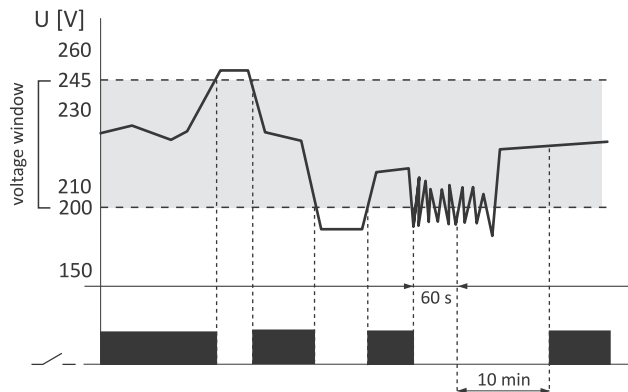
! All types of voltage relays can be supplied with voltages up to 450 V. This allows for effective protection of the receiver even if the voltage exceeds the permissible standards. Also in cases of replacing the polarity of the power supply or disconnecting the "zero", it will not destroy (burn) the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

Operation

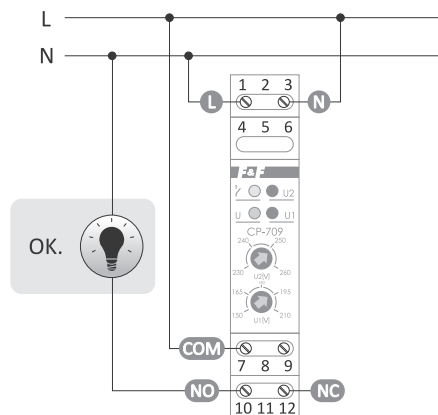
The potentiometers are used to set the lower (U_1) and upper (U_2) voltage thresholds. It is the so-called "voltage window", within the limits of which there may be changes of power supply voltage that do not cause the relay activation. Changing the supply voltage above or below the set voltage thresholds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

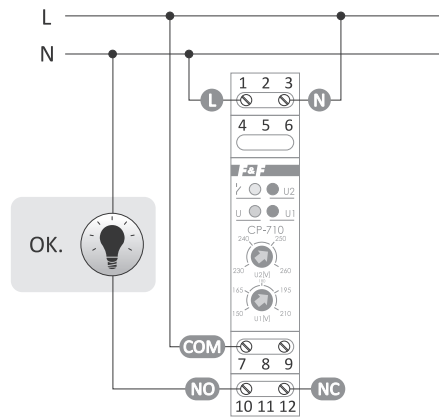


CP-709 without time lock



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 U_1	150÷210 V
upper U_2	230÷260 V
voltage hysteresis	
for threshold U_1	5 V
for threshold U_2	5 V
activation time	
for threshold U_1	1.5 s
for threshold U_2	0.1 s
return time	
for threshold U_1	1.5 s
for threshold U_2	1.5 s
power consumption	0.8 W
working temperature	-25÷50°C
terminal	2.5 mm ² screw terminals
tightening torque	0.4 Nm
dimensions	1 module (18 mm)
installation	for TH-35 rail
protection level	IP20

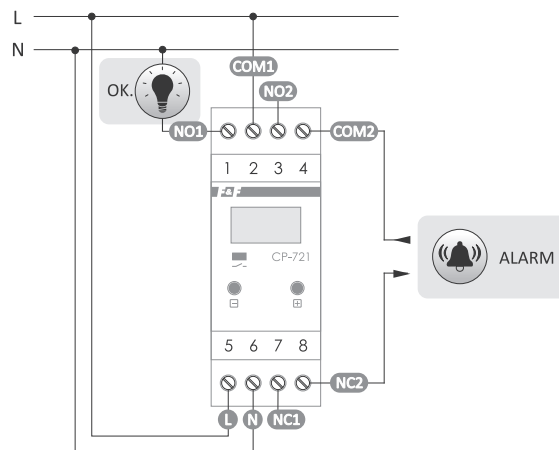
CP-710 1-phase, with time lock*



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 U ₁	150÷210 V
upper U ₂	230÷260 V
voltage hysteresis	
for threshold U ₁	5 V
for threshold U ₂	5 V
activation time	
for threshold U ₁	1.5 s
for threshold U ₂	0.1 s
return time	
for threshold U ₁	1.5 s
for threshold U ₂	1.5 s
power consumption	0.8 W
working temperature	-25÷50°C
terminal	2.5 mm ² screw terminals
tightening torque	0.4 Nm
dimensions	1 module (18 mm)
installation	for TH-35 rail
protection level	IP20

* Note on the previous page

CP-721 programmable, without time lock

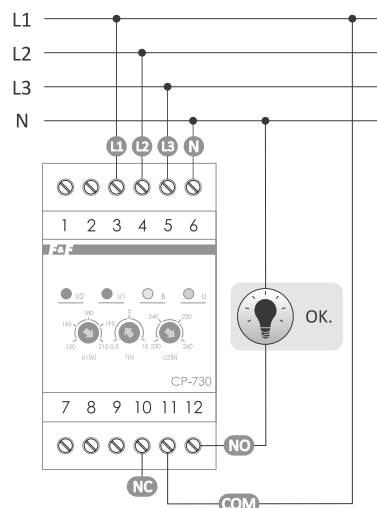


power supply	150÷450 V AC
contact	separated 2×NO/NC
maximum load current (AC-1)	2×8 A
tripping voltage thresholds / step	
lower UL	150÷210 V/5 V
upper UH	230÷260 V/5 V
voltage hysteresis	
for threshold UL	5 V
for threshold UH	5 V
tripping time/step	
for threshold UL	2±10 s/1 s
for threshold UH	0.1±1 s/0.1 s
return time	
for threshold UL	2 s± 9.5 min.
for threshold UH	2 s± 9.5 min.
setting accuracy	1 V
measurement accuracy	±1 V
display	3×segment LED 5×9 mm
contact signalling activation	LED yellow
power consumption	0.8 W
working temperature	-25÷50°C
terminal	2.5 mm ² screw terminals (cord) 4.0 mm ² screw terminals (wire)
tightening torque	0.5 Nm
dimensions	2 modules (35 mm)
installation	for TH-35 rail
protection level	IP20

Functions

- Setting the voltage window (UL and UH thresholds);
- Separate setting of the tripping times when the UL and UH thresholds are exceeded;
- Return time setting;
- Continuous display of the mains voltage;
- Signaling of correct mains voltage and closing of the contact.

CP-730 3-phase, with time lock*



power supply	3×(50÷450 V)+N
contact	separated 1×NO/NC
maximum load current (AC-1)	8 A
power control	4×LED
voltage activation threshold	
lower UL	150÷210 V
upper UH	230÷260 V
return voltage hysteresis	
for threshold UL and UH	5 V
activation time	
for threshold UL (adjustable)	0.5±10 s
for threshold UH	0.1 s
return time	
for threshold UL and UH	1.5 s
power consumption	1.7 W
working temperature	-25÷50°C
terminal	2.5 mm ² screw terminals (cord) 4.0 mm ² screw terminals (wire)
tightening torque	0.5 Nm
dimensions	3 modules (52.5 mm)
installation	for TH-35 rail
protection level	IP20

* Note on the previous page