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# **CP-721 VOLTAGE RELAYS**

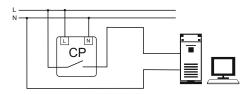




F&F products are covered by an 24 months warranty from date of purchase

# **PURPOSE**

Voltage relays CP-721 serves to voltage control in single and thre phase mains and to protect receiver against the effects of voltage collapse or increase beyond set values.



### SETTING TIME ACTIVATION

The time tL (for low threshold voltage)

In work mode hold (> 5 secs.) Button -. The display shows the symbol-tL. Press the +/- to make setting the response time of 2 to 10 seconds in increments of 1 sec. After 5sec. inactivity will automatically return to operating mode (indicating the value of the voltage measured) and the relay will automatically start to work

with the new settings.
Time tH (for the upper threshold voltage)

In draft mode and hold (> 4 sec.) Button - . The display shows the symbol-tH. Press the +/- to make setting the response time of 0.1 to 1.0 seconds in increments of 0.1 sec. After 5sec. inactivity will automatically return to operating mode (indicating the value of the voltage measured) and the relay will automatically start to work with the new settings.

# SETTING THE RETURN OF TOF TIME

SETTING THE RETURN OF TOF TIME
TP time (for the lower and upper threshold voltage)
In draft mode and hold (> 5 secs.) + And - buttons. The display
shows the symbol P. Using + / - button to make the setting value
of time delay. The displayed values and their meanings:
2 to 9 - Adjustment range from 2 to 9 seconds in increments of 1 sec.
1 to 9.5 - Setting range of time from 1 min. to 9.5 min. in increments of
30 seconds. (1.3 = 1min30sek; 2.0 = 2min, 9.3 = 9min30sek)
After 5 sec. inactivity will automatically return to operating mode

(indicating the value of the voltage measured) and the relay will automatically start to work with the new settings

# **ASSEMBLY**

- 1. Take OFF the power.
- 2. Put on the relay on the rail in the switchgear box
- 3. Connect power cables to joints 5-6 with marks.
  4. In power installation of care receiver connect in line a joint 2-1 or 4-3. 5. Set to voltage thresholds UL and UH, activation times tL and
- tH, return time tP.

#### **FUNCTIONING**

In run mode the display shows the actual measured value of

User adjustable bottom (U1) and upper (U2) determines the so-User adjustable bottom (U1) and upper (U2) determines the so-called threshold voltage. voltage window, within which may be followed by changes in supply voltage does not cause the relay. With proper voltage relay contact is closed. Changing the supply voltage above or below the set threshold voltage will open the interface with the time delay preset by the user. Glowing red LED indicates the state of contact closure. Exceeding the voltage above 5V from the established threshold values UH and UL is indicated by the pulsation of the display. Return join the relay contact will occur automatically in the event of a sustained voltage of 5V with respect to threshold values UH

and UL by the time of return set by the user.
The relay can be supplied with a voltage up to 450V~. This rife relay 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").

# **PROGRAMMING**

SETTING VALUES of THRESHOLD ACTIVATION

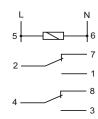
UL threshold (bottom)
In draft mode briefly (<1sec.) Button -. The display shows the symbol -UL. Press the +/- to make the setting threshold value.

After 5sec. inactivity will automatically return to operating mode (indicating the value of the voltage measured) and the relay will automatically start to work with the new settings.

UH threshold (top)

In draft mode briefly (<1sec.) Buttons +. The display shows the symbol -UH. Press the +/- to make the setting threshold value. After 5sec. inactivity will automatically return to operating mode (indicating the value of the voltage measured) and the relay will automatically start to work with the new settings.

#### WIRING DIAGRAM



# TECHNICAL DATA

supply	150÷450V AC
current load	2×[<8A]
joint	separate 1P (1CO)
voltage activation treshold	, , ,
lower UL	150÷210V/ 1V
upper UH	230÷260V / 1V
activation time	
for UL	2÷10sek / 1sek
for UH	0,1÷1sek / 0,1sek
return time for UL/UH	2sek÷9.5min
power consumption	0,8W
settings level	1V
measure level	±1V
display	3×segments LED 5×9mm
sygnaling of switching of joint	LED red
working temperature	-25÷50°C
connection	screw terminals 2,5mm2
dimensions	2 modules (35mm)
fixing	on rail TH-35
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