

VOLTAGE Control Relays

THREE - PHASE VOLTAGE RELAY

- Self-powered by the voltage to be monitored.
- Visual indication of trip cause.
- DIN rail mounting.

- Protects three-phase installations against voltage variations between phases, incorrect sequence of phases and phase loss.
- Adjustable minimum and maximum thresholds.
- Adjustable trip time delay.

U3S model:

- Model U3S-420 is valid for 400 and 440 nominal voltage.

U3N models:

- Two independent output relays.
- Includes protection against neutral loss.

U3 S



U3 N



PROTECTION FUNCTIONS

- $U>$ Overvoltage
- $U<$ Undervoltage
- Phase imbalance or phase loss
- Phase sequence

Model U3 N includes:

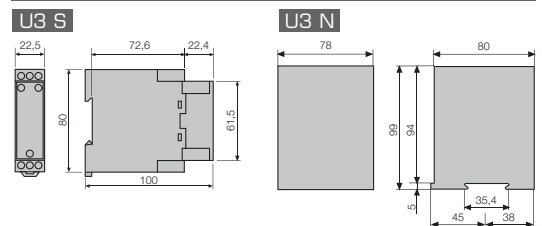
- Loss of neutral



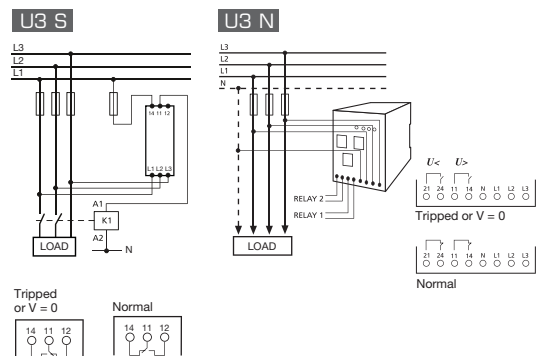
MODELS	U3S-230	U3S-420	U3N-230	U3N-400	U3N-440
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Maximum threshold V	210-290	380-500	230-260	400-460	440-500
Minimum threshold V	185-230	350-430	200-230	340-400	380-440
Code	12071	12070	12056	12055	12057

CHARACTERISTICS	
Type of supply to be monitored	Three phase / Three-phase with neutral
Auxiliary supply $\pm 10\%$	Self-powered
Accuracy	$U>$ +4% -1%; $U<$ +1% -4%
Trip time delay (TD)	0,1 to 6s ($\pm 20\%$) for $U>U<$ / 0,1 to 3,7s ($\pm 20\%$) for $U>U< \text{†}$
Reset mode	Automatic
Hysteresis	4% of the nominal voltage
Signalling LED's	U3S: 4 LED's: ON + $U>$ + (P) + $U<$ / U3N: 4 LED's: ON + $U>$ + (P) + $U<$ + I_N
Output contacts	U3S: 1 relay with 1 change-over NO - NC / U3N: 2 relays with 1 NO
Switching power	I_{th} : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A
Terminals: Max. section / Screw torque	2,5 mm ² , No. 22 - 12AWG / 20Ncm, 1.8 LB - IN
Power consumption	U3S: 7,5 VA (230 Vac) - 11 VA (230 Vac) / U3N: 12 VA (230 Vac) - 20 VA (230 Vac)
Protection degree / weight	IP20 / 0,11 kg / IP20 / 0,35 kg
Storage / operation temperature	-30°C +70 °C / -15°C +60°C

DIMENSIONS RELAYS (mm)



WIRING DIAGRAM



WORK LOGIC

