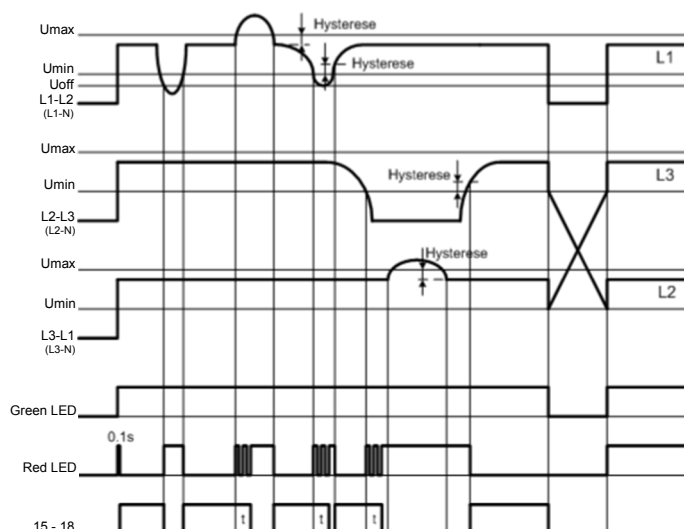


# 3-phase Monitoring DUW-41

The three-phase monitoring relay DUW-41 monitors the three-phase mains for overvoltage and undervoltage, the correct phase sequence as well as for failure of a phase .

The device is supplied by the measuring circuit L1 – (N) – L2 – L3. The output relay is pulled up in normal operation. The output relay drops out at overvoltage or undervoltage, failure of a phase and phase sequence violation. The error is displayed by the red LED. In order to bypass brief mains faults, the off time  $t$  can be delayed by 0.5 to 10 seconds with the potentiometer.

## Functional diagram



## Functional display

### Normal status

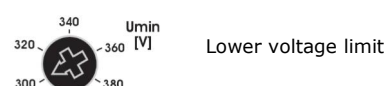
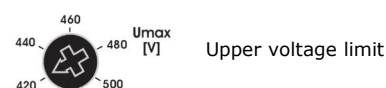
Green LED shining: All 3 phases are connected correctly

### Fault display

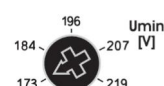
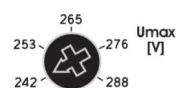
Red LED shining: Over / undervoltage, phase failure or wrong phase sequence

## Setting

### DUW-41



### DUW-41/N



## 4 / 5 monitoring ranges

- Overvoltage
- Undervoltage
- Failure of a phase
- Phase sequence
- Neutral conductor monitoring (version N)

## DIN 45 mm housing

The voltage monitoring relay can be installed with its standardised housing behind the cover panel through a 45-mm cutout. The function and switching status indicators (LED) are clearly visible, with the connections located in a protected position behind the cover panel.

## Extremely compact size

It only requires a width of 17.5 mm in the switching cabinet.

## 8 A Changeover contact

The output contact is capable of switching an output of 2,500 VA (8 A / 250 V AC1).



## Technical data

### DUW-41

### DUW-41/N

#### Input side

Supply and measuring terminals	L1 - L2 - L3	L1 - L2 - L3 - N
Supply and measuring voltage	3 x 400 V AC	3 x 400 / 230 V AC
Power consumption	max. 2 VA	

#### Setting and accuracy

Underrange (Umin.)	300 - 380 V ± 5 %	173 - 219 V ± 5 %
Overrange (Umax.)	420 - 500 V ± 5 %	242 - 288 V ± 5 %
Hysteresis	5 %	
Time delay t2	adjustable 0.5 - 10 s	

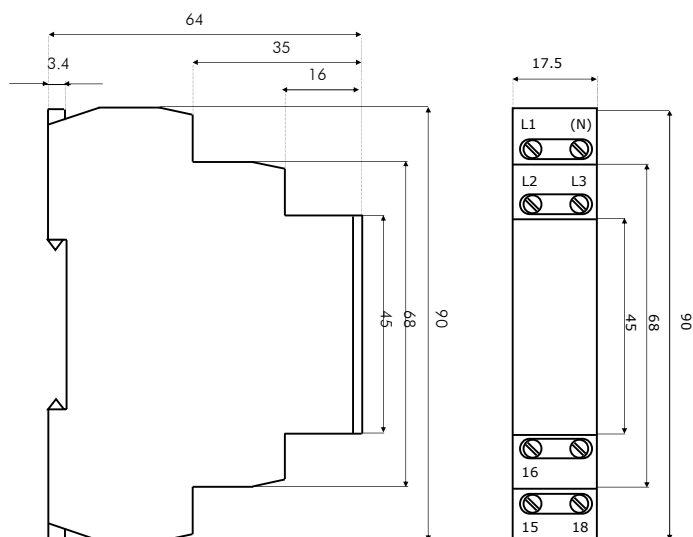
#### Output side

Number of contacts	1 changeover contact
Switching voltage	250 V AC1 / 24 V DC
Switching current / contact material	8 A / AC1 / AgSnO
Max. peak current	15 A / < 3 s
Switching capacity	2000 VA / AC1, 240 W / DC
Min. switching capacity DC	500 mW
Output display	Red LED

#### General data

Mechanical life	1 x 10 <sup>7</sup>
Electric life at 12 A	1 x 10 <sup>5</sup>
Ambient temperature	-20°C ... +55°C
Storage temperature	-30°C ... +70°C
Test voltage coil / contact	3 kV
Mounting position	any
Fixing DIN rail	EN 50022-35
Protection class front	IP 40
Voltage limitation class	III
Degree of contamination	2
Connection cross section (without sleeve) (with sleeve)	2x2.5 mm <sup>2</sup> 1x2.5 mm <sup>2</sup> oder 2x1.5 mm <sup>2</sup>
Weight	69 g
Standards	EN 60255-6, EN 61010-1

## Dimensional drawing



Device		Order no.
Monitoring relay	Overvoltage and undervoltage, phase sequence, phase failure	DUW-41
Monitoring relay	Overvoltage and undervoltage, phase sequence, phase + neutral failure	DUW-41/N