# E1PF480Y/277VSY01



## Monitoring relay - phase sequence

Status: Available Data sheet created: 01.07.2025

**Item Number:** 1340306 - **Serie:** Enya - **EAN:** 9008662007376




- Monitoring relays series ENYA
- Voltage monitoring in 3-phase networks
- Phase sequence, phase failure monitoring
- Asymmetry monitoring
- Supply voltage = measuring voltage
- Supply voltage 208V - 480V AC
- 1 changeover contact
- width 17.5mm
- Installation type

## Description

Voltage monitoring in 3-phase mains. Monitoring of phase sequence, phase failure and asymmetry with adjustable asymmetry.

## General information

| | |
|---|---|
| **Short description** | Phase sequence, phase failure, asymmetry monitoring, 1 changeover contact |
| **Item Number** | 1340306 |
| **EAN** | 9008662007376 |
| **Main category** | Monitoring Relays |
| **Series** | Enya |
| **Type** | E1PF480Y/277VSY01 |
| **Design** | Installation design |
| **Supply** | 3~ 480/277V AC |
| **Dimensions** | 17.5 x 87 x 65 mm |

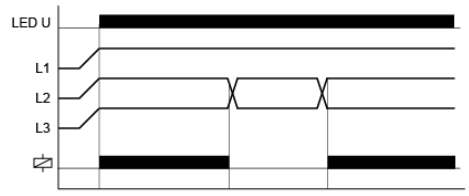
## Functions and measurands

**Amount of functions** 3



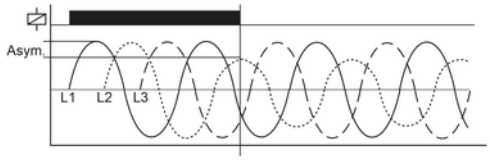

**Phase failure (Pha)**

As soon as one of the three phases fails, the output relay R pulls in and drops out (yellow LED does not light up). For safe detection of phase failures, the asymmetry function should be activated. It is recommended to connect the neutral conductor of the monitoring relay as soon as loads in the system use the neutral conductor connection.




**Phase sequence (Phf)**

If all phases are connected in the correct sequence and the measured asymmetry is smaller than the set value, the output relay pulls in (yellow LED lights up). If the phase sequence changes, the output relay drops out (yellow LED does not light up). It is recommended to connect the neutral conductor of the monitoring relay as soon as loads in the system use the neutral conductor connection.




**Asymmetry monitoring (Asym)**

If the asymmetry of the daisy-chained voltages exceeds the set ASYM value, the output relay drops out. If the neutral conductor is connected, the phase voltages (star voltage) are additionally monitored for asymmetry with respect to the neutral conductor. In this application, both values for the asymmetry are used for the evaluation. As soon as one of the two values exceeds the set value, the output relay drops out.

## Time ranges

| | | |
|---|---|---|
| **Number Of Areas** | 1 | |
| **Time ranges** | **Setting range** | |
| | Start-up delay (Start) | - |
| | Shutter delay | fix, ca. 100 ms |

## Indicators

| | |
|---|---|
| **Supply/time lapse 1** | Green LED U/t ON: Supply voltage applied |
| **Relay state** | Yellow LED ON/OFF: output relay position |

## Mechanical design

| | |
|---|---|
| **Housing material** | made of self-extinguishing plastic |
| **Housing - protection degree** | IP40 |
| **Mounting** | top hat rail TH 35 7,5-15 according to IEC 60715:2017 / EN 60715:2017 |
| **Terminals/connections** | Touch-proof clamping yoke terminals according to DGUV 3 (Screwdriver PZ1 required) |
| **Terminals - protection degree** | IP20 |
| **Mounting position** | any |
| **Max. Tightening Torque** | 1 Nm |
| **Terminal capacity** | • 1 x 0.5 to 2.5mm² with/without ferrule<br>• 1 x 4mm² without wire end ferrule<br>• 2 x 0.5 to 1.5mm² with/without end sleeves<br>• 2 x 2.5mm² flexible without ferrules |

## Supply circuit

| | |
|---|---|
| **Terminals/connections** | L1-L2-L3 |
| **Supply voltage a.c.** | 3~ 208 V / 120 V ... 480 V / 277 V |
| **Supply voltage tolerance a.c.** | -10% ... +10% Un |
| **Rated frequency [Hz]** | a.c. 48 ... 63 Hz |
| **Rated consumption a.c.** | 1 W / 10 VA @ 400 V / 50 Hz; 1,5 W / 16 VA @ 480 V / 60 Hz |
| **Duty cycle** | 100% |
| **Recovery time** | 500 ms |
| **Drop-out voltage** | >20% the supply voltage |
| **Overvoltage category** | III (IEC 60664-1) |
| **Rated surge voltage** | 4 kV |

## Output curcuit

| | |
|---|---|
| **Type** | Relay |
| **Contact 1** | 1 change over contact |
| **Terminals 1** | 11-12-14 |
| **Rated voltage** | 250 V a.c. |
| **Mechanical life** | 15 x $10^6$ Switching cycles |
| **Electrical life** | 100 x $10^3$ Switching cycles (1000VA) |
| **Rated surge voltage** | 4 kV |
| **Overvoltage category** | III (nach IEC 60664-1) |

## Measuring circuit

| | |
|---|---|
| **Measurand** | Current - three phase |
| **Measuring range** | (=supply circuit) |
| **Terminals/connections** | L1-L2-L3 |
| **Overload capacity** | determined by tolerance specified for supply voltage |
| **Frequency - sinusoidal** | 48 ... 63 Hz |
| **Switching threshold asymmetrical** | 5% ... 25% |
| **Rated surge voltage** | 4kV |
| **Overvoltage category** | III (nach IEC 60664-1) |

## Accuracy

| | |
|---|---|
| **Base accuracy** | ≤5 % |
| **Adjustment accuracy** | ≤5 % |
| **Repetition accuracy** | ±2 % |
| **Temperature influence** | ≤0.05 % / °C |

## Ambient conditions and general specifications

| | |
|---|---|
| **Ambient temperature IEC** | -24 ... +55 °C (IEC 60068-1) |
| **Storage temperature** | -25 ... +70 °C |
| **Transport temperature** | -25 ... +70 °C |
| **Relative humidity** | 15% ... 85 % (IEC 60721-3-3) 3K3 |
| **Pollution degree** | 2, pollution level can be increased by installation in suitable enclosures (according to IEC 60664-1) |

## Logistics

| | |
|---|---|
| **Minimum Quantity** | 1 |
| **Tariff Number** | 85364900 |
| **EAN** | 9008662007376 |
| **Country of Origin** | AT |
| **Product Weight (g)** | 72 |

## Available declarations / conformities

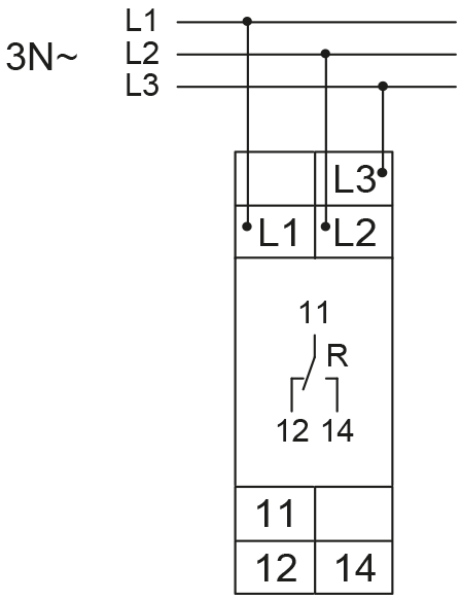
| | |
|---|---|
| **EAC** | ✓ |
| **CE** | ✓ |
| **UL** | Open document |
| **c(UL)** | Open document |
| **REACH** | Open document |
| **WEEE** | Open document |
| **TSCA** | Open document |
| **RoHs** | Open document |
| **CMRT** | Open document |

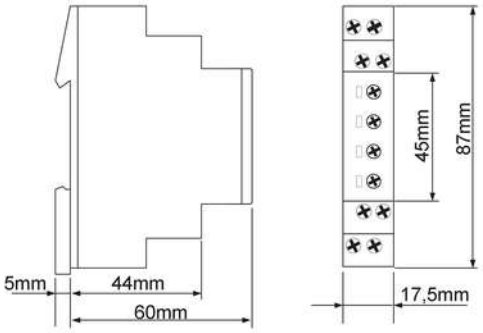
## CAD Files

| | |
|---|---|
| **STEP_E1_en.STEP** | Download file |

## Media & drawings






**Dimensions**

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Changes and errors excepted