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.

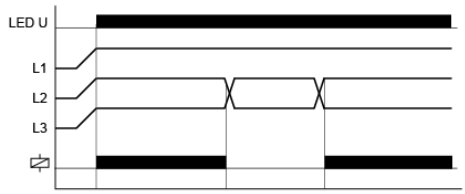
General information

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

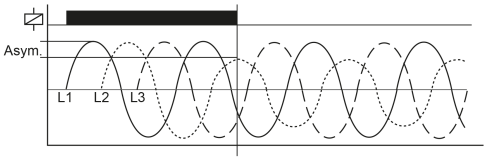
Functions and measurands

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 • 1 x 4mm² without wire end ferrule • 2 x 0.5 to 1.5mm² with/without end sleeves • 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

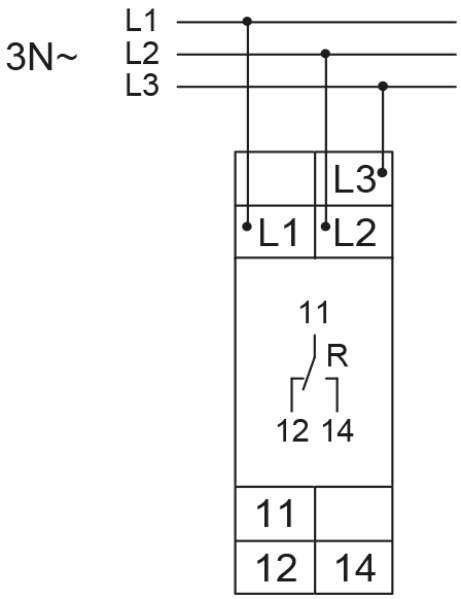
Available declarations / conformities

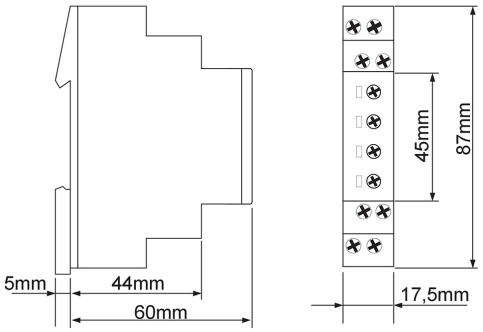
EAC	✓
CE	✓
UL	Open document
c(UL)	Open document
REACH	Open document
WEEE	Open document
TSCA	Open document
RoHs	Open document
CMRT	Open document

CAD Files

STEP_E1_en.STEP	Download file

Media & drawings





Dimensions

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