

Type: **EMR4-W500-1-D**  
 Article No.: **290183**  
 Sales text **Phase monitoring relay**

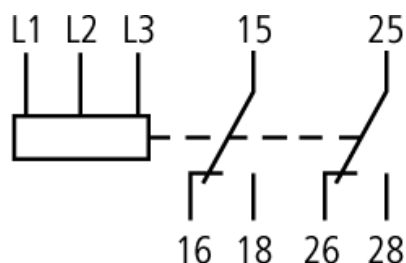


- Three-phase monitoring
  - Phase sequence
  - Phase failure
  - Overvoltage
  - Undervoltage
  - Asymmetry 2...15 %
- ON-delay or OFF-delay 0.1 – 10 s
- Power supply from the measuring circuit
- EMR4-AWN... with neutral monitoring

### Ordering information

Description		Single function
Monitoring voltage		300 – 500 V 50/60 Hz
Threshold value		$U_{\min}$ 300 – 380 V AC $U_{\max}$ 420 – 500 V AC
Supply voltage		300 – 500 V 50/60 Hz

### Contact sequence

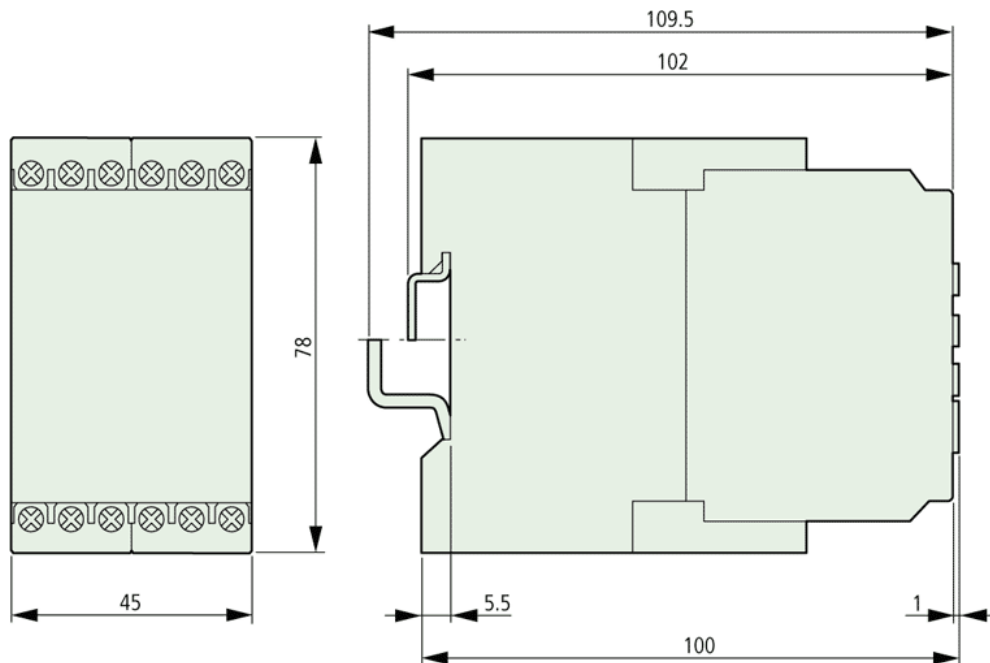


General			
Standards			IEC/EN 60255–6, IEC255–6, UL, CE
Lifespan, mechanical	Operations	$\times 10^6$	30
Climatic proofing			Damp heat, cyclical to IEC 60068–2–30: 24 h cycle, 55° C, 93% relative humidity, 96 h
Ambient temperature			
Open		°C	... 20...+60
Storage		°C	... 20...+60
Mounting position			As required
Shock resistance			10 g
Degree of protection			
Terminals			IP 20
Enclosures			IP 50
Weight	Weight	kg	0,13
Terminal capacities			
Solid		mm <sup>2</sup>	2 × 2.5
Flexible with ferrule		mm <sup>2</sup>	2 × 2.5/2 × AWG14
Standard screwdriver		mm	5.5 × 0.8
Tightening torque		Nm	0,5 – 0,8
Fixing			Snap fixing, top–hat rail IEC/EN 60715
Contacts			
Rated impulse withstand voltage	$U_{imp}$	V AC	4000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	$U_i$	V AC	600
Power supply			
Supply voltage		V AC	300 ... 500
Voltage tolerance		$\times U_c$	0,85 – 1,1
Power consumption		VA	3
Rated frequency		Hz	50 – 60
Duty factor		% DF	100

<b>Timing cycle</b>			
Response delay time		s	Adjustable 0.1 – 10
Reset delay/Off–delay time		s	Adjustable 0.1 – 10
Time error within supply voltage		%	0,5
Time error within temperature range		%/°C	0,06
<b>Measuring circuits</b>			
Response range for undervoltage	$U_{min}$	V AC	300...380
Response range for overvoltage	$U_{max}$	V AC	420...500
Hysteresis		%	0...5
Frequency		Hz	50/60 ± 10 %
Measuring cycle		ms	50
Temperature error		%/°C	0,06
Error within supply voltage		%	0,5
<b>Status indication</b>			
Supply voltage			LED green: R on
Output relay energized			LED green: R flashes
Overvoltage			LED red: F1 on
Undervoltage			LED red: F2 on
Phase failure			LED red: F1 on, F2 flashes
Phase sequence error			LED red: F1, F2 flashing
<b>Relay output contacts</b>			
Rated operational voltage	$U_e$	V AC	250
Rated operational current			
AC–12 at 230 V	$I_e$	A	4
AC–15 with 230 V	$I_e$	A	3
DC–12 at 24 V	$I_e$	A	4
DC–13 at 24 V	$I_e$	A	2
Lifespan, electrical (AC–12/230 V/5 A)	Operations	× 10 <sup>6</sup>	0,1
Short–circuit rating			
max. fuse	Fast/gL	A	5
<b>Electromagnetic compatibility (EMC)</b>			
Electromagnetic compatibility			IEC/EN 60947–6–2
ESD			IEC/EN 61000–4–2 level 3
HF–immunity to radiation			IEC/EN 61000–4–3 level 3
Burst			IEC/EN 61000–4–4 level 3
Surge			IEC/EN 61000–4–5 Level 4
HF–immunity to line–conducted interference			IEC/EN 61000–4–6 level 3

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## Dimensions



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