DATASHEET - EMR5-AWM580-2



Phase monitoring relay, multi-function, 2W, 350-580V50/60Hz

Powering Business Worldwide*

Part no. EMR5-AWM580-2

Catalog No. 134235

Eaton Catalog No. EMR5-AWM580-2

EL-Nummer 4110394

(Norway)

Delivery program

Basic function Function Function Multi-functional Power supply from the measuring circuit On-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages Automatic phase sequence correction Monitoring of Monit	Delivery program			
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Power supply from the measuring circuit On-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages Automatic phase sequence correction Monitoring voltage per phase Monitoring of VAC Monitoring of Phase failure Overvoltage Undervoltage Imbalance Umax 480 - 580 V AC Umin 350 - 460 V AC Overvoltage Undervoltage Undervoltage Undervoltage Imbalance Contact sequence Contact sequence Overvoltage Undervoltage Imbalance Undervoltage Imbalance Undervoltage Undervoltage Imbalance Undervoltage Undervoltage Imbalance	Basic function			Phase monitoring relays
Dn-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages adunting phase sequence correction Monitoring voltage per phase Monitoring of Phase sequence Phase	Function			Multi-functional
Monitoring of Phase sequence Phase failure Overvoltage Undervoltage Imbalance Threshold value Umax 480 - 580 V AC Umin 350 - 460 V AC Adjustable threshold values Overvoltage Undervoltage Undervoltage Imbalance Contact sequence Undervoltage Imbalance				On-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages
Phase failure Overvoltage Undervoltage Imbalance Threshold value Umax 480 - 580 V AC Umin 350 - 460 V AC Overvoltage Undervoltage Und	Monitoring voltage per phase	U_{N}	V AC	350 - 580 V AC, 50/60 Hz
Adjustable threshold values Overvoltage Undervoltage Imbalance Contact sequence L1 L2 L3 15 25	Monitoring of			Phase failure Overvoltage Undervoltage
Undervoltage Imbalance Contact sequence L1 L2 L3 15 25	Threshold value			*****
	Adjustable threshold values			Undervoltage
16 18 26 28	Contact sequence			L1 L2 L3 15 25
Supply voltage 350 - 580 V AC, 50/60 Hz	Supply voltage			350 - 580 V AC, 50/60 Hz
Width mm 45	Width		mm	45

Technical data

Technical data in sheet catalogue

Other technical data (sheet catalogue)	Phase monitoring relays	
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Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	5
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects $\frac{1}{2} = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}$			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.

10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Relays (EG000019) / Phase monitoring relay (EC001441)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Asymmetry monitoring equipment (ecl@ss10.0.1-27-37-18-03 [AKF097014])

Type of electric connection		Screw connection
With detachable clamps		No
Rated control supply voltage Us at AC 50HZ	V	0 - 580
Rated control supply voltage Us at AC 60HZ	V	0 - 580
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Phase sequence monitoring		Yes
Phase failure detection		Yes
Function under voltage detection		Yes
Function over voltage detection		Yes
Phase imbalance monitoring		Yes
Voltage measurement range	V	0 - 580
Min. adjustable delay-on energization time	s	0.1
Max. permitted delay-on energization time	s	30
Min. adjustable off-delay time	S	0.1
Max. permitted off-delay time	S	30
Number of contacts as normally closed contact		0
Number of contacts as normally open contact		0
Number of contacts as change-over contact		2
Width	mr	n 45
Height	mr	n 78
Depth	mr	n 100

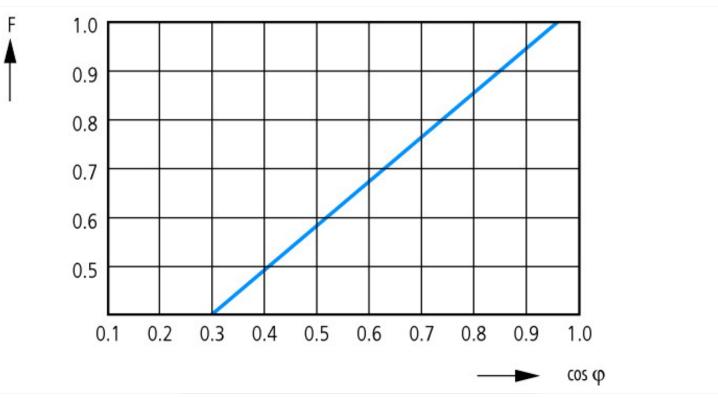
Approvals

Product Standards	IEC 255-6; UL 508; CSA-22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR, NKCR7
CSA File No.	UL report valid
CSA Class No.	3211-03
North America Certification	UL listed, certified by UL for use in Canada
Degree of Protection	IEC: IP20, UL/CSA Type: -

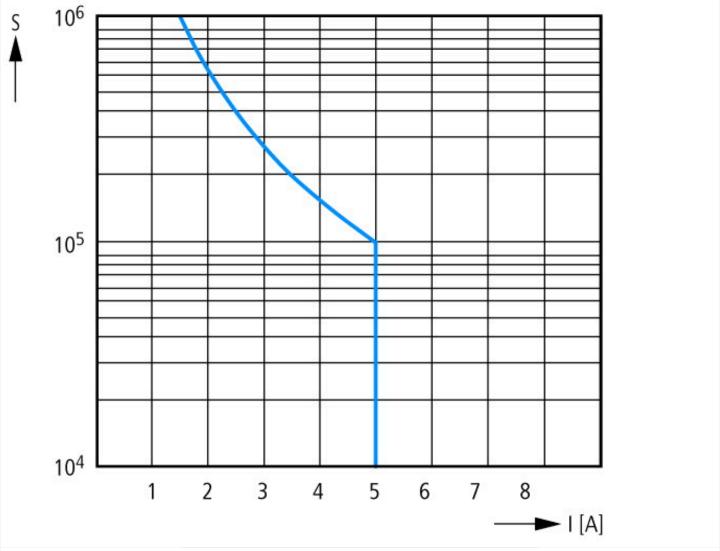
Characteristics U [V] 0.1 0.2 0.5 **►** I [A] AC load (resistive) U [V] 0.1 0.2 0.5

DC load (resistive)

→ *I* [A]

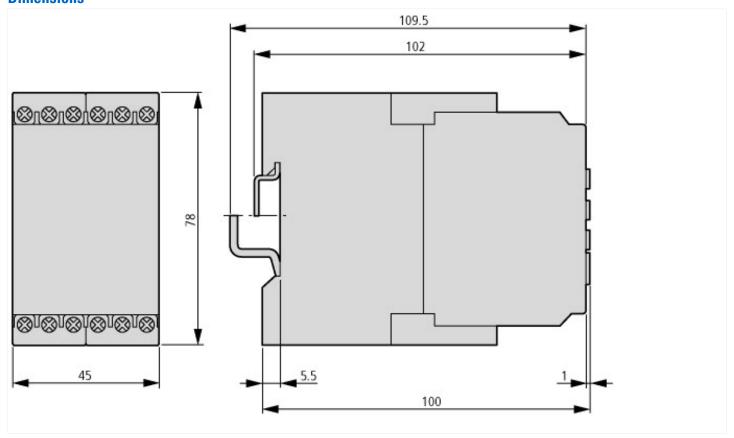






Contact life S operations 220 V 50 Hz AC-1 360 operations/h

Dimensions



Additional product information (links)

Phase monitoring relays

http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=11.37