

**Part no.** EMR6-W300-C-1  
**184776**  
**EL Number** 4101972  
**(Norway)**

General specifications	
Product name	Eaton Moeller® series EMR6 Phase monitoring relay
Part no.	EMR6-W300-C-1
EAN	4015081788125
Product Length/Depth	103.7 millimetre
Product height	85.6 millimetre
Product width	22.5 millimetre
Product weight	0.16 kilogram
Certifications	UL CSA IEC CCC GL
Product Tradename	EMR6
Product Type	Phase monitoring relay
Product Sub Type	None
Catalog Notes	Measurement range: 50/60 Hz (± 10 %) Frequency Power supply from the measuring circuit
Features & Functions	
Electric connection type	Screw connection
Features	Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages
Functions	Over voltage detection Under voltage detection Phase failure detection On- and Off-delayed
Monitoring function	Phase failure Phase sequence monitoring Overvoltage Phase sequence (can be deactivated) Undervoltage
Voltage measurement - min	160 V
Voltage measurement - max	300 V
General information	
Degree of protection	Terminals: IP20 Enclosure: IP50
Lifespan, mechanical	30,000,000 Operations
Mounting position	As required
Overvoltage category	III
Pollution degree	3
Product category	EMR Measuring and monitoring relays
Rated impulse withstand voltage (Uimp)	4000 V AC
Shock resistance	Class 2
LED indicator	Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating) Status indication of Relay energized: Yellow, solid light (R/T) Status indication of Supply voltage: Yellow LED Status indication of Delay time running: Yellow, flashing light (R/T) Status indication of Supply voltage: Yellow, solid light Status indication of Undervoltage: Red LED (F2 on) Status indication of Overvoltage: F1 red, solid light
Suitable for	Three-phase networks
Type	Phase monitoring relay
Voltage type	AC
Climatic environmental conditions	

Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		60 °C
Ambient storage temperature - min		40 °C
Ambient storage temperature - max		85 °C
Climatic proofing		Damp heat, cyclic, to IEC 60068-2-30
<b>Electro magnetic compatibility</b>		
Air discharge		Air/contact discharge, according to IEC/EN 61000-4-2, level 3
Burst impulse		According to IEC/EN 61000-4-4, level 3
Electromagnetic compatibility		According to IEC/EN 60947-6-2
Immunity to line-conducted interference		Level 3 (according to IEC/EN 61000-4-6)
Immunity to radiation		Level 3 (according to IEC/EN 61000-4-3)
Surge rating		According to IEC/EN 61000-4-5 Level 4
<b>Terminal capacities</b>		
Connection type		Snap fixing, top-hat rail IEC/EN 60715
Terminal capacity		2 x (0.5-1.5) mm <sup>2</sup> , (2 x (18-16) AWG), flexible with ferrule 1 x (0.5-2.5) mm <sup>2</sup> , (1 x (18-14) AWG), solid
Screwdriver size		5.5 x 0.8 mm, Terminal screw
Tightening torque		0.8 Nm, Screw terminals Min. 0.6 Nm, Screw terminals
<b>Timing cycle</b>		
Delay time		On-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s 0.2 s, Response delay time
Timing cycle		0.5 % Error within supply voltage (Measuring circuits) 0.5 %, Time error within supply voltage 0.06 %/°C, Time error within temperature range Adjustable from 0.1 – 30 s, Reset delay/Off-delay time
<b>Power supply</b>		
Duty factor		100 %, Power supply
Power consumption		10 VA
Rated control supply voltage (Us) at AC, 50 Hz - min		160 V
Rated control supply voltage (Us) at AC, 50 Hz - max		300 V
Rated control supply voltage (Us) at AC, 60 Hz - min		160 V
Rated control supply voltage (Us) at AC, 60 Hz - max		300 V
Rated control supply voltage (Us) at DC - min		0 V
Rated control supply voltage (Us) at DC - max		0 V
Rated frequency - min		50 Hz
Rated frequency - max		60 Hz
Supply voltage		160 - 300 V AC, 50/60 Hz
Voltage tolerance		1.1 x Uc 0.85 x Uc
<b>Measuring circuits</b>		
Hysteresis		0 - 5 %
Measuring cycle		50 ms
Monitoring voltage		160 - 300 V AC, 50/60 Hz (per phase)
Temperature error		0.06 %/°C, Measuring circuits
<b>Relay output contacts</b>		
Number of contacts (change-over contacts)		2
Number of contacts (normally closed contacts)		0
Number of contacts (normally open contacts)		0
Lifespan, electrical		100,000 Operation (at 230 V, AC-12, 4 A)
Rated operational current (Ie)		2 A at DC-13, 24 V 4 A at DC-12, 24 V 3 A at AC-15, 230 V 4 A at AC-12, 230 V
Rated operational voltage (Ue) at AC - max		250 V
Short-circuit protection rating		Max. 10 A Fast/gL, Fuse, Relay output contacts

## Technical data ETIM 9.0

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@ss13-27-37-18-03 [AKFD97019])			
Type of electric connection			Screw connection
With detachable clamps			No
External power supply required			No
Voltage type (supply voltage)			AC
Supply voltage AC 50 Hz		V	160 - 300
Supply voltage AC 60 Hz		V	160 - 300
Supply voltage DC		V	
Phase sequence monitoring			Yes
Phase failure detection			Yes
Function under voltage detection			Yes
Function over voltage detection			Yes
Phase imbalance monitoring			No
Voltage measuring range		V	160 - 300
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
Voltage type (operating voltage)			AC
Operating voltage AC 50 Hz		V	160 - 300
Operating voltage AC 60 Hz		V	160 - 300
Operating voltage DC		V	
Rated switch current		A	4
Width		mm	22.5
Height		mm	85.6
Depth		mm	103.7