

## Insulation monitoring relays, 0 - 400 V AC, 1 - 100 kΩ

**Part no.** EMR6-R400-A-1  
**184773**  
**EL Number** 4101969  
**(Norway)**

General specifications	
Product name	Eaton Moeller® series EMR6 Insulation monitoring relay
Part no.	EMR6-R400-A-1
EAN	4015081788095
Product Length/Depth	103.7 millimetre
Product height	85.6 millimetre
Product width	22.5 millimetre
Product weight	0.141 kilogram
Certifications	IEC/EN 60255-6
Product Tradename	EMR6
Product Type	Insulation monitoring relay
Product Sub Type	None
Catalog Notes	Open-circuit principle Test or reset with button on device or with control input
Features & Functions	
Electric connection type	Screw connection
Functions	Error registration possible Status indication via LEDs Configurable non-volatile fault memory Configurable memory function For AC-current system Configurable fault memory
Monitoring function	Insulation resistance in non-earthed AC supply systems (two-phase, three-phase, four-phase systems)
Voltage measurement - min	400 V
Voltage measurement - max	0 V
General information	
Cable length	10 m
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 Supply voltage: Green, solid light Status indication of Faults at L-: Red LED Status indication of Supply voltage: Green LED Other states depending on fault (see IL): Measured value Status indication of Faults at L+: Red LED
Type	Insulation monitoring relay
Voltage type	AC/DC
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
Electro magnetic compatibility	
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 (flexible with ferrule)		2 x 0.5-1.5 mm <sup>2</sup>
Terminal capacity (flexible with ferrule AWG)		2 x 18-16
Terminal capacity (solid)		1 x 0.5-2.5 mm <sup>2</sup>
Terminal capacity (solid AWG)		18 - 14
Screwdriver size		5.5 x 0.8 mm, Terminal screw
Tightening torque		0.8 Nm, Screw terminals Min. 0.5 Nm, Screw terminals
<b>Timing cycle</b>		
Adjustment range		1 - 100 kΩ, Sensitivity
<b>Power supply</b>		
Duty factor		100 %, Power supply
Power consumption		3.5 VA
Rated control supply voltage (Us) at AC, 50 Hz - min		24 V
Rated control supply voltage (Us) at AC, 50 Hz - max		240 V
Rated control supply voltage (Us) at AC, 60 Hz - min		24 V
Rated control supply voltage (Us) at AC, 60 Hz - max		240 V
Rated control supply voltage (Us) at DC - min		24 V
Rated control supply voltage (Us) at DC - max		240 V
Rated frequency - min		15 Hz
Rated frequency - max		60 Hz
Rated operational voltage of monitored supply system		0 - 400 V AC
Supply voltage		24 - 240 V DC 24 - 240 V AC, 50/60 Hz
Voltage tolerance		1.1 x U <sub>c</sub> 0.85 x U <sub>c</sub>
<b>Measuring circuits</b>		
Hysteresis		25 %
<b>Relay output contacts</b>		
Number of contacts (change-over contacts)		1
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 (I <sub>e</sub> )		5 A at AC-12, 230 V
Rated operational current (I <sub>e</sub> ) at AC-15, 220 V, 230 V, 240 V		3 A
Rated operational current (I <sub>e</sub> ) at DC-13, 24 V		2.5 A
Rated operational voltage (U <sub>e</sub> ) - min		0 V
Rated operational voltage (U <sub>e</sub> ) - max		400 V
Short-circuit protection rating		Max. 10 A Fast/gL, Fuse, Relay output contacts

## Technical data ETIM 9.0

Relays (EG000019) / Insulation and earth fault monitoring relay (EC001444)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Insulation-/earth connection monitoring equipment (ecl@ss13-27-37-18-07 [AKF101019])		
Type of electric connection		Screw connection
With detachable clamps		No
Function		For AC-current system
External power supply required		No
Voltage type (supply voltage)		AC
Supply voltage AC 50 Hz	V	0 - 400

Supply voltage AC 60 Hz	V	0 - 400
Supply voltage DC	V	
Voltage measuring range	V	400
Rated operating frequency	Hz	15 - 60
Line capacity	µF	10
Response value impedance 1	kOhm	1 - 100
Response value impedance 2	kOhm	0 - 0
Indication of insulation value		No
Error registration possible		Yes
Number of contacts as normally closed contact		0
Number of contacts as normally open contact		0
Number of contacts as change-over contact		1
Voltage type (operating voltage)		AC
Operating voltage AC 50 Hz	V	0 - 400
Operating voltage AC 60 Hz	V	0 - 400
Operating voltage DC	V	
Rated switch current	A	4
Width	mm	22.5
Height	mm	85.6
Depth	mm	103.7