

Voltage monitoring relay, 3 - 30, 5 - 60, 30 - 300, 60 - 600 V, 24 - 240 V AC,
50/60 Hz, 24 - 240 V DC



Powering Business Worldwide™

Part no. EMR6-VM600-A-1

184784

EL Number

4101980

(Norway)

General specifications	
Product name	Eaton Moeller® series EMR6 Voltage monitoring relay
Part no.	EMR6-VM600-A-1
EAN	4015081788200
Product Length/Depth	103.7 millimetre
Product height	85.6 millimetre
Product width	22.5 millimetre
Product weight	0.154 kilogram
Certifications	EAC CCC CSA-C22.2 No. 14 GL UL508 RMRS RCM
Product Tradename	EMR6
Product Type	Voltage monitoring relay
Product Sub Type	None
Features & Functions	
Electric connection type	Screw connection
Functions	Single-phase under voltage possible DC-under voltage Single-phase over voltage possible DC-over voltage
Monitoring function	Undervoltage Overvoltage
Voltage measurement - min	3 V
Voltage measurement - max	600 V
General information	
Degree of protection	Enclosure: IP50 Terminals: IP20
Lifespan, mechanical	30,000,000 Operations
Mounting position	As required
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4000 V AC
Shock resistance	Class 2
LED indicator	Status indication of energized output relay: Yellow LED Status indication of Supply voltage: Yellow LED Status indication of errors: Red LED Other states depending on fault (see IL): Measured value Status indication of Supply voltage: Green, solid light
Type	Voltage monitor
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
Terminal capacities		
Connection type		Snap fixing, top-hat rail IEC/EN 60715
Terminal capacity (flexible with ferrule)		2 x 0.5-1.5 mm ²
Terminal capacity (flexible with ferrule AWG)		2 x 18-16
Terminal capacity (solid)		1 x 0.5-2.5 mm ²
Terminal capacity (solid AWG)		18 - 14
Screwdriver size		5.5 x 0.8 mm, Terminal screw
Tightening torque		Min. 0.5 Nm, Screw terminals 0.8 Nm, Screw terminals
Timing cycle		
Delay time		Adjustable from 0.1 - 30 s, Response delay time
Timing cycle		Adjustable from 0.1 – 30 s, Reset delay/Off-delay time
Power supply		
Duty factor		100 %, Power supply
Power consumption		2.6 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		50 Hz
Rated frequency - max		60 Hz
Supply voltage		24 - 240 V AC, 50/60 Hz 24 - 240 V DC
Voltage tolerance		0.85 x Uc 1.1 x Uc
Measuring circuits		
Hysteresis		3 - 30 %
Threshold value		3 V AC, Min. undervoltage response value 3 V AC, Min. overvoltage response value 600 V AC, Max. undervoltage response value 600 V AC, Max. overvoltage response value
Relay output contacts		
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)

Technical data ETIM 9.0

Relays (EG000019) / Voltage monitoring relay (EC001438)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Voltage monitoring equipment (ecl@ss13-27-37-18-01 [AKF095019])		
Type of electric connection		Screw connection
With detachable clamps		No
External power supply required		No
Voltage type (supply voltage)		AC/DC
Supply voltage AC 50 Hz	V	24 - 240
Supply voltage AC 60 Hz	V	24 - 240
Supply voltage DC	V	24 - 240
Voltage measuring range 1	V	3 - 600
Voltage measuring range 2	V	0 - 0
Type of voltage measuring range		AC/DC

Response value voltage	V	3 - 600
Single-phase under voltage possible		Yes
Three-phase under voltage possible		No
Single-phase over voltage possible		Yes
Three-phase over voltage possible		No
Single-phase hysteresis possible		No
Three-phase hysteresis possible		No
Contains function DC-under voltage		Yes
Contains function DC-over voltage		Yes
Contains function DC-voltage hysteresis		No
Min. adjustable delay-on energization time	s	0.1
Max. permitted delay-on energization time	s	30
Min. adjustable off-delay time	s	0
Max. permitted off-delay time	s	0
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/DC
Operating voltage AC 50 Hz	V	24 - 240
Operating voltage AC 60 Hz	V	24 - 240
Operating voltage DC	V	24 - 240
Rated switch current	A	4
Width	mm	22.5
Height	mm	85.6
Depth	mm	103.7