

DATASHEET - EMR6-VM600-A-1



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

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		RCM RMRS UL508 GL CSA-C22.2 No. 14 CCC EAC
Product Tradename		EMR6
Product Type		Voltage monitoring relay
Product Sub Type		None
Features & Functions		
Electric connection type		Screw connection
Functions		DC-over voltage Single-phase over voltage possible DC-under voltage Single-phase under voltage possible
Monitoring function		Overvoltage Undervoltage
Voltage measurement - min		3 V
Voltage measurement - max		600 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
Rated impulse withstand voltage (Uimp)		4000 V AC
Shock resistance		Class 2
LED indicator		Status indication of Supply voltage: Green, solid light Other states depending on fault (see IL): Measured value Status indication of errors: Red LED Status indication of Supply voltage: Yellow LED Status indication of energized output relay: Yellow LED
Type		Voltage monitor
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 mm²
Terminal capacity (flexible with ferrule AWG)			2 x 18-16
Terminal capacity (solid)			1 x 0.5-2.5 mm²
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
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 DC 24 - 240 V AC, 50/60 Hz
Voltage tolerance			1.1 x Uc 0.85 x Uc
Measuring circuits			
Hysteresis			3 - 30 %
Threshold value			600 V AC, Max. overvoltage response value 600 V AC, Max. undervoltage response value 3 V AC, Min. overvoltage response value 3 V AC, Min. undervoltage 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 (ecI@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