



Overcurrent and undercurrent monitor, Current measuring range: 3 - 30 mA, 10 - 100 mA, 0.1 - 1 A, Supply voltage: 24 - 240 V AC, 50/60 Hz, 24 - 240 V DC

Part no. EMR6-I1-A-1
184790
EL Number 4101986
(Norway)

General specifications		
Product name		Eaton Moeller® series EMR6 Overcurrent and undercurrent monitor
Part no.		EMR6-I1-A-1
EAN		4015081788262
Product Length/Depth		103.7 millimetre
Product height		85.6 millimetre
Product width		22.5 millimetre
Product weight		0.152 kilogram
Certifications		GL CCC CSA-C22.2 No. 14 EAC RMRS UL 508
Product Tradename		EMR6
Product Type		Overcurrent and undercurrent monitor
Product Sub Type		None
Catalog Notes		Extension of the measurement range possible with current transformers
Features & Functions		
Current measurement - min		0.01 A
Current measurement - max		1 A
Electric connection type		Screw connection
Functions		DC-voltage over current Monitoring of single-phase DC and AC networks Single-phase under current possible Single-phase over current possible DC-voltage under current
Monitoring function		Undercurrent Overcurrent
Voltage measurement - min		24 V
Voltage measurement - max		240 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 Supply voltage: Green LED Status indication of Undercurrent: Red, flashing light Status indication of measured value: Red LED Status indication of Output relay excited: Yellow, solid light Status indication of Supply voltage: Green, solid light Status indication of energized output relay: Yellow LED Status indication of active release delay: Green, flashing light
Type		Current 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
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		4 x 0.8 mm, Terminal screw
Tightening torque		0.8 Nm, Screw terminals Min. 0.6 Nm, Screw terminals
Timing cycle		
Delay time		On delay: None = 0 or adjustable from 0.1 to 30 s
Timing cycle		0.5 %, Time error within supply voltage 0.5 % Error within supply voltage (Measuring circuits) Adjustable from 0.1 – 30 s, Reset delay/Off-delay time 0.06 %/°C, Time error within temperature range
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		0.85 x Uc 1.1 x Uc
Measuring circuits		
Hysteresis		3 - 30 %
Input current		Input B3-C: 0.1 - 1 A Input B1-C: 0.003 - 0.03 A Input B2-C: 0.01 - 0.1 A
Measuring cycle		80 ms
Temperature error		0.06 %/°C, Measuring circuits
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)
Rated operational current (Ie)		4 A at DC-12, 24 V 4 A at AC-12, 230 V
Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V		3 A
Rated operational current (Ie) at DC-13, 24 V		2 A
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) / Current monitoring relay (EC001440)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Current monitoring equipment (ecI@ss13-27-37-18-02 [AKF096019])			
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		V	24 - 240
Type of current			AC/DC
Current measuring range		A	0.01 - 1
Response value amperage 1		A	0.1 - 1
Response value amperage 2		A	0.003 - 0.03
Single-phase under current possible			Yes
Three-phase under current possible			No
Single-phase overcurrent possible			Yes
Three-phase overcurrent possible			No
Single-phase hysteresis possible			No
Three-phase hysteresis possible			No
Contains function DC-voltage under current			Yes
Contains function DC-voltage overcurrent			Yes
Function DC-current 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
External current transformer			No
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