Phase monitoring relays, Multi-functional, 300 - 500 V AC, 50/60 Hz



Part no. EMR6-AW500-D-1

184764

EL Number 4101960

(Norway)

Product same	(Norway)	
Fort no. LAM 40 5990 798002 1 LAM 40 5990 798002 1 Product Length Digith Product Length Capith Product width 22 millimetre 10 k Spigma Certifications LENG Conditions LENG Product Tradername LENG Product Standarname LENG Product Standarname LENG Product Standarname LENG Product Standarname LENG Reason Connection (19 %) Reason Conn	General specifications	
Poduct tenghi/Depth Product tenghi/Depth Product tenghi/Depth Product veribit Product veribit Product veribit Product veribit Product veribit Certifications Product Tenghi Product Tenghi Product Statistic Product Tenghi Product Ten	Product name	Eaton Moeller® series EMR6 Phase monitoring relay
Product Length Velopth Product Length Velopth Product Length Velopth Product Length Velopth Product Velopth Product Velopth Product Study Indianama Carolinamama Carolinamamamamamama Carolinamamamamamamamamamamamamamamamamamamam	Part no.	EMR6-AW500-D-1
Product height Product width Product width Os stoyr an Certifications Certificati	EAN	4015081788002
Product width Product weight Outside	Product Length/Depth	103.7 millimetre
Product weight Certifications Certifications Certifications CESA CESA CESA CESA CESA CESA CESA CESA	Product height	85.6 millimetre
Cardications Case	Product width	22.5 millimetre
Product Tradename Product Type Product Type Product Type Product Sun Type Catalog Notes Bectic connection type Enteriors Enteriors Bectic connection type Fratures Under voltage detection Plass fabric dete	Product weight	0.16 kilogram
Product Type Product Sub Type Catalog Notes Measurement range: 5080 Hz (= 10 %) Froquency Product Sub Type Catalog Notes Measurement range: 5080 Hz (= 10 %) Froquency Prover supply from the measuring circuit Features Bestric connection type Inhabation christ-shold values adjustable 2 - 25 % of mean value of phase voltages Functions Under voltage detection Phase failure detection Over voltage of detection Phase failure Undervoltage and phase commontoring Phase squares emoritoring Phase squares emoritorin	Certifications	CSA UL CCC
Product Sub Type Catalog Notes Beactine connection type Electric connection type Features Freatures Freatures Freatures Functions Beactine connection type Freatures Monitoring function Monitoring function Monitoring function Monitoring function Monitoring function Monitoring function Freatures Freatur	Product Tradename	EMR6
Measurement range, 50/00 Hz z 10 %) Frequency Power supply from the measuring circuit	Product Type	Phase monitoring relay
Features & Functions Electric connection type Features Electric connection type Features Functions Functions Monitoring function Degree of protection Enclosure: IP50 Enclosure: IP50 Enclosure: IP50 Enclosure: IP50 Enclosure: IP50 Enclosure: IP50 As required Monitoring position Monitoring relays Monitoring position Monitoring	Product Sub Type	None
Electric connection type	•	
Features Imbalance threshold values adjustable 2- 25 % of mean value of phase voltages Functions Functions Monitoring function Phase imbalance monitoring Phase is sequence monitoring Phase sequence function Enclosure: IP50 Iremnals: IP20	Features & Functions	
Functions Under voltage detection Phase failure detection Nor voltage measurement Nor voltage N	Electric connection type	Screw connection
Monitoring function Monitoring function Monitoring function Monitoring function Monitoring function Phase influence monitoring Phase influence monitoring Phase failure (Undervoltage Phase sequence (can be deactivated) Overvoltage Imbalance Voltage measurement - min Voltage measurement - max Son V General information Degree of protection Degree of protection Enclosure: IP50 Terminals: IP20 Lifespan, mechanical Mounting position Overvoltage category III Pollution degree Product category Rated impulse withstand voltage (Uimp) Shock resistance LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of an engined output roley Green flashing) (F1 and F2 flashing) Status indication of Phase sequence fault: Red, flashing light (F1 and F2 flashing) Status indication of Phase sequence fault: Red, flashing light (F1 and F2 flashing) Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light (F1 and F2 flashing) Status indication of Deley time running, Vellow, flashing light Status indication of Deley time running, Vellow, flashing light Status indication of Deley time running, Vellow, flashing light Status indication of Deley time running, Vellow, flashing light Status indication of Undervoltage: Red LED (F2 on) Status indication of Undervoltage: Red LED (F2 on)	Features	Imbalance threshold values adjustable 2 - 25 % of mean value of phase voltages
Phase siture Undervoltage Phase sequence (can be deactivated) Overvoltage Imbalance Degree of protection Degree of protection Lifespan, mechanical Mounting position Overvoltage category Pollution degree Product category Pollution degree Product category Rated impulse withstand voltage (Uimp) Shock resistance LED indicator LED indicator LED indicator Product category Rated impulse withstand voltage (Uimp) As required LED indicator Shock resistance LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing) light Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing) light Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing light Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing light Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing light Status indication of Relay energized: Prod. solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green, solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green, solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Undervoltage; E2 red, solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light (F1 and F2 red, flashing light Status indication of Supply voltage: Green Red. Solid light	Functions	Phase failure detection Over voltage detection
Voltage measurement - max General information Degree of protection Enclosure: IP50 Terminals: IP20 Lifespan, mechanical Mounting position Overvoltage category III Pollution degree 3 Product category Rated impulse withstand voltage (Uimp) Shock resistance LED indicator Status indication of Phase sequence from: Red. [ELDs (F1 and F2 alternating Status indication of Vervoltage: F1 erd, solid light Status indication of Vervoltage: F1 erd, solid light Status indication of Verse fallure: Red, solid light Status indication of Phase fallure: Red. poli light Status indication of Phase fallure: Red. poli light Status indication of Phase fallure: Red. poli light Status indication of Obey time running: Vellow, slashing light (F1 and F2 flashing) Status indication of Obey time running: Vellow, slowlight Status indication of Obey time running: Vellow, slowlight Status indication of Delay time running: vellow, slowlight Status indication of Undervoltage: Pt erd, solid light Status indication of Undervoltage: Pt erd, solid light Status indication of Undervoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F1 on)	Monitoring function	Phase failure Undervoltage Phase sequence monitoring Phase sequence (can be deactivated) Overvoltage
Begree of protection Degree of protection Enclosure: IP50 Terminals: IP20 Lifespan, mechanical 30,000,000 Operations Mounting position As required Overvoltage category III Pollution degree Product category EMR Measuring and monitoring relays Rated impulse withstand voltage (Uimp) Shock resistance LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase sequence error. Red LEDs (F1 and F2 flashing) Status indication of Phase sequence error. Red LEDs (F1 and F2 flashing) Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: Red LEDs (F1 on, F2 flashing) Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Delay time running: Yellow, solid light Status indication of Supply voltage: Green, solid light Status indication of Meabance: Red, ED (F1 on, F2 flashes) Status indication of Meabance: Red, ELD (F1 on) Status indication of Undervoltage: F2 red, solid light	Voltage measurement - min	300 V
Degree of protection Enclosure: IP50 Terminals: IP20 Lifespan, mechanical 30,000,000 Operations As required Overvoltage category III Pollution degree Product category EMR Measuring and monitoring relays Rated impulse withstand voltage (Uimp) Shock resistance LED indicator LED indicator LED indicator LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase require error: Red LEDs (F1 and F2 flashing) Status indication of Phase failure: F1 red, solid light Status indication of Plase failure: F1 red, solid light Status indication of Delay time running: Yellow, solid light Status indication of Delay time running: Yellow, solid light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Delay time running: Yellow, sighshing light Status indication of Overvoltage: Red, solid light (F1 and F2) Status indication of Overvoltage: Red LED (F1 on) Status indication of Overvoltage: Red LED (F1 on) Status indication of Overvoltage: Red LED (F1 on)	Voltage measurement - max	500 V
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 Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Phase failure: F1 red, solid light status indication of Phase failure: F1 red, solid light and F2 red, flashing light (Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yello	General information	
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 Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of energized output relay; Green flashing (R) Status indication of Overvoltage: F1 red, solid light Status indication of Overvoltage: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Duply voltage: Green, solid light Status indication of Duply voltage: Green, EDE (R on) Status indication of Outervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Overvoltage: Red LED (F1 on) Status indication of Overvoltage: Red LED (F2 on)	Degree of protection	
Overvoltage category Pollution degree 3 Product category Rated impulse withstand voltage (Uimp) 4000 V AC Shock resistance Class 2 LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Phase faulter: F1 red, solid light Status indication of Phase faulter: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Undervoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Lifespan, mechanical	30,000,000 Operations
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 Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Supply voltage: Green, solid light Status indication of Dhase failure: Red LEDs (F1 on, F2 flashes) Status indication of Dhase failure: Red LEDs (F1 on) Status indication of Supply voltage: Green LED (R on) Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Mounting position	As required
Product category Rated impulse withstand voltage (Uimp) 4000 V AC Shock resistance Class 2 LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Relay energized: Yellow, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Delay time running: Yellow, flashing light Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Undervoltage: F2 red, solid light Status indication of Undervoltage: F2 red, solid light Status indication of Undervoltage: F2 red, solid light Status indication of Undervoltage: Red LED (F1 on) Status indication of Overvoltage: Red LED (F2 on)	Overvoltage category	III
Rated impulse withstand voltage (Uimp) 4000 V AC Shock resistance Class 2 LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of energized output relay: Green flashing (R) Status indication of Overvoltage: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Phase failure: F1 red, solid light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Undervoltage: F2 red, solid light Status indication of Undervoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Pollution degree	3
Class 2 LED indicator Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of energized output relay: Green flashing (R) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Relay energized: Yellow, solid light Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Supply voltage: Green LED (R on) Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Product category	EMR Measuring and monitoring relays
Status indication of Phase sequence fault: Red, flashing light (F1 and F2 alternating Status indication of energized output relay: Green flashing (R) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Relay energized: Yellow, solid light Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Supply voltage: Green LED (R on) Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Rated impulse withstand voltage (Uimp)	4000 V AC
Status indication of energized output relay: Green flashing (R) Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Relay energized: Yellow, solid light Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Supply voltage: Green LED (R on) Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on) Status indication of Undervoltage: Red LED (F2 on)	Shock resistance	Class 2
Suitable for Three-phase petworks	LED indicator	Status indication of Phase sequence error: Red LEDs (F1 and F2 flashing) Status indication of Overvoltage: F1 red, solid light Status indication of Relay energized: Yellow, solid light Status indication of Phase failure: F1 red, solid light and F2 red, flashing light Status indication of Supply voltage: Green, solid light Status indication of Delay time running: Yellow, flashing light Status indication of Phase failure: Red LEDs (F1 on, F2 flashes) Status indication of Imbalance: Red, solid light (F1 and F2) Status indication of Supply voltage: Green LED (R on) Status indication of Undervoltage: F2 red, solid light Status indication of Overvoltage: Red LED (F1 on)
The phase networks	Suitable for	Three-phase networks

Туре	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
Electro magnetic compatibility	28.mp 1024/07/01/07/02/02/02/02
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	According to 125/214 order 1 of 25441 1
·	Snan fiving ton hot rail IEC/EN 20715
Connection type Terminal canacity	Snap fixing, top-hat rail IEC/EN 60715 1 x (0.5-2.5) mm², (1 x (18-14) AWG), solid
Terminal capacity	2 x (0.5-1.5) mm², (1 x (18-14) AWG), flexible with ferrule
Screwdriver size	5.5 x 0.8 mm, Terminal screw
Tightening torque	0.8 Nm, Screw terminals
	Min. 0.6 Nm, Screw terminals
Timing cycle	
Delay time	0.2 s, Response delay time On-delay/off-delay: none = 0 or adjustable between 0.1 - 30 s
Timing cycle	0.06 %/°C, Time error within temperature range 0.5 % Error within supply voltage (Measuring circuits) 0.5 %, Time error within supply voltage Adjustable from 0.1 – 30 s, Reset delay/Off-delay time
Power supply	
Duty factor	100 %, Power supply
Power consumption	3 VA
Rated control supply voltage (Us) at AC, 50 Hz - min	300 V
Rated control supply voltage (Us) at AC, 50 Hz - max	500 V
Rated control supply voltage (Us) at AC, 60 Hz - min	300 V
Rated control supply voltage (Us) at AC, 60 Hz - max	500 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	300 - 500 V AC, 50/60 Hz
Voltage tolerance	0.85 x Uc 1.1 x Uc
Measuring circuits	
Hysteresis	0 - 5 %
Measuring cycle	50 ms
Monitoring voltage	300 - 500 V AC, 50/60 Hz (per phase)
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 (le)	4 A at AC-12, 230 V 3 A at AC-15, 230 V 2 A at DC-13, 24 V 4 A at DC-12, 24 V
Rated operational voltage (Ue) at AC - max	250 V

Technical data ETIM 8.0

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@ss10.0.1-27-37-18-03 [AKF097014])

(exception in the section of			
Type of electric connection			Screw connection
With detachable clamps			No
Rated control supply voltage Us at AC 50HZ	,	V	300 - 500
Rated control supply voltage Us at AC 60HZ	,	V	300 - 500
Rated control supply voltage Us at DC	,	V	0 - 0
Voltage type for actuating			AC
Phase sequence monitoring			Yes
Phase failure detection			Yes
Function under voltage detection			Yes
Function over voltage detection			Yes
Phase imbalance monitoring			Yes
Voltage measuring range	,	V	300 - 500
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
Width	1	mm	22.5
Height	1	mm	85.6
Depth	ı	mm	103.7