

Specifications



Eaton 184772

Eaton Moeller® series EMR6 Insulation monitoring relays, 0 - 250 V AC, 0 - 300 V DC, 1 - 100 kΩ

General specifications

PRODUCT NAME	Eaton Moeller® series EMR6 Insulation monitoring relay
CATALOG NUMBER	184772
MODEL CODE	EMR6-R250-A-1
EAN	4015081788088
PRODUCT LENGTH/DEPTH	103.7 mm
PRODUCT HEIGHT	85.6 mm
PRODUCT WIDTH	22.5 mm
PRODUCT WEIGHT	0.148 kg
CERTIFICATIONS	IEC/EN 60255-6



Powering Business Worldwide

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT STORAGE TEMPERATURE - MAX	85 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30

Features & functions

ELECTRIC CONNECTION TYPE	Screw connection
FUNCTIONS	For mixed system Error registration possible Configurable fault memory Configurable memory function Status indication via LEDs Configurable non-volatile fault memory
MONITORING FUNCTION	Insulation resistance in non-earthed AC supply systems (two-phase, three-phase, four-phase systems) Insulation resistance in non-earthed DC supply systems (two-phase, three-phase systems)
VOLTAGE MEASUREMENT - MAX	300 V
VOLTAGE MEASUREMENT - MIN	0 V

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

General information

CABLE LENGTH	10 m
DEGREE OF PROTECTION	Enclosure: IP50 Terminals: IP20
LED INDICATOR	Status indication of Supply voltage: Green LED Status indication of Supply voltage: Green, solid light Other states depending on fault (see IL): Measured value Status indication of Faults at L+: Red LED Status indication of Faults at L-: Red LED
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
TYPE	Insulation monitoring relay
VOLTAGE TYPE	AC/DC

Measuring circuits

HYSTERESIS	25 %
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Power supply

DUTY FACTOR	100 %, Power supply
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POWER CONSUMPTION	3.5 VA
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	240 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	24 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	24 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	240 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
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RATED FREQUENCY - MAX	60 Hz
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RATED FREQUENCY - MIN	15 Hz
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RATED OPERATIONAL VOLTAGE OF MONITORED SUPPLY SYSTEM	0 - 250 V AC 0 - 300 V DC
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SUPPLY VOLTAGE	24 - 240 V DC 24 - 240 V AC, 50/60 Hz
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VOLTAGE TOLERANCE	1.1 x U_c 0.85 x U_c
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Relay output contacts

LIFESPAN, ELECTRICAL	100,000 Operation (at 230 V, AC-12, 4 A)
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	1
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	0
RATED OPERATIONAL CURRENT (IE)	5 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	2.5 A
RATED OPERATIONAL VOLTAGE (UE) - MAX	250 V
RATED OPERATIONAL VOLTAGE (UE) - MIN	0 V
SHORT-CIRCUIT PROTECTION RATING	Max. 10 A Fast/gL, Fuse, Relay output contacts

Timing cycle

ADJUSTMENT RANGE	1 - 100 kΩ, Sensitivity
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Terminal capacities

CONNECTION TYPE	Snap fixing, top-hat rail IEC/EN 60715
SCREWDRIVER SIZE	5.5 x 0.8 mm, Terminal screw
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE AWG)	2 x 18-16
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x 0.5-1.5 mm ²
TERMINAL CAPACITY (SOLID AWG)	18 - 14
TERMINAL CAPACITY (SOLID)	1 x 0.5-2.5 mm ²
TIGHTENING TORQUE	0.8 Nm, Screw terminals Min. 0.5 Nm, Screw terminals

Resources

APPLICATION NOTES	easyE4 and EMR6 - the perfect match for safe motor control
BROCHURES	EMR6 - EMT6 - ETR4 brochure
CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-monitoring-characteristic-curve.eps eaton-monitoring-limit-curve-characteristic-curve-002.eps eaton-monitoring-limit-curve-characteristic-curve.eps eaton-monitoring-contact-characteristic-curve.eps

DECLARATIONS OF CONFORMITY	eaton-insulation-monitoring-relay-declaration-of-conformity-uk251046en.pdf eaton-insulation-monitoring-relay-declaration-of-conformity-eu251554en.pdf
DRAWINGS	eaton-monitoring-relay-dimensions-002.eps
INSTALLATION INSTRUCTIONS	IL121009ZU
MCAD MODEL	eaton-cam-switches-mcad-drawings-emr6-r-t-v-i.dwg DA-CS-emr6_r_t_v_i
WIRING DIAGRAMS	eaton-earth-leakage-monitors-emr6-insulation-monitoring-relay-wiring-diagram.bmp

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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