

# Specifications



## Eaton 120662

Eaton Moeller series xPole - mRB4/6 RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 10A, 100mA, C-LS-Char, 3N pole, Fl-Char: A

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series xPole - mRB4/6 RCBO - residual-current circuit breaker with overcurrent protection
<b>CATALOG NUMBER</b>	120662
<b>MODEL CODE</b>	mRB6-10/3N/C/01-A
<b>EAN</b>	4015081184927
<b>PRODUCT LENGTH/DEPTH</b>	80 mm
<b>PRODUCT HEIGHT</b>	75.5 mm
<b>PRODUCT WIDTH</b>	70 mm
<b>PRODUCT WEIGHT</b>	0.446 kg
<b>COMPLIANCES</b>	CE Marked RoHS conform
<b>CERTIFICATIONS</b>	CE
<b>GLOBAL CATALOG</b>	120662

## Product specifications

<b>VOLTAGE RATING</b>	400 V
<b>SURGE CURRENT CAPACITY</b>	0.25 kA
<b>VOLTAGE TYPE</b>	AC
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	4
<b>FEATURES</b>	Concurrently switching N-neutral
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>DEVICE HEIGHT</b>	80 mm
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to

## Resources

### CATALOGS

[eaton-xpole-mrb4-rcbo-catalog-ca019058en-en-us.pdf](#)

[eaton-xpole-mrb6-rcbo-catalog-ca019057en-en-us.pdf](#)

### CHARACTERISTIC CURVE

[eaton-mcb-xpole-mrb4-6-characteristic-curve.eps](#)

[Characteristics xPole mRB4/mRB6 3N](#)

### DECLARATIONS OF CONFORMITY

[eaton-rcbo-residual-current-circuit-breaker-with-overcurrent-protection-declaration-of-conformity-eu250077en.pdf](#)

### DRAWINGS

[eaton-xeffect-frbm6m-characteristic-curve-002.jpg](#)

[eaton-xeffect-frbm6m-wiring-diagram-002.jpg](#)

[eaton-mcb-xpole-mrb4-6-dimensions.eps](#)

[eaton-xeffect-frbm6m-dimensions-004.jpg](#)

[Dimensions xPole mRB4/mRB6 3N](#)

[3D Drawing xPole mRB4/mRB6 3N](#)

### ECAD MODEL

[ETN.mRB6-10 3N C\\_01-A.edz](#)

### INSTALLATION INSTRUCTIONS

[eaton-xpole-combined-mcb-rcd-device-rcbo-packaging-manual-multilingual.pdf](#)

[eaton-rccb-rcbo-g9-il019140zu.pdf](#)

### MCAD MODEL

[faz\\_3pn\\_4p.dwg](#)

[faz\\_3pn\\_4p.stp](#)

### PEP ECO-PASSPORT

[eaton-rcd-with-overcurrent-protection-pep-eato-00113-v0101-en.pdf](#)

### WIRING DIAGRAMS

[eaton-mcb-xpole-mrb4-6-wiring-diagram.eps](#)

	be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>MOUNTING STYLE</b>	Tri-stable slide catch - enables removal from existing busbar combination
<b>OPERATING AMBIENT TEMPERATURE - MAX</b>	40 °C
<b>OPERATING AMBIENT TEMPERATURE - MIN</b>	-25 °C
<b>PRODUCT APPLICATION</b>	Switchgear for industrial and advanced commercial applications
<b>PRODUCT RANGE</b>	mRB6
<b>RATED CURRENT</b>	10 A
<b>RATED CURRENT OF PRODUCT RANGE</b>	6 - 25 Ampere
<b>RATED FAULT CURRENTS OF PRODUCT RANGE</b>	30, 100, 300 MilliAmpere
<b>RATED OPERATIONAL</b>	10 A

[Contact Sequence xPole](#)  
[mRB4/mRB6 3N](#)

<b>CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	
<b>RATED SWITCHING CAPACITY (IEC/EN 60947- 2)</b>	6 kA
<b>RATED SWITCHING CAPACITY (IEC/EN 61009)</b>	6 kA
<b>STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT</b>	0 W
<b>TRIPPING CHARACTERISTIC</b>	C
<b>BUILT-IN DEPTH</b>	70 mm
<b>CURRENT LIMITING CLASS</b>	3
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)</b>	0 kA
<b>FRAME</b>	45 mm
<b>TERMINAL PROTECTION</b>	Busbar tag shroud to VBG4
<b>TERMINALS (TOP AND BOTTOM)</b>	Twin-purpose
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>FAULT CURRENT RATING</b>	0.1 A
<b>HEAT DISSIPATION CAPACITY</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT</b>	0 W
<b>NUMBER OF POLES (PROTECTED)</b>	4
<b>NUMBER OF POLES (TOTAL)</b>	4
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	400 V
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)</b>	0 kA
<b>RATED SWITCHING CAPACITY</b>	6 kA
<b>BACK-UP FUSE</b>	100 Ampere gL
<b>BASIC FUNCTION</b>	Combined RCD/MCB devices

<b>MOUNTING METHOD</b>	DIN rail
<b>CLIMATIC PROOFING</b>	IEC 68-2: 25 °C - 55 °C at 90 % - 95 % humidity
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	8.2 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>DEGREE OF PROTECTION (BUILT IN)</b>	IP40
<b>DEGREE OF PROTECTION</b>	IP20
<b>OPERATING AMBIENT TEMPERATURE HINT</b>	Keep in mind the derating at temperatures higher than 40 °C
<b>SOLID TERMINAL CAPACITIES</b>	1 - 25 Square Millimeter
<b>STANDARDS</b>	IEC/EN 61009
<b>TRIPPING</b>	Non-delayed
<b>OVERVOLTAGE CATEGORY</b>	III
<b>POLLUTION DEGREE</b>	2
<b>MATERIAL THICKNESS</b>	2 mm
<b>RATED NON-TRIPPING CURRENT</b>	$0.5 \times I_{\Delta n}$
<b>IMPULSE WITHSTAND CURRENT</b>	Partly surge-proof, 250 A
<b>LEAKAGE CURRENT TYPE</b>	A
<b>RELEASE CHARACTERISTIC</b>	C
<b>SENSITIVITY TYPE</b>	Type A, pulse-current sensitive
<b>FREQUENCY RATING</b>	50 Hz
<b>RATED INSULATION VOLTAGE (UI)</b>	500 V
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>	1 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>	25 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b>	1 mm <sup>2</sup>

<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED)</b>	25 mm <sup>2</sup>
<b>- MAX</b>	
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)</b>	6 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)</b>	6 kA
<b>VOLTAGE RATING AT AC</b>	230 V / 400 V
<b>NUMBER OF POLES</b>	Three-pole + N
<b>DISCONNECTION CHARACTERISTIC</b>	Undelayed
<b>TYPE</b>	RCBO
<b>APPLICATION</b>	Switchgear for residential and commercial applications
<b>SELECTIVITY CLASS</b>	3

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**



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