

# Specifications



Photo is representative

## Eaton 174522

Eaton Moeller series xEffect - AZ MCB.  
Miniature circuit breaker (MCB), 40A,  
3pole+N, type B characteristic

### General specifications

PRODUCT NAME	Eaton Moeller series xEffect - AZ MCB
CATALOG NUMBER	174522
MODEL CODE	AZ-3N-B40
EAN	4015081709786
PRODUCT LENGTH/DEPTH	75 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	108 mm
PRODUCT WEIGHT	0.836 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	EN45545-2 IEC 61373
GLOBAL CATALOG	174522



Powering Business Worldwide

## Product specifications

<b>USED WITH</b>	Miniature circuit breaker AZ
<b>AMPERAGE RATING</b>	40 A
<b>FEATURES</b>	Additional equipment possible 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>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 be evaluated.
<b>10.2.6 MECHANICAL</b>	Does not apply, since the

## Resources

<b>APPLICATION NOTES</b>	<a href="#">eaton-maximum-cable-lengths-for-eatons-protective-devices-brochure-br034006en-en-us.pdf</a>  <a href="#">eaton-quality-standards-for-railway-applications-application-paper-ap003005en-en-us.pdf</a>
<b>BROCHURES</b>	<a href="#">eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf</a>
<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-xeffect-az-mcb-characteristic-curve-003.jpg</a>  <a href="#">eaton-xeffect-az-mcb-characteristic-curve.jpg</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-03_AZ</a>
<b>DRAWINGS</b>	<a href="#">eaton-mcb-xeffect-az-dimensions-002.eps</a>  <a href="#">eaton-xpole-mmct-mcb-dimensions.jpg</a>  <a href="#">eaton-xeffect-az-mcb-3d-drawing.jpg</a>  <a href="#">eaton-xeffect-az-mcb-3d-drawing-002.jpg</a>
<b>ECAD MODEL</b>	<a href="#">ETN.AZ-3N-B40.edz</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">IL019148ZU</a>
<b>MCAD MODEL</b>	<a href="#">eaton-az_mcb_3pn-3d-model.stp</a>  <a href="#">eaton-az_mcb_3pn-drawing.dwg</a>
<b>WIRING DIAGRAMS</b>	<a href="#">eaton-xpole-mmcc4-6-m-mcb-wiring-diagram-004.jpg</a>

<b>IMPACT</b>	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>POLLUTION DEGREE</b>	2
<b>DEGREE OF PROTECTION</b>	IP20
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	15.4 W 13.2 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>TRIPPING CHARACTERISTIC</b>	B
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>BUILT-IN DEPTH</b>	75 mm
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b>	50 mm <sup>2</sup>
<b>CONNECTABLE</b>	2.5 mm <sup>2</sup>

<b>CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b>	
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>	50 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>	2.5 mm <sup>2</sup>
<b>CURRENT LIMITING CLASS</b>	3
<b>FREQUENCY RATING - MAX</b>	60 Hz
<b>FREQUENCY RATING - MIN</b>	50 Hz
<b>HEAT DISSIPATION CAPACITY</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>	4.4 W
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	6
<b>VOLTAGE TYPE</b>	AC
<b>OVERVOLTAGE CATEGORY</b>	III
<b>NUMBER OF POLES</b>	Three-pole + N
<b>RELEASE CHARACTERISTIC</b>	B
<b>TYPE</b>	<ul style="list-style-type: none"> <li>• AZ</li> <li>• Miniature circuit breaker</li> </ul>
<b>SPECIAL FEATURES</b>	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
<b>APPLICATION</b>	<ul style="list-style-type: none"> <li>• Switchgear for industrial and advanced commercial applications</li> <li>• xEffect - Switchgear for industrial and advanced commercial applications</li> </ul>

NUMBER OF POLES (PROTECTED)	3
NUMBER OF POLES (TOTAL)	4
RATED INSULATION VOLTAGE (UI)	440 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	40 A
RATED OPERATIONAL VOLTAGE (UE) - MAX	400 V
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 230 V	0 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 400 V	0 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 230 V	25 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 400 V	25 kA
RATED SWITCHING CAPACITY (IEC/EN 60947- 2)	25 kA
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT	0 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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