

Specifications



Photo is representative

Eaton 187290

Eaton Moeller series xPole - AFDD+ Arc fault detection device. 40A, 2p, B characteristic, 30mA, F

General specifications

PRODUCT NAME	Eaton Moeller series xPole - AFDD+ Arc fault detection device
CATALOG NUMBER	187290
MODEL CODE	AFDD-40/2/B/003-F
EAN	4015081823390
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	73 mm
PRODUCT WIDTH	52.5 mm
PRODUCT WEIGHT	0.277 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	CE



Powering Business Worldwide

Additional information

**ADDITIONAL EQUIPMENT
ATTACHED AT DELIVERY** Other

**CURRENT LIMITING
CLASS** 3

TYPES CONFORM TO IEC/EN 61009
IEC/EN 62606

Delivery programme

APPLICATION Switchgear for residential
and commercial
applications

BASIC FUNCTION Arc fault circuit interrupter

FAULT CURRENT RATING 0.03 A

NUMBER OF POLES Two-pole

**NUMBER OF POLES
(PROTECTED)** 2

**NUMBER OF POLES
(TOTAL)** 2

PRODUCT APPLICATION Switchgear for residential
and commercial
applications

PRODUCT RANGE AFDD

RATED CURRENT 40 A

**RATED CURRENT OF
PRODUCT RANGE** 10-40 Ampere

**RELEASE
CHARACTERISTIC** B

SENSITIVITY TYPE Type F
Pulse-current sensitive up
to 1 kHz and ≤ 10 mA
smooth DC current

**TRIPPING
CHARACTERISTIC** B

TYPE AFDD+

Design verification to IEC/EN 61439

10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
10.5 PROTECTION	Does not apply, since the

Design verification to IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	10.5 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	40 A

AGAINST ELECTRIC SHOCK	entire switchgear needs to be evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.

Technical data - electrical

CONTROL VOLTAGE TYPE AUXILIARY EQUIPMENT	AC/DC
CURRENT TEST MARKS	As per inscription
FREQUENCY RATING	50 Hz
IMPULSE WITHSTAND CURRENT	Surge-proof, 3 kA
LEAKAGE CURRENT TYPE	F Other
LIFESPAN, ELECTRICAL	4000 operations
POLLUTION DEGREE	2
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4
RATED SHORT-CIRCUIT BREAKING CAPACITY	6 Kilo Ampere
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)	6 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)	6 kA
RATED SWITCHING CAPACITY (IEC/EN 61009)	6 kA
RATED VOLTAGE AUXILIARY DEVICE	230 V
TEST CIRCUIT AC	170 - 264 Voltage AC
TRIPPING	Short time-delayed
VOLTAGE RATING	230 V
FREQUENCY	50 Hz

Technical data - mechanical

BUILT-IN DEPTH	67 mm
BUILT-IN WIDTH	54 mm
CLIMATIC PROOFING	IEC/EN 61009
CONTACT POSITION INDICATOR	red / green
DEGREE OF PROTECTION	IP20
DEGREE OF PROTECTION (BUILT IN)	IP40
DEVICE HEIGHT	80 mm
FRAME	45 mm
LIFESPAN, MECHANICAL	20000 operations
MOUNTING STYLE	Tri-stable slide catch - enables removal from existing busbar combination
PERMISSIBLE STORAGE AND TRANS TEMP. MAX	60 °C
TERMINAL PROTECTION	Busbar tag shroud as per VBG4, ÖVE-EN 6
TERMINALS (TOP AND BOTTOM)	Twin-purpose
THICKNESS OF BUSBAR MATERIAL	0.8 - 2 Square Millimeter
WIDTH IN NUMBER OF MODULAR SPACINGS	3
PERMISSIBLE STORAGE AND TRANS TEMP. MIN	-35 °C

Resources

CATALOGUES	eaton-2020-es-emea-uk-pdd-catalogue-update-july-2020.pdf
CHARACTERISTIC CURVE	eaton-xpole-afdd-characteristic-curve-002.jpg eaton-xpole-afdd-characteristic-curve.jpg
DECLARATIONS OF CONFORMITY	eaton-arc-fault-detection-device-declaration-of-conformity-eu250061en.pdf eaton-arc-fault-detection-device-declaration-of-conformity-uk251444en.pdf
DRAWINGS	eaton-xpole-afdd-dimensions.jpg eaton-xpole-afdd-3d-drawing.jpg eaton-xpole-afdd-3d-drawing-003.jpg
INSTALLATION INSTRUCTIONS	eaton-afdd-instruction-leaflet-il019125zu-150501491-en-us.pdf
INSTALLATION VIDEOS	Arc Fault Detection Device - AFDD+
MCAD MODEL	eaton-afdd-in-combination-with-rcbos-mcad-drawings-afdd.dwg eaton-afdd-in-combination-with-rcbos-3d-models-afdd.stp
TECHNICAL DATA SHEETS	eaton-afdd-catalog-tech-en-us.pdf
WIRING DIAGRAMS	eaton-xpole-afdd-wiring-diagram.jpg

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

