Specifications





Eaton 242185

Eaton Moeller series xPole - PLS6/M MCB. Miniature circuit breaker (MCB), 50 A, 1p, characteristic: B, MW

General specifications	
PRODUCT NAME	Eaton Moeller series xPole - PLS6/M MCB
CATALOG NUMBER	242185
MODEL CODE	PLSM-B50-MW
EAN	4015082421854
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75 mm
PRODUCT WIDTH	17.5 mm
PRODUCT WEIGHT	0.119 kg
COMPLIANCES	RoHS conform

Additional information

CURRENT LIMITING CLASS	3
FEATURES	Additional equipment possible
SPECIAL FEATURES	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
USED WITH	PLSM Miniature circuit breaker

Delivery program

AMPERAGE RATING	50 A
APPLICATION	• Switchgear for residential and commercial applications • xPole - Switchgear for residential and commercial applications
NUMBER OF POLES	Single-pole
NUMBER OF POLES (PROTECTED)	1
NUMBER OF POLES (TOTAL)	1
RELEASE CHARACTERISTIC	B
TRIPPING CHARACTERISTIC	B
TYPE	• Miniature circuit breaker • PLSM

Design verification as per 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 AGAINST ELECTRIC SHOCK	Does not apply, since the 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.

Design verification as per IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MAX	75 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	4.5 W
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	50 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W

10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	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

FREQUENCY RATING - MAX	60 Hz
FREQUENCY RATING - MIN	50 Hz
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
RATED INSULATION VOLTAGE (UI)	440 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	230 V
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICN AT 230 V	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)- ICN AT 400 V	10 kA
RATED SWITCHING CAPACITY (IEC/EN 60898-1)	10 kA
VOLTAGE TYPE	AC

Technical data - mechanical

BUILT-IN DEPTH	70.5 mm
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	25 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX	25 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1 mm²
DEGREE OF PROTECTION	IP20
WIDTH IN NUMBER OF MODULAR SPACINGS	1

Resources

CATALOGUES	eaton-xpole-protective-devices-catalog-ca019014en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-mcb-declaration-of-conformity-eu251398en.pdf eaton-mcb-declaration-of-conformity-uk251442en.pdf
ECAD MODEL	ETN.PLSM-B50-MW.edz
INSTALLATION INSTRUCTIONS	eaton-mcb-rccb-rcbo-g9-il019140zu.pdf
MCAD MODEL	eaton-non-selective-universal-mcb-mcad-3d-models-faz-xxx-1p.stp
PEP ECO-PASSPORT	eaton-non-selective-universal-mcb-pep-eato-00046-v0102-en.pdf

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.