Specifications





Eaton 242181

Eaton Moeller series xPole - PLS6/M MCB. PLSM, 1-pole, tripping characteristic: B, rated current In: 20 A, rated switching capacity IEC/EN 60898-1: 10 kA

General specifications	
PRODUCT NAME	Eaton Moeller series xPole - PLS6/M MCB
CATALOG NUMBER	242181
MODEL CODE	PLSM-B20-MW
EAN	4015082421816
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75 mm
PRODUCT WIDTH	17.5 mm
PRODUCT WEIGHT	0.104 kg
COMPLIANCES	RoHS compliant
CERTIFICATIONS	IEC/EN 60898-1

Additional information

CURRENT LIMITING CLASS	3
FEATURES	Can be fitted with auxiliary accessories
FUNCTIONAL GROUP	Overcurrent protection
FUNCTIONS	Overload protection Short Circuit protection
INTERNAL RESISTANCE AT ROOM TEMPERATURE (SINGLE-POLE, 50 HZ)	7.1 mΩ

Delivery program

AMPERAGE RATING	20 A
APPLICATION	Protection of final circuits in residential, commercial and similar installations
NOMINAL CURRENT	20 A
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
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	20 A

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

DIRECTION OF INCOMING SUPPLY	Bidirectional
FREQUENCY RATING - MAX	60 Hz
FREQUENCY RATING - MIN	50 Hz
LIFESPAN, ELECTRICAL	>4000 operating cycles
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
RATED INSULATION VOLTAGE (UI)	440 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICS	7.5 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICN AT 230 V	10 kA
RATED SWITCHING CAPACITY (IEC/EN 60898-1)	10 kA
SELECTIVITY CLASS	3
VOLTAGE RATING	• 230/400 V AC • 240/415 V AC
VOLTAGE RATING (IEC/EN 60898-1)	240 VAC
VOLTAGE TYPE	AC

Technical data - mechanical

BUILT-IN DEPTH	65.5 mm
BUSBAR MATERIAL THICKNESS	0.8 mm - 2 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
CONTACT POSITION INDICATOR COLOR	Red = ON Green = OFF
DEGREE OF PROTECTION	IP20
FRAME	45 mm
LIFESPAN, MECHANICAL	>10000 operating cycles
MOUNTING METHOD	Two lock-in position on DIN rail (EN/IEC 60715)
MOUNTING POSITION	As required
MOUNTING WIDTH	17.7 mm
MOUNTING WIDTH PER POLE	17.7 mm
TERMINAL PROTECTION	Touch-safe (EN 50274)
TERMINALS (TOP AND BOTTOM)	Screw-type with pressure plate
TIGHTENING TORQUE	2.4 Nm
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-uk251442en.pdf eaton-mcb-declaration-of-conformity-eu251398en.pdf
ECAD MODEL	ETN.PLSM-B20-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:	

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