

Specifications



Photo is representative



Eaton PDE33K0500TAAS

Eaton Moeller series Power Defense - Molded Case Circuit Breaker. Circuit breaker, 500A, 50kA, 3p, screw terminal

General specifications

PRODUCT NAME	Eaton Moeller series Power Defense molded case circuit-breaker
CATALOG NUMBER	PDE33K0500TAAS
MODEL CODE	PDE33K0500TAAS
EAN	9010238103436
PRODUCT LENGTH/DEPTH	257 mm
PRODUCT HEIGHT	138 mm
PRODUCT WIDTH	138 mm
PRODUCT WEIGHT	6 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC IEC/EN 60947



Powering Business Worldwide

Delivery program

CIRCUIT BREAKER FRAME TYPE	PDE3
AMPERAGE RATING	500 A
NUMBER OF POLES	Three-pole

Technical data - electrical

VOLTAGE RATING	220 V - 440 V
VOLTAGE RATING (DC)	250 V
MAX. RATED OPERATION VOLTAGE UE AC	440
RATED INSULATION VOLTAGE (UI)	800 V AC
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS	4000 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS	8000 V
RATED CURRENT (IU)	500 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	2500 A
INSTANTANEOUS CURRENT SETTING (II) - MAX	4000 A
OVERLOAD CURRENT SETTING (IR) - MIN	400 A
OVERLOAD CURRENT SETTING (IR) - MAX	500 A
SHORT DELAY CURRENT SETTING (ISD) - MIN	0 A
SHORT DELAY CURRENT SETTING (ISD) - MAX	0 A
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ	65 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ	26 kA
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
OVERVOLTAGE CATEGORY	III
UTILIZATION CATEGORY	A

POLLUTION DEGREE	3
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Technical data - mechanical

TYPE	Circuit breaker
RELEASE SYSTEM	Thermomagnetic release
MOUNTING METHOD	Fixed Complete device in housing DIN rail (top hat rail) mounting optional
DEGREE OF PROTECTION	IP2X
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF OPERATIONS PER HOUR - MAX	60
HANDLE TYPE	Rocker lever
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Front side
DIRECTION OF INCOMING SUPPLY	Vertical and 90° in all directions
STANDARD TERMINALS	Screw terminal
LIFESPAN, MECHANICAL	15000 operations

Design verification as per IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MIN	-20 °C
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AMBIENT OPERATING TEMPERATURE - MAX	70 °C
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AMBIENT STORAGE TEMPERATURE - MIN	-20 °C
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AMBIENT STORAGE TEMPERATURE - MAX	70 °C
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Design verification as per IEC/EN 61439

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.
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	Is the panel builder's responsibility.

Additional information

FEATURES	Protection unit Motor drive optional
FUNCTIONS	System and cable protection
SPECIAL FEATURES	Thermally and magnetically adjustable (calibrated at 40 °C)

INSULATING MATERIAL

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.

Resources

CHARACTERISTIC CURVE

[eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-017.jpg](#)

[eaton-circuit-breaker-current-power-defense-mccb-characteristic-curve-003.jpg](#)

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[eaton-circuit-breaker-current-power-defense-mccb-characteristic-curve-019.jpg](#)

[eaton-circuit-breaker-power-defense-mccb-characteristic-curve-003.jpg](#)

DECLARATIONS OF CONFORMITY

[DA-DC-03_PDE3](#)

DRAWINGS

[eaton-power-defense-mccb-dimensions-005.jpg](#)

INSTALLATION VIDEOS

[Power Defense EMEA](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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