

Specifications



Eaton 183905

Eaton Moeller series IZMX/INX - ACB. Circuit-breaker, 4 pole, 1600A, 85 kA, Selective operation, IEC, Fixed

General specifications

PRODUCT NAME	Eaton Moeller series IZMX/INX circuit-breaker
CATALOG NUMBER	183905
MODEL CODE	IZMX40N4-V16F-1
EAN	4015081790494
PRODUCT LENGTH/DEPTH	584 mm
PRODUCT HEIGHT	597 mm
PRODUCT WIDTH	521 mm
PRODUCT WEIGHT	56 kg
COMPLIANCES	IEC IEC/EN 60947 RoHS conform



Powering Business Worldwide

Delivery programme

AMPERAGE RATING	1600 A
FEATURES	Complete device with protection unit Motor drive optional
FITTED WITH:	Switched-off indicator
FRAME	IZMX40
NUMBER OF POLES	Four-pole
RELEASE SYSTEM	Electronic release

SPECIAL FEATURES

- Main terminals must be separately ordered.
- suitable for zone selectivity
- optionally fittable by user with comprehensive accessories
- Terminal capacity hint: These are values used in separate switchgear. The actual values will depend on the temperature around the circuit breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.

TYPE

- Air circuit breakers/switch-

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.

	disconnectors • Open circuit breaker
USED WITH	Open circuit breaker Air circuit breakers/switch-disconnector

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 INSULATING MATERIAL	Is the panel builder's responsibility.

Design verification to IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-20 °C
AMBIENT OPERATING TEMPERATURE DETAILS	-20 °C - 70 °C
AMBIENT STORAGE TEMPERATURE - MIN	-20 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	100 W
HEAT DISSIPATION AT RATED CURRENT WITH FIXED MOUNTING	100 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	1600 A

Technical data - electrical

ACTUATOR TYPE	Push button
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MAX	16000 A
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MIN	960 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX	24000 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN	3200 A
CLOSING DELAY VIA SPRING RELEASE	35 ms
DIRECTION OF INCOMING SUPPLY	As required
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Rail connection
LIFESPAN, ELECTRICAL	20000 operations (switching cycles ON/OFF, with maintenance) 10000 operations (switching capacity)
NUMBER OF STANDARD MECHANICAL OPERATIONS PER HOUR -	60

MAX	
OPERATING SEQUENCE UP TO 690 V, 50/60 HZ (IEC/EN 60947)	75 kA
OVERLOAD RELEASE CURRENT SETTING - MAX	1600 A
OVERLOAD RELEASE CURRENT SETTING - MIN	640 A
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	12 kV AC
RATED INSULATION VOLTAGE (UI)	1000 V
RATED OPERATING VOLTAGE (UE) - MAX	690 V
RATED OPERATING VOLTAGE (UE) - MIN	240 V
RATED SHORT-CIRCUIT BREAKING CAPACITY AT 400 V, 50 HZ	85 kA
RATED SHORT-CIRCUIT MAKING CAPACITY UP TO 440 V, 50/60 HZ	187 kA
RATED SHORT-CIRCUIT MAKING CAPACITY UP TO 690 V, 50/60 HZ	166 kA
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	85 kA
RATED SHORT-TIME WITHSTAND CURRENT AT 50/60 HZ (T = 3 S)	66 kA
RATED UNINTERRUPTED CURRENT (IU)	1600 A
RATED UNINTERRUPTED CURRENT (IU) AT 50°C	1600 A
RATED UNINTERRUPTED CURRENT (IU) AT 60°C	1600 A
RATED UNINTERRUPTED CURRENT (IU) AT 70°C	1600 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MAX	16000 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MIN	1200 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING	1.5 - 10 x Ir
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING -	24000 A

MAX	
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	
	0 A
UTILIZATION CATEGORY	B
VOLTAGE RATING AT AC	690 V AC

Technical data - mechanical - terminals	
TERMINAL CAPACITY (COPPER BAR)	80 mm x 10 mm (1x) for fixed mounting (black)

Technical data - mechanical	
DEGREE OF PROTECTION	IP31 with door seals IP31 IP55 with protective cover
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
LIFESPAN, MECHANICAL	12500 switching cycles (ON/OFF) 25000 operations (switching capacity, with maintenance)
MOUNTING METHOD	Fixed
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	2
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Back side
PROTECTION	Selective operation
WEIGHT OF FIXED MOUNTING VERSION (4-POLE)	56 kg

Resources

CATALOGUES	eaton-acb-izmx-catalog-ca01305001z-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-circuit-breaker-declaration-of-conformity-eu250301en.pdf
DRAWINGS	eaton-circuit-breaker-mounting-izmx-inx-mccb-dimensions-002.eps
	eaton-circuit-breaker-izmx-inx-mccb-dimensions-013.eps
	eaton-circuit-breaker-mounting-izmx-inx-mccb-dimensions.eps
ECAD MODEL	DA-CE-ETN.IZMX40N4-V16F-1
INSTALLATION VIDEOS	Air Circuit Breakers Series IZMX
MANUALS AND USER GUIDES	MN013002_EN
MCAD MODEL	eaton-air-circuit-breakers-mcad-drawings-izmx40-4pol-f.dwg
	DA-CS-izmx40_4pol_f

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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

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