

Circuit-breaker, 3 pole, 2000A, 85 kA, Selective operation, IEC, Fixed



**Part no.** IZMX40N3-V20F-1  
**183714**  
**EL Number** 4398203  
**(Norway)**

General specifications		
Product name		Eaton Moeller series IZMX/INX circuit-breaker
Part no.		IZMX40N3-V20F-1
EAN		4015081794508
Product Length/Depth		584 millimetre
Product height		597 millimetre
Product width		521 millimetre
Product weight		45 kilogram
Compliances		IEC/EN 60947 IEC RoHS conform
Product Tradename		IZMX/INX
Product Type		Circuit-breaker
Product Sub Type		None
Delivery program		
Type		Air circuit breakers/switch-disconnector Open circuit breaker
Number of poles		Three-pole
Amperage Rating		2000 A
Release system		Electronic release
Features		Complete device with protection unit Motor drive optional
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.
Frame		IZMX40
Fitted with:		Switched-off indicator
Used with		Open circuit breaker Air circuit breakers/switch-disconnector
Technical Data - Electrical		
Voltage rating at AC		690 V AC
Rated operating voltage (Ue) - min		690 V
Rated operating voltage (Ue) - max		690 V
Rated insulation voltage (Ui)		1000 V
Rated impulse withstand voltage (Uimp)		12 kV AC
Rated uninterrupted current (Iu)		2000 A
Rated uninterrupted current (Iu) at 50°C		2000 A
Rated uninterrupted current (Iu) at 60°C		2000 A
Rated uninterrupted current (Iu) at 70°C		2000 A
Rated short-time withstand current (t = 1 s)		85 kA
Rated short-time withstand current at 50/60 Hz (t = 3 s)		66 kA
Overload release current setting - min		800 A
Overload release current setting - max		2000 A
Short-circuit release delayed setting - min		1500 A
Short-circuit release delayed setting - max		20000 A
Short-circuit release non-delayed setting		1.5 - 10 x Ir

Short-circuit release non-delayed setting - min		0 A
Short-circuit release non-delayed setting - max		30000 A
Adjustment range short-term delayed short-circuit release - min		1200 A
Adjustment range short-term delayed short-circuit release - max		20000 A
Adjustment range undelayed short-circuit release - min		4000 A
Adjustment range undelayed short-circuit release - max		30000 A
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
Closing delay via spring release		35 ms
Electrical connection type of main circuit		Rail connection
Number of standard mechanical operations per hour - max		60
Operating sequence up to 690 V, 50/60 Hz (IEC/EN 60947)		75 kA
Actuator type		Push button
Utilization category		B
Overvoltage category		III
Pollution degree		3
Lifespan, electrical		16000 operations (switching cycles ON/OFF, with maintenance) 8000 operations (switching capacity)
Direction of incoming supply		As required
<b>Technical Data - Mechanical</b>		
Device construction		Built-in device fixed built-in technique
Mounting Method		Fixed
Degree of protection		IP55 with protective cover IP31 with door seals IP31
Protection		Selective operation
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
Weight of fixed mounting version (3-pole)		43 kg
Lifespan, mechanical		20000 operations (switching capacity, with maintenance) 10000 switching cycles (ON/OFF)
<b>Technical Data - Mechanical - Terminals</b>		
Terminal capacity (copper bar)		80 mm x 10 mm (2x) for fixed mounting (black)
<b>Design verification as per IEC/EN 61439 - technical data</b>		
Rated operational current for specified heat dissipation (I <sub>n</sub> )		2000 A
Equipment heat dissipation, current-dependent		150 W
Heat dissipation at rated current with fixed mounting		150 W
Ambient operating temperature details		-20 °C - 70 °C
Ambient operating temperature - min		-20 °C
Ambient operating temperature - max		70 °C
Ambient storage temperature - min		-20 °C
Ambient storage temperature - max		70 °C
<b>Design verification as per IEC/EN 61439</b>		
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 insulating material		Is the panel builder's responsibility.
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.

## Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss13-27-37-04-09 [AJZ716018])		
Rated permanent current I <sub>u</sub>	A	2000
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity I <sub>cu</sub> at 400 V, 50 Hz	kA	85
Overload release current setting	A	800 - 2000
Adjustment range short-term delayed short-circuit release	A	1200 - 20000
Adjustment range undelayed short-circuit release	A	4000 - 30000
Power loss	W	150
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Rail connection
Suitable for DIN rail (top hat rail) mounting		No
DIN rail (top hat rail) mounting optional		No
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		2
With switched-off indicator		Yes
With integrated under voltage release		No
Number of poles		3
Position of connection for main current circuit		Back side
Type of control element		Push button
Complete device with protection unit		Yes
Motor drive integrated		No
Motor drive optional		Yes
Degree of protection (IP)		IP31