DATASHEET - IZMX40N4-P16F-1

Circuit-breaker, 4 pole, 1600A, 85 kA, P measurement, IEC, Fixed

Part no.	**IZMX40N4-P16F-1**
	183766
EL Number (Norway)	**4398256**

General specifications

Product name	Eaton Moeller series IZMX/INX circuit-breaker
Part no.	IZMX40N4-P16F-1
EAN	4015081795024
Product Length/Depth	584 millimetre
Product height	597 millimetre
Product width	521 millimetre
Product weight	56 kilogram
Compliances	IEC IEC/EN 60947 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	Four-pole
Amperage Rating	1600 A
Release system	Electronic release
Features	Complete device with protection unit Motor drive optional
Special features	External IZMX-DTP-PTM-1 voltage measuring module required (1 module is suitable for 16 circuit breakers) suitable for zone selectivity suitable for communication with integrated system monitor with integrated test possibility With graphic LCD display 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	Air circuit breakers/switch-disconnector Open circuit breaker

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)	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
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	640 A
Overload release current setting - max	1600 A

Short-circuit release delayed setting - min	1200 A
Short-circuit release delayed setting - max	16000 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	24000 A
Adjustment range short-term delayed short-circuit release - min	960 A
Adjustment range short-term delayed short-circuit release - max	16000 A
Adjustment range undelayed short-circuit release - min	3200 A
Adjustment range undelayed short-circuit release - max	24000 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	20000 operations (switching cycles ON/OFF, with maintenance) 10000 operations (switching capacity)
Direction of incoming supply	As required

Technical Data - Mechanical

Device construction	Built-in device fixed built-in technique
Mounting Method	Fixed
Degree of protection	IP31 IP55 with protective cover IP31 with door seals
Protection	P measurement
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 (4-pole)	56 kg
Lifespan, mechanical	25000 operations (switching capacity, with maintenance) 12500 switching cycles (ON/OFF)

Technical Data - Mechanical - Terminals

Terminal capacity (copper bar)	80 mm x 10 mm (1x) for fixed mounting (black)

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)	1600 A
Equipment heat dissipation, current-dependent	100 W
Heat dissipation at rated current with fixed mounting	100 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

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 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 Iu		A	1600
Rated voltage		V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz		kA	85
Overload release current setting		A	640 - 1600
Adjustment range short-term delayed short-circuit release		A	960 - 16000
Adjustment range undelayed short-circuit release		A	3200 - 24000
Power loss		W	100
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			4
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

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