

Circuit-breaker, 3 pole, 1000 A, 42 kA, Selective operation, IEC, Withdrawable

Powering Business Worldwide*

Part no. IZMX16B3-V10W-1 Article no. 183343

Delivery program

Product range Product range Open circuit-bre Current Range Up to 4000 A Protective function Selective open	akers/switch-disconnectors oreakers
Current Range Up to 4000 A	oreakers
Protective function Selective oper	
·	ration
Installation type Withdrawable	•
Cassette must	be separately ordered.
Main terminal:	s must be separately ordered.
Construction size IZMX16	
Release system Electronic rele	ease
Standard/Approval IEC	
Number of poles 3 pole	
Degree of Protection IP31 with door	r seals, IP55 with protective cover
suitable for zo optionally fitta	ne selectivity ble by user with comprehensive accessories
Rated current = rated uninterrupted current $I_n = I_u$ A 1000	
up to 440 V 50/60 Hz $$\rm I_{\rm cu}$$ kA $\rm 42$	
up to 440 V 50/60 Hz $$\rm I_{\rm cs}$$ kA $\rm 42$	
Overload release, min. $I_{r} \hspace{1cm} A \hspace{1cm} 400 \\$	
Overload release, max. Ir A 1000	
Non-delayed $I_i = I_n \times \dots$ 2 - 15, OFF	
Delayed $I_{sd} = I_r \times \dots$ 1,5 - 10	

Technical data

General

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	9	°C	-20 - +70
Ambient temperature		°C	-20 - +70
Mounting position			30° 30°
			30° 30°
Utilization category			В
Degree of Protection			IP31 with door seals, IP55 with protective cover
Direction of incoming supply			as required
Main conducting noths			

Main conducting paths

Rated current = rated uninterrupted current	$I_n = I_u$	Α	1000
Rated uninterrupted current at 50 °C	I _u	Α	1000

Rated uninterrupted current at 60 °C	l _u	Α	1000
Rated uninterrupted current at 70 °C	Iu	Α	1000
Rated impulse withstand voltage	U _{imp}	V AC	12000
Rated operational voltage	U _e	V AC	690
Use in IT electrical power networks up to U = 440 V		kA	0
	I _{IT}		
Use in IT electrical power networks up to U = 690 V	I _{IT}	kA	0
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V	1000
Switching capacity Rated short-circuit making capacity			
	I _{cm}	I. A	.00
up to 440 V 50/60 Hz	I _{cm}	kA	88
up to 690 V 50/60 Hz	I _{cm}	kA	88
Rated short-time withstand current 50/60 Hz			
t=1s	I _{cw}	kA	42
Rated short-circuit breaking capacity I _{cn}	I _{cn}		
IEC/EN 60947 operating sequence I _{cu} 0-t-C0			
up to 240 V 50/60 Hz	I _{cu}	kA	42
up to 440 V 50/60 Hz	I _{cu}	kA	42
up to 690 V 50/60 Hz	I _{cu}	kA	42
IEC/EN 60947 operating sequence I _{cs} O-t-CO-t-CO			
up to 240 V 50/60 Hz	I _{cs}	kA	42
up to 440 V 50/60 Hz	I _{cs}	kA	42
up to 690 V 50/60 Hz	I _{cs}	kA	42
	'CS	KA.	72
Operating times Closing delay via spring release		ma	30
Total opening delay via shunt release		ms	30
Total opening delay via undervoltage release		ms	50
Total opening delay via undervoltage release		ms	30
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)		ms	27
Lifespan		S	
Lifespan, mechanical	Switching cycles (ON/ OFF)		12500
Lifespan, mechanical with maintenance	Switching cycles (ON/ OFF)		25000.
Lifespan, electrical	Switching cycles (ON/ OFF)		10000
Lifespan, electrical with maintenance	Switching cycles (ON/ OFF)		20000.
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current I _n			
Withdrawable units (switch with cassette)		W	125
Weight			
Withdrawable			
3-pole		kg	28
Cassette			
3 pole		kg	18
Terminal capacities			
Copper bar			
Withdrawable units			
Black		mm	2 x 5 x 60
			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.

Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.

Design verification as per IEC/EN 61439

besign vermeation as per 120/214 01-103			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	1000
Equipment heat dissipation, current-dependent	P _{vid}	W	125
Operating ambient temperature min.		°C	-20
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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 6.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation prot. (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@ss8.1-27-37-04-09 [AJZ716010])

protection (eci@ss8.1-2/-3/-04-09 [AJZ/16010])		
Rated permanent current lu	Α	1000
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	42
Overload release current setting	Α	500 - 1000
Adjustment range short-term delayed short-circuit release	Α	2000 - 10000
Adjustment range undelayed short-circuit release	Α	2000 - 12000
Integrated earth fault protection		No
Type of electrical connection of main circuit		Rail connection
Device construction		Built-in device slide-in technique (withdrawable)
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
Switched-off indicator available	Yes
With 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

Dimensions

