

Circuit-breaker 3p, 800A, withdrawable

IZMX16N3-P08W Part no. Article no. 123132



Delivery program

Delivery program			
Product range			Air circuit-breakers/switch-disconnectors
Product range			Open circuit-breakers
Current Range			Up to 4000 A
Protective function			Professional protection
Installation type			Withdrawable
			Cassette must be separately ordered.
			IZMX-DTP-PTM external voltage measuring module required
Construction size			IZMX16
Release system			Electronic release
Standard/Approval			IEC
Number of poles			3 pole
Degree of Protection			IP20, IP55 with protective cover, IP41 door sealing frame
			suitable for zone selectivity suitable for communication with integrated system monitor with integrated test possibility with graphic LCD color display optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current	$\boldsymbol{I}_n = \boldsymbol{I}_u$	Α	800
up to 440 V 50/60 Hz	I _{cu}	kA	50
up to 440 V 50/60 Hz	I _{cs}	kA	50
Overload release, min.	I _r	Α	400
Overload release, max.	I _r	Α	800
Non-delayed	$I_i = I_n x \dots$		2 - 12, OFF
Delayed >	$I_{sd} = I_r x \dots$		2 - 10

Technical data

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	8	°C	-25 - +70 (device with LCD-display -20 - +70)
Operating (open)		°C	-25 - +70 (device with LCD-display -20 - +70)
Mounting position			30° 30°
			30° 30°
Utilization category			В
Degree of Protection			IP20, IP55 with protective cover, IP41 door sealing frame
Direction of incoming supply			as required

Main conducting paths

Main conducting paths			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	800
Rated uninterrupted current at 50 °C	I _u	Α	800
Rated uninterrupted current at 60 °C	Iu	Α	800
Rated uninterrupted current at 70 °C	I _u	Α	800
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	I _{IT}	kA	23
Overvoltage category/pollution degree			111/3
Rated insulation voltage	Ui	٧	1000
Switching capacity			
Rated short-circuit making capacity	I _{cm}		
up to 440 V 50/60 Hz	I _{cm}	kA	105
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	0.1		
up to 240 V 50/60 Hz	I _{cu}	kA	50
up to 440 V 50/60 Hz		kA	50
up to 690 V 50/60 Hz	I _{cu}	kA	42
	I _{cu}	KA	42
IEC/EN 60947 operating sequence I _{cs} 0-t-C0-t-C0			
up to 240 V 50/60 Hz	I _{cs}	kA	50
up to 440 V 50/60 Hz	I _{cs}	kA	50
up to 690 V 50/60 Hz	I _{cs}	kA	42
Operating times			
Closing delay via spring release		ms	30
Total opening delay via shunt release		ms	25
Total opening delay via undervoltage release		ms	50
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)		ms	25
Lifespan		S	
Lifespan, mechanical	Switching cycles (ON/ OFF)		12500
Lifespan, mechanical with maintenance	Switching		20000
	cycles (ON/ OFF)		
Lifespan, electrical	Switching cycles (ON/ OFF)		10000
Lifespan, electrical with maintenance	Switching cycles (ON/ OFF)		10000
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current I _n			
Withdrawable units (switch with cassette)		W	80
Weight			
Withdrawable			
3-pole		kg	28
4-pole		kg	33
Cassette			
3 pole		kg	18
4 pole		kg	21
Terminal capacities			
Copper bar			
Fixed mounting			

Black	mi	n 2 x 5 x 50
Withdrawable units		
Black	mı	n 2 x 5 x 50
		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.
Notes		IZMX-DTP-PTM external voltage measuring module required

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	800
Equipment heat dissipation, current-dependent	P _{vid}	W	80
Operating ambient temperature min.		°C	-25
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 switch gear must be observed. $ \\$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
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@330.1-27-07-04-03 [A02/10010])		
Rated permanent current lu	Α	800
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	50
Overload release current setting	А	400 - 800
Adjustment range short-term delayed short-circuit release	Α	1600 - 8000

Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release Number of poles Number of connection for main current circuit Special of control element Complete device with protection unit Motor drive integrated Motor drive optional No Rail connection Rail c			
Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release With under voltage release No Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional	Adjustment range undelayed short-circuit release	Α	1600 - 9600
Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release No Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional	Integrated earth fault protection		No
Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact O Number of auxiliary contacts as normally open contact O Number of auxiliary contacts as change-over contact O Number of auxiliary contacts as change-over contact Ves With under voltage release With under voltage release No Number of poles O Sewitched off indicator available Ves Viste of connection for main current circuit Back side Type of control element Complete device with protection unit Motor drive integrated Motor drive optional Ves Motor drive optional Ves	Type of electrical connection of main circuit		Rail connection
DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release With under voltage release No Number of poles Sexition of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional No No No No No No No No No N	Device construction		Built-in device slide-in technique (withdrawable)
Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Switched-off indicator available Yes With under voltage release No Number of poles Supposition of connection for main current circuit Back side Type of control element Complete device with protection unit Yes Motor drive integrated Motor drive optional O O O O O O O O O O O O O	Suitable for DIN rail (top hat rail) mounting		No
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release With under of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional O Q Q Q Q Q Q Q Q Q Q Q Q	DIN rail (top hat rail) mounting optional		No
Number of auxiliary contacts as change-over contact Switched-off indicator available With under voltage release With under of poles Position of connection for main current circuit Suppe of control element Complete device with protection unit Motor drive integrated Motor drive optional 2 Yes According to the device with protection unit No Yes Motor drive optional	Number of auxiliary contacts as normally closed contact		0
Switched-off indicator available With under voltage release No Number of poles Supposition of connection for main current circuit Supposition of connection for main current circuit Supposition of control element Supposition of connection for main current circuit Supposition of connection for main c	Number of auxiliary contacts as normally open contact		0
With under voltage release No Number of poles 3 Position of connection for main current circuit Back side Type of control element Complete device with protection unit Yes Motor drive integrated No Motor drive optional	Number of auxiliary contacts as change-over contact		2
Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional 3 Back side Push button Yes Motor drive optional 3 No Yes	Switched-off indicator available		Yes
Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive optional Back side Push button Yes Yes Yes	With under voltage release		No
Type of control element Complete device with protection unit Motor drive optional Push button Yes No Yes	Number of poles		3
Complete device with protection unit Yes Motor drive integrated No Motor drive optional Yes	Position of connection for main current circuit		Back side
Motor drive integrated No Motor drive optional Yes	Type of control element		Push button
Motor drive optional Yes	Complete device with protection unit		Yes
	Motor drive integrated		No
Degree of protection (IP)	Motor drive optional		Yes
	Degree of protection (IP)		IP20