## **DATASHEET - IZMX40H3-P32F**



Circuit-breaker, 3p, 3200 A, fixed

Part no. IZMX40H3-P32F

Catalog No. 149755

Eaton Catalog No. RESC323B12QNMNN2MN1X



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			Fixed	
Construction size			IZMX40	
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	$I_n = I_u$	Α	3200	
up to 440 V 50/60 Hz	I <sub>cu</sub>	kA	105	
up to 440 V 50/60 Hz	I <sub>cs</sub>	kA	105	
Overload release, min.	Ir	Α	1600	
Overload release, max.	Ir	Α	3200	
Non-delayed	$I_i = I_n \times \dots$		2 - 12, OFF	
Delayed > 1	$I_{sd} = I_r x \dots$		2 - 10	

## Technical data

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	θ	°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			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	3200

Dated unintermented assurant at EO 9C	1	۸	2200
Rated uninterrupted current at 50 °C	l <sub>u</sub>	Α	3200
Rated uninterrupted current at 60 °C	I <sub>u</sub>	Α	3200
Rated uninterrupted current at 70 °C	I <sub>u</sub>	Α	75
Rated impulse withstand voltage	$U_{imp}$	V AC	12000
Rated operational voltage	U <sub>e</sub>	V AC	690
Use in IT electrical power networks up to U = 440 V	I <sub>IT</sub>	kA	57.6
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	٧	1000
Switching capacity			
Rated short-circuit making capacity	I <sub>cm</sub>		
up to 440 V 50/60 Hz	I <sub>cm</sub>	kA	231
up to 690 V 50/60 Hz	I <sub>cm</sub>	kA	166
Rated short-time withstand current 50/60 Hz			
t = 1 s	I <sub>cw</sub>	kA	85
t=3s	I <sub>cw</sub>	kA	66
Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
IEC/EN 60947 operating sequence I <sub>cu</sub> O-t-CO			
up to 240 V 50/60 Hz	l	kA	105
•	I <sub>cu</sub>		
up to 440 V 50/60 Hz	I <sub>cu</sub>	kA	105
up to 690 V 50/60 Hz	I <sub>cu</sub>	kA	75
IEC/EN 60947 operating sequence I <sub>cs</sub> 0-t-C0-t-C0			
up to 240 V 50/60 Hz	I <sub>cs</sub>	kA	105
up to 440 V 50/60 Hz	I <sub>cs</sub>	kA	105
up to 690 V 50/60 Hz	I <sub>cs</sub>	kA	75
Operating times			
Closing delay via spring release		ms	35
Total opening delay via shunt release		ms	22
Total opening delay via undervoltage release		ms	37
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)		ms	45
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current I <sub>n</sub>			
Fixed mounting		W	385
Veight			
Fixed mounting			
3-pole		kg	43
4-pole		kg	56
Ferminal capacities			
Copper bar  Fixed mounting			
Black		mm	3 x 80 x 10
Diatk		mm	
			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, an 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
			IZMX-DTP-PTM external voltage measuring module required

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	Α	3200

Equipment heat dissipation, current-dependent	$P_{\text{vid}}$	W	385
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/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. $\label{eq:constraint}$
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 (ecl@ss8.1-27-37-04-09 [AJZ716010])			
Rated permanent current lu	Α		3200
Rated voltage	V		690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	k#	A	105
Overload release current setting	Α		1600 - 3200
Adjustment range short-term delayed short-circuit release	Α		6400 - 32000
Adjustment range undelayed short-circuit release	Α		6400 - 38400
Integrated earth fault protection			No
Type of electrical connection of main circuit			Rail connection
Device construction			Built-in device fixed built-in technique
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)	IP20