

## Circuit-breaker, 4p, 1000 A, fixed

Powering Business Worldwide<sup>™</sup>

IZMX40H4-V10F Part no. Article no. 149926 Catalog No. RESC104B52-NMNN2MN1X

**Delivery program** 

belivery program			
Product range			Air circuit-breakers/switch-disconnectors
Product range			Open circuit-breakers
Current Range			Up to 4000 A
Protective function			Selective operation
Installation type			Fixed
			Main terminals must be separately ordered.
Construction size			IZMX40
Release system			Electronic release
Standard/Approval			IEC
Number of poles			4 pole
Degree of Protection			IP20, IP55 with protective cover, IP41 door sealing frame
			suitable for zone selectivity optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current	$\boldsymbol{I}_n = \boldsymbol{I}_u$	Α	1000
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.	I <sub>r</sub>	Α	500
Overload release, max.	I <sub>r</sub>	Α	1000
Non-delayed	$I_i = I_n \times \dots$		2 - 12, OFF
I>			
Delayed	$I_{sd} = I_r x \dots$		2 - 10
XI≥			
•			

## **Technical data**

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	9	°C	-40 - +70
Ambient temperature		°C	-25 - +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	1000
Rated uninterrupted current at 50 °C	I <sub>u</sub>	Α	1000
Rated uninterrupted current at 60 °C	Iu	А	1000
Rated uninterrupted current at 70 °C	Iu	Α	1000

Rated impulse withstand voltage	U <sub>imp</sub>	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 = 3 s	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	I <sub>cu</sub>	kA	105
up to 440 V 50/60 Hz	I <sub>cu</sub>	kA	105
up to 690 V 50/60 Hz		kA	75
	I <sub>cu</sub>	NA.	13
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 $I_n$			
Fixed mounting		W	40
Weight			
Fixed mounting			
3-pole		kg	43
4-pole		kg	56
Terminal capacities			
Copper bar			
Fixed mounting			
Black		mm	1 x 60 x 10
			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.

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	1000
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	40
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/EN 61439 design verification			

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.

0.2 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 w provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear mu observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear mu 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@550.1-27-57-04-03 [A32/10010])		
Rated permanent current lu	А	1000
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	105
Overload release current setting	А	500 - 1000
Adjustment range short-term delayed short-circuit release	А	2000 - 10000
Adjustment range undelayed short-circuit release	А	2000 - 12000
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		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)		IP20