

Circuit-breaker, 3p, 800 A, fixed

Powering Business Worldwide*

Part no. IZMX40H3-V08F
Article no. 149733
Catalog No. RESC083B52-NMNN2MN1X

Delivery programme

Delivery programme			
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
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 optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current	$I_n = I_u$	Α	800
Breaking capacity Icu = Ics to 440 V 50/60 Hz	I _{cu}	kA	105
Breaking capacity Ics to 440 V 50/60 Hz	I _{cs}	kA	105
Overload release, min.	I _r	Α	400
Overload release, max.	I _r	Α	800
Non-delayed I	$I_i = I_n x \dots$		2 - 12, OFF
Delayed No. 10 Percentage	$I_{sd} = I_r x \dots$		2 - 10
Notes			
Main terminals not included, need to be ordered separately.			

Technical data

General

delicial		
Standards		IEC/EN 60947
Ambient temperature		
Storage	θ	°C -40 - +70
Operating (open)		°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

Rated uninterrupted current at 50 °C

Rated uninterrupted current at 60 °C

Α

Α

 $I_n = I_u$

Iu

800

800

800

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				
Rate of spent formal voltage U			Α	800
Description prover networks up to U = 440 V Fig. Mar 100	Rated impulse withstand voltage	U_{imp}	V AC	12000
Overothage category/pollulon degree Rated cisculations ordings Us V 1000 Rated short-circuit making capacity Faced short-circuit making capacity I los V 1000 Rated short-circuit making capacity I los V 1000 Rated short-circuit making capacity I los V 1000 Rated short-circuit breaking capacity I _{CO} I los V 1000 Rated short-circuit breaking capacity I _{CO} I los V 1000 I los V 1000 Rated short-circuit breaking capacity I _{CO} I los V 1000 I los V	Rated operational voltage	U _e	V AC	690
Name	Use in IT electrical power networks up to $U = 440 \text{ V}$	I _{IT}	kA	57.6
Switching capacity Income of American imaking capacity Income of American imakin	Overvoltage category/pollution degree			III/3
Rised short-circuit making capachy up to 400 V 5060 Hz t = 1 s t = 2 s Rised short-circuit broaking capachy V _{co} t = 1 s t = 3 s Rised short-circuit broaking capachy V _{co} iECIEN 60947 operating sequence V _{co} 160 Lev up to 400 V 5060 Hz up to 800 V 5060 Hz les Les Les La Les La Les La Les	Rated insulation voltage	Ui	٧	1000
1	Switching capacity			
Name	Rated short-circuit making capacity	I _{cm}		
Rated short-time withstand current 5080 Hz 1 = 1 s	up to 440 V 50/60 Hz	I _{cm}	kA	231
Table	up to 690 V 50/60 Hz	I _{cm}	kA	166
Rated short-circuit breaking capacity I _{run} ECCEN 00947 operating sequence I _{run} 0-+CO up 1240 V 50060 Hz	Rated short-time withstand current 50/60 Hz			
Rated short-circuit breaking capacity I _{cm}	t=1s	I _{cw}	kA	85
ECFN 60947 operating sequence I co 0+cCO	t=3s	I _{cw}	kA	66
up to 240 V 50/60 Hz up to 440 V 50/60 Hz up to 890 V 50/60 Hz up to 490 V 50/60 Hz	Rated short-circuit breaking capacity I _{cn}	I _{cn}		
up to 240 V 50/60 Hz up to 440 V 50/60 Hz up to 890 V 50/60 Hz up to 490 V 50/60 Hz	IEC/EN 60947 operating sequence I _{cu} 0-t-C0			
up to 440 V 5060 Hz up to 890 V 5060 Hz lg kA 105 IEC/EN 60947 operating sequence lg 0-t-C0-t-C0 up to 240 V 5060 Hz lg kA 105 up to 440 V 5060 Hz up to 440 V 5060 Hz lg kA 105 up to 440 V 5060 Hz lg kA 75 Operating times Closing delay via spring release Closing delay via spring release ms 35 Total opening delay via undervoltage release Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Maximum operating frequency Heat dissipation at rated current In Fixed mounting W 25 Weight Fixed mounting Black Max 43 43 43 45 Total opering delay via undervoltage release Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Weight Fixed mounting W 25 Weight Fixed mounting Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Maximum operating frequency Black Mig 56 Terminal capacities Terminal capacities Terminal capacities Terminal capacities Prixed mounting Black Prixed mounting Prixed mounting on the specific switchgear design, this may result in derating, which can then be compensated for by in creasing the cross-sectional area. Temperatures. The switchboard's internal ambient arvivous internal ambient temperatures. The switchboard's internal ambient arvivous internal ambient arvivous internal ambient temperatures. The switchboard's internal ambient arvivous internal ambient arviv		I _{cu}	kA	105
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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	25
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 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])

Rated permanent current lu	Α	800
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	105
Overload release current setting	Α	400 - 800
Adjustment range short-term delayed short-circuit release	Α	1600 - 8000
Adjustment range undelayed short-circuit release	Α	1600 - 9600
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