DATASHEET - IZMX40N3-A08F



Circuit-breaker, 3p, 800A, fixed

Part no. Catalog No.

EL-Nummer

(Norway)

No.

IZMX40N3-A08F 149693 Alternate Catalog RES8083B22-NMNN2MN1X

0004357430



Delivery program

Product range			Air circuit-breakers/switch-disconnectors
Product range			Open circuit-breakers
Current Range			Up to 4000 A
Protective function			System 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
			optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current	$I_n = I_u$	Α	800
Rated ultimate short-circuit breaking capacity up to 440V/690V 42/42	I _{cu}	kA	85
Rated service short-circuit breaking capacity up to 440V/690V 42/42	I _{cs}	kA	85
Overload release, min.	l _r	А	400
Overload release, max.	l _r	А	800
Non-delayed	$I_i = I_n x \dots$		2 - 12
цЪ			
Notes			
Main terminals must be separately ordered.			

Technical data

General			
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	$I_n = I_u$	А	800
Rated uninterrupted current at 50 °C	l _u	Α	800

Rated uninterrupted current at 60 °C	lu	A	800
Rated uninterrupted current at 70 °C		A	800
•	I _u		
Rated impulse withstand voltage	U _{imp}	VAC	12000
Rated operational voltage	U _e	VAC	690
Use in IT electrical power networks up to U = 440 V	III	kA	57.6
Overvoltage category/pollution degree			111/3
Rated insulation voltage	Ui	V	1000
Switching capacity			
Rated short-circuit making capacity	I _{cm}		
up to 440 V 50/60 Hz	I _{cm}	kA	187
up to 690 V 50/60 Hz	I _{cm}	kA	166
Rated short-time withstand current 50/60 Hz			
t = 1 s	I _{cw}	kA	85
t = 3 s	I _{cw}	kA	66
Rated short-circuit breaking capacity I _{cn}	I _{cn}		
IEC/EN 60947 operating sequence $\rm I_{cu}$ 0-t-CO			
up to 240 V 50/60 Hz	l _{cu}	kA	85
up to 440 V 50/60 Hz	I _{cu}	kA	85
up to 690 V 50/60 Hz	I _{cu}	kA	75
IEC/EN 60947 operating sequence I _{cs} 0-t-C0-t-C0			
up to 240 V 50/60 Hz	I _{cs}	kA	85
up to 440 V 50/60 Hz	I _{cs}	kA	85
up to 690 V 50/60 Hz	I _{cs}	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
		ino	
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 In			
Fixed mounting		W	25
Weight			
Fixed mounting			
3-pole		kg	43
4-pole		kg	56
Terminal capacities			
Copper bar			
Fixed mounting Black		mm	1 x 60 x 10
DIACK		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, 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

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	800
Equipment heat dissipation, current-dependent	P _{vid}	W	25
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70

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 observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (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@ss10.0.1-27-37-04-09 [AJZ716013])				
Rated permanent current lu	А	800		

Aread shor-oricuit breaking capacity lou at 400 V, 50 Hz kA 8 Overload release current string 0 800 Adjustment range short-term delayed short-circuit release 0 0 Adjustment range undelayed short-circuit release 0 900 Adjustment range undelayed short-circuit release No 900 Integrated earth fault protection No 900 Type of electrical connection of main circuit No 900 Device construction No 900 Number of auxiliary contacts as normally closed contact No 900 Number of auxiliary contacts as change-over contact Yes 900 With under voltage release Yes Yes Number of poles Yes 900 Position of connection for main current circuit Yes 900 Number of poles Yes 900 9000 Type of control elem	Rated permanent current lu	A	4	800
Overload release current string A A B A BOU - BOU Adjustment range short-terr delayed short-circuit release A 0 0 0 Adjustment range undelayed short-circuit release A BOU - BOO - B	Rated voltage	V	V	690 - 690
Adjustment range undelayed short-circuit release Adjustment range undelayed	Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	k	κA	85
Adjustment range undelayed short-circuit release A 600-9600 Integrated earth fault protection No Type of electrical connection of main circuit No Device construction Built-in device fixed built-in technique Suitable for DIN rail (top hat rail) mounting optional No Number of auxiliary contacts as normally closed contact No Number of auxiliary contacts as normally open contact No With switched-off indicator Pose With under voltage release No Number of poles Sak side Postition of connection form in current circuit Pose Rouge device with protection unit Pose Rouge device with protection unit Pose Mord drive integrated Pose Mord drive integrated Pose	Overload release current setting	Д	4	400 - 800
Integrated earth fault protection Integrated earth fault protection Type of electrical connection of main circuit Device construction Eucice Construct Eucice Const	Adjustment range short-term delayed short-circuit release	Д	4	0 - 0
Type of electrical connection of main circuit Page of electrical connection of main circuit Page of electrical connection Rail connection Device construction Built-in device fixed built-in technique Built-in device fixed built-in technique Suitable for DIN rail (top hat rail) mounting Mo Mo DIN rail (top hat rail) mounting optional Mo Mo Number of auxiliary contacts as normally closed contact Mo Mo Number of auxiliary contacts as change-over contact Mo Mo With switched-off indicator Mo Salade Mo With under voltage release Mo Salade Mo Number of poles Mo Salade Salade Position of connection for main current circuit Mo Salade Salade Complet device with protection unit Mo Salade Salade Motor drive integrated Mo Yes Salade Motor drive optional Mo Salade Salade	Adjustment range undelayed short-circuit release	Д	4	1600 - 9600
Device construction Image: Construction Built-in device fixed built-in technique Suitable for DIN rail (top hat rail) mounting No No DIN rail (top hat rail) mounting optional No No Number of auxiliary contacts as normally closed contact No No Number of auxiliary contacts as normally open contact Image: Construct on the second secon	Integrated earth fault protection			No
Suitable for DIN rail (top hat rail) mounting Mo DIN rail (top hat rail) mounting optional No Number of auxiliary contacts as normally closed contact No Number of auxiliary contacts as normally open contact O Number of auxiliary contacts as normally open contact O Number of auxiliary contacts as normally open contact C Number of auxiliary contacts as change-over contact S Number of poles S Number of poles S Number of poles S Type of control element S Complete device with protection unit S Motor drive integrated S Motor drive integrated S	Type of electrical connection of main circuit			Rail connection
DN rail (top hat rail) mounting optional Image: Sector	Device construction			Built-in device fixed built-in technique
Number of auxiliary contacts as normally closed contact 0 Number of auxiliary contacts as normally open contact 0 0 Number of auxiliary contacts as change-over contact 2 2 With switched-off indicator Image: Sector Sec	Suitable for DIN rail (top hat rail) mounting			No
Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as change-over contact 2 With switched-off indicator Yes With under voltage release 3 Number of poles Back side Position of connection for main current circuit Yes Complete device with protection unit Yes Moor drive integrated Yes Moor drive optional Yes	DIN rail (top hat rail) mounting optional			No
Number of auxiliary contacts as change-over contact 2 With switched-off indicator Yes With under voltage release No Number of poles 3 Position of connection for main current circuit Yes Type of control element Yes Complete device with protection unit Yes Motor drive integrated Yes Motor drive optional Yes	Number of auxiliary contacts as normally closed contact			0
With awitched-off indicator Yes With under voltage release No Number of poles 3 Position of connection for main current circuit Seck side Type of control element Yes Complete device with protection unit Yes Motor drive integrated Yes Motor drive optional Yes	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 Sack side Type of control element Push button Complete device with protection unit Yes Motor drive integrated No Motor drive optional Sack side	Number of auxiliary contacts as change-over contact			2
Number of poles 3 Position of connection for main current circuit Image: Control element Type of control element Image: Control element Complete device with protection unit Image: Control element Motor drive integrated Image: Control element Motor drive optional Image: Control element	With switched-off indicator			Yes
Position of connection for main current circuit Back side Back side Push button Push button Complete device with protection unit 6 10 10 10 10 10 10 10 10 10 10 10 10 10	With under voltage release			No
Type of control element Push button Complete device with protection unit Mode of the sector of the	Number of poles			3
Complete device with protection unit Mode Yes Motor drive integrated Mode Mode Motor drive optional Mode Yes	Position of connection for main current circuit			Back side
Motor drive optional Motor drive optional No	Type of control element			Push button
Motor drive optional Yes	Complete device with protection unit			Yes
	Motor drive integrated			No
Degree of protection (IP) IP20	Motor drive optional			Yes
	Degree of protection (IP)			IP20