

Circuit-breaker 3p, 800A, fixed

Part no. Article no. IZMX16N3-V08F 123372



#### **Delivery program** Product range Air circuit-breakers/switch-disconnectors Product range Open circuit-breakers Current Range Up to 4000 A Selective operation Protective function Installation type Fixed Main terminals must be separately ordered. IZMX16 Construction size Release system Electronic release IEC Standard/Approval 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 А 800 Rated current = rated uninterrupted current $I_n = I_u$ up to 440 V 50/60 Hz 50 I<sub>cu</sub> kA up to 440 V 50/60 Hz $I_{cs}$ kA 50 Overload release, min. ١<sub>r</sub> А 400 Overload release, max. ١<sub>r</sub> А 800 Non-delayed $I_i = I_n x \dots$ 2 - 12, OFF Delayed $I_{sd} = I_r x \dots$ 2 - 10 $X_{1>}$

# Technical data

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	9	°C	-40 - +70
Ambient temperature		°C	-25 - +70
Mounting position			
			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	800
Rated uninterrupted current at 50 °C	lu	А	800

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Refer control withingNN			A	800
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Devolution objectUIIIRate incluion objectUV000Switching capacityIan5In the district circuit making capacityIan5In the district circuit making capacityIan5Rate in the district circuit making capacityIan5Rate in the district circuit making capacity (a)Ian5Rate in the district circuit making capacity (a)Ian5In the district circuit making capacity (a)Ian1anIn the district circuit making capacity (a)Ian1anIn the district circuit making capacity (a)Ian1anIn the district circuit making capacity (a)IanIanIn the district circuit making capacity (a)IanIan<	Rated operational voltage	U <sub>e</sub>	V AC	690
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Reted return unique space/yImport Sub	Rated insulation voltage	Ui	V	1000
up to 40 Y 000 HzImNoNoNoReaded with with and current \$800 HzImImImImage: Image: Im	Switching capacity			
up to 800 V 500 HzImm <th< td=""><td>Rated short-circuit making capacity</td><td>I<sub>cm</sub></td><td></td><td></td></th<>	Rated short-circuit making capacity	I <sub>cm</sub>		
Rated short-sine withstand current \$9000 H2     Have     Have     42       It 1 s     How     K4     42       Rated short-since threaking capeuty h_m     Len     K4     5       It ECX NMM sequencing sequence h_m 0+CO     Have     K4     5       It ECX NMM sequencing sequence h_m 0+CO + CO     Have     K4     5       It ECX NMM sequencing sequence h_m 0+CO + CO     Have     K4     5       It ECX NMM sequencing sequence h_m 0+CO + CO     Have     K4     5       Up to SMD SM00 H2     Have     K4     5       If ECX NMM sequencing sequence h_m 0+CO + CO     Have     K4     5       Up to SMD SM00 H2     Have     K4     5       Casing disky via spring release     Have     K4     5       Casing disky via spring release     Have     K4     5       Total opening delay on nam-delayed short-circuit release (up to camplet are traited mathematical with maintenance     Mave     5       Usespan, mechanical with maintenance     Sortching     Have     5       Lifespan, mechanical with maintenance     Sortching     Have     5	up to 440 V 50/60 Hz	l <sub>cm</sub>	kA	105
i = 1 3icoicoicoicoRated circuit treaking capacity la up to 240 V 5080 Hzicoicoicoup to 240 V 5080 Hzicoicoicoip to 240 V 5080 Hz<	up to 690 V 50/60 Hz	I <sub>cm</sub>	kA	88
Action of the section of the	Rated short-time withstand current 50/60 Hz			
IECEN 80947 operating sequence Ico 0-400 Ico KA   up to 249 V 5000 Hz Ico KA   up to 580 V 5000 Hz Ico KA   up to 580 V 5000 Hz Ico KA   up to 240 V 5000 Hz Ico KA   up to 580 V 5000 Hz Ico KA   Operating times Ico KA   Closing delay via sping release ms 30   Total opening delay via sping release ms 30   It lespan, mechanical S S   Lifespan, mechanical with maintenance S S   Verster MD <t< td=""><td>t = 1 s</td><td>I<sub>cw</sub></td><td>kA</td><td>42</td></t<>	t = 1 s	I <sub>cw</sub>	kA	42
up to 240 V 5080 H2HendHendKalBup to 450 V 5080 H2HaKalGHECK 50847 operating sequence Lg 0+-C0+-C0HaSGup to 240 V 5080 H2HaGGup to 240 V 5080 H2HaGGup to 240 V 5080 H2KalGGup to 260 V 5080 H2KalMaGTotal opening delay via shurt releaseKalMaGTotal opening delay via shurt releaseKalMaGTotal opening delay via undervoltage releaseKalMaGTotal opening delay via undervoltage releaseKalMaGItespan, mechanicalKalKalGGItespan, mechanicalKalKalGGItespan, mechanical with maintenanceKalGGKal delay ites ites ites ites ites ites ites ites	Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
up to 440 V 5000 Hz     km     Km     Solution       up to 590 V 5000 Hz     km     42       LECLEN MISH7 operating sequence km 0+CO+CO     km     Solution       up to 240 V 5000 Hz     km     Km     Solution       up to 440 V 5000 Hz     km     Km     Solution       up to 690 V 5000 Hz     km     Km     Solution       up to 690 V 5000 Hz     km     Km     Solution       Up to 440 V 5000 Hz     km     Km     Solution       Operating times     km     Solution     Solution       Operating times     km     Solution     Solution       Closing delay via sping release     km     Solution     Solution       Total opening delay via undervoltage release     km     Solution     Solution       Total opening delay via undervoltage release     km     Solution     Solution       Utespan, machanical     synthing     km     Solution       Utespan, machanical     synthing     solution     Solution       Utespan, electrical     synthing     solution     Solution	IEC/EN 60947 operating sequence I <sub>cu</sub> O-t-CO			
up to 440 V 50,00 HzHuKu5up to 580 V 50,00 HzHuKu42IECEN 0597 operating sequence H <sub>0</sub> 0-CO-COHuHu5up to 240 V 50,00 HzHuKu5up to 240 V 50,00 HzHuKu5up to 850 V 50,00 HzHuKu5Operating timesHuHu5Total opening delay via spring releaseHu30Total opening delay via spring releaseHu30Total opening delay via undervoltage releaseHu30Total opening delay via spring releaseHu30Total opening delay via undervoltage releaseHu30Total opening delay via undervoltage releaseHu30Total opening delay via spring releaseHu30Total opening delay via undervoltage releaseHuBuTotal opening delay via undervoltage releaseHuBuTotal opening delay via spring releaseHuBuLifespan, mechanicalHuHuHu <td< td=""><td>up to 240 V 50/60 Hz</td><td>I<sub>cu</sub></td><td>kA</td><td>85</td></td<>	up to 240 V 50/60 Hz	I <sub>cu</sub>	kA	85
up to 880 V 5000 Hz     km     kM     Provide Pr	up to 440 V 50/60 Hz		kA	50
IEC/N 60947 operating sequence 1 <sub>vg</sub> 0-10-0-C0     Ics     KA     50       up to 240 V 50,50 H2     Ics     KA     50       up to 580 V 50,50 H2     Ics     KA     20       up to 580 V 50,50 H2     Ics     KA     20       Doarang simes     Ics     KA     20       Closing delay via signing release     Ics     Ics     Ics       Total opening delay via subtr release     Ics     Ics     Ics       Total opening delay via undervoltage release     Ics     Ics     Ics       Total opening delay via undervoltage release     Ics     Ics     Ics       Total opening delay on non-delayed short-circuit release (up to complete arc (UP opening Complete arc (UP				
up to 240 V50/60 HzIcaKASolup to 680 V50/60 HzIcaKASolop crafting timesIcaKASolOberating delay via syning releaseIcaSolTotal opening delay via subtrivelesesIcaSolTotal opening delay via undervoltage releaseIcaSolTotal opening delay on non-delayed short-circuit release (up to complete ar quarching)IcaSolLifespan, mechanicalSwitching Cycles (NV) OFF)IcaIcaLifespan, mechanicalSwitching Cycles (NV) OFF)IcaIcaLifespan, electrical with maintenanceSwitching Cycles (NV) OFF)IcaIcaLifespan, electrical with maintenanceSwitching Cycles (NV) OFF)IcaIcaLifespan, electrical with maintenanceSwitching Cycles (NV) OFF)IcaIcaLifespan, electrical with maintenanceSwitching Cycles (NV) OFF)IcaIcaTotal openingSolIcaIcaLifespan, electrical with maintenanceSwitching Cycles (NV) OFF)IcaIcaTotal openingSolIcaIcaLifespan, electrical with maintenanceIcaIcaIcaTotal openingIcaIcaIcaIcaTotal openingIcaIcaIcaIca		u .		
up to 440 V506 h2     ka     ka     ka     ka       up to 680 V50/60 h2     ks     ka     2       Operating times     set     set     set       Closing delay via spring release     set     set     set       Total opening delay via shunt release     set     set     set       Total opening delay via shunt release     set     set     set       Total opening delay via shunt release     set     set     set       Total opening delay via shunt release     set     set     set       Total opening delay on non-delayed short-circuit release (up to complete are set     set     set     set       Total opening delay on non-delayed short-circuit release (up to complete are set     set     set     set       Total opening delay on non-delayed short-circuit release (up to complete are set     set     set     set       Ufespan, mechanical     Set to set     set     set     set     set       Ufespan, mechanical with maintenance     Set to set			kΔ	50
up to 680 V 506 Hz     Ico     KA     2       Operating times				
Operating times     Image: spring release     I				
Closing delay via spring release   ns   3     Total opening delay via undervoltage release   ns   5     Lifespan   Switching   ns   5     Lifespan, mechanical   Switching   Switching   2000     Lifespan, mechanical with maintenance   Switching   Switching   1000     Lifespan, electrical with maintenance   Switching   Switching   1000     Kaid mounting   Switching   Switching   Switching   1000     Lifespan, electrical with maintenance   Switching   Switching   1000     Kaid mounting   Switching   Switching   Switching   1000     Fixed mounting   Switching   Switching   Switchin		I <sub>cs</sub>	kA	42
Total opening delay via shurt release   ns   25     Total opening delay via undervoltage release   ns   50     Total opening delay on on-delayed short-circuit release (up to complete ar quenching)   ns   25     Lifespan, mechanical   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   1000     Lifespan, mechanical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   1000     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   Switching cycles (				
Total opening delay via undervoltage release   ns   5     Total opening delay on non-delayed short-circuit release (up to complete ar quenching)   ns   25     Lifespan, mechanical   S   50     Lifespan, mechanical with maintenance   Switching cycles (0N) ofF)   S0     Lifespan, nechanical with maintenance   Switching cycles (0N) ofF)   S0     Lifespan, alectrical   Switching cycles (0N) ofF)   S0     Lifespan, alectrical   Switching cycles (0N) ofF)   S0     Lifespan, alectrical   Switching cycles (0N) ofF)   S0     Maximum operating frequency   Switching cycles (0N) ofF)   S0     Maximum operating frequency   Switching cycles (0N) ofF)   S0     Heat dissipation at rated current l <sub>n</sub> Switching cycles (0N) ofF)   S0     Tixed mounting   Switching cycles (0N) ofF)   S0   S0     Maximum operating frequency   Switching cycles (0N) ofF)   S0   S0     Meat dissipation at rated current l <sub>n</sub> Superimentation of rated current l <sub>n</sub> S0   S0     Spole   Superimentation of rated current l <sub>n</sub> Superimentation of rated current l <sub>n</sub> Superimentation of rated current l <sub>n</sub> Superintertex     Spole			ms	
Total opening delay on non-delayed short-circuit release (up to complete ar quenching)   ns   2     Lifespan   S   2     Lifespan, mechanical   Switching cycles (0N/ OFF)   2000     Lifespan, mechanical with maintenance   Switching cycles (0N/ OFF)   2000     Lifespan, electrical   Switching cycles (0N/ OFF)   3000     Lifespan, electrical with maintenance   Switching cycles (0N/ OFF)   3000     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Maximum operating frequency   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF)     Japole   Switching cycles (0N/ OFF)   Switching cycles (0N/ OFF) <t< td=""><td></td><td></td><td>ms</td><td></td></t<>			ms	
quenching   Image: Comparison of the sector of the secto	Total opening delay via undervoltage release		ms	50
Lifespan, mechanical   Switching cycles (ON/ OFF)   12500     Lifespan, mechanical with maintenance   Switching cycles (ON/ OFF)   20000     Lifespan, electrical   Switching cycles (ON/ OFF)   10000     Lifespan, electrical with maintenance   Switching cycles (ON/ OFF)   10000     Maximum operating frequency   Operations/h (OPER)   60     Maximum operating frequency   Operations/h (OPER)   60     Heat dissipation at rated current In Fixed mounting   W   59     Veight   Synole   10000     Terminal capacities   Kg   19     Copper bar   Kg   19     Fixed mounting   Kg   19     Black   Image Size Size Size Size Size Size Size Siz			ms	25
Lifespan, mechanical with maintenance   cycles (0N/ cycles (0N/ OFF)   2000     Lifespan, electrical   cycles (0N/ Cycles (0N/ OFF)   1000     Lifespan, electrical with maintenance   cycles (0N/ Cycles (0N/ Cyc	Lifespan		S	
Lifespan, electrical   cycles (0N/ OFF)   0000     Lifespan, electrical   cycles (0N/ OFF)   0000     Lifespan, electrical with maintenance   cycles (0N/ OFF)   0000     Maximum operating frequency   Operations/h   0000     Maximum operating frequency   Operations/h   0000     Heat dissipation at rated current In   0000   0000     Fixed mounting   W   9     Fixed mounting   M   9     3-pole   Kg   19     4-pole   Kg   19     Terminal capacities   Kg   19     Fixed mounting   Kg   19     Black   M   M	Lifespan, mechanical	cycles (ON/		12500
Lifespan, electrical with maintenance   Switching vorte (solow) vorte	Lifespan, mechanical with maintenance	cycles (ON/		20000
Lifespan, electrical with maintenance   Switching cycles (DN/ OFF)   10000     Maximum operating frequency   Operations/h   60     Heat dissipation at rated current In   W   59     Fixed mounting   M   59     3-pole   Kg   10000     4-pole   Kg   10000     4-pole   Kg   10000     Fixed mounting   Kg   10000     3-pole   Kg   10000     4-pole   Kg   10000     Fixed mounting   Kg   10000     Fixed mounting   Kg   10000     Black   M   Zx5x50	Lifespan, electrical	Switching cycles (ON/		10000
Maximum operating frequency Operations/h 60   Heat dissipation at rated current In Wo 50   Fixed mounting Wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww	Lifespan, electrical with maintenance	Switching cycles (ON/		10000
Heat dissipation at rated current In Weight   Fixed mounting Wwight   Fixed mounting Image: Second Secon	Maximum operating frequency			60
Fixed mounting W   Fixed mounting W   3-pole kg   4-pole kg   24   Fixed mounting   1 19   4-pole kg   24   Fixed mounting   1 1   1 1   1 1   2 1   1 1   1 1   1 1   1 1   1 1   1 1   1 1   1 1				
Weight     Fixed mounting   Image: Second secon	· · · ·		W	59
Fixed mounting Image: Constraint of the sector of the se	-			
4-polekg24Terminal capacitiesCopper barFixed mountingBlackmm2 x 5 x 50	-			
Terminal capacities   Copper bar   Fixed mounting   Black mm   2x 5 x 50	3-pole		kg	19
Copper bar Fixed mounting   Black mm	4-pole		kg	24
Fixed mounting mm 2 x 5 x 50	Terminal capacities			
Black mm 2 x 5 x 50	Copper bar			
	Fixed mounting			
Withdrawable units	Black		mm	2 x 5 x 50
	Withdrawable units			
Black mm 2 x 5 x 50	Black		mm	2 x 5 x 50
the temperature around the circuit-breaker, which is influenced by the an temperature, the degree of protection (IP), the mounting height, the partit any external ventilation. Depending on the specific switchgear design, th				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 <sub>vid</sub>	W	59
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	А	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	А	1600 - 8000
Adjustment range undelayed short-circuit release	А	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

250

## Dimensions

