

Circuit-breaker, 3p, 2000 A, fixed

Part no. Article no. Catalog No. IZMX40B3-V20F 149673 RES6203B52MNMNN2MN1X



## **Delivery programme**

Current Range Up to 4000 A   Protective function IM Jup to 4000 A   Installation type IM Selective operation   Construction size IM Fixed   Release system IM IZMX40   Standard/Approval IM IEC   Number of poles IM IEC   Degree of Protection IM IP20, IP55 with protective cover, IP41 door sealing frame   Standard/Approval Immediate in the sealing frame Standard/Approval   Rated current = rated uninterrupted current Immediate in the sealing frame Standard/Approval   Standard release, min. Immediate in the sealing frame Standard/Approval   Overload release, min. Immediate in the sealing frame Standard/Approval   Num-delayad Immediate in the sealing frame Standard/Approval   Immediate intervence Immediate in the sealing frame Standard/Approval   Num-delayad Immediate in the sealing frame Standard/Approval   Immediate intervence Immediate in the sealing frame <td< th=""><th>Product range</th><th></th><th></th><th>Air circuit-breakers/switch-disconnectors</th></td<>	Product range			Air circuit-breakers/switch-disconnectors
Protective function   Installation type   Selective operation     Installation type   Fixed     Construction size   IzXX40     Release system   IzXX40     Standard/Approval   IzXX40     Number of poles   Jole     Degree of Protection   IzXX40     Release system   IzXX40     Release system   IzXX40     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject for the selectivity cover, IP41 door sealing frame     Subject fo	Product range			Open circuit-breakers
Installation type and the series of the seri	Current Range			Up to 4000 A
Construction size   IMMA0     Release system   Edetronic release     Standard/Approval   IP     Number of poles   Jole     Degree of Protection   IPO, IPS5 with protective cover, IP41 door sealing frame     Rated current = rated uninterrupted current   In = lu   A     Breaking capacity lcu = lcs to 440 V 50/60 Hz   Icu   KA     Overload release, min.   Ir   I   A     Overload release, max.   Ir   In = lu   A     Non-delayed   Is   Is   So     Delayed   Is   A   So     Delayed   Is   Is   Is   Is     Non-delayed   Is   Is   Is   Is   Is     Non-delayed   Is   Is   Is   Is   Is   Is     Non-delayed   Is   Is   Is   Is   Is   Is   Is   Is   Is	Protective function			Selective operation
Release system Image: system Ima	Installation type			Fixed
Number of poles   Image: Protection   Imag	Construction size			IZMX40
Number of poles 3 pole   Degree of Protection Page Protection   Rated current = rated uninterrupted current In = Iu A   Breaking capacity Icu = Ics to 440 V 50/60 Hz Icu KA   Breaking capacity Icu = Ics to 440 V 50/60 Hz Icu KA   Overload release, min. Ir A 2000   Non-delayed Ir A 2000   Non-delayed Ir A 2000   Degree of Protection Ir A 2000	Release system			Electronic release
Degree of Protection Image: Protection of Protection Protective cover, IP41 door sealing frame   Rated current = rated uninterrupted current In = Iu A Suitable for zone selectivity ortionally fittable by user with comprehensive accessories   Breaking capacity Icu = Ics to 440 V 50/60 Hz In = Iu A 66   Overload release, min. Ir A 1000   Doverload release, max. Ir A 2000   Non-delayed Ir A A   Delayed Isg = Ir, X, A 2000	Standard/Approval			IEC
And and a state of the selectivity optionally fittable for zone selectivity optionally fittable by user with comprehensive accessories     Rated current = rated uninterrupted current   In = Iu   A   2000     Breaking capacity Icu = Ics to 440 V 50/60 Hz   Icu   KA   66     Overload release, min.   Ir   A   1000     Overload release, max.   Ir   A   2000     Non-delayed   Ir   A   2000     Delayed   Ise Ir, x   Ise Ir, x   212, OFF     Delayed   Ise Ir, x   Ise Ir, x   210	Number of poles			3 pole
Read our on the second optionally fittable by user with comprehensive accessoriesRead our rent = rated uninterrupted currentIn = IuA2000Breaking capacity lou = los to 440 V 50/60 HzIcuKA6Breaking capacity los to 440 V 50/60 HzIcuKA6Overload release, min.IrA2000Overload release, max.IrA2000Non-delayedIrA2000DelayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir xNon-delayedIsg = Ir xIsg = Ir xIsg = Ir XNon-delayedIsg = Ir xIsg = Ir XIsg = Ir XNon-delayedIsg = Ir XIsg = Ir XIsg = Ir XNon-delayedIsg = Ir XIsg = Ir XIsg = Ir XNon-delayedIsg = Ir XIsg = Ir XIsg = Ir XNon-delayedIsg = Ir XIsg = Ir X	Degree of Protection			IP20, IP55 with protective cover, IP41 door sealing frame
Breaking capacity lcu = lcs to 440 V 50/60 Hz     Icu     KA     6       Breaking capacity lcs to 440 V 50/60 Hz     Ics     KA     6       Overload release, min.     Ir     A     1000       Overload release, max.     Ir, row     A     2000       Non-delayed     Ir, Ir, Nrw     S     212, OFF       Delayed     Ir, S     Ir, S     S       Delayed     Ir, Ir, Nrw     Ir, S     S       Delayed     Ir, Ir, Nrw     Ir, S     S       Delayed     Ir, Ir, Nrw     Ir, S     S       Delayed     Ir, S     Ir, S     S       Non-delayed     Ir, S     Ir, S     S       Delayed     Ir, S     Ir, S     S       Non-delayed     Ir, S     Ir, S     S       Non-delayed     Ir, S     Ir, S     S       Delayed     Ir, S     Ir, S     S       Non-delayed     Ir, S     Ir, S     S       Non-delayed     Ir, S     Ir, S     Ir, S       Non-delayed <td< td=""><td></td><td></td><td></td><td></td></td<>				
Breaking capacity lcs to 440 V 50/60 Hz     Ics     KA     66       Overload release, min.     Ir     A     1000       Overload release, max.     Ir, A     A     2000       Non-delayed     Ir, In, X     J     2000       Delayed     Ir, In, X     Ir, In, X     J       Delayed     Ir, In, X     Ir, In, X     J       Delayed     Ir, In, In, In, In, In, In, In, In, In, In	Rated current = rated uninterrupted current	$I_n = I_u$	А	2000
Overload release, min.     Ir     A     1000       Overload release, max.     Ir     A     2000       Non-delayed     Ir     Ir     A     2000       Delayed     Ir     Ir     Ir     Ir     Ir       Delayed     Ir     Ir <td>Breaking capacity Icu = Ics to 440 V 50/60 Hz</td> <td>I<sub>cu</sub></td> <td>kA</td> <td>66</td>	Breaking capacity Icu = Ics to 440 V 50/60 Hz	I <sub>cu</sub>	kA	66
Nor-delayedI I IA2000Nor-delayedI I II I I I II I	Breaking capacity Ics to 440 V 50/60 Hz	I <sub>cs</sub>	kA	66
Non-delayed     I <sub>i</sub> = I <sub>n</sub> x     2 - 12, OFF       Delayed     I <sub>sd</sub> = I <sub>r</sub> x     2 - 10       Notes     Notes     Notes	Overload release, min.	l <sub>r</sub>	А	1000
Image: Second	Overload release, max.	l <sub>r</sub>	А	2000
Notes		I <sub>i</sub> = I <sub>n</sub> x		2 - 12, OFF
	Delayed	$I_{sd} = I_r x \dots$		2 - 10
Main terminals not included, need to be ordered separately.	Notes			
	Main terminals not included, need to be ordered separately.			

## **Technical data**

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	9	°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	2000
Rated uninterrupted current at 50 °C	lu	А	2000
Rated uninterrupted current at 60 °C	lu	А	2000

Rated uninterrupted current at 70 °C	l <sub>u</sub>	А	2000
Rated impulse withstand voltage	u 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	l <sub>IT</sub>	kA	36
Overvoltage category/pollution degree	11	NA .	III/3
Rated insulation voltage	Ui	V	1000
Switching capacity	U	v	1000
Rated short-circuit making capacity	I <sub>cm</sub>		
up to 440 V 50/60 Hz	I <sub>cm</sub>	kA	145
up to 690 V 50/60 Hz	I <sub>cm</sub>	kA	145
Rated short-time withstand current 50/60 Hz			
t = 1 s	I <sub>cw</sub>	kA	66
t = 3 s	I <sub>cw</sub>	kA	53
Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
IEC/EN 60947 operating sequence I <sub>cu</sub> 0-t-CO	CII		
up to 240 V 50/60 Hz	I <sub>cu</sub>	kA	66
up to 440 V 50/60 Hz	l <sub>cu</sub>	kA kA	66
up to 690 V 50/60 Hz	I <sub>cu</sub>	kA	66
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	66
up to 440 V 50/60 Hz	I <sub>cs</sub>	kA	66
up to 690 V 50/60 Hz	I <sub>cs</sub>	kA	66
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
Tatel analise delay as non-delayed about size it release (up to complete eve			AF
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	220
Weight			
Fixed mounting		ka	12
3-pole 4-pole		kg kg	43 56
Terminal capacities		"9	
Copper bar			
Fixed mounting			
Black		mm	2 x 80 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.
			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	2000
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	220
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70

10.2 Strength of materials and parts	
TO.2 OU ENGUI OF MALENDIS AND PAILS	
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

## **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	2000
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	66
Overload release current setting	А	1000 - 2000
Adjustment range short-term delayed short-circuit release	А	4000 - 20000
Adjustment range undelayed short-circuit release	А	4000 - 24000
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