

## Circuit-breaker, 4p, 800 A, withdrawable

Powering Business Worldwide™

IZMX40H4-V08W Part no. Article no. 150021

Catalog No. RESC084W52-NMNN2MNDX

# **Delivery program**

Don'to, 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			Withdrawable
			Cassette must be separately ordered.
			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	$I_n = I_u$	Α	800
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	400
Overload release, max.	I <sub>r</sub>	Α	800
Non-delayed  I	$I_i = I_n x \dots$		2 - 12, OFF
Delayed >	$I_{sd} = I_r x \dots$		2 - 10

## **Technical data**

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	θ	°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	800
Rated uninterrupted current at 50 °C	Iu	Α	800

Rated uninterrupted current at 60 °C

800

Marie marie with stand with grant or withing and with part of 40 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
The control protect pr	Rated uninterrupted current at 70 °C	Iu	Α	800
## 1   Part   Pa	Rated impulse withstand voltage	$U_{\text{imp}}$	V AC	12000
No.	Rated operational voltage	U <sub>e</sub>	V AC	690
and inablation voltage         Vil. Vil. Organity         Vin. Vil. Organity         Vin	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	V	1000
Implication   Section	Switching capacity			
### 100 000 000 000 000 1	Rated short-circuit making capacity	I <sub>cm</sub>		
the short-time withstand current 5980 Hz  1	up to 440 V 50/60 Hz	I <sub>cm</sub>	kA	231
t = 1 s	up to 690 V 50/60 Hz	I <sub>cm</sub>	kA	166
t = 3 s	Rated short-time withstand current 50/60 Hz			
sets deboth circuit breaking capacity/on  IECCEN 82997 operating sequence   20 0 - COD  up to 440 V 5000 Hz  up to 440 V 5000 Hz  up to 480 V 5000 Hz  up to	t = 1 s	I <sub>cw</sub>	kA	85
IECEN 86947 operating sequence on one of class of the complete are quenching in generating sequence on one of class of the complete are quenching in generating sequence on one of class of the complete are quenching in generating sequence on the generation of the generating sequence on the generating sequence on the generating sequence on the generating sequence on the generation of the generation	t = 3 s	I <sub>cw</sub>	kA	66
up to 440 V 5000 Hz  up to 460 V 5000 Hz  up to 890	Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
up to 240 V 5000 Hz  up to 460 V 5000 Hz  up to 690 V 5000 Hz  up to 500 V 5000 Hz  up to 50	IEC/EN 60947 operating sequence I <sub>cu</sub> O-t-CO			
up to 480 V 5080 Hz  up to 680 V 5080 Hz  up to 260 V 5080 Hz  up to 260 V 5080 Hz  up to 480 V 5080 Hz  up to 680 V 5080 V 5080 Hz  up to 680 V 5080		I <sub>cu</sub>	kA	105
up to 690 V 5080 Hz  up to 400 V 5080 Hz  up to 5080 V 5080 Hz  perating times  Clasing delay via spring release  Total opening delay via spring release  Total opening delay via sundervoltage release  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Busimum operating frequency  Operationshop  Withdrawable units (switch with cassette)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay via sundervoltage release  Total opening delay via sundervol	·			105
IECE/N 89947 operating sequence I <sub>63</sub> 0-t-CO+CO  up to 240 V 5080 Mz  up to 440 V 5080 Mz  up to 890 V 5080 Mz  les  les  les  A  165  165  A  75  165  A  75  Total opening delay via spring release  Total opening delay via undervottage release  Total o				
up to 240 V 5080 Hz up to 440 V 5080 Hz up to 460 V 5080 Hz up to 680 V 5080 Hz les up to 680 V 5080 H	1	·cu		
up to 480 V 50/80 Hz  up to 680 V 50/80 Hz		l	kΔ	105
up to 680 V 50/60 Hz  perating times  Closing delay via spring release Closing delay via spring release Total opening delay via undervoltage release via the specific svitchpear design, this my result in decrete rich degree of proincreasing the cross- sectional area. Imperature rise tests in the specific svitchpear design, this my result in decrete rich degree of proincreasing the cross- sectional area. Imperature rise tests in the specific svitchpear design, this my result in decrete, the degree of proincreasing the consensated				
Per ating times  Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage Total opening delay via undervoltage Total opening delay via undervoltage Total opening on the specific switchgear can provide specific and detailed infortage in detail, which are tests in the specific switchgear can provide specific and detailed infortage in detail, which are tests in the specific switchgear can provide specific and detailed infortage in detailed, which are the prestrues. The switchboard's at various internal ambient temperatures bould be estimated using the calculation methods of IEC regulation.				
Closing delay via spring release Total opening delay via shunt release Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Total opening delay via shunt release  Total opening delay via sunt release  Total opening delay via release of the specific switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the mabient emperature, the degree of completion (Pi, the numting height, the partitions, and any external vernilation. Depending on the specific switchgear design, the may exist the derating, which are all mabient temperature is a testa in the specific switchgear design, the may exist the derating, which are all mabient temperatures. The switchboard's internal ambient temperature is a testa in the partition methods of IEC regulation.		Ics	KA	75
Total opening delay via shunt release Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Interval opening fequency  Operations/h  Withdrawable units (switch with cassette)  Withdrawable units (switch with cassette)  Withdrawable units (switch with cassette)  Withdrawable  3-pole  4-pole  4-p				or.
Total opening delay via undervoltage release  Total opening delay on non-delayed short-circuit release (up to complete arc quenching) laximum operating frequency  Operations/h Withdrawable units (switch with cassette)  Withdrawable units (switch with cassette)  **Policy to the description of the d				
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  laximum operating frequency  Operations/h  Withdrawable units (switch with cassette)  W 35  V 39-  V 39- V				
Description at rated current In   Desc	Total opening delay via undervoltage release		IIIS	07
withdrawable units (switch with cassette)  Withdrawable 3-pole 4-pole 4-pole 3-pole 4-pole 4-pole 4-pole 4-pole 4-pole 5-pole 4-pole 5-pole 6-pole 6-pole 7-pole 7-pole 8-pole 8-			ms	45
Withdrawable units (switch with cassette)  Withdrawable  3-pole kg 70  4-pole kg 86  assette  3 pole kg 27  4 pole kg 35  brainal capacities  brainal capacities  Withdrawable units  Black mm 1 x 60 x 10  These are values used in separate switchgear. The actual values will depend on the temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear can provide specific and detailed information.  Withdrawable units and any external ambient temperature is tests in the specific switchgear can provide specific and detailed information.  Withdrawable units and any external ambient temperature is tests in the specific switchgear can provide specific and detailed information.	Maximum operating frequency	Operations/h		60
Vithdrawable	Heat dissipation at rated current I <sub>n</sub>			
Apole kg 70  4-pole kg 36  assette  3 pole kg 27  4 pole kg 35  perminal capacities  withdrawable units  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 around the circuit-breaker, which is influenced by the ambient temperature. The switchgod action area. Temperature is tests in the specific switchgad action are a Temperature around the circuit-breaker specific switchgad action. Permissible continuous current for circuit-breaker sperating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Withdrawable units (switch with cassette)		W	35
A-pole kg 86  assette  3 pole kg 27  4 pole kg 35  erminal capacities opper bar  Withdrawable units  Black mm 1 x 60 x 10  These are values used in separate switchgear. The actual values will depend on the temperature, the degree of protection (IP), the mounting height, the partitions, and any external varilation. 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 switchboard's internal ambient temperatures. The switchboard's internal ambient temperatures should be estimated using the calculation methods of IEC regulation.	Weight			
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3 pole kg 27 4 pole kg 35  erminal capacities  opper bar  Withdrawable units  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.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	4-pole		kg	86
4 pole kg 35  Perminal capacities  Opper bar  Withdrawable units  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.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Cassette			
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esign verification as per IEC/EN 61439				at various internal ambient temperatures. The switchboard's internal ambient
	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 <sub>vid</sub>	W	35
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/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 switch gear must be observed. $\label{eq:constraint}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
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 (ecl@ss8.1-2/-3/-04-09 [AJZ/16010])		
Rated permanent current lu	А	800
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	105
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 slide-in technique (withdrawable)
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