

# Circuit-breaker 3p, 630A, AF

Part no. IZMX16H3-U06W Article no. 123151



# **Delivery programme**

		Air circuit-breakers/switch-disconnectors
		Open circuit-breakers
		Up to 4000 A
		Universal protection
		Withdrawable
		IZMX16
		Electronic release
		IEC
		3 pole
		IP20, IP55 with protective cover, IP41 door sealing frame
		suitable for zone selectivity suitable for communication integrated system monitor and 4-character display optionally fittable by user with comprehensive accessories
$I_n = I_u$	Α	630
I <sub>cu</sub>	kA	65
Ics	kA	50
I <sub>r</sub>	Α	315
I <sub>r</sub>	Α	630
$I_i = I_n x \dots$		2 - 12, OFF
$I_{sd} = I_r x \dots$		2 - 10
	l <sub>cu</sub> l <sub>cs</sub> l <sub>r</sub> l <sub>r</sub> l <sub>i</sub> = l <sub>n</sub> x	l <sub>cu</sub> kA l <sub>cs</sub> kA l <sub>r</sub> A l <sub>r</sub> A l <sub>i</sub> = l <sub>n</sub> x

Cassette needs to be ordered separately.

### **Technical data**

#### General

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	θ	°C	-25 - +70 (device with LCD-display -20 - +70)
Operating (open)		°C	-25 - +70 (device with LCD-display -20 - +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**

Main conducting paths			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	630
Rated uninterrupted current at 50 °C	I <sub>u</sub>	Α	630
Rated uninterrupted current at 60 °C	I <sub>u</sub>	Α	630
Rated uninterrupted current at 70 °C	$I_{\mathbf{u}}$	Α	630
Rated impulse withstand voltage	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	I <sub>IT</sub>	kA	23
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V	1000
Switching capacity			
Rated short-circuit making capacity	I <sub>cm</sub>		
up to 440 V 50/60 Hz	I <sub>cm</sub>	kA	137
up to 690 V 50/60 Hz	I <sub>cm</sub>	kA	88
Rated short-time withstand current 50/60 Hz			
t=1s	I <sub>cw</sub>	kA	42
Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
IEC/EN 60947 operating sequence I <sub>cu</sub> 0-t-C0			
up to 240 V 50/60 Hz	I <sub>cu</sub>	kA	85
up to 440 V 50/60 Hz		kA	65
up to 690 V 50/60 Hz	I <sub>cu</sub>		42
	I <sub>cu</sub>	kA	42
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	65
up to 440 V 50/60 Hz	I <sub>cs</sub>	kA	50
up to 690 V 50/60 Hz	I <sub>cs</sub>	kA	42
Operating times			
Closing delay via spring release		ms	30
Total opening delay via shunt release		ms	25
Total opening delay via undervoltage release		ms	50
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)		ms	25
Lifespan		S	
Lifespan, mechanical	Switching cycles (ON/ OFF)		12500
Lifespan, mechanical with maintenance	Switching		20000
	cycles (ON/ OFF)		
Lifespan, electrical	Switching cycles (ON/ OFF)		10000
Lifespan, electrical with maintenance	Switching cycles (ON/ OFF)		10000
Maximum operating frequency	Operations/h		60
Heat dissipation at rated current I <sub>n</sub>			
Withdrawable units (switch with cassette)		W	50
Weight			
Withdrawable			
3-pole		kg	28
4-pole		kg	33
Cassette			
3 pole		kg	18
4 pole		kg	21
Terminal capacities			
Copper bar			
Fixed mounting			

Black	mm	2 x 5 x 50
Withdrawable units		
Black	mm	2 x 5 x 50
		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

Doorgii vormoution do por 120, 211 or 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	630
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	50
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])

proteotion (corespond to or or or protection)		
Rated permanent current lu	Α	630
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	65
Overload release current setting	Α	315 - 630
Adjustment range short-term delayed short-circuit release	Α	1260 - 6300
Adjustment range undelayed short-circuit release	Α	1260 - 7560

No
Rail connection
Built-in device slide-in technique (withdrawable)
No
No
0
0
2
Yes
No
3
Back side
Push button
Yes
No
Yes
IP20

# **Dimensions**

