183801 IZMX40H4-P32W-1

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Circuit-breaker, 4 pole, 3200A, 105 kA, Pmeasurement, IEC, Withdrawable

EL-Nummer (Norway) 4398291

Circuit-breaker IZMX40 (Air circuit-breakers/switch-disconnectors), 4 pole, Current Range: Up to 4000 A, Rated current = rated uninterrupted current(In = Iu): 3200 A, up to 440 V 50/60 Hz(Icu): 105 kA, up to 440 V 50/60 Hz(Ics): 105 kA, Overload release, min.(Ir): 1280 A, Overload release, max.(Ir): 3200 A, Installation type: Withdrawable, Standard/Approval: IEC, Protective function: Pmeasurement

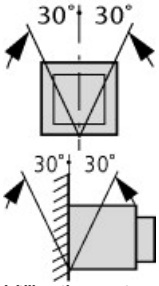
Delivery program

Product range
Air circuit-breakers/switch-disconnectors
Product range
Open circuit-breakers
Current Range
Up to 4000 A
Protective function
Pmeasurement
Installation type
Withdrawable
Cassette must be separately ordered.
IZMX-DTP-PTM external voltage measuring module required
Construction size
IZMX40
Release system
Electronic release
Standard/Approval
IEC
Number of poles
4 pole
Degree of Protection
IP31 with door seals, IP55 with protective cover
suitable for zone selectivity
suitable for communication
with integrated system monitor
with integrated test possibility
With graphic LCD display

optionally fittable by user with comprehensive accessories
Rated current = rated uninterrupted current [$I_n = I_u$]
3200 A
up to 440 V 50/60 Hz [I_{cu}]
105 kA
up to 440 V 50/60 Hz [I_{cs}]
105 kA
Overload release, min. [I_r]
1280 A
Overload release, max. [I_r]
3200 A
Non-delayed [$I_i = I_n$ x …]
2 - 15, OFF
Delayed [$I_{sd} = I_r$ x …]
1,5 - 10

Technical data

General
Standards
IEC/EN 60947
Ambient temperatureStorage [ϑ]
-20 - +70 °C
Ambient temperatureAmbient temperature
-20 - +70 °C
Mounting position



Utilization category
B
Degree of Protection
IP31 with door seals, IP55 with protective cover
Direction of incoming supply
as required
Main conducting paths
Rated current = rated uninterrupted current [$I_n = I_u$]
3200 A
Rated uninterrupted current at 50 °C [I_u]
3200 A
Rated uninterrupted current at 60 °C [I_u]
3200 A
Rated uninterrupted current at 70 °C [I_u]
3200 A
Rated impulse withstand voltage [U_{imp}]
12000 V AC
Rated operational voltage [U_e]
690 V AC
Use in IT electrical power networks up to [U]
440 V
Overvoltage category/pollution degree
III/3
Rated insulation voltage [U_i]
1000 V
Switching capacity
Rated short-circuit making capacity [I_{cm}]up to 440 V 50/60 Hz [I_{cm}]
231 kA
Rated short-circuit making capacity [I_{cm}]up to 690 V 50/60 Hz [I_{cm}]
166 kA
Rated short-time withstand current 50/60 Hzt = 1 s [I_{cw}]
85 kA
Rated short-time withstand current 50/60 Hzt = 3 s [I_{cw}]
66 kA

Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cu} O-t-CO up to 240 V 50/60 Hz [I_{cu}]
105 kA
Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cu} O-t-CO up to 440 V 50/60 Hz [I_{cu}]
105 kA
Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cu} O-t-CO up to 690 V 50/60 Hz [I_{cu}]
85 kA
Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cs} O-t-CO-t-CO up to 240 V 50/60 Hz [I_{cs}]
105 kA
Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cs} O-t-CO-t-CO up to 440 V 50/60 Hz [I_{cs}]
105 kA
Rated short-circuit breaking capacity I_{cn} [I_{cn}] IEC/EN 60947 operating sequence I_{cs} O-t-CO-t-CO up to 690 V 50/60 Hz [I_{cs}]
75 kA
Operating timesClosing delay via spring release
35 ms
Operating timesTotal opening delay via shunt release
35 ms
Operating timesTotal opening delay via undervoltage release
40 ms
Operating timesTotal opening delay on non-delayed short-circuit release (up to complete arc quenching)
52 ms
LifespanLifespan, mechanical [Switching cycles (ON/OFF)]
10000
LifespanLifespan, mechanical with maintenance [Switching cycles (ON/OFF)]
20000.
LifespanLifespan, electrical [Switching cycles (ON/OFF)]
5000
LifespanLifespan, electrical with maintenance [Switching cycles (ON/OFF)]
10000.
Maximum operating frequency [Operations/h]
60
Heat dissipation at rated current I_nWithdrawable units (switch with cassette)
560 W
Weight
Withdrawable4-pole
86 kg
Cassette4 pole
35 kg
Terminal capacities
Copper barWithdrawable unitsBlack
3 x 80 x 10 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.

Notes
External IZMX-DTP-PTM-1 voltage measuring module required (1 module is suitable for 16 circuit-breakers)

Design verification as per IEC/EN 61439

Technical data for design verification
Rated operational current for specified heat dissipation [I_n]
3200 A
Equipment heat dissipation, current-dependent [P_{vid}]
560 W
Operating ambient temperature min.
-20 °C
Operating ambient temperature max.
+70 °C
IEC/EN 61439 design verification
10.2 Strength of materials and parts10.2.2 Corrosion resistance
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.1 Verification of thermal stability of enclosures

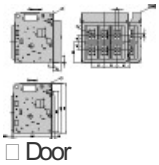
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.7 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 properties10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.
10.9 Insulation properties10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties10.9.4 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 7.0

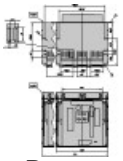
Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])
Rated permanent current Iu
3200 A
Rated voltage
690 - 690 V
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz
105 kA
Overload release current setting
1280 - 3200 A
Adjustment range short-term delayed short-circuit release
1920 - 32000 A
Adjustment range undelayed short-circuit release
6400 - 48000 A
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
With switched-off indicator
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)
IP31

Dimensions



Door



Door
Contact surface flange terminal

CAD data

- Product-specific CAD data
  (Web)
- 3D Preview
  (Web)

DWG files

- DA-CD-izmx40_4pol_w
  File
  (Web)

edz files

- DA-CE-ETN.IZMX40H4-P32W-1
  File
  (Web)

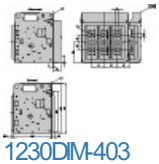
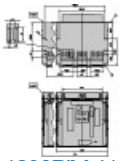
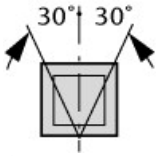
Step files

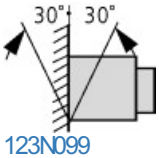
- DA-CS-izmx40_4pol_w
  File
  (Web)

Product photo

- 
  sg04216
  Photo
  IZMX40B, 4 pole, withdrawable units

Dimensions single product

- 
  1230DIM-403
  Line drawing
  Door
- 
  1230DIM-414
  Line drawing
  Door
  Contact surface flange terminal
- 

  123N098
  Line drawing
  Mounting position
- 

  123N099
  Line drawing
  Mounting position

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