

Circuit-breaker, 4 pole, 1250 A, 66 kA, Selective operation, IEC, Withdrawable



Part no. IZMX40B4-V12W-1 Article no. 183920

| | Del | iverv | program |
|--|-----|-------|---------|
|--|-----|-------|---------|

| Delivery 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 | | | IP31 with door seals, IP55 with protective cover |
| | | | suitable for zone selectivity optionally fittable by user with comprehensive accessories |
| Rated current = rated uninterrupted current | $I_n = I_u$ | Α | 1250 |
| up to 440 V 50/60 Hz | I _{cu} | kA | 66 |
| up to 440 V 50/60 Hz | I _{cs} | kA | 66 |
| Overload release, min. | I _r | Α | 500 |
| Overload release, max. | I _r | Α | 1250 |
| Non-delayed I | $I_i = I_n x \dots$ | | 2 - 15, OFF |
| Delayed X > | $I_{sd} = I_r x \dots$ | | 1,5 - 10 |

Technical data

| General | | | |
|---|-------------|----|--|
| Standards | | | IEC/EN 60947 |
| Ambient temperature | | | |
| Storage | θ | °C | -20 - +70 |
| Ambient temperature | | °C | -20 - +70 |
| Mounting position | | | 30° 30° |
| | | | 30° 30° |
| Utilization category | | | В |
| 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 | $I_n = I_u$ | Α | 1250 |

Rated uninterrupted current at 50 °C

1250

| Name | Rated uninterrupted current at 60 °C | l _u | Α | 1250 |
|--|---|-----------------------|----|--|
| Nation impute with usuand voltage Uman V AC 3000 Rate deprecional voltage Up V AC 600 Use in IT establish power reductivis up to U-1881 V In AC Use mort in the power reductivis up to U-1881 V In AC Down charges casepaying-following degree Up V 100 Switch charges casepaying following degree for the power following capacity In AC 40 In prot 440 V 24000 H In AC 40 Up to 540 V 24000 H In AC 50 I = 1 a In AC 50 I = 2 b In <td></td> <td></td> <td></td> <td></td> | | | | |
| Name of Communication Victor Vict | , | | | |
| Use in IT electrical power networks up to U = 80 V | | | | |
| Use of IT of aperthical power networks up to U = 680 Y 0 100 | | | | |
| Descripting category/publishion degree 100 | | | | |
| Name | | I _{IT} | kA | 0 |
| Nated sharts-circut making capacity | | | | |
| Rated abort-circuit mixing capacity Can | | Ui | V | 1000 |
| Ing the 440 Y \$580 No | | | | |
| But to 1880 V 5000 Hz Inn IA 145 Rated aborts-draw withstand current 5000 Hz Inn IA 60 ET = 1 s Inn IA 60 Earted aborts circuit breaking capacity I _{cm} I _{cm} IA 53 Bated aborts circuit breaking capacity I _{cm} I _{cm} IA 66 IECEN 8087 Operating sequence I _{cm} 0-x-CD I _{cm} IA 66 Up to 240 V 5000 Hz I _{cm} IA 66 IECEN 8087 Operating sequence I _{cm} 0-x-CD-x-CD I _{cm} IA 66 Up to 240 V 5000 Hz I _{cm} IA 66 Up to 5000 V 5000 Hz I _{cm} IA 66 Up to 5000 V 5000 Hz I _{cm} IA 66 Operating bright of the 1000 V 5000 Hz I _{cm} IA 66 Operating bright of the 1000 V 5000 Hz I _{cm} I _{cm} IA 66 Operating bright of the 1000 V 5000 Hz I _{cm} I _{cm} I _{cm} I _{cm} I _{cm} Operating bright of the 1000 V 5000 Hz I _{cm} I _{cm} I _{cm} <td></td> <td></td> <td></td> <td></td> | | | | |
| Rated short-time withstand current 5000 Hz 1 | | | | |
| Test Section | | I _{cm} | kA | 145 |
| Test Leve | | | | |
| Rated short-circuit breaking capacity I _{cn} EC,EN 8084) operating sequence _{Est} 0-ECO up to 240 V 5080 Hz I _{cu} | | I _{cw} | | |
| IEC/EN 80847 operating sequence I _{col} 0-+CO up to 240 V 5080 Hz up to 440 V 5080 Hz LEVEL M 8547 operating sequence I _{col} 0-+CO +CO up to 240 V 5080 Hz up to 490 V 5080 Hz les kA 66 Closing delay via spring release Closing delay via spring release Total opening delay via maintrelease Total opening delay via spring release Switching cycles INV OFFI Ufespan, mechanical with maintenance Switching cycles INV OFFI Ufespan, electrical with maintenance Switching cycles INV OFFI Ufespan | | I _{cw} | kA | 53 |
| Leg | Rated short-circuit breaking capacity I _{cn} | I _{cn} | | |
| Figure F | IEC/EN 60947 operating sequence I _{cu} 0-t-C0 | | | |
| Lifespan, mechanical with maintenance Lifespan, mechanical with maintenance Lifespan, electrical with maintenance Withdrawable units (switch with cassette) Withdrawable Withdrawable Lifespan to 680 V 5000 Hz Lifespan to 680 V 5000 Hz Lifespan, electrical with maintenance Withdrawable Lifespan to 680 V 5000 Hz Lifespan to 680 V 5000 V 5000 Hz Lifespan to 680 V 5000 V 5000 Hz Lifespan to 680 V 5000 | up to 240 V 50/60 Hz | I _{cu} | kA | 66 |
| EC/FN 80947 operating sequence log 0-t-CO+CO up to 240 V 50/80 Hz log | up to 440 V 50/60 Hz | I _{cu} | kA | 66 |
| up to 240 V 50/60 Hz up to 440 V 50/60 Hz up to 650 V 50/60 Hz les kA 66 Operating times Closing delay via spring release Closing delay via sunter release Closing delay via sunter release Total opening delay via undervoltage release Total opening delay via undervoltage release Total opening delay via non-delayed short-circuit release (up to complete arc quenching) Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Lifespan, mechanical with maintenance Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Withdrawable units (switch with cassette) W 155 Weight Withdrawable units (switch with cassette) Kg 35 Cassette 4 pole Kg 35 Terminal capacities Copper bar Withdrawable units | up to 690 V 50/60 Hz | I _{cu} | kA | 66 |
| up to 440 V 50/60 Hz up to 690 V 50/60 Hz lcs kA 66 Operating times Closing delay via spring release Closing delay via suburt release Total opening delay via undervoltage release Switching veries (DNV OFF) Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Switching veries (DNV OFF) Lifespan, electrical Lifespan, electrical with maintenance Switching veries (DNV OFF) DOOD Switching veries (DN | IEC/EN 60947 operating sequence I _{cs} 0-t-C0-t-C0 | | | |
| up to 690 V 50/60 Hz Operating times Closing delay via spring release Total opening delay via undervoltage release Total opening delay via undervoltage 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) Lifespan Lifespan, mechanical Lifespan, mechanical with maintenance Lifespan, mechanical with maintenance Lifespan, electrical Lifespan, electrical with maintenance Lifespan, electrical Lifespan, ele | up to 240 V 50/60 Hz | I _{cs} | kA | 66 |
| Closing delay via spring release Closing delay via spring release Total opening delay via undervoltage release Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Lifespan Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Withdrawable units (switch with cassette) W by Withdrawable 4-pole Apole Cassette 4 pole Apole Terminal capacities Copper bar Withdrawable units | up to 440 V 50/60 Hz | I _{cs} | kA | 66 |
| Closing delay via spring release | up to 690 V 50/60 Hz | I _{cs} | kA | 66 |
| Closing delay via spring release 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) Lifespan Lifespan Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical Lifespan, electrical Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Withdrawable units (switch with cassette) Wu 155 Weight Withdrawable 4-pole 4 pole 4 pole 3 5 Terminal capacities Copper bar Withdrawable units | Operating times | | | |
| Total opening delay via undervoltage release Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical Lifespan, electrical Lifespan, electrical Switching cycles (ON/ OFF) Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Withdrawable units (switch with cassette) Withdrawable 4-pole 4-pole 4 pole kg 83 Terminal capacities Copper bar Withdrawable units Withdrawable units | | | ms | 35 |
| Total opening delay on non-delayed short-circuit release (up to complete arc quenching) Lifespan Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Lifespan, mechanical with maintenance Switching cycles (ON OFF) Lifespan, electrical Lifespan, electrical with maintenance Switching cycles (ON OFF) Lifespan, electrical with maintenance Switching cycles (ON OFF) Lifespan, electrical with maintenance Switching cycles (ON OFF) Withdrawable units (switch with cassette) Withdrawable units (switch with cassette) Withdrawable 4-pole 4-pole 4-pole 4 pole by 35 Terminal capacities Copper bar Withdrawable units | Total opening delay via shunt release | | ms | 35 |
| Quenching) S Lifespan Switching cycles (ON) OFF 12500 Lifespan, mechanical with maintenance Switching cycles (ON) OFF 25000. Lifespan, electrical Switching cycles (ON) OFF 10000 Lifespan, electrical with maintenance Switching cycles (ON) OFF 20000. Lifespan, electrical with maintenance Switching cycles (ON) OFF 60 Maximum operating frequency Operations/h 60 Heat dissipation at rated current In W 155 Weight Withdrawable units (switch with cassette) W 155 Weight 4-pole kg 83 Cassette 4-pole kg 35 Terminal capacities Copper bar kg 35 Withdrawable units Withdrawable units W W | Total opening delay via undervoltage release | | ms | 40 |
| Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical Lifespan, mechanical with maintenance Switching cycles (ONV OFF) Cifespan, electrical Switching cycles (ONV OFF) Cifespan, electrical Switching cycles (ONV OFF) Cifespan, electrical with maintenance Switching cycles (ONV OFF) Cycles (ONV OFF) Witching cycles (ONV OFF) Operations/h 60 Heat dissipation at rated current In Withdrawable units (switch with cassette) Weight Withdrawable 4-pole 4-pole 4-pole 4-pole 5-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8- | | | ms | 52 |
| Lifespan, mechanical Lifespan, mechanical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical Lifespan, electrical Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Maximum operating frequency Operations/h Withdrawable units (switch with cassette) W 155 Weight Withdrawable 4-pole 4-pole 4 pole 4 pole kg 83 Cassette 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | 1 0 | | | |
| Cycles (ON/ OFF) Lifespan, mechanical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical Switching cycles (ON/ OFF) Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Maximum operating frequency Operations/h Withdrawable units (switch with cassette) Withdrawable switch with cassette) Withdrawable 4-pole 4-pole 4 pole 4 pole Kg 83 Cassette 4 pole Kg 35 Terminal capacities Copper bar Withdrawable units | · | 0 : 1: | S | 40500 |
| Lifespan, electrical Switching cycles (ON/ OFF) 20000. Lifespan, electrical with maintenance Switching cycles (ON/ OFF) 20000. Maximum operating frequency Operations/h 60 Heat dissipation at rated current In Withdrawable units (switch with cassette) W 155 Weight Withdrawable 4-pole kg 83 Cassette kg 83 Cassette kg 35 Terminal capacities Kg 35 Withdrawable units Withdrawable units | Lifespan, mechanical | cycles (ON/ | | 12500 |
| Lifespan, electrical with maintenance Switching cycles (ON/ OFF) Maximum operating frequency Operations/h Heat dissipation at rated current In Withdrawable units (switch with cassette) Weight Withdrawable 4-pole 4-pole 4 pole 4 pole Terminal capacities Copper bar Withdrawable units Withdrawable units Switching cycles (ON/ OFF) 60 155 8 8 8 8 8 8 8 8 8 7 8 8 8 | Lifespan, mechanical with maintenance | cycles (ON/ | | 25000. |
| Lifespan, electrical with maintenance Switching cycles (DN/ OFF) Maximum operating frequency Operations/h 60 Heat dissipation at rated current In Withdrawable units (switch with cassette) Weight Withdrawable 4-pole 4-pole kg 83 Cassette 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | Lifespan, electrical | cycles (ON/ | | 10000 |
| Heat dissipation at rated current In Withdrawable units (switch with cassette) Weight Withdrawable 4-pole 4 pole 4 pole 4 pole Withdrawable 4 wg 35 Terminal capacities Copper bar Withdrawable units | Lifespan, electrical with maintenance | Switching cycles (ON/ | | 20000. |
| Withdrawable units (switch with cassette) Weight Withdrawable 4-pole 4-pole 4 pole 4 pole 4 pole Withdrawable Withdrawable Withdrawable Withdrawable Withdrawable Withdrawable units | Maximum operating frequency | Operations/h | | 60 |
| Weight Withdrawable 4-pole kg 83 Cassette 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | Heat dissipation at rated current I_n | | | |
| Withdrawable 4-pole kg 83 Cassette 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | | | W | 155 |
| 4-pole kg 83 Cassette kg 35 Terminal capacities Copper bar Withdrawable units | - | | | |
| Cassette 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | | | | |
| 4 pole kg 35 Terminal capacities Copper bar Withdrawable units | | | kg | 83 |
| Terminal capacities Copper bar Withdrawable units | | | | as a second seco |
| Copper bar Withdrawable units | • | | kg | 35 |
| Withdrawable units | | | | |
| | | | | |
| 12 To 15 | | | mm | 1 x 60 x 10 |
| the temperature around the circuit-breaker, which is influenced by the ambi | | | | 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 crosssectional 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

| 2001gii 1011110441011 40 por 120, 211 01 100 | | | |
|---|------------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | In | Α | 1250 |
| Equipment heat dissipation, current-dependent | P _{vid} | w | 155 |
| Operating ambient temperature min. | | °C | -20 |
| 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 | Α | 1250 | |
| Rated voltage | V | 690 - 690 | |
| Rated short-circuit breaking capacity Icu at 400 V, 50 Hz | kA | 66 | |
| Overload release current setting | Α | 625 - 1250 | |
| Adjustment range short-term delayed short-circuit release | Α | 2500 - 12500 | |
| Adjustment range undelayed short-circuit release | А | 2500 - 15000 | |
| 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) | IP31 |

Dimensions



