


Circuit-breaker 3 pole, 160A

Part no. **NZMS2-S160**
 Catalog No. **109980**

Similar to illustration

Delivery program

| | | | |
|---|--------------------------|----|--|
| Description | | | Motor protection in conjunction with overload relay With short-circuit release Without overload release Ir IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breaker fulfills all requirements for AC-3 switching category. |
| Rated current = rated uninterrupted current | $I_n = I_u$ | A | 160 |
| Switching capacity | | | |
| 400/415 V 50 Hz | I_{cu} | kA | 70 |
| Setting range | | | |
| Short-circuit releases | | | |
|  | | | |
| Non-delayed | $I_i = I_n \times \dots$ | | 8 - 14 |
|  | | | |
| Motor rating AC-3 at 400 V 50/60 Hz | | | |
| 380 V 400 V | P | kW | 75 |
| Rated operational current AC-3 at 400 V 50/60 Hz | | | |
| 400 V | I_e | A | 134 |

Technical data

General

| | | | |
|------------------------------|--|----|-------------|
| Ambient temperature | | | |
| Ambient temperature, storage | | °C | - 40 - + 70 |
| Operation | | °C | -25 - +70 |

Circuit-breakers

| | | | |
|--|-------------|----|-----|
| Rated current = rated uninterrupted current | $I_n = I_u$ | A | 160 |
| Switching capacity | | | |
| Rated short-circuit breaking capacity I_{cn} | I_{cn} | | |
| I_{cu} to IEC/EN 60947 test cycle O-t-CO | I_{cu} | kA | |
| 400/415 V 50/60 Hz | I_{cu} | kA | 70 |

Design verification as per IEC/EN 61439

| | | | |
|--|-----------|----|--|
| Technical data for design verification | | | |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 38.4 |
| 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 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 I _u | A | 160 |
| Rated voltage | V | 690 - 690 |
| Rated short-circuit breaking capacity I _{cu} at 400 V, 50 Hz | kA | 70 |
| Overload release current setting | A | 80 - 160 |
| Adjustment range short-term delayed short-circuit release | A | 0 - 0 |
| Adjustment range undelayed short-circuit release | A | 8 - 14 |
| Integrated earth fault protection | | No |
| Type of electrical connection of main circuit | | Screw 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 | | Yes |
| 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 | | 0 |
| With switched-off indicator | | No |
| With under voltage release | | No |
| Number of poles | | 3 |
| Position of connection for main current circuit | | Front side |
| Type of control element | | Rocker lever |
| Complete device with protection unit | | Yes |
| Motor drive integrated | | No |
| Motor drive optional | | Yes |
| Degree of protection (IP) | | IP20 |

Additional product information (links)

| | |
|---|---|
| additional technical information for NZM power switch | https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf |
|---|---|