Eaton 266005

Catalog Number: 266005

Eaton Moeller series NZM - Molded Case Circuit Breaker. Switch-disconnector 3p, 160A, 2

General specifications



Eaton Moeller series NZM switchdisconnector

EAN

4015082660055

Product Height

185 mm

Product Weight

1.895 kg

Certifications

IEC/EN 60947

IEC

Catalog Number

266005

Model Code

PN2-160

Product Length/Depth

142 mm

Product Width

105 mm

Compliances

RoHS conform





defaultTaxonomyAttributeLabel

Type

Switch-disconnector

Special features

Main switch characteristics including positive drive to

IEC/EN 60204 and VDE

0113.

Isolating characteristics to

IEC/EN 60947-3 and VDE

0660.

Busbar tag shroud to VDE

0160 Part 100.

Rated current = rated

uninterrupted current: 160 A

The rated short-time

withstand current for

PN2/N2 in conjunction with

earth-fault release NZM2-4-

XFI...Icw = 1.5 kA

Application

Use in unearthed supply systems at 690 V

Amperage Rating

160 A

Voltage rating

690 V - 690 V

Circuit breaker frame type

PN2

Features

Version as maintenance-/service switch Version as emergency stop installation

Version as main switch

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

Resources

Brochures

 $eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf \\ eaton-digital-nzm-brochure-br013003en-en-us.pdf$

Catalogs

eaton-digital-nzm-catalog-ca013003en-en-us.pdf

Certification reports

DA-DC-03_PN2

DA-DC-03_N2

Drawings

eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps eaton-circuit-breaker-nzm-mccb-dimensions-019.eps

eCAD model

DA-CE-ETN.PN2-160

Installation instructions

eaton-circuit-breakers-nzm2-basic-device-bg2-instruction-leaflet-il01206006z.pdf

Installation videos

Introduction of the new digital circuit breaker NZM

The new digital NZM Range

mCAD model

DA-CD-nzm2_3p

DA-CS-nzm2_3p

Technical data sheets

eaton-nzm-technical-information-sheet

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.

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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.

10.9.2 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.

Pollution degree

3

Mounting Method

Fixed

Built-in device fixed built-in technique

Distribution board installation

Intermediate mounting

Ground mounting

Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30

Damp heat, constant, to IEC 60068-2-78

Equipment heat dissipation, current-dependent

19.66 W

Isolation

300 V AC (between the auxiliary contacts)

500 V AC (between auxiliary contacts and main contacts)

Rated short-time withstand current (Icw)

3.5 kA

Degree of protection

IP20 (basic protection type, in the area of the HMI devices)

Other

Direction of incoming supply

As required

Electrical connection type of main circuit

Screw connection

Ambient operating temperature - max

70 °C

Ambient operating temperature - min

-25 °C

Ambient storage temperature - max

70 °C

Ambient storage temperature - min

40 °C

Number of auxiliary contacts (change-over contacts) 0 Number of auxiliary contacts (normally closed contacts) 0 Number of auxiliary contacts (normally open contacts) 0 Protection against direct contact Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110 Rated insulation voltage (Ui) 690 V Rated operating frequency 50 Hz Rated operating power at AC-23, 400 V 90 kW Rated operating power at AC-3, 400 V 0 kW Switch positions 1, 0 Lifespan, mechanical 20000 operations Overvoltage category Ш Rated operational current 160 A (415 V AC-22/23A, making and breaking capacity) 160 A (690 V AC-22/23A, making and breaking capacity) Degree of protection (IP), front side IP20 IP66 (with door coupling rotary handle) IP40 (with insulating surround) Degree of protection (terminations) IP10 (tunnel terminal) IP00 (terminations, phase isolator and band terminal) Number of poles Three-pole Terminal capacity (copper strip)

Min. 2 segments of 9 mm x 0.8 mm at box terminal

Max. 8 segments of 15.5 mm x 0.8 mm (2x) at box terminal

Max. 10 segments of 16 mm x 0.8 mm at box terminal

Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 24 mm x 0.8 mm at rear-side connection (punched) Handle color

Black

Lifespan, electrical

7500 operations at 690 V AC-1 10000 operations at 415 V AC-1 5000 operations at 690 V AC-3 10000 operations at 400 V AC-1 7500 operations at 400 V AC-3

7500 operations at 415 V AC-3

Functions

Interlockable

Disconnectors/main switches

Shock resistance

20 g (half-sinusoidal shock 20 ms)

Number of switches

1

Rated conditional short-circuit current (Iq)

0 kA

Rated conditional short-circuit current with back-up fuse

80 kA at 690 V PN2(N2)-160...250: 250 AgGgL

100 kA at 400/415 V

Rated conditional short-circuit current with downstream fuse

80 kA at 690 V

100 kA at 400/415 V

PN2(N2)-160...250: 250 AgGgL

Rated operating voltage (Ue) at AC - max

690 V

Rated operational current for specified heat dissipation (In)

160 A

Rated permanent current at AC-21, 400 V

0 A

Rated permanent current at AC-23, 400 V

Rated short-time withstand current (t = 0.3 s)

3.5 kA

Rated short-time withstand current (t = 1 s) 3.5 kA Switching power at 400 V 0 kW Handle type Rocker lever Number of operations per hour - max 120 Rated short-circuit making capacity Icm at 690 V, 50/60 Hz 5.5 kA Rated impulse withstand voltage (Uimp) at auxiliary contacts 6000 V Rated impulse withstand voltage (Uimp) at main contacts 8000 V Standard terminals Screw terminal Optional terminals Box terminal. Connection on rear. Tunnel terminal Short-circuit protective device fuses - max 250 A gL Terminal capacity (copper busbar) Min. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection Max. 24 mm x 8 mm direct at switch rear-side connection Terminal capacity (copper solid conductor/cable) 16 mm² (1x) at tunnel terminal 10 mm² - 16 mm² (1x) at box terminal 6 mm² - 16 mm² (2x) direct at switch rear-side connection 10 mm² - 16 mm² (1x) direct at switch rear-side connection 6 mm² - 16 mm² (2x) at box terminal Terminal capacity (aluminum solid conductor/cable) 10 mm² - 16 mm² (1x) direct at switch rear-side connection 10 mm² - 16 mm² (2x) direct at switch rear-side connection 16 mm² (1x) at tunnel terminal Terminal capacity (copper stranded conductor/cable) 25 mm² - 70 mm² (2x) at box terminal 25 mm² - 185 mm² (1x) at box terminal 25 mm² - 70 mm² (2x) direct at switch rear-side connection

25 mm² - 185 mm² (1x) at 1-hole tunnel terminal

25 mm² - 185 mm² (1x) direct at switch rear-side connection

Terminal capacity (aluminum stranded conductor/cable)

25 mm² - 185 mm² (1x) at 1-hole tunnel terminal



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