Specifications

# Eaton 222572

## Catalog Number: 222572

Eaton Moeller® series T0 Changeoverswitches, T0, 20 A, surface mounting, 1 contact unit(s), Contacts: 2, 90 °, maintained, Without 0 (Off) position, USV-NETZ, Design number 15541

### General specifications

**Product Name**
Eaton Moeller® series T0 Changeover switch

**Catalog Number**
222572

**EAN**
4015082225728

**Product Length/Depth**
137 mm

**Product Height**
102 mm

**Product Width**
80 mm

**Product Weight**
0.253 kg

**Certifications**
EN 60947
EN 60204
IEC 60947
VDE
IEC/EN 60947
IEC/EN 60204
VDE 0660
IEC/EN 60947-3

**Catalog Notes**
Rated Short-time Withstand Current (Icw) for a time of 1 second

## Product specifications

### Type

Changeover switch

### Accessories

Black thumb grip and front plate

### Amperage Rating

20A

### Product Category

Control switches

### Voltage rating

690 V

### Features

Complete device in housing

### Actuator function

Maintained

Without 0 (Off) position

### 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.

### 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.

## Resources

### Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

### Catalogs

P Switch-disconnectors and T Rotary cam switches catalogue

CA042001EN

### Declarations of conformity

DA-DC-00004927.pdf

DA-DC-00004895.pdf

### Drawings

eaton-rotary-switches-dimensions-t0-step-switch-dimensions.eps

eaton-rotary-switches-t0-changeover-switch-dimensions.eps

eaton-general-rotary-switch-t0-step-switch-symbol.eps

eaton-rotary-switches-front-plate-t0-changeover-switch-symbol-008.eps

eaton-general-totally-insulated-t0-main-switch-symbol.eps

### eCAD model

DA-CE-ETN.T0-1-15541_I1

### Installation instructions

IL03801007Z2021_06.pdf

### Installation videos

Eaton's P Switch-disconnectors used in a factory

### mCAD model

DA-CS-bauform2

DA-CD-bauform2

### Product notifications

MZ008006ZU_Orderform_Customized_Switch.pdf

MZ008005ZU_Orderform_Customized_Switch.pdf

### Wiring diagrams

eaton-rotary-switches-t0-changeover-switch-wiring-diagram-061.eps

eaton-rotary-switches-t0-changeover-switch-wiring-diagram-062.eps

### 10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

### 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.

### Fitted with:

Black thumb grip and front plate

### Operating frequency

1200 Operations/h

### Pollution degree

3

### Climatic proofing

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

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

### Enclosure material

Plastic

### Rated impulse withstand voltage (Uimp)

6000 V AC

### Actuator type

Short thumb-grip

### Ambient operating temperature - max

40 °C

### Ambient operating temperature - min

-25 °C

### Ambient operating temperature (enclosed) - max

40 °C

### Ambient operating temperature (enclosed) - min

-25 °C

### Equipment heat dissipation, current-dependent Pvid

0 W

### Heat dissipation capacity Pdiss

0 W

### Heat dissipation per pole, current-dependent Pvid

0.6 W

### Number of auxiliary contacts (change-over contacts)

0

### Number of auxiliary contacts (normally closed contacts)

0

### Number of auxiliary contacts (normally open contacts)

0

### Number of contact units

1

### Rated short-time withstand current (Icw)

320 A, Contacts, 1 second

### Electrical connection type of main circuit

Screw connection

### Mounting position

As required

### Rated conditional short-circuit current (Iq)

6 kA

### Mounting method

Surface

Surface mounting

### Overvoltage category

III

### Control circuit reliability

1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)

### Number of poles

1

### Degree of protection

IP65

### Number of contacts

2

### Model

Reverser

### Degree of protection (front side)

IP65

NEMA 12

### Inscription

" USV-NETZ "

### Lifespan, mechanical

400,000 Operations

### Safe isolation

440 V AC, Between the contacts, According to EN 61140

### Rated operational current (Ie)

20 A at AC-3, 400 V star-delta

20 A at AC-3, 230 V star-delta

8.5 A at AC-3, 690 V star-delta

15.6 A at AC-3, 500 V star-delta

### Screw size

M3.5, Terminal screw

### Shock resistance

15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms

### Load rating

2 x $I_e$ (with intermittent operation class 12, 25 % duty factor)

1.6 x $I_e$ (with intermittent operation class 12, 40 % duty

factor)

1.3 x $I_e$ (with intermittent operation class 12, 60 % duty factor)

Tightening torque

1 Nm, Screw terminals

Number of contacts in series at DC-21A, 240 V

1

Number of contacts in series at DC-23A, 120 V

3

Number of contacts in series at DC-23A, 24 V

1

Number of contacts in series at DC-23A, 240 V

5

Number of contacts in series at DC-23A, 48 V

2

Number of contacts in series at DC-23A, 60 V

3

Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)

100 A

Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)

110 A

Rated breaking capacity at 500 V (cos phi to IEC 60947-3)

80 A

Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)

60 A

Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)

130 A

Rated operational current (Ie) at AC-21, 440 V

20 A

Rated operational current (Ie) at AC-23A, 230 V

13.3 A

Rated operational current (Ie) at AC-23A, 400 V, 415 V

13.3 A

Rated operational current (Ie) at AC-23A, 500 V

13.3 A

Rated operational current (Ie) at AC-23A, 690 V

7.6 A

Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V

11.5 A

Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V

11.5 A

Rated operational current (Ie) at AC-3, 500 V

9 A

Rated operational current (Ie) at AC-3, 660 V, 690 V

4.9 A

Safety parameter (EN ISO 13849-1)

B10d values as per EN ISO 13849-1, table C.1

Short-circuit protection rating

20 A gG/gL, Fuse, Contacts

Terminal capacity (flexible with ferrule)

2 x (0.75 - 2.5) mm², ferrules to DIN 46228

1 x (0.75 - 2.5) mm², ferrules to DIN 46228

Suitable for

Ground mounting

Rated operational current (Ie) at DC-1, load-break switches l/r = 1 ms

10 A

Rated operational current (Ie) at DC-13, control switches L/R = 50 ms

10 A

Rated operational current (Ie) at DC-21, 240 V

1 A

Rated operational current (Ie) at DC-23A, 120 V

5 A

Rated operational current (Ie) at DC-23A, 24 V

10 A

Rated operational current (Ie) at DC-23A, 240 V

5 A

Rated operational current (Ie) at DC-23A, 48 V

10 A

Rated operational current (Ie) at DC-23A, 60 V

10 A

Rated operational current for specified heat dissipation (In)

20 A

Rated operational power at AC-23A, 220/230 V, 50 Hz

3 kW

Rated operational power at AC-23A, 400 V, 50 Hz

5.5 kW

Rated operational power at AC-23A, 500 V, 50 Hz

7.5 kW

Rated operational power at AC-23A, 690 V, 50 Hz

5.5 kW

Rated operational power at AC-3, 380/400 V, 50 Hz

4 kW

Rated operational power at AC-3, 415 V, 50 Hz

5.5 kW

Rated operational power at AC-3, 690 V, 50 Hz

4 kW

Rated operational power star-delta at 220/230 V, 50 Hz

5.5 kW

Rated operational power star-delta at 380/400 V, 50 Hz

7.5 kW

Rated operational power star-delta at 500 V, 50 Hz

7.5 kW

Rated operational power star-delta at 690 V, 50 Hz

5.5 kW

Rated operational voltage (Ue) at AC - max

690 V

Rated uninterrupted current (Iu)

20 A

Static heat dissipation, non-current-dependent Pvs

0 W

Switching angle

90 °

Voltage per contact pair in series

60 V

Terminal capacity (solid/stranded)

1 x (1 - 2.5) mm²

2 x (1 - 2.5) mm²

Uninterrupted current

Rated uninterrupted current Iu is specified for max. cross-section.

Design

15541

Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2024 Eaton. All Rights Reserved.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Eaton.com/socialmedia