

Eaton 043619

Catalog Number: 043619

Eaton Moeller® series T0 Main switch, T0, 20 A, rear mounting, 2 contact unit(s), 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

General specifications



Product Name	Catalog Number
Eaton Moeller® series T0 Main switch	043619

Model Code	EAN
T0-2-1V/SVB	4015080436195

Product Length/Depth	Product Height
128 mm	74 mm

Product Width	Product Weight
65 mm	0.158 kg

Certifications	Catalog Notes
UL Category Control No.: NLRV	Rated Short-time Withstand Current
IEC/EN 60947-3	(Icw) for a time of 1 second
UL 60947-4-1	
UL	
VDE 0660	
CSA-C22.2 No. 60947-4-1-14	
CSA	
IEC/EN 60204	
IEC/EN 60947	
CE	
CSA File No.: 012528	
UL File No.: E36332	
CSA Class No.: 3211-05	
CSA-C22.2 No. 94	

Features & Functions

Features

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

Fitted with:

Red rotary handle and yellow locking ring

Functions

Interlockable
Emergency switching off function

Locking facility

Lockable in the 0 (Off) position

Number of poles

3

General

Degree of protection

NEMA 12

Degree of protection (front side)

IP65

Lifespan, mechanical

400,000 Operations

Mounting method

Rear mounting

Number of contact units

2

Operating frequency

1200 Operations/h

Overvoltage category

III

Pollution degree

3

Product Category

Main switch

Rated impulse withstand voltage (Uimp)

6000 V AC

Safe isolation

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

Safety parameter (EN ISO 13849-1)

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

Shock resistance

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

Suitable for

Branch circuits, suitable as motor disconnect, (UL/CSA)
Intermediate mounting
Ground mounting

Switching angle

90 °

Climatic environmental conditions

Ambient operating temperature - min

-25 °C

Ambient operating temperature - max

50 °C

Ambient operating temperature (enclosed) - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Climatic proofing

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

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

Terminal capacities

Terminal capacity

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

18 - 14 AWG, solid or flexible with ferrule

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

2 x (1 - 2.5) mm², solid or stranded

1 x (1 - 2.5) mm², solid or stranded

Screw size

M3.5, Terminal screw

Tightening torque

8.8 lb-in, Screw terminals

1 Nm, Screw terminals

Electrical rating

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

11.5 A

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

11.5 A

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

9 A

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

4.9 A

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

20 A

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

13.3 A

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

13.3 A

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

13.3 A

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

7.6 A

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

10 A

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

10 A

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

1 A

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

5 A

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

10 A

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

5 A

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

10 A

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

10 A

Rated operational current (I_e) star-delta at AC-3, 220/230 V

20 A

Rated operational current (I_e) star-delta at AC-3, 380/400 V

20 A

Rated operational current (I_e) star-delta at AC-3, 500 V

15.6 A

Rated operational current (I_e) star-delta at AC-3, 690 V

8.5 A

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

5.5 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 at AC-23A, 220/230 V, 50 Hz

3 kW

Short-circuit rating

Rated conditional short-circuit current (I_q)

6 kA

Rated short-time withstand current (I_{cw})

0.32 kA

320 A, Contacts, 1 second

Short-circuit current rating (basic rating)

5 kA, SCCR (UL/CSA)

50A, max. Fuse, SCCR (UL/CSA)

Short-circuit current rating (high fault)

10 kA, SCCR (UL/CSA)

20 A, Class J, max. Fuse, SCCR (UL/CSA)

Short-circuit protection rating

20 A gG/gL, Fuse, Contacts

Switching capacity

Load rating

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)

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

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

1

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

1

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

2

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

3

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

3

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

5

Switching capacity (main contacts, general use)

16 A, Rated uninterrupted current max. (UL/CSA)

Switching capacity (auxiliary contacts, general use)

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 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

Uninterrupted current

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

10A, IU, (UL/CSA)

Switching capacity (auxiliary contacts, pilot duty)

A600 (UL/CSA)

P300 (UL/CSA)

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

130 A

Voltage per contact pair in series

60 V

Motor rating

Assigned motor power at 115/120 V, 60 Hz, 1-phase

0.5 HP

Assigned motor power at 200/208 V, 60 Hz, 1-phase

1 HP

Assigned motor power at 200/208 V, 60 Hz, 3-phase

3 HP

Assigned motor power at 230/240 V, 60 Hz, 1-phase

1.5 HP

Assigned motor power at 230/240 V, 60 Hz, 3-phase

3 HP

Assigned motor power at 460/480 V, 60 Hz, 3-phase

7.5 HP

Assigned motor power at 575/600 V, 60 Hz, 3-phase

7.5 HP

Contacts

Control circuit reliability

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

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

0

Number of auxiliary contacts (normally open contacts)

0

Actuator

Actuator color

Red

Actuator type

Door coupling rotary drive

Design verification

Equipment heat dissipation, current-dependent Pvid

0 W

Heat dissipation capacity Pdis

0 W

Heat dissipation per pole, current-dependent P_{vid}

0.6 W

Rated operational current for specified heat dissipation (I_n)

20 A

Static heat dissipation, non-current-dependent P_{vs}

0 W

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

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

Resources

Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

Catalogues

P Switch-disconnectors and T Rotary cam switches catalogue
CA042001EN

Drawings

[eaton-rotary-switches-padlock-t0-main-switch-dimensions.eps](#)

[eaton-rotary-switches-mounting-t0-main-switch-dimensions-006.eps](#)

[eaton-rotary-switches-mounting-p1-main-switch-3d-drawing-002.eps](#)

[eaton-rotary-switches-t0-main-switch-symbol.eps](#)

[eaton-general-mounting-p1-main-switch-symbol-002.eps](#)

eCAD model

[DA-CE-ETN.T0-2-1_V_SVB](#)

Installation instructions

[IL03801021Z](#)

Installation videos

[Eaton's P Switch-disconnectors used in a factory](#)

mCAD model

[DA-CD-t0_2_v](#)

[DA-CS-t0_2_v](#)

Wiring diagrams

[eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram.eps](#)

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.

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.



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