

Product specifications

Eaton 233989

Catalog Number: 233989

Eaton Moeller® series P1 Main switch, P1, 32 A, surface mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring



General specifications

Product Name	Catalog Number
Eaton Moeller® series P1 Main switch	233989
Model Code	EAN
P1-32/11/SVB	4015082339890
Product Length/Depth	Product Height
115 mm	137 mm
Product Width	Product Weight
80 mm	0.38 kg
Certifications	Catalog Notes
IEC/EN 60204	Rated Short-time Withstand Current
IEC/EN 60947	(Icw) for a time of 1 second
IEC/EN 60947-3	
VDE 0660	

Product specifications

Rated operational current for specified heat dissipation (I_n)

32 A

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

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

25 A

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

13 kW

10.4 Clearances and creepage distances

Meets the product standard's requirements.

Mounting method

Surface mounting

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

260 A

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Number of switches

1

Fitted with:

Red rotary handle and yellow locking ring

Degree of protection (front side)

IP65

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

12 A

Rated conditional short-circuit current (I_q)

80 kA

Actuator type

Door coupling rotary drive

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

320 A

Ambient operating temperature - max

40 °C

Features

Version as emergency stop installation

Version as main switch

Resources

Brochures

Brochure - T Rotary Cam switch and P Switch-disconnector

Drawings

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

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

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

[eaton-general-totally-insulated-t0-main-switch-symbol.eps](#)

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

eCAD model

[DA-CE-ETN.P1-32_I1_SVB](#)

Installation instructions

[IL03802001Z](#)

Installation videos

Eaton's P Switch-disconnectors used in a factory

mCAD model

[DA-CS-bauform1](#)

[DA-CD-bauform1](#)

Wiring diagrams

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

Version as maintenance-/service switch

Electrical connection type of main circuit

Screw connection

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

290 A

Number of poles

3

Ambient operating temperature - min

-25 °C

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

Rated uninterrupted current (I_u)

32 A

10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.3 Degree of protection of assemblies

Does not apply, since the entire switchgear needs to be evaluated.

Operating frequency

1200 Operations/h

Product Category

Main switch

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

2

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

25 A

Terminal capacity

1 x (1 - 4) mm², flexible with ferrules to DIN 46228

2 x (1.5 - 6) mm², solid or stranded

2 x (1 - 4) mm², flexible with ferrules to DIN 46228

1 x (1.5 - 6) mm², solid or stranded

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

1

Heat dissipation capacity P_{diss}

0 W

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

32 A

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Overvoltage category

III

Degree of protection

NEMA 12

Actuator color

Red

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

32 A

Pollution degree

3

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

18.5 kW

Rated impulse withstand voltage (Uimp)

6000 V AC

Switching power at 400 V

15 kW

Voltage per contact pair in series

60 V

Functions

Emergency switching off function

Interlockable

Tightening torque

1.6 Nm, Screw terminals

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

15 kW

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

14.7 A

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

UV resistance only in connection with protective shield.

10.2.7 Inscriptions

Meets the product standard's requirements.

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

26.4 A

Number of auxiliary contacts (normally open contacts)

0

Shock resistance

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

Ambient operating temperature (enclosed) - min

-25 °C

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

15 kW

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

30 A

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

25 A

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

7.5 kW

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

Ambient operating temperature (enclosed) - max

40 °C

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

32 A

10.8 Connections for external conductors

Is the panel builder's responsibility.

Screw size

M4, Terminal screw

Load rating

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

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

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

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

19.8 A

Rated permanent current at AC-21, 400 V

32 A

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

13 kW

Climatic proofing

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

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

Device construction

Complete device in housing

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

300 A

Static heat dissipation, non-current-dependent Pvs

0 W

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

Safe isolation

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

Mounting position

As required

Safety parameter (EN ISO 13849-1)

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

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

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

15 kW

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

Heat dissipation per pole, current-dependent Pvid

1.8 W

Rated operating voltage (Ue) - min

690 V

Uninterrupted current

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

Equipment heat dissipation, current-dependent Pvid

0 W

Suitable for

Ground mounting

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

250 A

Accessories

Auxiliary contact or neutral conductor fitted by user.

Number of auxiliary contacts (normally closed contacts)

0

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

32 A

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.

Lifespan, mechanical

300,000 Operations

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

2

Control circuit reliability

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

Rated short-time withstand current (Icw)

0.64 kA

640 A, Contacts, 1 second

Number of auxiliary contacts (change-over contacts)

0

Rated operational voltage (Ue) at AC - max

690 V

10.7 Internal electrical circuits and connections

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.

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

3

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

23.4 A

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

26.4 A

Rated permanent current at AC-23, 400 V

32 A

Rated operating voltage (Ue) - max

690 V

Short-circuit protection rating

50 A gG/gL, Fuse, Contacts



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